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Criteria | Corporates | General: Key Credit Factors For The Auto Suppliers Industry

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Key Credit Factors For The Auto Suppliers Industry

1. Standard & Poor's Ratings Services is refining and adapting its methodology and assumptions for its key credit factors for the auto suppliers industry. We are publishing this article to help market participants better understand these key credit factors. This article is related to our global corporate criteria (see "Corporate Methodology," published Nov. 19, 2013) and "Principles Of Credit Ratings," published Feb. 16, 2011, on the Global Credit Portal.
2. The criteria supersede "Key Credit Factors: Business And Financial Risks In The Auto Component Suppliers Industry," published Jan. 28, 2009.

SCOPE OF THE CRITERIA

3. These criteria apply to auto and truck component suppliers globally. We define auto component suppliers as companies that derive a majority of their revenue from the production, assembly, sale, and distribution of parts or services for the automotive or commercial vehicle manufacturing industry and their respective aftermarkets.
4. These criteria do not apply to auto retailers, which are covered under "Key Credit Factors For The Retail And Restaurants Industry," published Nov. 19, 2013.

SUMMARY OF THE CRITERIA

5. Standard & Poor's is updating its global criteria for analyzing auto component supply companies, applying Standard & Poor's global corporate criteria.
6. We view the auto suppliers industry as a "moderately high risk" industry under our criteria given its "moderately high" cyclical risk and "moderately high" degree of competitive risk and growth. When assessing the competitive position of an auto supplier, we put particular emphasis on market position and growth prospects of its market segments, product differentiation, capital intensity, cyclical risk of end-markets and level of diversity, and, operating efficiency including cost-base flexibility and sensitivity to raw material prices. In our assessment of the financial risk profile, we consider industry or company-specific capital expenditure needs, working capital characteristics (including seasonality), outflows and inflows over the course of the business cycle, and their effect on cash flow coverage ratios.

IMPACT ON OUTSTANDING RATINGS

7. We do not expect these criteria, in and of themselves, to result in any rating changes. See corporate criteria for the impact on ratings for this industry.

EFFECTIVE DATE AND TRANSITION

8. These criteria are effective immediately on the date of publication.

METHODOLOGY

Part I--Business Risk Analysis

A. Industry risk

9. Within the framework of Standard & Poor's global corporate criteria for assessing industry risk, we view the auto component supply industry as a "moderately high risk" industry (category 4). Our industry risk assessment is derived from our view of the segment's "moderately high" level degree of cyclical (4), and our assessment that the industry is "moderately high risk" (4) in terms of competitive risk and growth.
10. Key drivers of cyclical in the auto suppliers industry include:
 - Volatility in levels of economic growth and consumer confidence;
 - High fixed-cost requirement to operate in the industry;
 - Pricing pressure from large customers; and
 - Potential for the return of marked volatility in raw material and energy costs.
11. Volatility in levels of economic growth and consumer confidence: Auto suppliers are subject to derived demand. The high degree of cyclical of its client industry, auto manufacturing, is a critical risk factor for auto suppliers because of their high degree of operating leverage, especially given variable and difficult-to-forecast customer production schedules. Cars represent big ticket items for most households and therefore, consumer confidence (which is often fickle) is a key driver behind sales. Employment growth, household formation, interest rates, availability of credit and consumer-driven demands (e.g., greater use of infotainment and better fuel efficiency) are other variables contributing to shape demand. For commercial vehicles, cyclical is more closely correlated to economic growth and level of business confidence as customers include freight companies and smaller trucking companies or individual owner-operators. (also refer to "Key Credit Factors For The Auto And Commercial Vehicle Manufacturing Industry," published Nov. 19, 2013).
12. High fixed-cost requirement to operate in the industry: This leads to the risk of substantial earnings volatility because auto suppliers need to make significant capital investments to secure supply agreements with large automakers. These investments are not necessarily fully recovered from these large customers given the inherent volatility for new vehicle demand and the potential for underperformance of a given model platform. Overbuilding of production capacity in the auto industry is likely to create more competitive and earnings pressure, especially in the event of a cyclical downturn in demand. Hence, auto suppliers need to demonstrate some resilience in a downturn scenario through their ability to continually reduce their cost bases as revenues decline. The high operating leverage that characterizes this industry is

often magnified on the financial side by highly leveraged capital structures and volatility of cash flows that negatively affect debt service quality.

13. Pricing pressure from large customers: Pressure on margins is exacerbated by the periodic price reductions built into supply agreements and auto suppliers often face thin profit margins relative to their fixed-cost base. In mature markets, because automakers have had limited pricing power with consumers, they look for price concessions from their suppliers; these companies in turn make demands on their own suppliers and so on down the production chain. (also refer to "Key Credit Factors For The Auto And Commercial Vehicle Manufacturing Industry," published Nov. 19, 2013).
14. Potential for the return of marked volatility in raw material and energy costs: This remains a major potential challenge for the auto parts industry. Thin margins, because of the highly competitive nature of the business, have been eroded further in past downturns by rising costs. We believe it would be unlikely that the supply and manufacturing chain would be able to fully pass through potentially rising costs to end-customers.
15. The effect of the above cyclical characteristics is supported by ratings transition data on the auto supplier industry in recent history--with nearly 35 entities that have defaulted since 2004. For the suppliers that have defaulted since late 2004, the common theme has been the combination of lost market share and steep cuts in production by their key customers, a sharp rise in unrecovered raw material costs, and a decline in liquidity--all of which occurred in the same 12-month period.
16. The predominantly speculative-grade auto supply sector has always been vulnerable to vehicle production cuts and volatility because of high fixed costs and lack of leverage with automakers, who can use their buying power to ask for price concessions and leave the suppliers with little material price protection. In addition, many companies had debt-laden balance sheets after a period of not-so-successful industry consolidation.
17. In our view, the recovery (only two rated auto suppliers have filed for bankruptcy protection from 2010 to 2013, after 15 suppliers defaulted in 2008-2009) has been more pronounced in the auto industry than for the overall corporate industrials sector. This is because of the severity of the stress and the efforts suppliers have made to realign their operations and avoid a similar scenario in the event of future disruptions. Most large suppliers have now emerged from bankruptcy or have been sold and those that defaulted also emerged from bankruptcy with more manageable debt burdens via their restructurings.

1. Cyclical assessment

18. We assess the cyclical of the auto supplier industry as a '4' which calibrates to "moderately high risk". The industry has demonstrated moderately high cyclical--relative to other industries--in both revenue and profitability, which are two key measures used to derive an industry's cyclical assessment (see "Methodology: Industry Risk", published Nov. 19, 2013). Based on our analysis of global Compustat data, auto suppliers experienced average peak-to-trough (PTT) declines in revenue and profitability (measured by EBITDA margin) of 9.5% and 13.5%, respectively, during recessionary periods since 1952.
19. For auto suppliers, in two of the nine recessionary periods since the 1950s (1979-1982 and 2007-2009), revenue declined significantly more than the 9.5% average decline. This was due to the oil shock in late 1979 following the

recession, which brought double-digit inflation and sent interest rates up to 20% as consumer confidence deteriorated dramatically leading to a depression for the auto industry as a whole. The oil crisis eventually forced the U.S. automakers to resolve their quality and gas mileage problems.

20. The decline for auto supplier revenues during the more recent recessionary period (2007-2009) was precipitated by the average PTT revenue declines of nearly 31% for their original equipment manufacturer (OEM) customers (resulting from the housing market meltdown) causing severe declines in larger and higher margin vehicle sales that precipitated GM and Chrysler bankruptcy filings. Given the intertwined fortunes of entities operating within the auto industry, the failure of large automakers adversely affected several auto suppliers and the distress in the supply chain further challenged recovery prospects for the OEMs from a liquidity standpoint.
21. Given the capital intensiveness and high fixed-cost nature of the industry, the trends in PTT decline in EBITDA margin are highly correlated with the periods of the largest PTT decline in industry revenues (see paragraphs 19 and 20).
22. With an average 9.5% drop in revenue and an average 13.5% profitability decline, auto suppliers' cyclicity assessment calibrates to (4) "moderate risk". We generally consider that the higher the level of profitability cyclicity in an industry, the higher the credit risk of entities operating in that industry. However, the overall effect of cyclicity on an industry's risk profile may be mitigated or exacerbated by an industry's competitive and growth environment.
23. Similar to some of their large automaker customers, several auto and commercial vehicle suppliers reorganized operations during the downturn with the closure of high-cost facilities, downsizing staffing levels, and exiting underperforming product lines, many of which were highly capital intensive. Several companies used bankruptcy protection or distressed exchanges to restructure their balance sheets to better align them with the cyclical automotive industry.
24. With the benefit of these actions and recovering auto demand, auto suppliers have generally lowered their break-even volume levels and are thus better positioned (than prior years) to face another recessionary scenario. This would still be consistent with our view of a moderately high risk assessment for the auto supplier industry sector.

2. Competitive risk and growth assessment

25. We view the auto supplier industry as having a "moderately high" (category 4) competitive risk and growth assessment. To assess 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.

a) Effectiveness of barriers to entry -- Medium Risk

26. Barriers to entry are generally relatively high in the auto supplier industry given the large and ongoing requirement for capital outlays, especially those with a long-term return horizon. Similar to other industries such as utilities, steel, and aerospace, this is often a major obstacle for entities attempting to break in because their access to debt and equity financing is often weaker than industry incumbents.

27. The following characteristics of the auto supplier industry support our view of the effectiveness of some inherent barriers:
- Many suppliers manufacture products that are highly complex, with minimal deviations given stringent specifications (for instance, certain safety critical parts), which create barriers to entry for smaller competitors.
 - Automakers make significant investments in selecting, integrating, and testing as part of their product development. This benefits incumbent suppliers that have been trusted product development partners for high volumes of low-cost, mission critical components especially if they offer a global footprint with manufacturing and logistics locations.
 - Several suppliers operate (with a good track record) in segments focused on fuel efficiency (either through engine-related products or products offering meaningful weight reduction), emissions, or safety. Customer confidence in their technical capabilities often can preclude any credible prospects of entry by competitors. Many small and midsize suppliers that are unable to build global delivery coverage are not likely to be considered for the substantially increasing number of requests for quotations on global platforms.
 - There have been substantial capacity reductions (including demolitions and permanent closure of some foundries) in subsegments such as casting and forging following the Great Recession, along with the high cost for competitors to install more capacity, which can prove to be a significant barrier to entry.
28. However, in our view, the following characteristics more than offset some of the effectiveness of some inherent barriers (in a capital-intensive industry) to entry in limiting competitive entrants:
- Suppliers operate in a fragmented industry and incumbents do not necessarily benefit from size and efficiencies because the industry is still maturing. As a result, they are exposed to risks related to expanding geographically and potentially competing with local suppliers as their OEM customers expand their presence. Hence, this limits the effectiveness of barriers to entry in excluding competitive entrants in some subsegments, especially compared with their OEM customers.
 - There is a high likelihood of competition from suppliers that benefit from lower labor costs, lower tax rates, and, in some cases, export or raw materials subsidies.
 - Certain segments such as seat frames, instrument panels, and certain vehicle electronics offer commodity-like products and are relatively less capital intensive. Competitors can displace incumbents relatively easily and gain credibility with customers.
- b) Level and trend of industry profit margins--High Risk**
29. Material headwinds to operating margins persist due to ongoing pricing pressure by large OEM customers and the risk of raw material price headwinds.
30. Most auto component supply agreements (with OEM customers) include price reduction requirements through the life of the contract. As auto suppliers amortize capital costs and ramp up production from a technology and process standpoint, their larger OEM customers expect a portion of the increasing profits to be shared through component price reductions. This feature compels suppliers to adapt a continuing focus on improved margins more through cost reductions. For several auto suppliers, we believe the recent profit margin increase stemming from increased pricing due to low supply capacity and increasing demand may not be sustainable and there is a longer-term risk of a decline in industry profitability from recent levels.
31. Companies that will remain vulnerable would be those that suffer margin erosion due to an inability to offset OEM price reductions with their own performance improvements. For instance, during the 2008-2009 downturn, many U.S.

auto parts suppliers reorganized under bankruptcy protection and meaningfully adjusted their cost structures in these areas. Nevertheless, the ability to continually improve operating efficiency is critical to success in the automotive supplier industry.

32. Depending on the nature of components being supplied, the strength and sustainability of profitability will also depend on the extent to which a supplier is vulnerable to raw material price movements. The impact of commodities can be estimated by analyzing key raw materials and breakdown of input costs (including the existence of hedging contracts). The ability to pass through commodity prices without a significant lag (over three to six months) can have a significant impact on profitability and the cash used and released in a normal working capital cycle.
33. The above risks more than offset long-term improvement in cost structures post economic downturns and bankruptcies and reorganizations.

c) Risk of secular change and substitution by products, services, and technologies--Medium Risk

34. Overall, we believe there is a moderate likelihood of substitution risk.
35. Product portfolios with a high current or potential technological content (such as turbochargers and new powertrain technologies aimed to improve fuel efficiency) can prove to be a barrier to entry, thus leading to low substitution risk.
36. On the contrary, those suppliers in product segments that are characterized by relatively low technological content and face higher substitution risk (such as automotive sealing or sheet-metal stamping) compared with others.
37. We believe that for some suppliers (e.g., automotive audio, infotainment, telematics services) there is potential for more competition from larger participants within or outside the automotive industry so we believe there is at least some discernible substitution risk.

d) Risk in growth trends--High Risk

38. We view the auto supplier industry as an established industry where sales are rising between 1% and the rate of nominal GDP growth over the medium term. But, for the auto industry in general (automakers and auto suppliers), there is a high likelihood that sales in these markets are likely to contract more severely than GDP declines during recessions.
39. We perceive the growth trend in the auto supplier industry as "high risk", relative to the automakers ("medium risk"). Sustained auto sales declines create the need for capacity adjustments by suppliers that typically have lower financial wherewithal to recover from a protracted recessionary environment in a particular region compared with their large and more globally diverse OEM customers.
40. Suppliers are likely to face the heightened challenge of aligning their production capabilities to meet fewer, but global platforms over the longer-term. The risks stem from greater pressure on suppliers to engineer and produce parts globally, which results in more complex operations that they need to manage. Companies face the risk of overestimating their capability to manage the fast-growing global complexity in their organization and footprint as they invest in global research and development (R&D) and resource development.
41. In mature markets, the rate of growth in sales has slowed and some of this can be attributed to a change in social habits and the availability of alternative mobility options that may contribute to a longer-term trend of slow but steady

erosion in car usage.

42. Though the auto supplier industry is reasonably well established with moderate growth prospects over the medium term, this growth could also be a generator of risk. Certain subsegments of the auto supplier industry focus on the use of new technology whereas many still have a business model with unproven long-term commercial viability as it relates to aligning their capacity with customers in emerging markets.
43. In addition, medium-term risk also persists as costs creep back into the industry to support sales growth and the much larger number of product launches since the 2008-2009 downturn.

B. Country Risk

44. 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 auto component suppliers, our analysis uses the same methodology as other corporate issuers (see our corporate methodology).
45. For auto suppliers with exposure to more than one country, we will measure the proportion of exposure to each country based on revenues by country. If there is significant variability in profit margins (by region), we may use forecasted EBITDA (instead of revenues) by country to reflect the exposure to a higher-risk country.

C. Competitive Position (Including Profitability)

46. Under our global corporate criteria, 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 auto suppliers, we review an individual company's:
 - Competitive advantage;
 - Scale, scope and diversity;
 - Operating efficiency; and
 - Profitability.
47. 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 the level of profitability and the volatility of profitability.
48. After assessing separately 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).
49. The CPGP assigned to auto suppliers is "Capital or asset focus". We weight the first three components of competitive

position as follows: competitive advantage (30%); scale, scope, and diversity (30%); and operating efficiency (40%).

1. Competitive advantage

50. Our assessment of competitive advantage for global auto suppliers includes a review of the following:
- Market position, strategy, product mix, product service and quality, and value proposition;
 - Ability to cater to complex and evolving regulatory and political environments because of increasingly stringent fuel economy, safety and emissions standards (and costs), related shifts in technology, barriers to entry; and
 - R&D and design and engineering capabilities and investment.
51. We view a demonstrated track record of boosting market position and improving scale as a significant determinant of an auto supplier's ability to spread overhead costs, better serve customers globally, and efficiently leverage their R&D expenditures over a wider range of products. There can also be marketing, distribution, and purchasing advantages. To the extent information is available; we measure an auto supplier's percentage market share by product segment or product line and by geography. We do not have absolute levels for evaluating market share. Given the variety of end-markets and segments within the auto supplier sector, we evaluate market share in several ways because a 20% market share in a segment with three to four larger competitors may not be sufficient to gain any meaningful competitive advantage, while a 20% share in a segment with 15 lesser competitors could indicate a strong competitive position. We monitor longer-term trends in market share--up or down--which may indicate favorable or unfavorable product mix compared with current marketplace demand.
52. Investment in design, engineering, R&D, and supporting technology is critical, given the increasing complexity of today's parts and vehicles. We believe that suppliers that spend more on R&D than the industry average, typically enjoy the highest reputations for product quality and also benefit from above-average growth. Custom-engineered products enhance the value a supplier provides to its customer by differentiating appearance or performance and may also serve to reduce customer churn.
53. Innovation is important to sales stability, growth, and margin protection because of competitive pressure to improve offerings, increasing customer requirements, and cost pressure from rising input costs. Automakers rely on suppliers that provide advanced technology to improve the functionality of their products through innovation.
54. Where applicable, we analyze R&D as a percentage of sales (against industry averages) and the track record of success through new product introductions when information is available. In redesigning a vehicle, quality enhancements might also lead to fewer part counts for individual car models, potentially lowering overall production costs.
55. An auto supplier with a "strong" or "strong/adequate" assessment of its competitive advantage typically is characterized by any combination of the following factors:
- Price premium commanded (relative to other suppliers) given dominant market positions within a subsegment;
 - Portfolio of high-value-added products such as turbochargers advanced powertrain or active safety components rather than commodity-like products such as automotive interiors or metal stampings. Suppliers with a portfolio of technologically advanced products with a track record of innovation support and considerable pricing power. Among the large number of auto suppliers that lack any significant pricing power against the much larger OEM customers, we tend to view those that have demonstrated the ability to reduce costs and offset annual price reductions demanded by customers more favorably.

- Prospects for higher organic growth versus overall industry through sizeable backlogs, sustainability of new business wins and/or benefits from high-volume platforms and technology.
- Good track record of enhancing market position through small bolt-on acquisitions focused on enhancing technology or improving supply chain integration rather than large acquisitions, which, in any case, are rare. Auto suppliers typically use acquisitions to improve revenue growth, expand product lines, consolidate market share, achieve cost synergies, and to access superior technology.
- Proven capability to quickly develop a wide range of products and be able to manufacture them in large quantities at low cost possibly through vertical integration resulting in the development of strong relationships with the large automakers to win new business. For instance, in-house capability allows certain suppliers to develop equipment at up to 30% lower cost than molding lines at their OEM customers.
- Proven R&D capabilities that are likely to deliver differentiated, superior product or service. This is demonstrated by recognized technology leadership and a backlog of awards for new customer programs that better position an auto supplier to design products that address emerging technological and regulatory requirements for vehicles. This assists in solidifying the long-term business relationship with its large automaker customers. By becoming not just a supplier of parts, but rather a supplier of technologies and capabilities, a parts supplier creates barriers to entry for competitors.
- Suppliers that command pricing power due to their presence in subsegments (such as casting and forging) where substantial capacity was permanently taken out, demonstrated by lower-than-industry average price reductions demanded by OEM customers and EBITDA less capital expenditures margins, which compare favorably with most rated suppliers.

56. An auto supplier with a "weak" or "adequate/weak" assessment of its competitive advantage typically is characterized by a combination of the following factors:

- Past track record suggests high likelihood of loss of meaningful business with existing customers, or potential for losing market share within their end-markets possibly because of price competition from larger players or from the lack of superior technology. It could also result from competitors that benefit from lower labor costs, lower tax rates, and, in some cases, export or raw materials subsidies.
- Suppliers that operate in subsegments, which are less capital intensive (e.g., a few tier 2 suppliers, and several tier 3 and aftermarket suppliers) and competitors can enter relatively easily and gain credibility with customers.
- Relatively weak negotiating leverage (and possibly low content per vehicle) with larger automakers and with their own vendors.
- Weak perception of business strategy based on an auto supplier's historical performance and how realistic we view its forward-looking business objectives (price versus the competition's, sales or profit growth, and required investment levels).
- Mostly commodity-type products (e.g., several aftermarket suppliers) making the company more vulnerable to economic downturns, or if there is a potential for a rising level of technical risk (given the existing technological footprint) in its business segments, such as batteries.
- No significant pricing leverage with its larger and more powerful customer base.
- Innovation-led track record is unproven, reputation build is a work-in-progress (e.g., due to recent emergence from Chapter 11 or recent foray into new end-markets).

2. Scale, scope, and diversity

57. Our assessment of scale, scope, and diversity for global auto suppliers includes:

- End-market diversity (e.g., customer base, platform and segment, and geography; the degree of alignment with

global production; and presence in a relatively stable aftermarket). The extent of diversification determines the ability of an auto supplier to offset the impact of regulatory, environmental, product liability, or safety issues, by region.

- Size of revenue base and its position within the industry help to determine business strength and operating flexibility.

58. We expect international expansion to be a continued focus of growth strategies for the next few years with the globalization of vehicle platforms and powertrains. Increasingly, both size and scale are becoming key competitive differentiators for new program wins as automakers expand worldwide and industry consolidation continues.
59. Suppliers' fortunes are closely linked to their customers' fortunes and the vehicle platforms they supply. Many automakers are choosing to work with fewer suppliers, so size and critical mass are important. While it can be very beneficial for a parts supplier to embed its components in one or more auto platforms, this can prove to be a double-edged sword if the platform and/or manufacturer encounters lack of success and financial difficulties.
60. Within the light-vehicle market, despite recent improvements in fuel-efficiency across the board, we would view a company's significant exposure to light trucks and SUVs, relative to passenger cars, as a potential risk if gasoline prices again surge past historical peaks, causing consumers to purchase more passenger cars.
61. There is an emerging trend toward developing technologies that are cost effective or that aim to meet new and upcoming regulatory standards for fuel-efficiency technology and safety. For instance, automaker alliances and trends toward alternative powertrains and smaller vehicles will raise demands on suppliers, some of whom will benefit. A key factor we consider is the ability to compete in difficult markets as a supplier to automakers that require global capabilities, scalability, product innovation, and solid financial health from their tier 1 suppliers. New products offering increased value to customers enable suppliers to reset the price base, also easing price pressures.
62. An auto supplier with a "strong" or "strong/adequate" assessment of its scale, scope, and diversity typically is characterized by a combination of the following factors:
 - Very broad range of customers (top three customers typically accounting for less than 30%); manufacturing footprint closely aligned to global production; and wide range of products that lead to prospects for cross-selling and potentially winning new business across subsegments within the auto sector.
 - Revenues come from a wide product range across multiple platforms, and/or subsegments (e.g., infotainment, safety, fuel efficiency, and aftermarket) that are not strictly correlated. For instance, companies with a presence in the replacement parts business (including collision repair) or industrial-end markets are better positioned to navigate periods of weakness for the broader industry because their sales are less correlated to vehicle production, which is often volatile. However, mere presence in countercyclical segments such as replacement parts or components for heavy trucks would not necessarily lead to a favorable assessment because our analysis is in conjunction with the extent to which competitors operate within the same segments.
 - Favorably viewed bargaining strength with auto manufacturer customers and raw material or subcomponent suppliers to secure alternative supply (if and when necessary) without incurring substantial switching costs.
 - Meaningful market share that indicates a broad range of operations, products, or services. This also involves qualitative haircuts to market shares if a company operates within a niche segment (e.g., tire pressure monitoring and valve manufacturer rather than a broader industry segment like critical powertrain and transmission components).

- Strong ability to deliver sustainable growth, impact business trends, and industry pricing owing to the magnitude of size (measured by revenue) in relation to other participants.
 - Volume stability (relative to peers') especially when demonstrated during an economic downturn, or if relative stability has been achieved with lesser price-downs to OEMs than competitors.
 - Demonstrate above-average resiliency to typical supply chain risks (e.g., weak suppliers, geographic concentration, or natural or man-made disasters.) Although it would be rare for a supplier to be able to meet this test.
63. An auto supplier with a "weak" or "adequate/weak" assessment of its scale, scope, and diversity typically is characterized by a combination of the following factors:
- Revenues come disproportionately from a narrow product line, which we might view as compounding the risk of exposure to a small geographic market and, thus, assess its scale, scope, and diversity component as weak. Within, these set of suppliers, we rank favorably those we believe have at least a credible plan to increase customer diversity through profitable net new business (potentially with its nondominant customers) in the next three to five years.
 - Relatively weak negotiating leverage (and possibly low content per vehicle) with larger automakers and their own vendors, and a lack of scale to manufacture at a low cost.
 - Significant risk from having substantially all of its manufacturing capacity and customers concentrated in one region without any product diversity or exposure to the more stable aftermarket (top three customers typically accounting for more than 50%).
 - Vulnerable to supply chains risks, possibly from overreliance on a critical supplier or a high-impact, low-probability event, which can often break even the most sophisticated supply chain, even if only temporarily. Such failures, although rare, could quickly gain momentum and result in a negative rating action.
 - Shrinking market share or loss of profitable contracts, suggesting diminishing prospects for future profitability.

3. Operating efficiency

64. Our assessment of operating efficiency for global auto suppliers includes:
- The degree of flexibility in cost structure, fixed or variable costs;
 - Sensitivity to raw material and energy costs and ability to pass on cost increases; and
 - Working capital management through the business cycle.
65. We gauge the track record of exhibiting flexibility in adjusting excess capacity in a timely manner. Some suppliers have a proven ability to reduce labor costs by successfully sourcing more components and subassemblies from countries with lower labor costs compared with automakers. Even unionized suppliers tend to have a lower wage structure than the automakers.
66. As a result, the pressure to reduce costs will only increase over the intermediate term. Being a low-cost manufacturer of automotive components is critical, given the pricing pressures exerted on the industry by automakers, many of which are facing their own pressures to reduce costs and raise weak profits.
67. Suppliers tend to have lower labor costs than the automakers because of typically lower union representation and also industry dynamics related to number of competitors and price pressure from customers. However, the demonstrated track record of an auto supplier (which can vary considerably across companies) combined with our perception of their future ability to manage these costs through economic cycles is another distinguishing factor we use to assess operating efficiency.

68. Furthermore, underinvestment leads to the risk of potential downtime and production losses, which could severely hurt profitability over the short term and more importantly lead to long-term volume loss for customers. The auto supplier industry is highly capital intensive and ongoing investment in the efficiency of production capabilities is often necessary to maintain a company's cost position.
69. As a competitive industry with an increasing global footprint, the ability of a supplier to pass along currency swings by adjusting its prices to its foreign customers is also important. Many of the large auto suppliers produce in the same geographic markets where their products are sold. Often, sales are more concentrated in U.S. dollars and euros than their expenses, and therefore profit margins and earnings could be reduced due to fluctuations or adverse trends in foreign currency exchange rates. Short-term changes in exchange rates can present a challenging operating environment for auto suppliers that routinely operate in a global context as they strive to remain price competitive to sustain profit margins.
70. An auto supplier with a "strong" or "strong/adequate" assessment of its operating efficiency typically is characterized by a combination of the following factors:
- Ability to control "cost creep" by managing fixed costs (the ratio of selling, general, and administrative expenses/sales) better relative to peers, in an upcycle.
 - Managing capacity utilization at least in line with their OEM customers, (PTT guidelines and estimates to point to the adequate range of 50% to 80%), but can vary depending on the how it is determined and/or reported) in light of typically high industry operating leverage;
 - Demonstrated ability to mitigate substantial exposures to commodity prices swings through (a) long-standing pass-through mechanisms with customers; (b) value-added product or services, which lend pricing power; or (c) a regularly refining surcharge mechanism to more closely reflect most current composition and timing of input costs.
 - Companies that have demonstrated a track record of or are likely to demonstrate flexibility to volatile production schedules from customers by quickly readjusting inventory levels.
 - Auto suppliers that effectively employ financial instruments to hedge certain of these exposures to at least partially insulate them from currency fluctuation effects. Other ways to mitigate this risk include working directly with their customers or one of its own subsidiaries, to offset this risk through better pricing of the component parts sold to foreign customers.
 - Flexible labor costs (e.g., larger proportion of workforce as temporary, especially in regions where severance costs are very high) and a track record of good relationship with workforce unions to minimize the risk of costly strikes.
 - In addition to our qualitative opinion on the above, we view favorably issuers that demonstrate short cash conversion cycles (defined as days' investment in inventory and receivables less days' investment in accounts payable), especially since it gives them flexibility to redeploy capital more effectively.
71. An auto supplier with a "weak" or "adequate/weak" assessment of its operating efficiency typically is characterized by a combination of the following factors:
- Lack of pass-through mechanisms (less than 50% recovery) and exposure to commodity price volatility, which is accentuated if margins are below industry average). Working capital financing needs tend to increase when raw material prices rise, and those suppliers that lack effective pass-through costs to customers--an issue that has caused financial distress in the past--we view negatively.
 - Poor track record of managing input costs for companies that have a business model supporting benefits from improved sourcing resulting from vertical integration (e.g., battery recycling or casting and machining).

- Significantly high operating leverage (ratio of a company's contribution margin to profits), low level of cost flexibility, limited track record of sustained profit margins through the cycle, or companies with sustained operating losses.
- Poor track record displaying inability to restructure manufacturing footprint in a timely fashion and potentially improve capacity utilization.
- Evidence of operational missteps (even one-time events that lead to subsequent factory downtimes) and lack of diligence regarding investment and maintenance of production assets.

4. Profitability

72. The profitability assessment can confirm or modify the preliminary competitive position assessment. The profitability assessment consists of two components: the level of absolute profitability and the volatility of profitability. We combine the two components into the final profitability assessment using a matrix (see our corporate methodology).
73. Auto suppliers continually require adequate margins for retaining the ability to make R&D investments needed to maintain a technological edge. As seen in the last economic downturn, in the absence of sustained profits, auto suppliers' cash flow from operations is unlikely to meet the levels needed to support working capital, capital expenditures, and debt service requirements.
74. We view those companies more favorably that manufacture goods with a meaningful amount of engineering and technical content because they generally have greater pricing flexibility and yield higher gross margins.
75. Suppliers that have a strategic focus of shifting production to locations with lower and more flexible costs are more likely to demonstrate above-average profitability levels. The ability to continuously reduce costs and improve pricing through better technology is a critical factor because it mitigates the impact of potentially volatile production from large OEM customers and unstable raw material costs that pressure auto supplier profit margins. However, this may not always be a positive in the near term, especially if companies experience inefficiencies as they reconfigure their footprint. Over the long term, we believe that suppliers should benefit from focus on realigning their network of production facilities by setting up new facilities in low-cost regions to improve cost efficiency, and in fast-growing markets to increase sales diversification.
76. Profitability of the subsectors and product lines in which an auto supplier operates also factors into our analysis of individual companies. For example, the auto interiors business typically has lower margins than other segments, but it also typically requires less capital investment than our median estimate of about 3% of sales for the industry.

a) Level of profitability

77. We determine the profitability level on a three-point scale: "above average", "average", and "below average".
78. We use EBITDA margin as the primary indicator of an auto supplier's profitability level and compare auto component suppliers against peers in the context of the overall industry in which the company operates, not just in its narrower subsector.
79. Our analysis to determine thresholds for levels of profitability (see tables 1 and 2) incorporates the performance of global auto suppliers during the past two years and our expectation of performance over three years of forecast.
80. To avoid the effects of any cyclical distortion (such as peak or bottom cycle metrics or the impact of foreign exchange

fluctuations or natural calamities that we do not deem fully representative of the company's normalized level of profitability), we may adjust our thresholds to maintain a normalized distribution, across cycles.

81. In addition, we may look at qualitative factors, for example, capital intensiveness, to compare companies within the broader industry in which they operate because capital expenditures are needed to maintain the asset base which in turn allows for profit. Since depreciation is often a very good approximation of the capital expenditures required to maintain the asset base, we may use return on capital (ROC) as a supplemental measure, (using a similar approach as that used for EBITDA margins above, to arrive at thresholds) to compare companies that do not have significantly different capital structures.
82. We also use ROC as a supplementary indicator to refine our assessment when the EBITDA margin is close to the thresholds for "below average" or "above average" (see ROC thresholds in table 2). For instance, if a company's EBITDA margin is at the high end of the defined range for "average" but its return on capital is comfortably in the "below average" range, we may assess its level of profitability "below average".
83. In accordance with the global corporate criteria, for this assessment, we typically determine the five-year average EBITDA margin and ROC using the last two years of historical results and three years of forecasted results. We may put more emphasis on forecast years if historical data is not deemed representative, or to take into account deteriorating or improving profiles where prospective ratios meaningfully differ from average ratios.

Table 1**Auto Suppliers' EBITDA Margin Threshold Levels**

	Below average	Average	Above average
EBITDA margins	< 9%	9%-15%	> 15%

Table 2**Auto Suppliers' Return On Capital Threshold Levels**

	Below average	Average	Above average
Return on capital	< 8%	8%-18%	>18%

b) Volatility of profitability

84. We determine the volatility of profitability on a six point scale with '1' capturing the least volatile companies and '6' capturing those with very high volatility.
85. Volatility of profitability is determined using the standard error of regression (SER) assessment, in accordance with our global corporate criteria. EBITDA margin is the metric we use to determine the SER for auto component suppliers. We only determine SER when companies have at least seven years of historical annual data to ensure the results are meaningful. In accordance with the general corporate criteria and subject to certain conditions being met, we may 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 determine the SER, we follow the global corporate criteria guidelines to determine the volatility of profitability assessment.

Part II-Financial Risk Analysis

D. Accounting And Analytical Adjustments

86. When we assess auto suppliers' accounting characteristics, we use the same methodology as with other corporate issuers (see our 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," published Nov. 19, 2013.

E. Cash Flow/Leverage Analysis

87. In assessing cash flow/leverage for an auto components supplier, our analysis uses the same methodology as with other corporate issuers (see our corporate methodology). We assess cash flow/leverage on a scale of (1) minimal, (2) modest, (3) intermediate, (4) significant, (5) aggressive, and (6) highly leveraged, by aggregating the assessments of a range of predominantly cash flow-based credit ratios, which complement each other by focusing attention on the different levels of a company's cash flow in relation to its obligations.

1. Core ratios

88. For each company, we calculate in accordance with Standard & Poor's Ratios and Adjustment criteria, two core debt payback ratios: funds from operations/debt and debt/EBITDA

2. Supplemental ratios

89. Given that the auto suppliers in general are capital-intensive companies with moderately high working-capital requirements, we complement the analysis of core ratios with an analysis of free operating cash flow/total debt. Cash flow is typically volatile for auto part suppliers and there can be meaningful variation from one year to another, depending on the timing of product launches and the level of new contract wins or losses.
90. We closely evaluate the working capital cycle and capital expenditure requirements when analyzing an auto supplier's financial risk profile. Auto suppliers that win supply agreements for a large number of new platforms are often characterized by lower cash flow from operations given the launch costs associated with fixed asset and working capital investments needed to execute on those business wins. Cash flow would typically improve considerably as these announced business launches meet expected production schedules.
91. Working capital can be a significant call on cash. Companies in the sector typically invest in inventories and receivables during periods of sales growth, putting pressure on cash generation, which can result in a meaningful funding need. We evaluate working capital management based on the past track record of managing inventories and

payments terms (often dictated by OEMs) over the business cycle. We have seen that some suppliers have been able to release working capital from inventory and receivables during periods of sales declines. Consequently, we focus more on the track record of free operating cash flow (after working capital and capital expenditure-related cash flows), potentially across cycles, rather than funds from operations.

92. Though we may view consistency of free cash flow as a key consideration in distinguishing the financial risk profiles of auto suppliers, we do not necessarily penalize companies that experience growth-related cash outlays. This is as long as we believe that such new business investment supports future cash flow generation based on our assessment of a potential improvement in competitive position for its product and services.

Part III-Rating Modifiers

F. Diversification/Portfolio Effect

93. When assessing diversification/portfolio effect for an auto components supplier, we use the same methodology as with other corporate issuers (see our corporate methodology).

G. Capital Structure/Asset Analysis

94. When assessing capital structure for an auto components supplier, we use the same methodology as with other corporate issuers (see our corporate methodology).

H. Liquidity

95. When assessing liquidity for an auto components supplier, we use the same methodology as with other corporate issuers (see our corporate methodology).
96. We may adjust our calculation of liquidity sources over liquidity uses based on our assessment of an auto suppliers ability to extract cash from working capital at least temporarily; for example, by monetizing receivables through factoring or securitization, liquidating unneeded inventories, or stretching out payments to their suppliers. In our assessment, we would consider that each of these techniques has potential drawbacks, and incorporate the past track record of achieving favorable terms, the time needed to execute, or, in the case of stretching out payments, the likelihood of sending out potentially alarming signals to their suppliers.

I Management And Governance

97. When assessing management and governance for an auto components supplier, we use the same methodology as with other corporate issuers (see our corporate methodology).

J. Financial Policy

98. When assessing financial policy for an auto components supplier, we use the same methodology as with other corporate issuers (see our corporate methodology).

K. Comparable Ratings Analysis

99. When assessing comparable ratings analysis for an auto components supplier, we use the same methodology as with other corporate issuers (see our corporate methodology).

RELATED CRITERIA AND RESEARCH

- Corporate Methodology, Nov. 19, 2013
- Methodology: Industry Risk, Nov. 19, 2013.
- Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013.
- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Nov. 19, 2013
- Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Methodology And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012.
- Principles Of Credit Ratings, Feb. 16, 2011

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