## STATS WINDOW

## **Automotive Industry at a Glance**

The automotive industry is becoming increasingly reliant on digital technologies. Overall vehicle sales leveled off by the end of 2018, but investments in autonomous technology and the electrification of vehicles are providing the industry a look at what could be expected in the future. Regulations on emissions standards are putting pressure on manufacturers, adding to production costs that rose with the advent of tariffs on steel and other commodity components. In order to

incorporate all that technology into vehicles, carmakers are looking to innovate new, modular car architectures. Through the consolidation of ECUs (electronic control units) and their layered classification, BMW is working on a modularized Service-oriented Architecture (SOA) that will help optimize the safety and performance of complex technology architectures.



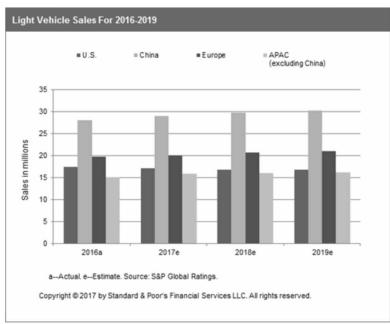
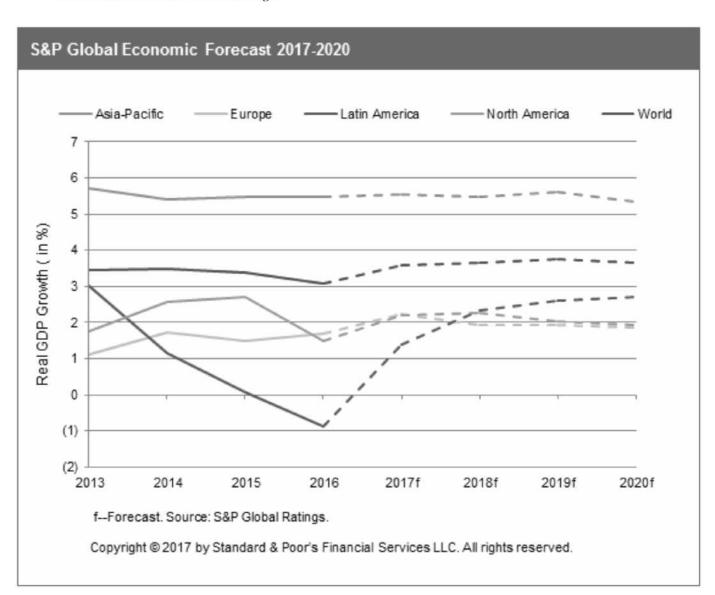
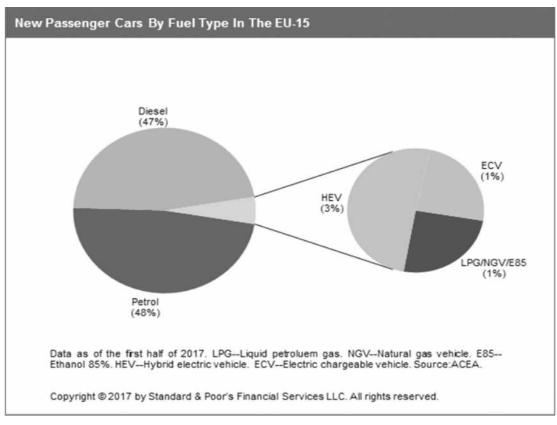


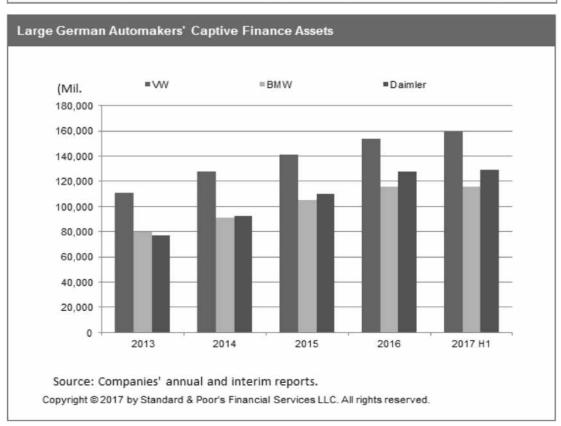
Table 1

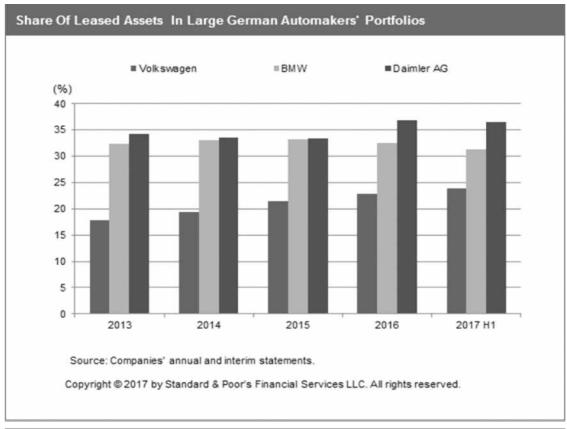
Light Vehicle Sales				
-100	2018e		2019e	
	Units (in mil.)	% change (year on year)	Units (in mil.)	% change (year on year)
U.S.	16.6-17.1	(2)0	16.5-17.0	(0.5 <del>)</del> 0.0
China	29.530.0	1.5-3.5	30.030.5	1.5-3.0
Europe	20.521.0	2.0-3.5	20.8-21.1	2.0-3.5
APAC (excluding China)	15.8-16.3	1.0-2.0	16.0-16.5	1.0-2.0
Global	95.0-97.0	2.03.0	97.0-100.0	1.0-2.0

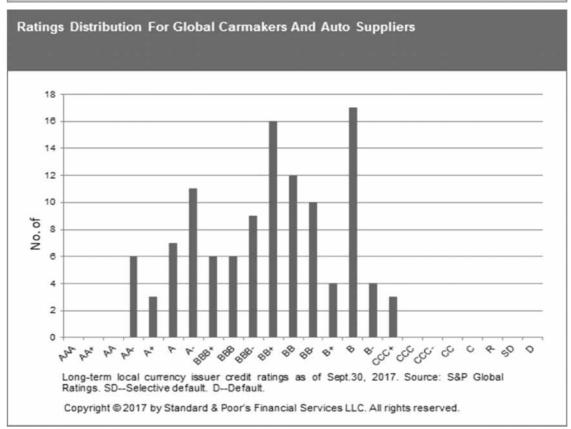
e--Estimate. Source: S&P Global Ratings.



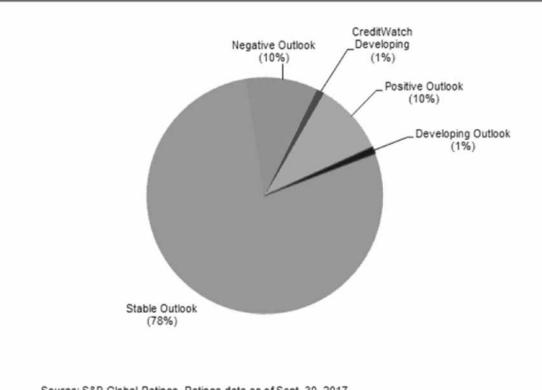








## Outlook And CreditWatch Distribution For Global Carmakers And Auto Suppliers



Source: S&P Global Ratings. Ratings data as of Sept. 30, 2017.

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