

ARCHIVE | Criteria | Corporates | Industrials:

# Key Credit Factors For The Metals And Mining Downstream Industry

December 20, 2013

*(Editor's Note: This article is no longer current. We have included relevant content in "Guidance: Corporate Methodology," published on July 1, 2019.)*

1. These criteria present S&P Global Ratings' methodology and assumptions for the metals and mining downstream industry (which we also refer to as "metals"). This article is related to our global corporate criteria (see "Corporate Methodology") and to our criteria article "Principles Of Credit Ratings."
2. This paragraph has been deleted.

## SCOPE OF THE CRITERIA

3. In the global metals industry we include issuers that derive a majority of their revenues from the manufacturing and distribution of metals, notably steel and aluminum. These companies employ a number of business models and marketing strategies. These include:
  - Integrated producers. These producers utilize blast furnaces and smelters to convert raw materials into metals. These producers have high fixed costs and relatively inflexible operations. They may be backward integrated into raw materials.
  - Mini-mill/scrap conversion companies. These companies generally convert scrap into metal and have more flexible operations than the integrated producers. Some of these producers may own their own scrap and scrap substitute operations.
  - Processing companies. These companies buy metal from the integrated and mini-mill producers and further process it into shapes or value added products. For example, they convert the metal into tubular goods for the oil and gas industries or shape the metal for use by suppliers to OEMs.
  - Distributors. Generally these companies buy metal from the integrated producers and mini-mills and sell it to smaller customers in custom-sized lots.
4. These criteria do not apply to ratings on issuers in the metals and mining upstream industry (which we also refer to as "mining"), defined as companies that derive the bulk of their revenues from the exploration and production (extraction) of metals and minerals. For those issuers, we apply the key credit factors outlined in "Key Credit Factors For The Metals and Mining Upstream Industry."

### ANALYTICAL CONTACT

**Elad Jelasko, CPA**  
London  
(44) 20-7176-7013  
elad.jelasko  
@spglobal.com

### SECONDARY CONTACTS

**Diego H Ocampo**  
Buenos Aires  
(54) 114-891-2116  
diego.ocampo  
@spglobal.com

**May Zhong**  
Melbourne  
(61) 3-9631-2164  
may.zhong  
@spglobal.com

### CRITERIA CONTACTS

**Peter Kernan**  
London  
(44) 20-7176-3618  
peter.kernan  
@spglobal.com

**Marta Castelli**  
Buenos Aires  
(54) 114-891-2128  
marta.castelli  
@spglobal.com

## SUMMARY OF CRITERIA UPDATE

5. These criteria describe S&P Global Ratings' methodology for analyzing metals companies, applying our global corporate criteria.
6. We view the metals industry as a "moderately high risk" (category 4) industry under our criteria given its "high" (category 5) cyclical risk and "intermediate" (category 3) degree of competitive risk and growth. In assessing the competitive position of a metals company, we put particular emphasis on its cost structure and consequent operating efficiency, the market for its products, and its diversification. In our assessment of the financial risk profile, we consider industry- or company-specific capital expenditure and working capital characteristics (including seasonality, cash outflows and inflows over the course of the business cycle) and their effect on cash flow leverage and coverage ratios.
7. Our assessment of the financial risk profile takes into account historical ratios for the last two years and forecasts for current and two subsequent years based on S&P Global Ratings' price assumptions for metals (see "FAQ: How S&P Global Ratings Formulates, Uses, And Reviews Commodity Price Assumptions," published Sept. 28, 2018).
8. This paragraph has been deleted.
9. This paragraph has been deleted.

## METHODOLOGY

### Part I--Business Risk Analysis

#### Industry Risk

10. Within the framework of S&P Global Ratings' corporate methodology for assessing industry risk (see "Methodology: Industry Risk"), we view metals as a "moderately high risk" (category 4) industry. Our industry risk assessment for metals is derived from our view of the industry's "high" (category 5) cyclical risk, and our assessment that the industry warrants an "intermediate" (category 3) risk competitive risk and growth assessment.
11. This is because steel, aluminum, and other metals are key raw materials used in economically sensitive and cyclical end-use markets, such as construction, automotive, capital goods, mechanical engineering, oil and gas, and infrastructure, some of which are highly cyclical. All of the metals subsectors are affected by cyclical risk. During a downturn, metals companies often experience deep declines in revenues and operating earnings as their customers destock and orders decline.
12. Although all metals companies experience a degree of cyclical risk, demand is often regional and tied to the specific end markets served by individual companies. Metals companies tied to mature markets have been more cyclical in recent years as the U.S. and Western European manufacturing economies have been relatively weak. On the other hand, developing economies experience expanding per capita metal consumption and increasing demand for metals as they grow. As a result, demand in many cases has tended to remain relatively strong, providing companies in those regions with growing markets and, in some cases, more stable results.
13. Cyclical risk of the industry is also affected by supply considerations--capacity additions and the

supply shocks from capacity additions, and regional weaknesses that draw supply into stronger markets. This can lead to heightened price volatility in the short term, and extended periods of high or low prices in the medium term. A combination of large-scale capacity additions and slowing demand can lead to sharply lower prices, while constrained supply and rising demand can lead to overinflated market prices. Such supply-demand imbalances and periods of elevated or depressed pricing can be significant and prolonged. During downturns, prices may fall below the marginal operating cost of production, leading to losses and, at times, to costly capacity closures. The industry's high fixed costs and the economic incentive for many producers, in particular the high fixed costs for integrated producers, to operate at full capacity exacerbate the oversupply in downturns. Conversely, as companies ramp up production to serve future growth, pricing can be pressured until demand expands to meet the new supply.

## Cyclicality

14. We assess cyclicality for the metals industry as "high" risk (category 5). The industry has demonstrated significant cyclicality in both revenues and profitability, which are the two key measures used to derive the cyclicality assessment. Based on our analysis of Compustat data, metals companies experienced an average peak-to-trough (PTT) decline in revenues of 17.4% during recessionary periods since 1952. The average PTT decline in EBITDA margin during recessionary periods since 1956 was about 31%. In three of the recessionary periods revenues declined more than 20%, and profitability declined more than 50%. Revenues and profitability declines were most severe during the 2007-2009 recession, greater than 30% and 70% respectively.
15. We generally consider that the higher the level of profitability cyclicality in an industry, the higher the credit risk of entities operating in that industry. However, the overall effect of cyclicality on an industry risk profile may be mitigated or exacerbated by the competitive and growth environment.

## Competitive risk and growth

16. We view the metals industry as warranting an "intermediate" (category 3) competitive risk and growth assessment. To determine competitive risk and growth, we assess four subfactors as low, medium, or high risk. These subfactors are:
  - Effectiveness of industry barriers to entry;
  - Level and trend of industry profit margins;
  - Risk of secular change and substitution by products, services, and technologies; and
  - Risk in growth trends.

## Effectiveness of the metals industry's barriers to entry--Medium Risk

17. The main barrier to entry in the metals industry is the high capital intensity, particularly in view of the increasing long lead time to develop new, world class plants. In building a new mill, the availability of cheap inputs (energy, raw materials, and labor), environmental regulations, the end-product's quality, and, in the case of more demanding specialized operations, customer acceptance, are additional factors that intensify the difficulties for establishing new plants. Also regulatory/permitting; in some jurisdictions it is difficult to get approval to open (and close) steel mills, aluminum smelters, etc.

### **Level and trend of the metals industry profit margins--High Risk**

18. Material prospective or actual pressure on operating margins arises due to supply and demand imbalances from large-scale additions and a period of slow demand, while unprofitable players cannot scale down or are unwilling to shut down. Technology, social pressure, environmental liabilities, and other pressures can also affect margins. Moreover, over the short term, the volatility of raw material prices can exacerbate these pressures, as some players need to carry large inventories for their operations. Mitigating factors include a consolidation trend and political interference (such as temporary import tariffs and quotas), reflecting the importance of protecting a national steel and aluminum sector.

### **Risk of secular change and substitution by products, services, and technologies--Low Risk**

19. We view the risk of secular change and substitution by products, services, and technologies as low. Even though from time to time metals may be substituted in some applications by other metals, polymers, or glass, the scope of such substitution has been limited; the change has been very gradual and compensated by emergence of other applications at the same time. We do see a clear trend of quality improvement, which confirms the attractiveness of steel.

### **Risk in metals industry growth trends--Low Risk**

20. We view the risk in industry growth trends to be low. Metals is an established industry where sales are growing over the medium term at a rate similar to nominal GDP. Sales can decline heavily during recession, but then outpace GDP during the expansion phase.

### **Country Risk**

21. Country risk plays a critical role in determining all ratings on companies in a given country. Country-related risk factors can have a substantial effect on company creditworthiness, both directly and indirectly. In assessing country risk for a metal company, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology"). A key factor in our business risk analysis for corporate issuers is the country risk assessment, which includes the broad range of economic, institutional, financial market, and legal risks that arise from doing business in a specific country.
22. We generally determine exposure to country risk based on where fixed assets are and revenues are generated. This is despite the fact that sometimes revenues can be derived from a more diverse export market, partly mitigating the country risk. In defining the country risk mix we generally look at revenue breakdown by country, and if we have the information available, EBITDA breakdown, by country where assets are located.

### **Competitive position (including profitability)**

23. Under our corporate methodology, a company's competitive position is assessed as (1) excellent, (2) strong, (3) satisfactory, (4) fair, (5) weak, or (6) vulnerable. In assessing the competitive position for metal issuers we review an individual company's
  - Competitive advantage;

- Scale, scope and diversity;
  - Operating efficiency; and
  - Profitability.
24. The first three components are independently assessed as either (1) strong, (2) strong/adequate, (3) adequate, (4) adequate/weak, or (5) weak. Profitability is assessed through the combination of two components: the level of profitability and the volatility of profitability.
25. After evaluating competitive advantage, scale, scope, diversity, and operating efficiency, 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 (CPGP). The CPGP assigned to most companies in the metals industry is "Commodity Focus/Cost Driven." This assessment reflects the fact that metals for the most part have standard specifications, most players are price takers, and profitability would be determined by the cost position and efficiency of production of a given company's operations. We weight the first three components of competitive position as follows: competitive advantage (15%); scale, scope, and diversity (35%); and operating efficiency (50%).
26. We may assign the "Commodity Focus/Scale Driven" CPGP to distributors and processors or, in certain minority cases, to metals companies that compete on price and availability. Such companies do not differentiate greatly in terms of costs. On the other hand, scale and diversification will play a major role in the differentiation between a strong company and a weaker one. The component weighting for companies assigned the "Commodity Focus/Scale Driven" CPGP is as follows: competitive advantage (10%); scale, scope, and diversity (55%); and operating efficiency (35%).
27. In some rare cases, we may assign the "Capital or Asset Focus" CPGP when the company produces very highly specialized metals (such as specialty steels) with more binding contracts (such as longstanding and, in certain instances, exclusive relationship with clients), and where investments in fixed assets is key factor. The component weighting for companies assigned the "Capital or Asset Focus" CPGP is as follows: competitive advantage (30%); scale, scope; and diversity (30%); and operating efficiency (40%).

## Competitive advantage

28. In assessing the competitive advantage of a metals company, we consider:
- Product value added;
  - Existence of a captive market; and
  - Relationship with customers.
29. We view competitive advantage as a secondary factor for a metals company. We consider the mix of metals produced, assess how attractive the various segments are, and determine whether the company's market share provides additional benefits.
30. In reviewing the added value in metal products, we assess the degree to which a metals producer differentiates itself from its peers by producing niche or specialty products, as opposed to commodity products that can be obtained from other producers or imported. Often, such producers have long-term contracts with key customers in aerospace and auto industries, for example. Specialty steelmakers benefit from manufacturing highly engineered products that command significantly higher and more stable selling prices than commodity carbon steels.
- 31.

In reviewing the market dynamics, we observe that competitive advantage can be obtained in a segment with more rational pricing behavior, such as where the market is dominated by a handful of producers. Protected markets, as can be observed in certain countries in Europe and Latin America, usually allow for higher pricing, as import tariffs discourage competition from abroad. Although certain barrier to imports from time to time can enhance a domestic steel maker's competitive position, those actions are usually not strong or durable enough to warrant a classification of the competitive position group profile as "national industries and utilities." Strong market positions also allow for reinvestment in fixed assets and R&D, helping to maintain product leadership.

32. Metals companies with a "strong" or "strong/adequate" competitive advantage assessment would typically have the following features:
  - They produce tailor-made or higher margin specialty value-added products.
  - Their products have a captive market.
  - They have strong customer relationships.
33. Metals companies with "weak" or "adequate/weak" competitive advantage assessment are typically characterized by a combination of:
  - They produce common-grade materials, such as rebar and common hot rolled coil.
  - They have short-term contracts or have to rely on independent distributors.
  - Their market is highly competitive, lacks protective barriers, and is more vulnerable to imports.

### **Scale, scope, and diversity**

34. In assessing the scale, scope, and diversity of a metals company, we consider:
  - Production capacity, and number and location of plants;
  - Product diversification; and
  - Scale and diversity from integrated activities such as mining and material outsourcing.
35. A company's size is not a specified, definitive rating factor, but typically brings greater breadth and scope of operations and economies of scale, contributing to better profitability. Smaller and medium-size companies will usually be precluded from reaching the highest levels of business profile assessment because they lack product, market, and geographic diversification. Global operators usually offer more competitive and varied products to diverse customer segments.
36. We believe the key to product diversity is the ability to mitigate the volatility of metals prices. Little protection is gained from participating in numerous product categories if they all are vulnerable to the same external factors. For diversity to provide significant credit protection, it must broaden exposure across end markets, products with independent business cycles, and geographic regions. Dependence on one producing asset can also increase operating risks.
37. In addition, we assess the extent to which a company has established a fixed sales price or volume, or whether it is more exposed to the volatile spot market. Typically, sales to service center or distributors are made on a spot-market basis, and so are more erratic than direct sales to original equipment manufacturers, which tend to be contract-based. In certain cases, companies have benefited from captive downstream businesses or strong customer relationships.
38. Integration in mining activities can also benefit downstream companies, as mining economic

cycles can greatly differ from final product cycles, depending on available capacities and local economies' needs.

39. A metals company with a "strong" or "strong/adequate" assessment of scale, scope, and diversity is typically characterized by a combination of:
- A relatively high number of (and sizable) plants; and significant product range, notably higher added-value products, as well as end-market diversity.
  - Exposure to different global regions, or presence in markets with more supportive regulation.
  - Diversity and scale provided by integration in mining activities or other raw material sources such as own scrap operations.
40. A "weak" or "adequate/weak" assessment could result from the following factors:
- The company is a small player; it has a single plant, produces a single type of product, and depends on a few clients or concentrates in a particular sector.
  - Low geographic diversity; the company is limited to one region, or to regions where competition is intense, especially from imported products.
  - Concentration in markets with low growth and risk of prolonged overcapacity.

## Operating efficiency

41. In assessing the operating efficiency of a metals company we consider:
- The company's cost profile with respect to raw material, energy, and labor.
  - Capacity utilization profile, flexibility, and the state of its asset base.
42. In assessing a metals company's cost profile, we evaluate its ability to source its raw materials at a competitive cost. For integrated steel producers, it means access to low-cost supplies of iron ore and coal. Producers that source a majority of their raw materials externally via supply contracts are exposed to price fluctuations of these inputs. Producers with a high degree of vertical integration with access to their own low-cost raw materials benefit from a more stable cost base than less-integrated competitors. Raw materials needed for the manufacture of certain specialty steels include nickel, chromium, and molybdenum, prices of which are also volatile. Producers of certain coated, flat-rolled steels are subject to volatility in zinc, tin, and aluminum prices, and can suffer margin squeezes when raw material prices are high and product prices are low.
43. For aluminum producers, access to cost-competitive bauxite and alumina are vital, as well as to low-cost energy supplies, because aluminum production is highly energy-intensive. Steelmakers can be integrated by owning iron ore and coking coal mines, and aluminum producers by owning bauxite mines, alumina refineries, and hydroelectric power plants.
44. In our view, in-house sourcing of materials is not necessarily an advantage. It's only an advantage if it's at competitive cost and generates a good margin. Otherwise, maintenance capital expenditure requirements may make it a negative.
45. For steel mini-mills, access to a low-cost supply of scrap or scrap substitutes, the primary metal inputs, is essential to achieving a competitive cost position. Although scrap is an internationally traded commodity, proximity to an adequate supply is important, as the high weight-to-value ratio of scrap makes transportation costs prohibitive. Typically, scrap is most readily available in industrialized areas with an efficient collection infrastructure.
- 46.

In reviewing capacity utilization, we assess how flexible a company is in terms of production level versus its fixed cost structure. In times of low demand, the ability to reduce production and costs is an important competitive factor.

47. A metals company with a "strong" or "strong/adequate" operating efficiency assessment is typically characterized by a combination of:
  - Low-cost production, notably with access to cheap raw material, electricity, and low-cost or flexible labor.
  - High capacity utilization.
  - Modern and well-invested production facilities.
  - Flexible manufacturing systems, with multiple finishing lines.
48. A metals company with a "weak" or "adequate/weak" operating efficiency assessment is typically characterized by a combination of:
  - Low capacity utilization resulting in high fixed cost.
  - Obsolete technology or limited ability to scale down operations.
  - High-cost production, notably high electricity tariffs; low availability to raw materials and inflexible labor market.

## Profitability

49. The profitability assessment can confirm or modify the preliminary competitive position assessment. The profitability assessment consists of (1) the level of profitability and (2) the volatility of profitability. The two components are combined into the final profitability assessment using a matrix (see "Corporate Methodology").

## Level of profitability

50. The level of profitability is determined on a three point scale: "above average," "average," and "below average."
51. We use EBITDA margin as the primary indicator of a metals company's level of profitability, based on thresholds identified in table 1 below. In accordance with the general methodology, for this assessment we typically calculate the five-year average EBITDA margin using the last two years of historical, one-year current, and two years of forecast. We may put more emphasis on forecast years if historical data is not deemed representative, or if we believe it doesn't take into account deteriorating or improving profiles where prospective ratios meaningfully differ from average ratios. In some cases, the application of local accounting rules may warrant using different thresholds to account for financial reporting differences.
52. We use different EBITDA margin thresholds to differentiate between producers and processors/distributors. And although we consider average profitability to be between 8% and 12% for producers and 4% and 8% for distributors, we may make exceptions in certain cases due to a prolonged downturn period in a certain region, a concentration in distribution, a diversification into other segments, and other factors that may impact profitability.

Table 1

**EBITDA Margin**

	Below average	Average	Above average
Integrated Producers/Mini-mills	< 8%	8-12%	> 12%
Metal Processors/ Distributors	< 4%	4-8%	> 8%

- 53. Overall margin comparisons are particularly difficult in this sector, since the timing of cycles varies by end markets and regions. For example, the U.S. profitability measures for companies supplying the aerospace and oil and gas industries have been elevated during the past several years, while those supplying the construction industry have been lower. This is likely to reverse or equalize over time as economic conditions improve. In addition, a number of the companies that are on the higher end of the profitability scale have iron ore businesses that have benefitted from favorable raw material prices. We attempt to adjust for these differences by looking at mill performance over time and compare to a more selected peer group within the same region and with similar business models.
- 54. Additionally, as the metals sector is not homogenous and because various metals and technologies have different capital intensity, we complement the analysis of overall EBITDA margin with (a) absolute dollar EBITDA per ton of metal produced; (b) return on capital (see table 2 below); (c) the ability to generate cash through the cycle; and (d) the ability to adapt operations and recover quickly from industry downturns. Those are measured relative to peers. Below, we present an indicative range of average return on capital for the metals industry.

Table 2

**Return On Capital**

	Below average	Average	Above average
All companies	< 5%	5-9%	> 9%

**Volatility of profitability**

- 55. The volatility of profitability is determined on a six point scale, from '1' (very low) to '6' (very high).
- 56. In accordance with our global corporate criteria, we determine the volatility of profitability assessment using the standard error of regression (SER), subject to having at least seven years of historical annual data. We generally use nominal EBITDA as the metric to calculate the SER for metals companies, although we may also use EBITDA margin or return on capital (ROC). In accordance with the global corporate criteria, we may--subject to certain conditions--adjust the SER assessment by up to two categories better (less volatile) or worse (more volatile). If we do not have sufficient historical information to calculate the SER, we follow the global corporate criteria guidelines to determine the volatility of profitability assessment.

**Part II--Financial Risk Analysis**

**Accounting and analytical adjustments**

- 57. In assessing the accounting characteristics of metals companies, the analysis generally uses the same methodology as with other corporate issuers (see "Corporate Methodology"). 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 enable better alignment of a company's reported figures with our view of underlying economic conditions. Moreover, they allow a more accurate portrayal of a company's ongoing business. Adjustments that pertain broadly to all corporate sectors, including this sector, are discussed in "Corporate Methodology: Ratios And Adjustments."

### **Cash flow/leverage analysis**

58. In assessing the cash flow adequacy of a metals company, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology"). Cash flow/leverage is assessed on a six point scale, ranging from '1' (minimal) to '6' (highly leveraged), 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 in relation to its obligations.

### **Core ratios**

59. In accordance with our ratios and adjustments criteria, for each company, we calculate two core debt payback ratios: funds from operations (FFO) to debt and debt to EBITDA.

### **Supplemental ratios**

60. In addition to our analysis of a company's core ratios, we consider supplemental ratios in order to develop a fuller understanding of a company's credit risk profile and refine our cash flow analysis in accordance with the corporate methodology.
61. Given the high capital intensity of the sector, with high investments and working capital needs, we typically consider free operating cash flow (FOCF) to debt and cash flow from operations (CFO) debt as the most relevant supplemental ratios.
62. When the cash flow and leverage assessment indicated by the core ratios is "significant" or weaker, we will also consider coverage ratios of FFO + interest/cash interest and EBITDA to interest.

## **Part III--Rating Modifiers**

### **Diversification/portfolio effect**

63. In assessing the diversification/portfolio effect of a metals company, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

### **Capital structure**

64. In assessing the capital structure of a metals company, our analysis uses the same general methodology as with other corporate issuers (see "Corporate Methodology").

## Liquidity

65. In assessing the liquidity of a metals company, our analysis uses the same general methodology as with other corporate issuers (see "Corporate Methodology").

## Financial policy

66. In assessing the financial policy of a metals company, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").
67. Given the importance of capital expenditures for the cash flow profile of the company, in this respect we pay particular attention to a company's willingness to reduce capital expenditures in a weaker market environment. This is assessed on the basis of both a company's current statements and track-record during the previous downturns in the industry.

## Management and governance

68. In assessing the management and governance of a metals company, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

## Comparable ratings analysis

69. In assessing the comparable ratings analysis of a metals company, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

## REVISIONS AND UPDATES

This article was originally published on Dec. 20, 2013. These criteria became effective on Dec. 20, 2013.

Changes introduced after original publication:

- Following our periodic review completed on Nov. 20, 2015, we updated criteria references, updated the contact list, and deleted sections that appeared in paragraphs 8 and 9, which were related to the initial publication of our criteria and no longer relevant.
- Following our periodic review completed on Nov. 18, 2016, we deleted paragraph 2, which was related to the initial publication of our criteria and no longer relevant.
- Following our periodic review completed on Nov. 17, 2017, we updated the contact list and added the "Revisions And Updates" section.
- On Jan. 10, 2019, we republished this criteria article to make nonmaterial changes. We updated the contact information and criteria references in paragraph 7, and we added related research to the "Related Criteria And Research" section.
- On July 8, 2019, we republished this criteria article to make nonmaterial changes. We updated the contact information and the "Related Criteria" section. In addition, we updated several references to other criteria articles throughout the body of this criteria article by removing the dates of publication. These dates are provided in the "Related Criteria" section.

## RELATED CRITERIA AND RESEARCH

### Related Criteria

- Corporate Methodology: Ratios And Adjustments, April 1, 2019
- 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
- Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

### Related Research

- FAQ: How S&P Global Ratings Formulates, Uses, And Reviews Commodity Price Assumptions, Sept. 28, 2018

These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as S&P Global Ratings assessment of the credit and, if applicable, structural risks for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new empirical evidence that would affect our credit judgment.

Copyright © 2019 by Standard & Poor's Financial Services LLC. All rights reserved.

No content (including ratings, credit-related analyses and data, valuations, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of Standard & Poor's Financial Services LLC or its affiliates (collectively, S&P). The Content shall not be used for any unlawful or unauthorized purposes. S&P and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively S&P Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Parties are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, for the results obtained from the use of the Content, or for the security or maintenance of any data input by the user. The Content is provided on an "as is" basis. S&P PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

Credit-related and other analyses, including ratings, and statements in the Content are statements of opinion as of the date they are expressed and not statements of fact. S&P's opinions, analyses and rating acknowledgment decisions (described below) are not recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P does not act as a fiduciary or an investment advisor except where registered as such. While S&P has obtained information from sources it believes to be reliable, S&P does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Rating-related publications may be published for a variety of reasons that are not necessarily dependent on action by rating committees, including, but not limited to, the publication of a periodic update on a credit rating and related analyses.

To the extent that regulatory authorities allow a rating agency to acknowledge in one jurisdiction a rating issued in another jurisdiction for certain regulatory purposes, S&P reserves the right to assign, withdraw or suspend such acknowledgment at any time and in its sole discretion. S&P Parties disclaim any duty whatsoever arising out of the assignment, withdrawal or suspension of an acknowledgment as well as any liability for any damage alleged to have been suffered on account thereof.

S&P keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of S&P may have information that is not available to other S&P business units. S&P has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P reserves the right to disseminate its opinions and analyses. S&P's public ratings and analyses are made available on its Web sites, [www.standardandpoors.com](http://www.standardandpoors.com) (free of charge), and [www.ratingsdirect.com](http://www.ratingsdirect.com) (subscription), and may be distributed through other means, including via S&P publications and third-party redistributors. Additional information about our ratings fees is available at [www.standardandpoors.com/usratingsfees](http://www.standardandpoors.com/usratingsfees).

STANDARD & POOR'S, S&P and RATINGSDIRECT are registered trademarks of Standard & Poor's Financial Services LLC.