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Key Credit Factors For The Technology Software And Services Industry

November 19, 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*(**Editor's Note:** This article is no longer current.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. This article describes S&P Global Ratings' methodology and assumptions for technology software and services companies. These criteria are applied in conjunction with our "Corporate Methodology" and "Principles Of Credit Ratings."
2. This paragraph has been deleted.

SCOPE OF THE CRITERIA

3. These criteria apply globally to ratings on issuers in the information technology (IT) services and software sector, which includes the following subsectors:

- Commercial outsourcing and project services;
- Government outsourcing and project services;
- Transaction processing; and
- Enterprise and consumer software and Internet service providers.

IT hardware and semiconductor companies are excluded from the scope of this document.

SUMMARY OF THE CRITERIA

4. This article presents S&P Global Ratings' criteria for analyzing technology software and services companies, applying S&P Global Ratings' corporate criteria. We view technology software and services as an "intermediate risk" industry under our criteria, given its intermediate cyclicality risk and intermediate degree of competitive risk and growth. In assessing the competitive position of a technology service and software issuer, we put particular emphasis on market position and scale and scope, including breadth of product suite, recurring revenues that provide a degree of predictability, revenue diversity (both from a customer and geographical perspective), operating efficiency, and sales and distribution capabilities. For software companies, we also focus on R&D investment, while cost structure is another important differentiator for services firms.
5. This paragraph has been deleted.

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METHODOLOGY

Part I: Business Risk Analysis

A. Industry Risk

6. Within the framework of S&P Global Ratings' criteria for assessing industry risk, we view technology software and services as an "intermediate risk" industry (category 3). Our industry risk assessment for technology software and services is derived from our view of the segment's intermediate (3) cyclicality, and our assessment that the industry warrants an intermediate (3) competitive risk and growth assessment.
7. The factors driving technology software and services industry cyclicality often differ depending on their subsector within the industry. Across the industry, key drivers of cyclicality include consumer confidence and spending; GDP growth; capital and IT spending in key client sectors such as government, telecommunications, automotive, financial services, and capital goods; product innovation; and availability of consumer credit.
8. Transaction processors providing essential, recurring services, such as merchant processors, tend to experience less cyclicality than other transaction processors, such as mortgage processors.
9. Market demand for project services, such as consulting, have been more prone to cyclicality than other sub-segments in the sector as a result of the short-term and discretionary nature of project services.
10. Software vendors deriving a majority of their revenues from new license fees tend to experience greater cyclicality than those deriving the majority of their revenues from recurring subscription and maintenance fees.
11. Enterprise software vendors, whose products are viewed as "mission critical" and solidly engrained into their clients' IT infrastructure, tend to be less cyclical than those software vendors serving less essential consumer application markets.

1. Cyclicality

12. We assess cyclicality for the technology software and services industry as an intermediate risk (3). The industry has demonstrated moderate cyclicality (relative to other industries) in both revenue and profitability, which are two key measures we use to derive an industry's cyclicality assessment (see "Methodology: Industry Risk"). Based on our analysis of global Compustat data, revenues for technology software and services companies experienced an average peak-to-trough (PTT) decline in revenues of about 6% during recessionary periods since 1952. Over the same period, technology software and services companies experienced an average PTT decline in EBITDA margin of 9.4%.
13. In addition to exposure to the general economic cycle, services and software segments have experienced technology- and investment-driven boom and bust periods, such as during the technology and telecommunications bubble preceding the early 2000 bust and during the 2008-2009 global downturn. For the 2000-2002 and 2007-2009 periods, PTT revenue declines for the technology hardware and semiconductor industry were approximately 19% and 18%, respectively, compared with 0% and 12% for technology software and services companies. Over the same periods, PTT EBITDA margin declines for the hardware and semiconductor industry were

42% and 16%, respectively, compared with declines in software and services industry of 0% and 11%. We expect revenue and profitability volatility for the software and service sectors in aggregate to be more moderate compared with the broader technology sector, given the higher degree of recurring revenues germane to the technology software and services sectors.

14. Given the significant recurring revenues and variable cost structure inherent to these sectors, going forward we expect these sectors will experience a similar reaction to economic cyclicality. We expect the enterprise software sector in general to experience less cyclicality than the industry taken broadly because of the mission-critical nature of certain enterprise software. In contrast, we expect certain consumer software and project technology services companies to experience higher cyclicality than the sector taken broadly because of the more discretionary nature of spending typically associated with consumer software and project technology services companies. We expect IT outsourcing services, government IT services, and transaction processing companies to experience cyclicality in line with the broad technology software and services sector, based on their recurring revenue profile.

15. With an average drop in revenues of 5.9% and an average profitability decline of 9.4%, the technology software and services industry cyclicality calibrates to an intermediate risk (3). 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, an industry's competitive and growth environment may mitigate the overall effect of cyclicality on an industry's risk profile.

2. Competitive risk and growth

16. We view the technology software and services industry as warranting an intermediate (3) competitive risk and growth assessment. To assess competitive risk and growth, we review four sub-factors:

- 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.

a) Effectiveness of barriers to entry--medium risk

17. Barriers to entry are often limited, as evidenced by most broadly defined services and software markets being fragmented with a few exceptions. Long-term contractual arrangements and client relationships can serve as a barrier to entry. The presence of high switching costs and cross-selling capabilities also may provide barriers to entry. Brand equity remains important, with client references and contract performance frequently determining services and software company success or failure. In a few exceptions, certain software firms account for much of the aggregate share in a particular vertical market or have vast proprietary databases and extensive data management skills. The following factors may also represent effective barriers to entry:

- Intellectual property rights to develop platforms and processes are critical, particularly in software markets, and can provide a barrier to entry.
- The benefit of economies of scale that allows companies to allocate and absorb R&D, SG&A, and capital expenditures over a larger base.
- Global capabilities that provide an advantage in attracting and supporting large multinational

companies.

- Large software companies that offer end-to-end solutions. However, smaller players can offer flexible, best-of-breed solutions and create alliances to add functionality and enhance the channels of distribution for their products.
- Access to capital can be an important differentiator during difficult market conditions, in general favoring larger services and software firms.

b) Level and trend of technology software and services industry profit margins--medium risk

18. There is moderate profit predictability, supported in many cases by long-term contractual arrangements and recurring revenues, such as within the IT outsourcing services and enterprise software markets. There is competitive price pressure resulting from fragmented competition and commoditization, such as within the software application management services market. While the pricing environment will be under continual pressure, we expect transaction volumes to increase. Also, data processing costs will decline as newer, faster, and cheaper technology becomes available. Revenue and order seasonality can be significant, creating profit and working capital build-ups and swings. Customers' discretionary spending patterns can create swings in profitability, while global economic uncertainty could result in companies scaling back or canceling many capital projects, and limited new hardware purchases can affect overall performance. Contract cost/time overruns on large projects, particularly in IT outsourcing, can cause margin squeezes.
19. Profit margins are moderately volatile overall. The profitability outlook for services and software sectors in general remains positive over the near term. We expect stable EBITDA margins and low-single-digit growth for commercial IT services firms, supported by enterprise spending for wireless connectivity and regulatory compliance. We expect generally stable EBITDA margins and low- to mid-single-digit profit growth for merchant processors and software companies, supported by electronic payment activity growth and mission critical software demand. We expect largely stable EBITDA margins and profitability for government technology services firms, with margin pressure in certain cases, resulting from government funding headwinds (i.e. Sequestration), which may limit contract awards and sector pricing over the near term.
20. In the government services sector, opportunity exists in some instances to leverage government funding for R&D and skills development, albeit with significant exposure to government spending levels.

c) Risk of secular change and substitution by services and technologies--low risk

21. Secular changes are less of a threat to IT services and software sectors than they are to hardware and semiconductor sectors, because services and software solutions frequently bridge shorter technology hardware and semiconductor product lifecycles.
22. Nonetheless, we observe modest threats of secular change and substitution in services and software markets, such as the shift to a network delivery model (cloud/software as a service) versus the traditional license model, or, in merchant processing markets, the declining use of check processing.
23. At present, mobile commerce poses a modest threat to merchant processor markets because of

security concerns and relationships with financial institutions favoring incumbent providers.

d) Risk in growth trends--low risk

24. Services and software firms enjoy favorable long-term dynamics, supporting revenue growth at or above nominal GDP growth as a result of megatrends such as digitalization, virtualization, miniaturization, cloud computing, electrification, mobile communication, connectivity, and energy savings.
25. We also observe increasing electronic content and digitalization in health care and merchant processing markets, benefiting services and software sector growth.
26. Acquisitions, divestitures, and industry consolidation are expected to continue as high-tech companies expand their technical expertise, gain critical mass, and diversify and broaden their product and geographic breadth. Many firms have recently divested or spun off nonessential businesses, as they have refocused on their core operations. Management's execution of the business strategy as it relates to acquisition integration is key.

B. Country Risk

27. 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. While our sovereign credit ratings suggest the general risk local entities face, the sovereign ratings may not fully capture the risk applicable to the private sector. We look beyond the sovereign rating to evaluate the specific economic, demographic, and other country risks that may affect the entity's creditworthiness. In assessing country risk for technology software and services companies, our analysis uses the same methodology as with other corporate issuers (see our corporate criteria).
28. Our primary measure for determining exposure to country risk is through revenues and EBITDA, if we believe there is a significant risk deriving from a company's narrow domestic or only regional client base on demand potential. In rare cases, we may assess country risk exposure through assets because software and services companies are generally not capital intensive.
29. Country risk and macroeconomic factors, such as the risk of political or labor unrest, could be very important for companies, which have a regionally concentrated clientele or a narrow R&D footprint. In addition, insufficient intellectual property rights protection or product and service liability lawsuits could turn out to be significant risk factors for services and software companies.

C. Competitive Position (Including Profitability)

30. Under our corporate criteria, we assess a company's competitive position as (1) excellent, (2) strong, (3) satisfactory, (4) fair, (5) weak, or (6) vulnerable. In assessing the competitive position for technology software and services issuers, we review the following factors of an individual company:

- Competitive advantage;
- Scale, scope, and diversity;
- Operating efficiency; and
- Profitability.

31. We independently assess the first three as either (1) strong, (2) strong/adequate, (3) adequate, (4) adequate/weak, or (5) weak. We assess profitability through the combination of two components--the level of profitability and the volatility of profitability.

32. After separately evaluating competitive advantage; scale, scope and 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 we assign to most technology software and services companies is "Services or Product Focus," as they generally have long product lifecycles that require moderate capital investments (including R&D costs) and asset outlays to sustain market position and keep up with innovation. "Services or Products Focus" CPGP components of competitive position are weighted as follows: competitive advantage (45%); scale, scope, and diversity (30%); and operating efficiency (25%).

33. We may assign the "Capital or Asset Focus" CPGP to companies with significant capital investments (including R&D costs) and asset outlays to sustain market position such as certain IT outsourcing companies. "Capital or Asset Focus" components of competitive position are weighted as follows: competitive advantage (30%); scale, scope, and diversity (30%); and operating efficiency (40%).

1. Competitive advantage

34. In evaluating the competitive advantage of a technological services and software company, we assess its:

- Intellectual property development from internal and acquired sources;
- Reputation/brand recognition; and
- Recurring revenues.

35. A technology services or software company with a "strong" or "strong/adequate" competitive advantage assessment is typically characterized by a combination of:

- Significant intellectual property and R&D capabilities, potentially generating meaningful software license revenues and cross-selling opportunities such that revenue growth persists through economic and product cycles;
- Recurring revenue base from diversified and valuable contractual arrangements greater than 70% of revenues, derived primarily through annual subscription maintenance agreements;
- Consistent above market revenue growth resulting from solution differentiation or the ability to command price premiums;
- Strong reputation/brand recognition, as measured by client contract tenure and performance, and the nature of the relationship; and
- Degree of long-term contractual client arrangements with renewal prospects on at least acceptable terms, which support revenue growth prospects.

36. A technology services or software company with a "weak" or "adequate/weak" assessment of its competitive advantage typically is characterized by a combination of:

- Narrow revenue base; and
- Significant business concentration.

2. Scale, scope, and diversity

37. In assessing the scale, scope, and diversity of a technology software and services company, we consider:

- Degree of leverage and cooperation with a diversity of suppliers;
- Assessment of evolution of market shares;
- Customer and supplier concentration;
- Diversity of markets, products, and services;
- Geographic presence;
- Client diversity, tenure, and credit quality;
- Relative attractiveness of the markets, products, and services (i.e., size, expected growth, intensity of competition); and
- The ability to achieve economies of scale by spreading the costs of hardware, software development, selling expense, and system maintenance over a broad client base, often providing superior service at a low cost.

38. A technology software and services company warranting a "strong" or "strong/adequate" assessment of scale, scope, and diversity typically is characterized by a combination of:

- Leading market share with a significant distance to the second and third player in fragmented markets or a leading market share, or close No. 2 position in less fragmented markets;
- Large addressable end markets, multiple served verticals, and geographically diverse customer base;
- A diverse customer base (no customer accounts for more than 10% of revenues and the top 10 customers contribute less than 50% of revenues). For government IT contractors, we focus more on the diversity and duration of contracts as well as the mission critical nature of these contracts;
- A track record of repeat business throughout technology generation changes; and
- Strong distribution capabilities and a diverse portfolio of solutions creating new license sales and maintenance fees opportunity.

39. A technology software and services company warranting a "weak" or "adequate/weak" assessment of scale, scope, and diversity typically is characterized by a combination of:

- No leading market positions apart from niche markets or existence of many competitors with similar market shares;
- Small or moderately sized addressable markets, few served verticals, and limited geographic diversity;
- A concentrated customer base with one or more customers accounting for more than 10% of revenues or the top 10 customers representing more than half of revenues;
- Recurring revenues less than 50%;
- Narrow solution focus in intensely competitive or cyclical markets;
- Narrow end markets and geography; and

- For software vendors, limited distribution capabilities.

3. Operating efficiency

40. In assessing operating efficiency for a technology software and services company, we consider its:
    - Gross margin;
    - SG&A as a percent of revenues;
    - R&D as a percent of revenues;
    - EBITDA margin;
    - Return on capital; and
    - Utilization and attrition rates.
41. To the extent a technology software and services company has a high degree of operating efficiency, it should be able to generate better profit margins than peers that compete in the same markets, despite prevailing market conditions.
42. A technology software and services company warranting a "strong" or "strong/adequate" operating efficiency assessment is characterized by a combination of:
    - Strong order and backlog growth relative to peers through the cycle;
    - Economies of scale and efficiencies that lead to above average profit margins (measured by EBITDA margins and return on capital), taking into account differences in sales mix and asset intensity;
    - Overhead costs at competitive levels (measured via SG&A as a percent of revenues) while maintaining effective staff functions;
    - For software companies, a competitive R&D investment as measured by the R&D-to-sales ratio and the size of the R&D budget compared with peers with similar market positions and product sets, and resulting in well-positioned product portfolios; and
    - Flexible cost structures, limiting pressure on operating margins during industry downturns.
43. A technology software and services company warranting a "weak" or "adequate/weak" operating efficiency is characterized by a combination of:
    - Limited growth or decline of orders and backlog through a cycle;
    - Profitability consistently below or more volatile than peers;
    - Positive operating margins only during the presence of favorable industry conditions;
    - Over-spending on COGS and SG&A relative to peers, which requires continuous restructuring;
    - Inflexible cost structures resulting from rigid labor laws, strong unions, problems with contracted service delivery, or high contract churn; and
    - Under-spending on R&D, which results in a less well-positioned product set.

4. Profitability

44. The profitability assessment can confirm or modify the preliminary competitive position

assessment. The profitability assessment consists of two components: (1) Level of profitability and (2) the volatility of profitability. We combine the two components for the final profitability assessment using a matrix.

a) Level of profitability

45. We assess the level of profitability on a three-point scale: "above average," "average," and "below average."

46. We use EBITDA margin and return on capital (ROC) as the primary indicators of a technology software and services company's level of profitability, based on certain thresholds (see table 1). While all four subsectors possess the same intermediate industry risk assessment, we view government IT services firms as generally possessing lower average profitability characteristics when compared with the other services and software sectors. This is because of the nature of the contracts, which are often structured as cost plus or time and materials, but which also derive additional business stability from government funding support. Commercial IT services profitability varies over the life of contracts because of required upfront initial investments, but should exhibit improvement as contracts ripen. Transaction processors' higher profitability characteristics are attributed to economies of scale, while software profitability levels are the highest as a result of its higher value-added content and modest capital intensity.

Table 1

Profitability Thresholds

	--Government related IT services--			--Commercial IT services--			--Transaction processors--			--Enterprise and consumer software, Internet service providers--		
	Above average	**Average**	**Below average**	**Above average**	**Average**	**Below average**	**Above average**	**Average**	**Below Average**	**Above Average**	**Average**	**Below Average**
EBITDA margin	>11%	9% to 11%	<9%	>15%	10% to 15%	<10%	>30%	20% to 30%	<20%	>30%	25% to 30%	<25%
Return on capital	>10%	7% to 10%	<7%	>15%	9% to 15%	<9%	>20%	15% to 20%	<15%	>15%	10% to 15%	<10%

b) Volatility of profitability

47. The volatility of profitability is determined on a six point scale, from "1" (lowest volatility) to "6" (highest volatility).

48. In accordance with our corporate criteria, we generally determine the volatility of profitability assessment using the standard error of the regression (SER), subject to having at least seven years of historical annual data. Given moderate swings in revenue, we use EBITDA margin to determine the SER for services and software companies. In accordance with the corporate criteria, we may--subject to certain conditions being met--adjust the SER assessment by up to two notches downward (more volatile) or upward (less volatile). If we do not have sufficient historical information to determine the SER, we follow the corporate criteria guidelines to determine the volatility of profitability assessment.

Part II: Financial Risk Analysis

D. Accounting And Analytical Adjustments

49. In assessing the accounting characteristics of technology software and services companies, the analysis 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. We discuss adjustments that pertain broadly to all corporate sectors, including this sector, in "Corporate Methodology: Ratios And Adjustments." We discuss below accounting characteristics and analytical adjustments that are unique to this industry.

1. Revenue recognition

50. Under U.S. GAAP and IFRS, services revenue and related profit are generally recognized as fees for service. In contrast, some IT services firms have historically used the less conservative percentage of completion method of revenue recognition, which can lead to significant divergences between earnings and cash flow in certain operating environments. Therefore, we assess both earnings and cash flow measures.

- For merchant processors, revenues from pass-through, reimbursable costs, including card networking fees and postage, can be recognized in revenues under U.S. GAAP and IFRS, which may limit cross-sector revenue and profit comparability. Therefore, we assess the level and growth of profitability more than margins in certain cases.
- Software vendors may, under U.S. GAAP and IFRS, recognize license fee revenues at the time when title to and possession of the property are transferred to the buyer, rather than ratably over the subscription term of the license agreement, which also may limit cross-sector revenue and profit comparability. For software firms adhering to subscription and maintenance fee revenue recognition, we observe changes in deferred revenue liability balances as part of our assessment of company operating health. Therefore, we assess both earnings and sometimes more meaningful cash.

51. This paragraph has been deleted.

52. This paragraph has been deleted.

E. Cash Flow/Leverage Analysis

53. In assessing the cash flow adequacy of a technology software and services issuer, 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--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.

1. Core ratios

54. For each company, we determine in accordance with S&P Global Ratings' ratios and adjustment criteria, two core debt payback ratios: FFO/debt and debt/EBITDA.

2. Supplemental ratios

55. In addition to our analysis of a company's core ratios, we also 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 criteria. We generally use the following as supplemental ratios:

- CFO/debt. Some technology software and services companies may experience high client attrition leading to increases in inventory and accounts receivable, which are not generally captured (apart from the debt or cash amounts) in the FFO/debt or debt/EBITDA ratios, but are better illustrated in cash flow from operations.
- EBITDA/interest. When the cash flow and leverage score indicated by the core ratios is significant or weaker.

3. Volatility

56. The source of the volatility in the commercial IT services industry can often arise from poorly executed contracts, requirements to trim costs because of constrained government budgetary conditions, a weak IT spending environment, or an unplanned change in project scope that could translate in increased capital expenditures. We believe that the same is true, but to a lesser extent, for government IT services companies because of more stable contract pricing schemes, but volatility could arise from cyclical budgetary conditions (i.e. sequestration). We view the transaction processing and software sectors as less volatile because of the high degree of recurring revenues in these industries derived mostly by the switching costs involved of migrating to another provider.

57. We classify certain companies in the IT services sector as volatile because we expect them to experience volatile cash flow and leverage assessments moving one or two categories down during periods of stress, based on their business risk profile. The final cash flow leverage assessment for these companies may be therefore modified one category lower from the adjusted cash flow leverage assessment. Table 2 shows the subsectors where we expect most companies to exhibit volatile cash flow leverage assessment.

Table 2

Typical Cash Flow Leverage Volatility Assessment

Subsector	Assessment
Commercial IT services	Volatile
Government IT services	Volatile
Transaction processors	Stable
Enterprise and consumer software	Stable

Part III: Rating Modifiers

F. Diversification/Portfolio Effect

58. In assessing the diversification/portfolio effect on a services or software company, our analysis uses the same methodology as for other corporate issuers. This modifier is rarely active for IT services and software companies, which tend to be highly focused within their industry. Even for the largest and most diversified groups, competing in various services and software segments, the diversification is typically captured in our "scale, scope, and diversity" assessment within the competitive position.

G. Capital Structure

59. In assessing the capital structure of a technology software and services company, our analysis uses the same general methodology as with other corporate issuers (see "Corporate Methodology").

H. Liquidity

60. In assessing the liquidity of a technology software and services company, our analysis uses the same general methodology as with other corporate issuers (see "Corporate Methodology").

I. Financial Policy

61. In assessing the financial policy of a technology software and services company, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

J. Management And Governance

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

K. Comparable Ratings Analysis

63. In assessing the comparable ratings analysis on a technology software and services company, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

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:

- On Aug. 7, 2014, we republished this article to correct the terminology for the volatility

adjustment of our cash flow leverage assessments in table 2.

- Following our periodic review completed on June 14, 2016, we updated the contact information and criteria references. Also, we deleted paragraphs 2 and 5, which were related to the initial publication of our criteria.
- Following our periodic review completed on June 12, 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 51 and 52 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.
- On July 25, 2019, we republished this criteria article to make nonmaterial changes. Specifically, we made minor changes to the wording in paragraph 1.

RELATED CRITERIA AND RESEARCH

Superseded Criteria

- Key Credit Factors: Methodology And Assumptions On Risks In The Global High Technology Industry, Oct. 15, 2009

Related Criteria

- 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
- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- 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
- Key Credit Factors For The Technology Hardware And Semiconductors Industry, Nov. 19, 2013
- Methodology: Industry Risk, Nov. 19, 2013
- Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- Principles Of Credit Ratings, Feb. 16, 2011

Related Research

- Guidance: Corporate Methodology: Ratios And Adjustments, April 1, 2019

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 Standard & Poor's Ratings Services' 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.