DUFF & PHELPS

Protect, Restore and Maximize Value

INDUSTRY INSIGHTS

Automotive – Early Summer 2019

Highlights

The automotive industry slowed considerably in the first quarter of 2019 as global sales, earnings and stock prices stalled and economic uncertainty and declining consumer confidence continued to be prevalent in major markets around the globe. However, electric vehicles have built a stronger foothold globally as Chinese and U.S. sales opened to record market share levels. Despite global economic concerns and a string of restructuring announcements, investments were made around the globe in electric vehicles and related parts, anticipating an increasing demand in coming years.

Global light vehicle sales declined 7.4% in Q1 2019 relative to the same period in 2018 as steep declines in China drove the market. In the U.S., light vehicle sales declined 3.1% year over year to 4.0 million units in the quarter.[1] In March 2019, U.S. light vehicle sales reached 17.48 million units at a seasonally adjusted annual rate (SAAR), in line with recent historical periods.[2]

Interest rates on consumer installment loans for new automobiles reached 5.50% in February 2019 in the U.S., up from 4.74% in February 2018 and 5.30% in November 2018, creating further headwinds for the industry.[3]

In Q1 2019, auto sales in China declined 18.7%, compared to the same period in 2018. Despite this decline, commercial vehicle sales increased 2.4%.[4,5]

In Europe, decreases in new passenger registrations occurred throughout Q1 2019, which culminating in a 3.9% decline in March 2019 relative to March 2018.[6]

M&A activity in the automotive sector experienced a significant increase in the first quarter of 2019 compared to the final quarters of 2018. Deal count in Q1 2019 consisted of 13 deals transacted, an increase over the two in Q4 2018, and the most since Q2 2018.[7]

Public company equity performance in the Automotive Original Equipment Manufacturer (OEM), Dealer, Aftermarket and Supplier sectors all trended upward in the first quarter of 2019, rising from a market trough at the end of 2018.[7]

See page 22 for data sources.

Q1 2019 BY THE NUMBERS

Global light vehicle sales decreased by 7.4% in Q1 2019 compared to Q1 2018.[1]

For the first quarter of 2019, China's auto sales fell 18.7%, with 5.8 million units sold.[1,4]

In March 2019, U.S. light vehicle SAAR was 17.48 million units, up from the 17.40 million mark in March 2018.[2]

New passenger registrations decreased by 3.3% in Europe in Q1 2019, driven by declines in all three months year over year.[6]

Duff & Phelps' market-weighted indexes of Automotive OEMs, Dealers, Suppliers and Aftermarket Parts and Repair increased 16.0%, 4.0%, 2.4% and 9.1% respectively over Q4 2018.[7]

U.S. electric vehicle (EV) sales reached a 1.8% market share in March 2019.[8] EVs in China reached a 5.1% market share for YTD 2019.[9]

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Q1 2019: Global Auto Sales Trends

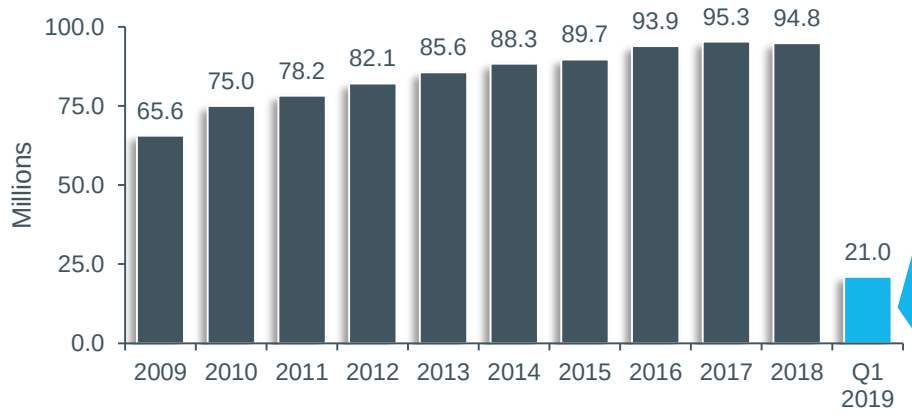
Slowing Demand Opened Excess Capacity Globally

Through the first three months of 2019, early calls for a slowing – and perhaps a drop-off – in global auto sales seem to be coming true. Driven primarily by economic issues, including uncertainty and tariffs, analysts have generally forecast declines in auto sales. Supporting these concerns was the sale of 21 million vehicles in the quarter, representing a 7.4% decline from Q1 2018.[10]

The majority of automakers saw considerable declines in sales in the first quarter. Honda, the seventh most popular brand, was the exception and saw sales grow 3%. Toyota had very slim 0.8% growth driven by booming sales in Thailand, Brazil and India, despite a drop-off in North America. The companies with the largest decline in sales for the quarter include the global market leader which declined 7.6% year over year. Another leading U.S. brand struggled specifically in Asia and South America and had sales shrink by 14.8% year over year.[10]

These poor trends have created a new concern within the Asia auto market around capacity and plant utilization. Due to a historically strong market in China, automakers constructed factories to meet demand and now have the cumulative capacity to produce 43 million vehicles annually. However, only 29 million vehicles were produced in 2018 – a number that is expected to decline in 2019.[11] Despite this, manufacturers such as Nidec, anticipating continued electric vehicle demand, have made considerable investments in electric motor factories. The company announced a $180 million factory with the capacity to construct motors for over 600,000 electric vehicles annually.[12]

Q1 2019 Global Vehicle Sales



Source: *Global Market Trends.* Focus2Move. May 2, 2019.

Q1 2019 Global Best-Selling Brands (Millions of Units)

1.	Volkswagen Group	2,471,760
2.	Toyota Group	2,350,008
3.	Renault Nissan Alliance	2,321,465
4.	General Motors	1,885,799
5.	Hyundai Motor Group	1,692,387

Source: *Global Market Trends.* Focus2Move. May 2, 2019.

Q1 2019: North American Auto Sales Trends

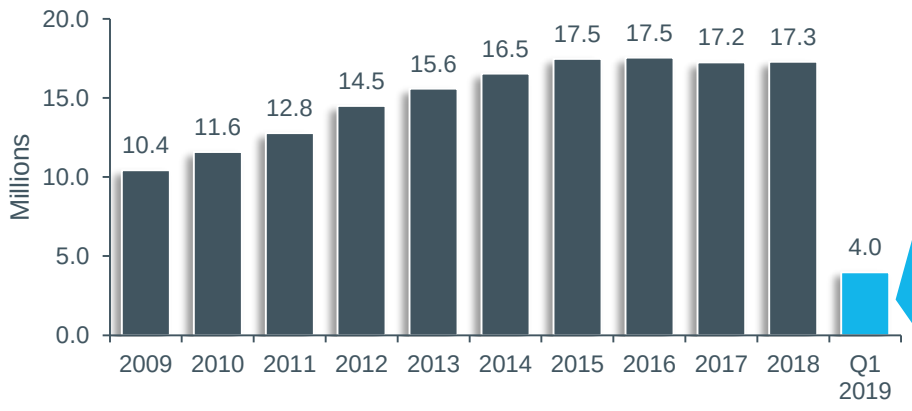
Slow Quarter Buoyed by Strong SUV and Truck Sales

The first quarter of 2019 showed a weak start to the year for North American auto sales, particularly in the U.S. Compared to Q1 2018, U.S. passenger car sales declined 3.1%.[13] Current sales trends show North Americans increasingly buying pickup trucks and SUVs over sedans and hatchbacks, as evidenced by all of five of the best-selling vehicles for the quarter in this category.[14] Modest optimism was realized in March as the strongest month of the year, with the SAAR of sales up to 17.4 million from the 16.6 million tracked in the first two months of the year.[15]

Full-year 2019 will likely be a weaker year in the U.S., several contributing factors include the affordability of vehicles due to higher interest rates, corresponding increases in average transaction prices for leased vehicles and lower tax refunds than the prior year. Analysts also note that an availability of quality used vehicles is driving used car sales as consumers seek cost-efficient alternatives.[15]

While the Detroit Big 3 all saw greater sales declines than expected, Honda was the lone exception, reporting modest sales growth in North America as the CR-V and redesigned Passport had strong quarters. Ford, GM and Fiat-Chrysler announced a shift toward profitability and away from pushing sales and volume growth – a move that comes with the discontinuation of sedans and the prevalence of the SUV.[16] Despite volume declines in Q1 for both Ford and GM, higher margin trucks resulted in higher year-over-year profits for both companies.[17]

Q1 2019 North American Vehicle Sales



Source: "US Car Sales Data." CarSalesBase. May 9, 2019.

Q1 2019 U.S. Best-Selling Vehicles (Units)

1.	Ford F-Series	Ford	214,611
2.	Ram Pickup	RAM	120,026
3.	Chevrolet Silverado	CHEVROLET	114,313
4.	Nissan Rogue	NISSAN	93,814
5.	Chevrolet Equinox	CHEVROLET	88,500

Source: *March 2019 - Best-Selling Vehicles in America – Every Vehicle Ranked.* GoodCarBadCar Auto Sales Data & Stats. April 4, 2019.

Q1 2019: Lyft and Uber IPOs

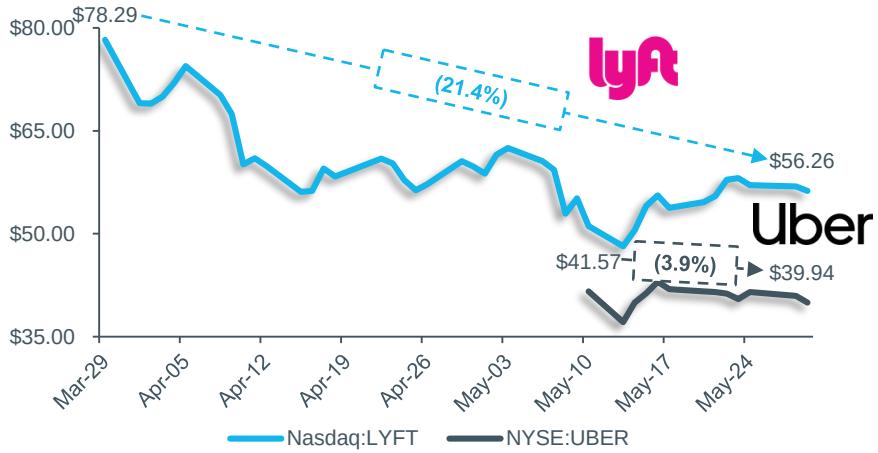
Ride-Hailing Applications Go Public

2019 has been hailed as a revolutionary year for tech and auto, with the expectation of significant capital raises via the stock market for transportation disruptors Lyft and Uber. Lyft hit the market at $72 a share on March 29, reaching a peak of $87.09 shortly after issuance before tumbling in a trend that continued through April. Despite the major hype around the issuance, analysts still had plenty of concerns around the one-dimensional operations of the business and the seeming lack of interest in expanding into other adjacent markets.[18]

While Lyft's core business remains ride-sharing, the company has made acquisitions around bicycle sharing as well as focusing on the "last mile" of multimodal trips. These ancillary offerings have supplemented the revenue base and targeted other growing markets; however, the company still lags behind Uber in terms of core ride-hailing market share. Lyft also is not competitive on new technology, including food delivery and autonomous vehicles, two areas of strength for Uber.[19]

Uber officially listed on the New York Stock Exchange on May 10, issuing at $45 per share and raising $8.1 billion for the global ride-sharing leader. The stock price immediately dropped on the first day of trading and has continued to decline at a much more moderate pace than Lyft, but still bringing disappointment to initial investors. Uber's investors still exude optimism, outlining how the company is more than just a ride-hailing app, but is instead becoming a transportation and delivery behemoth, hoping to prove it can transport anything.[20]

Lyft Stock Data – March 29, 2019 to May 29, 2019



Source: CapIQ.

Lyft and Uber – Two Ride-Sharing Industry Titans

	lyft	Uber
IPO Date	March 29, 2019	May 10, 2019
IPO Valuation	$24.3 billion	$82.4 billion
2018 Revenue	$2.2 billion	$11.3 billion
Daily Ridership	1 million	15 million
Geographic Regions	U.S. and Canada	63 countries and 700 cities worldwide

Sources: de la Merced, Michael, and Conger, Kate. "Uber IPO Values Ride-Hailing Giant at $82.4 Billion." The New York Times. May 9, 2019;d
Business of Apps – Lyft and Uber 2018 Data.

Q1 2019: New York Congestion Pricing

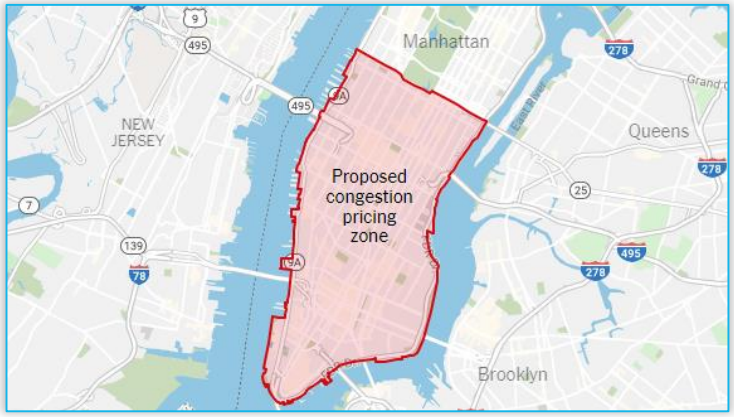
Announcement to Support Public Transit and Cleaner Commutes

In late March 2019, Governor Andrew Cuomo of New York announced a bold new strategy to tackle traffic and congestion in New York City's inner core – a "congestion" fee charged to commuters driving into Manhattan. Rates are expected to be $10 for cars and up to $25 for trucks during peak hours. These prices are estimated to generate $1 billion of revenue for the city, which would be directly invested in highly demanded repairs and maintenance for the subway and other, more environmentally friendly, public transit systems that many commuters rely on every day.[21]

Similar congestion charges have been implemented in many cities globally, notably in Stockholm, Singapore and London, where initial outcries have been quieted by reduced traffic and pollution. London's system was implemented in 2003 and has generated over £1 billion since charging £5 to drivers entering an 8-square-mile area during morning rush hours. According to studies on the project conducted by Transport for London, traffic levels have declined as drivers strive to enter the restricted zone before the charges come into effect, while commute times have remained stagnant – a factor of more spread-out traffic patterns and more people opting for public transit.[22]

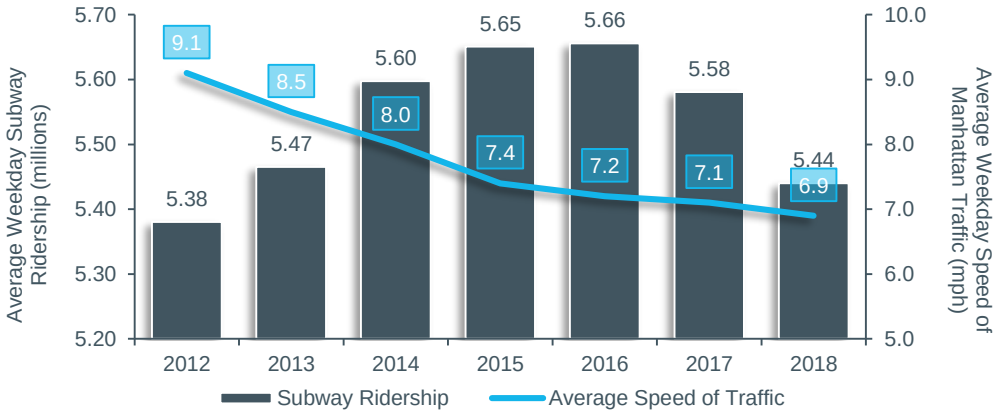
The increasing popularity of ride-sharing apps and the ability to carpool via Uber and Lyft have introduced 80,000 more cars to New York's already chaotic core.[23] These vehicles are subject to an additional flat fee of $2.75 for every ride starting, ending or simply passing through Manhattan, while cab rides are hit with an additional $2.50 base for a minimum fare of $5.80.[24]

Proposed Congestion Pricing Zone



Source: *New York Times*. March 26, 2019.

Subway Ridership Is Declining Even as Traffic Speeds Slow



Sources: MTA – Introduction to Subway Ridership and New York City 2018 Mobility Report.

Q1 2019: The Automobile of the Future

Future Vehicle Trends

As ride-sharing services gain market share and electric and autonomous vehicle technologies continue to improve, the future of mobility seems to be approaching more rapidly than ever.

In the near term, cities and consumers are considering novel approaches to handle urban congestion as well as a willingness to adopt new technologies for environmentally friendly modes of transportation. Numerous governments are implementing taxes on driving during peak rush hours in downtown cores as well as offering incentives for electric vehicles and carpooling. Q1 2019 saw U.S. sales of electric vehicles increase 10.5% Y-o-Y versus the same period in 2018, continuing the trend of growth seen in 2018.[25] Electric vehicle sales globally have taken off in the past year, heavily driven by continued demand in China. BYD, one of the largest electric manufacturer in China, has a dominant market share in the country and recently unveiled six new models at Auto Shanghai 2019 in early May.[26]

Based on KPMG's recent study of global preparedness for autonomous vehicles (AVs), Scandinavian countries and the Netherlands scored strongly while the U.S. ranked fourth overall and No. 1 for innovation, in part due to the efforts to adopt AV-friendly legislation and promote innovation.[31]

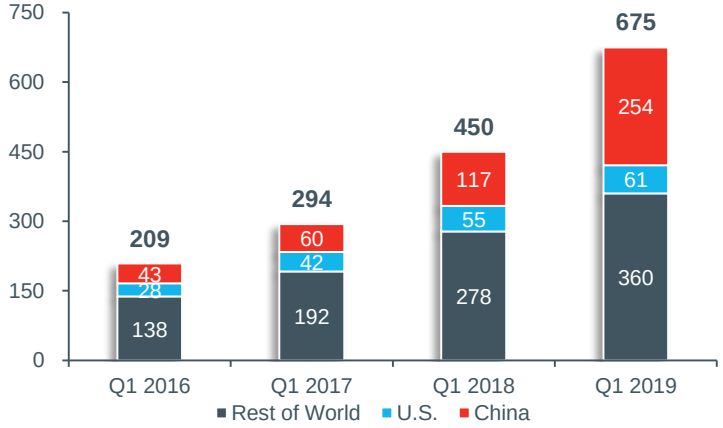
Other notable trends expected as the year unfolds include vehicle-subscription services, which are expected to include over 16.3 million vehicles by 2025.[28] Uber has entered this market with a partnership with Fair, a company that helps rents cars to subscribers, to share the cost burden with drivers and add drivers in cities across the U.S.[29]

Autonomous Vehicle Readiness Index

Country	2019 Score
The Netherlands	25.05
Singapore	24.32
Norway	23.75
United States	22.58
Sweden	22.48
Finland	22.28

Source: "2019 Autonomous Vehicles Readiness Index." KPMG. March 2019.

Electric Vehicle Monthly Sales (Thousands of Units)



Source: "Global Plug-In Vehicle Sales." Electric Cars Report. May 6, 2019.

2019 Q1 Best-Selling Electric Vehicles (Units)

1.	Tesla Model 3	TESLA	50,900
2.	BYD Yuan EV	BYD	24,446
3.	Nissan Leaf	NISSAN	20,813
4.	BAIC EU-Series	BAIC	19,417
5.	BYD Tang PHEV	BYD	14,887

Source: "Monthly Plug-In EV Sales Scorecard." InsideEVs. April 4, 2019.

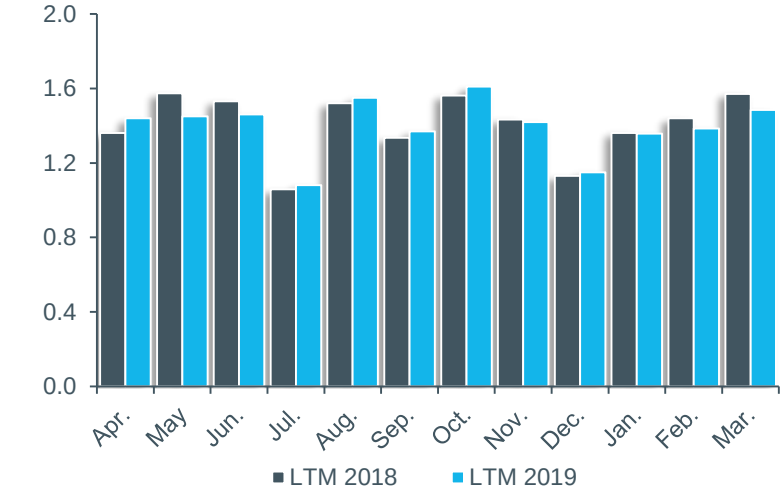
North American Automotive Landscape...

While automotive sales had a poor start to the year, North American sales experienced a modest uptick in March, with a 12-month high of 1.61 million. However, North American light vehicle production dropped off considerably compared to the first quarter of 2018, with a 4.3% decline over the last 12 months.[2] As OEMs remain cautious, U.S. auto inventories have been steadily declining over the past few years and were down to a new low of 713,700 units in March 2019 compared to 1,172,100 in March 2017 and 887,400 in March 2018. This represents the lowest inventory levels since immediately following the recession in mid-2009.[3]

Despite the caution displayed by lower production volumes, automakers continued to invest in the North American electric vehicle market in early 2019, with Volkswagen announcing an $800 million project for a local manufacturing plant. The Tennessee facility will create 1,000 jobs in the area and be fully operational by 2022 in anticipation of a 1 million annual vehicle demand beginning in 2020.[30]

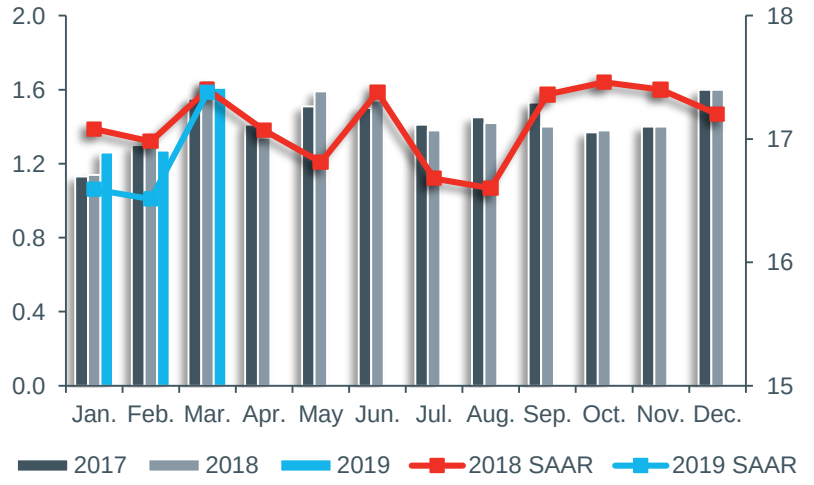
Tariff negotiations continue between the U.S. and China threats of additional duties cast from both sides. With the impending presidential election looming in 2020, many are predicting an announcement of a trade deal closer to the launch of campaigns, while government officials continue to push for a resolution as soon as possible.[31]

Monthly North American Light Vehicle Production (Units)



Source: "North American Light Vehicle Production." WardsAuto Public Data. June 4, 2019.

Monthly U.S. Light Vehicle Sales (Units)



Note: Seasonally adjusted
Source: "U.S. Light Vehicle Sales." WardsAuto Public Data. June 4, 2019.

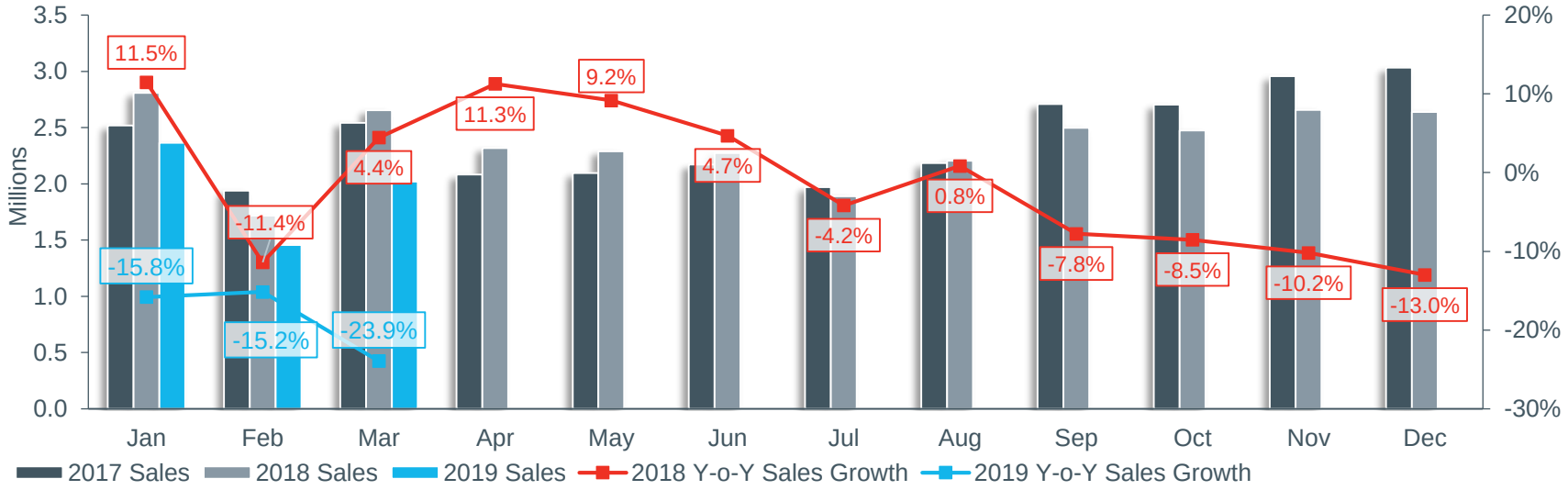
Chinese Automotive Landscape

In Q1 2019, China's auto sales continued to decline in a trend that has not been seen since the early 1990s.[1,4] Sales volume for the first three months of the year was significantly lower over the same period in 2018, with each month's sales in the quarter declining over 15% relative to the first quarter in 2018. Weak sales were driven by a lack of consumer confidence and U.S.-China trade tensions.[32]

Despite the significant drop in light vehicle sales in China, commercial vehicles remain a strongpoint in the market, as sales of trucks and buses rose 2.4%. Electric vehicle sales also continue to surge, with sales of 300,000 EVs, plug-in hybrids and fuel cell vehicles – a 110% increase year over year.[26]

Auto Shanghai 2019 exposition featured a plethora of new and innovative electric vehicle models that look to capitalize on the estimated $18 billion market.[32] The government has utilized incentives to seek goals of reducing dependence on foreign oil and cleaner air, driving the industry to respond with over $60 billion of investment into electric vehicles. As a result, nearly 500 local manufacturers have been subsidized to compete with foreign players and dominate this market, with the goal of 7 million zero-emission vehicles sold by 2025.[26]

Monthly Auto Sales



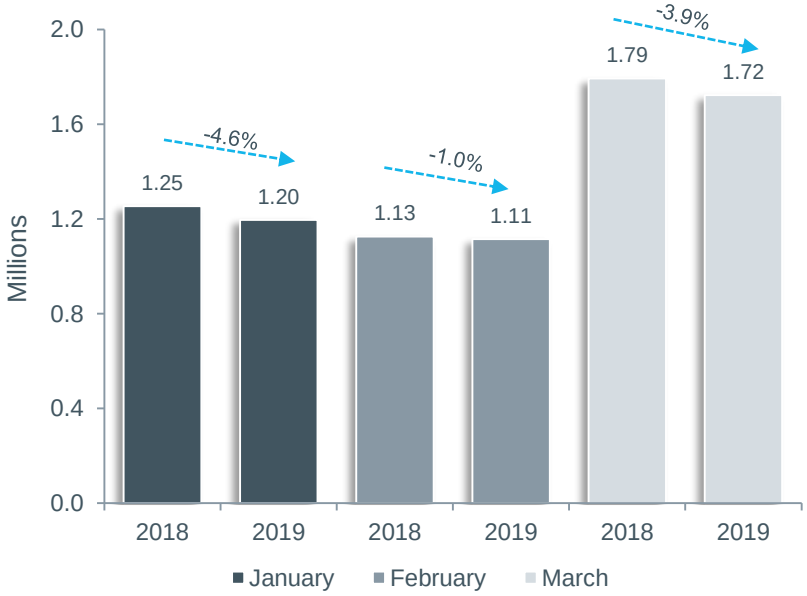
Sources: China Association of Automobile Manufacturers; "China Light Vehicle Sales Update." LMC Automotive Public Data.

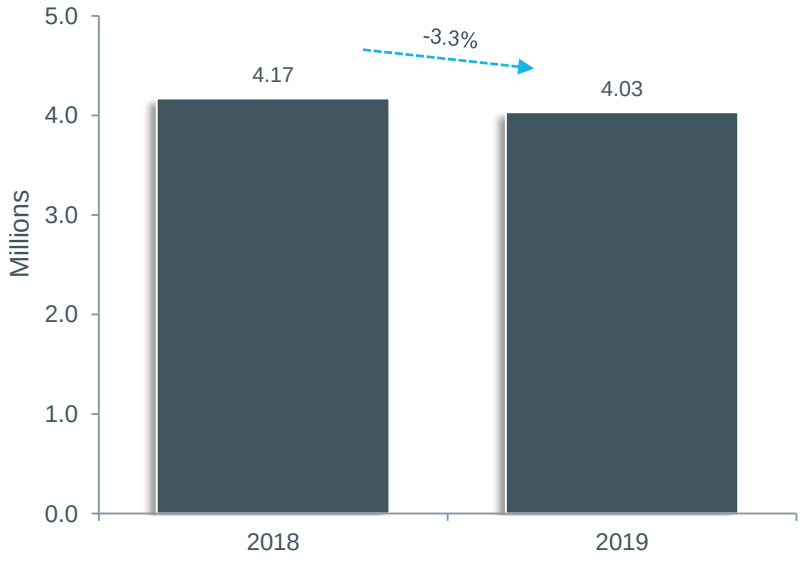
European Automotive Landscape

New passenger vehicle registrations in Europe suffered a weak start to 2019, with monthly declines recorded throughout the first quarter. New registrations decreased 4.6% in January Y-o-Y to 1.25 million, a small pickup from the 1 million recorded in December 2018. Overall, Q1 2019 passenger vehicle registrations in the EU dipped 3.3% compared to Q1 2018, with the decrease led by shrinkage in Spain (-6.9%), Italy (-6.5%) and the U.K. (-2.4%), among others. Through the first quarter of 2019, eight of the 27 countries in the EU demonstrated new passenger vehicle registration declines over Q1 2018, with seven experiencing double-digit declines over that time period.[6]

The U.K. market declined less than some other markets, as many consumers seem to have accepted the uncertainty around Brexit. Concerns persist, however, as the European auto market is tightly integrated between countries, with 54% of U.K.-manufactured cars sold in the EU and 27.4% of EU-built cars imported and sold in the U.K.[33] While negotiations continue to be stalled until later in the year, some suggest that a fallback solution for Britain could be to have EU-U.K. trade temporarily governed by World Trade Organization rules.[34]

New Passenger Vehicle Registrations





Note: Europe is defined as the European Union
Source: "Passenger Car Registrations: -3.3% in First Quarter of 2019; -3.9% in March." European Automobile Association. April 17, 2019.

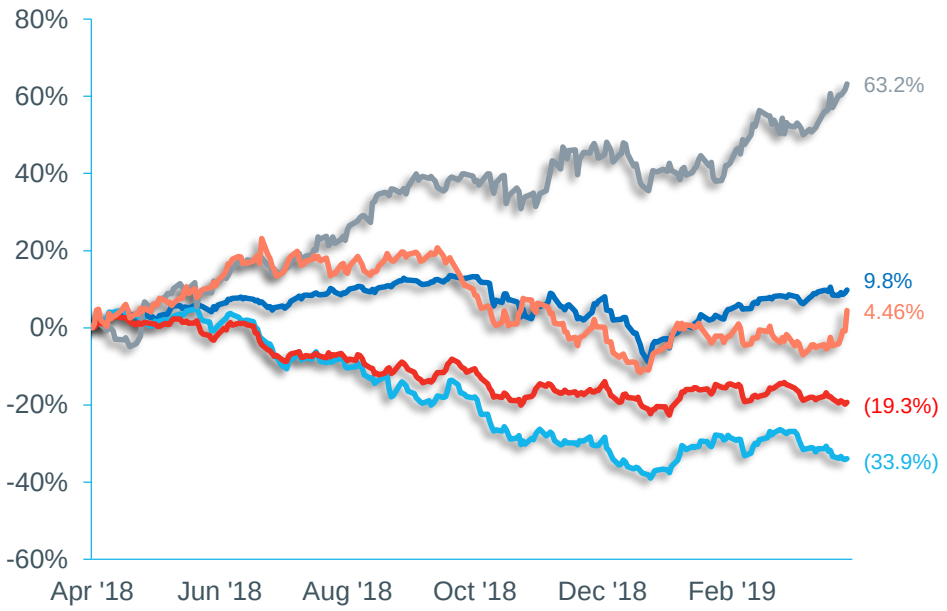
Source: "Passenger Car Registrations: -3.3% in First Quarter of 2019; -3.9% in March." European Automobile Manufacturers Association. April 17, 2019.

Public Company Equity Performance

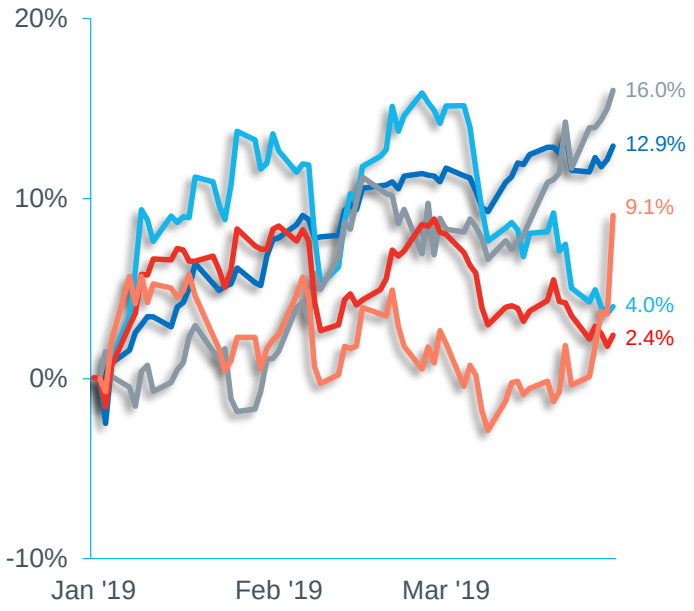
Over the past 12 months and into the first quarter of 2019, Automotive OEMs beat the S&P 500, while Suppliers and Dealers declined over the LTM period despite a modest recovery in Q1 2019. Automotive OEMs experienced a rapid recovery in the past quarter, leading Q1 growth at 16.0%. The Automotive Dealer, Suppliers, and Aftermarket Parts and Repair indexes underperformed relative to the S&P index, although all experienced increases in Q1 2019. However, on a LTM basis, Dealers and Suppliers were significantly hit, by 33.9% and 19.3%, respectively.[7]

All indexes experienced significant volatility in the quarter, especially the dealers segment, which at times significantly outpaced the S&P 500 before tumbling in the final few weeks of the quarter. This was heavily dictated by the poor sales trends, with unexpectedly low new car sales figures reported monthly – hence the drops at the outset of February and March. While select dealers performed well in the quarter, overall the market was hit by declines from the majority of automakers.[35]

LTM March 2019 Equity-Market Performance



Q1 2019 Equity-Market Performance



S&P 500 — Automotive Dealers — Automotive OEMs — Automotive Suppliers — Automotive Aftermarket Parts and Repair

Note: Represents most actively traded public automotive sector companies
Source: S&P Global Market Intelligence as of March 31, 2018.

Public Companies' Trading Statistics

($ in millions, except per-share data)

Company	3/31/19 Stock Price	% of 52-Wk High	% Change from 12/31/18	Market Capitalization	Enterprise Value	Enterprise Value as a Multiple of Revenue 2018A	Revenue 2019E	Revenue 2020E	EBITDA 2018A	EBITDA 2019E	EBITDA 2020E	Stock Price as a Multiple of LTM EPS	Stock Price as a Multiple of 2019 EPS	LTM EBITDA Margin	LTM Revenue Growth
Automotive OEMs															
North American OEMs															
Fiat Chrysler Automobiles N.V.	$14.90	65.9%	4.7%	$23,097	$25,633	0.21x	0.20x	0.20x	2.4x	1.8x	1.7x	5.3x	4.6x	8.5%	4.4%
Ford Motor Company	$8.78	72.3%	14.8%	$35,028	$22,655	0.15x	0.16x	0.15x	1.9x	1.8x	2.0x	NM	7.3x	7.9%	3.0%
General Motors Company	$37.10	82.4%	10.9%	$52,292	$77,233	0.58x	0.53x	0.53x	11.9x	4.9x	4.9x	18.5x	5.6x	4.9%	(0.3)%
Tesla Inc.	$279.86	72.2%	(15.9)%	$48,338	$60,071	2.80x	2.16x	1.83x	NM	18.4x	14.3x	NA	52.7x	7.6%	NM
Asian OEMs															
Faw Car Co. Ltd.	$1.26	79.7%	27.5%	$2,047	$1,550	0.40x	0.36x	0.35x	16.7x	9.5x	7.4x	NM	NM	2.4%	(5.9)%
Geely Automobile Holdings Limited	$1.91	61.0%	8.7%	$17,178	$14,610	0.92x	0.87x	0.80x	6.9x	5.6x	5.2x	9.4x	8.8x	13.3%	14.9%
Honda Motor Co. Ltd.	$27.03	78.1%	3.5%	$47,558	$18,049	0.19x	0.13x	0.12x	1.3x	1.6x	1.5x	NA	7.2x	14.3%	4.9%
Hyundai Motor Company	$105.08	72.2%	0.8%	$22,840	$107,203	1.41x	1.21x	1.18x	28.7x	16.2x	15.3x	40.1x	8.9x	4.9%	1.8%
Nissan Motor Co. Ltd.	$8.20	78.5%	3.2%	$32,068	$8,764	0.09x	0.08x	0.08x	1.1x	1.1x	1.0x	NA	8.2x	8.2%	(0.8)%
SAIC Motor Corporation Limited	$3.88	70.5%	(2.2)%	$45,382	$38,503	0.28x	0.28x	0.27x	6.6x	6.4x	5.3x	8.2x	8.4x	4.2%	12.5%
Suzuki Motor Corporation	$44.20	63.8%	(12.0)%	$20,387	$19,040	0.55x	0.54x	0.52x	3.9x	4.1x	3.8x	8.4x	9.6x	14.0%	6.3%
Tata Motors Limited	$2.52	46.8%	1.0%	$7,979	$15,992	0.37x	0.36x	0.33x	12.7x	3.8x	3.0x	NA	NM	2.9%	12.8%
Toyota Motor Corporation	$58.54	84.4%	1.3%	$165,816	$89,476	0.35x	0.33x	0.33x	2.3x	2.8x	2.7x	9.0x	9.3x	15.4%	2.4%
European OEMs															
BMW AG	$77.50	73.6%	(2.2)%	$50,344	$82,250	1.06x	0.74x	0.72x	6.6x	5.3x	5.1x	8.2x	7.0x	16.1%	(4.5)%
Daimler AG	$58.64	74.9%	13.8%	$62,737	$39,167	0.25x	0.20x	0.20x	2.5x	1.9x	1.8x	8.0x	6.6x	10.0%	1.1%
Peugeot S.A.	$24.40	85.6%	16.6%	$21,801	$13,101	0.16x	0.15x	0.15x	1.5x	1.4x	1.3x	4.8x	6.3x	10.8%	18.5%
Renault SA	$66.12	59.2%	8.0%	$17,756	NM	NM	NM	NM	NM	NM	NM	5.9x	4.3x	8.6%	(2.7)%
Volkswagen AG	$157.49	78.1%	1.0%	$80,530	$21,531	0.10x	0.08x	0.08x	0.7x	0.5x	0.5x	5.1x	4.9x	13.3%	2.7%
Median		**72.9%**	**3.3%**			**0.35x**	**0.33x**	**0.33x**	**3.2x**	**3.8x**	**3.0x**	**8.2x**	**7.3x**	**8.5%**	**2.7%**
Mean		**72.2%**	**4.6%**			**0.58x**	**0.49x**	**0.46x**	**6.7x**	**5.1x**	**4.5x**	**10.9x**	**10.0x**	**9.3%**	**4.2%**

Note: Represents most actively traded public automotive companies; EBITDA and Enterprise Value adjusted for pension liabilities; Enterprise Value adjusted for noncontrolling interests, equity investments and financial services segments.
For definitions, see page 16.
Source: S&P Global Market Intelligence as of March 31, 2019 and company filings.

Public Companies' Trading Statistics

($ in millions, except per-share data)

Company	3/31/19 Stock Price	% of 52-Wk High	% Change from 12/31/18	Market Capitalization	Enterprise Value	Enterprise Value as a Multiple of Revenue 2018A	Revenue 2019E	Revenue 2020E	EBITDA 2018A	EBITDA 2019E	EBITDA 2020E	Stock Price as a Multiple of LTM EPS	Stock Price as a Multiple of 2019 EPS	LTM EBITDA Margin	LTM Revenue Growth
Automotive Suppliers															
Adient plc	$12.96	19.3%	(13.9)%	$1,212	$3,111	0.18x	0.19x	0.18x	4.6x	3.7x	3.0x	NA	5.4x	3.9%	6.1%
Aisin Seiki Co. Ltd.	$35.69	62.4%	3.5%	$9,619	$15,285	0.42x	0.42x	0.41x	3.7x	3.8x	3.5x	8.5x	9.6x	11.2%	5.4%
American Axle & Manufacturing Holdings Inc.	$14.31	74.0%	28.9%	$1,599	$4,940	0.68x	0.67x	0.68x	4.2x	4.1x	4.2x	NA	4.9x	16.2%	16.0%
Aptiv PLC	$79.49	77.0%	29.1%	$20,500	$24,389	1.69x	1.63x	1.53x	10.9x	9.8x	9.0x	17.4x	14.8x	15.5%	12.0%
Autoliv Inc.	$73.53	45.9%	4.7%	$6,413	$8,028	0.93x	0.89x	0.84x	6.4x	6.1x	5.6x	12.6x	10.2x	14.4%	6.7%
BorgWarner Inc.	$38.41	70.7%	10.6%	$7,974	$9,224	0.88x	0.90x	0.85x	5.3x	5.5x	5.1x	8.0x	9.1x	16.4%	7.5%
Continental AG	$150.22	58.2%	11.5%	$30,046	$31,925	0.64x	0.62x	0.59x	6.3x	4.6x	4.2x	9.3x	10.1x	10.1%	0.9%
Cooper-Standard Holdings Inc.	$46.96	32.0%	(24.4)%	$819	$1,413	0.39x	0.41x	0.40x	3.8x	4.4x	4.1x	NA	8.5x	10.2%	0.3%
Dana Incorporated	$17.74	65.4%	30.2%	$2,545	$3,904	0.48x	0.43x	0.42x	4.3x	3.5x	3.3x	5.4x	5.5x	11.1%	13.0%
DENSO Corporation	$38.96	71.5%	(11.8)%	$30,253	$29,411	0.60x	0.60x	0.59x	5.3x	4.8x	4.5x	13.1x	11.3x	11.5%	9.6%
Faurecia S.A.	$42.07	48.7%	13.3%	$5,768	$6,549	0.33x	0.31x	0.29x	3.4x	2.6x	2.4x	6.3x	7.0x	9.7%	3.3%
Lear Corporation	$135.71	65.8%	10.5%	$8,470	$9,254	0.44x	0.43x	0.41x	4.2x	4.2x	4.0x	7.5x	7.5x	10.4%	3.3%
Magna International Inc.	$48.68	74.7%	5.0%	$15,729	$18,024	0.44x	0.44x	0.43x	4.2x	4.1x	4.0x	7.2x	7.1x	10.5%	11.6%
Schaeffler AG	$8.09	51.6%	(5.2)%	$5,389	$8,057	0.50x	0.49x	0.48x	3.4x	3.4x	3.2x	5.3x	5.8x	14.9%	1.6%
The Goodyear Tire & Rubber Company	$18.15	64.0%	(11.1)%	$4,216	$9,384	0.61x	0.60x	0.59x	5.1x	4.8x	4.3x	8.2x	8.2x	11.9%	0.6%
Valeo SA	$29.01	43.4%	1.3%	$6,884	$10,414	0.49x	0.47x	0.44x	4.7x	3.8x	3.5x	10.8x	9.7x	10.4%	3.5%
Visteon Corporation	$67.35	48.3%	11.7%	$1,902	$1,919	0.64x	0.66x	0.58x	6.4x	6.5x	5.3x	11.6x	13.6x	10.1%	(5.1)%
Median		**62.4%**	**5.0%**			**0.50x**	**0.49x**	**0.48x**	**4.6x**	**4.2x**	**4.1x**	**8.3x**	**8.5x**	**11.1%**	**5.4%**
Mean		**57.2%**	**5.5%**			**0.61x**	**0.60x**	**0.57x**	**5.1x**	**4.7x**	**4.3x**	**9.4x**	**8.7x**	**11.7%**	**5.7%**

Note: Represents most actively traded public automotive suppliers.
For definitions, see page 16.
Source: S&P Global Market Intelligence as of March 31, 2019 and company filings.

Public Companies' Trading Statistics

($ in millions, except per-share data)

Company	3/31/19 Stock Price	% of 52-Wk High	% Change from 12/31/18	Market Capitalization	Enterprise Value	Enterprise Value as a Multiple of Revenue 2018A	Revenue 2019E	Revenue 2020E	EBITDA 2018A	EBITDA 2019E	EBITDA 2020E	Stock Price as a Multiple of LTM EPS	Stock Price as a Multiple of 2019 EPS	LTM EBITDA Margin	LTM Revenue Growth
Automotive Dealers															
Asbury Automotive Group Inc.	$69.36	89.2%	4.1%	$1,354	$2,338	0.34x	0.33x	0.33x	7.4x	7.5x	7.5x	9.6x	8.1x	4.6%	6.5%
AutoNation Inc.	$35.72	68.7%	0.1%	$3,217	$5,769	0.27x	0.27x	0.27x	7.5x	6.0x	6.0x	12.4x	8.3x	3.6%	(0.6)%
CarMax Inc.	$69.80	85.5%	11.3%	$11,690	$25,848	1.35x	1.34x	1.26x	18.8x	18.2x	17.4x	14.6x	13.7x	7.2%	6.5%
Group 1 Automotive Inc.	$64.70	79.7%	22.7%	$1,187	$2,493	0.21x	0.21x	0.22x	6.2x	6.6x	6.6x	8.5x	6.9x	3.5%	4.3%
Lithia Motors Inc.	$92.75	87.8%	21.5%	$2,147	$3,499	0.30x	0.29x	0.28x	7.5x	7.4x	7.1x	10.3x	9.0x	3.9%	17.2%
Penske Automotive Group Inc.	$44.65	82.9%	10.7%	$3,757	$4,654	0.20x	0.20x	0.19x	6.8x	5.5x	5.3x	9.3x	8.0x	3.0%	6.5%
Sonic Automotive Inc.	$14.81	62.8%	7.6%	$637	$1,574	0.16x	0.16x	0.16x	6.1x	6.1x	6.0x	14.8x	8.5x	2.6%	0.9%
Median		**82.9%**	**10.7%**			**0.27x**	**0.27x**	**0.27x**	**7.4x**	**6.6x**	**6.6x**	**10.3x**	**8.3x**	**3.6%**	**6.5%**
Mean		**79.5%**	**11.1%**			**0.40x**	**0.40x**	**0.39x**	**8.6x**	**8.2x**	**8.0x**	**11.3x**	**8.9x**	**4.1%**	**5.9%**

Note: Represents most actively traded public automotive dealers; EBITDA and Enterprise Value adjusted for floor plan debt and interest expense.
For definitions, see page 16.
Source: S&P Global Market Intelligence as of March 31, 2019 and company filings.

Public Companies' Trading Statistics

($ in millions, except per-share data)

Company	3/31/19 Stock Price	% of 52-Wk High	% Change from 12/31/18	Market Capitalization	Enterprise Value	Enterprise Value as a Multiple of Revenue 2018A	Revenue 2019E	Revenue 2020E	EBITDA 2018A	EBITDA 2019E	EBITDA 2020E	Stock Price as a Multiple of LTM EPS	Stock Price as a Multiple of 2019 EPS	LTM EBITDA Margin	LTM Revenue Growth
Automotive Aftermarket Parts and Repair															
Advance Auto Parts Inc.	$170.53	91.6%	8.3%	$12,152	$12,301	1.28x	1.26x	1.22x	12.9x	11.6x	10.5x	24.9x	21.0x	9.9%	2.2%
AutoZone Inc.	$1,024.12	99.6%	22.2%	$25,488	$30,352	2.68x	2.58x	2.52x	11.9x	11.8x	11.6x	17.5x	16.6x	22.6%	1.6%
Monro Inc.	$86.52	99.6%	25.8%	$2,864	$3,231	2.70x	2.69x	2.53x	17.1x	17.5x	15.8x	34.2x	36.4x	15.8%	9.5%
O'Reilly Automotive Inc.	$388.30	98.4%	12.8%	$30,438	$33,824	3.55x	3.33x	3.15x	16.2x	15.3x	14.4x	23.9x	21.9x	21.9%	6.2%
Median		**99.0%**	**17.5%**			**2.69x**	**2.63x**	**2.53x**	**14.6x**	**13.5x**	**13.0x**	**24.4x**	**21.4x**	**18.8%**	**4.2%**
Mean		**97.3%**	**17.3%**			**2.55x**	**2.46x**	**2.36x**	**14.5x**	**14.0x**	**13.1x**	**25.1x**	**24.0x**	**17.5%**	**4.9%**

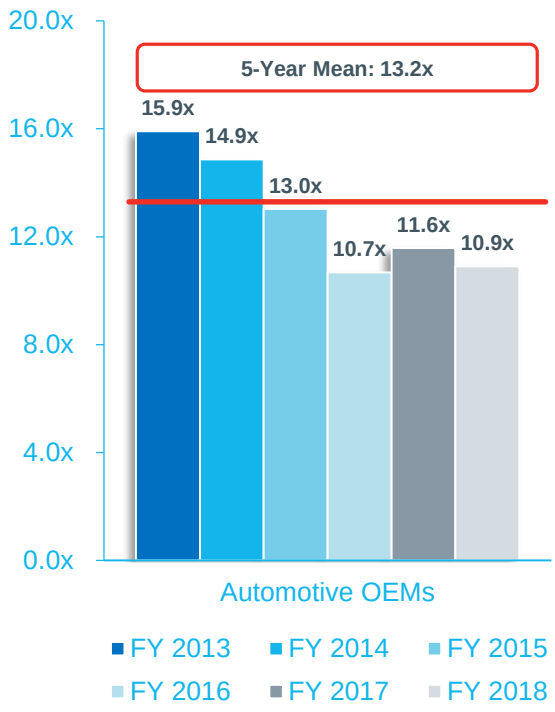
Definitions
EBITDA: Earnings Before Interest, Taxes, Depreciation, and Amortization
Enterprise Value: Market Capitalization + Total Debt + Preferred Equity + Minority Interest – Cash and Short-Term Investments
LTM: Last Twelve Months
EPS: Earnings Per Share

Note: Represents most actively traded public automotive aftermarket companies
Source: S&P Global Market Intelligence as of March 31, 2019 and company filings.

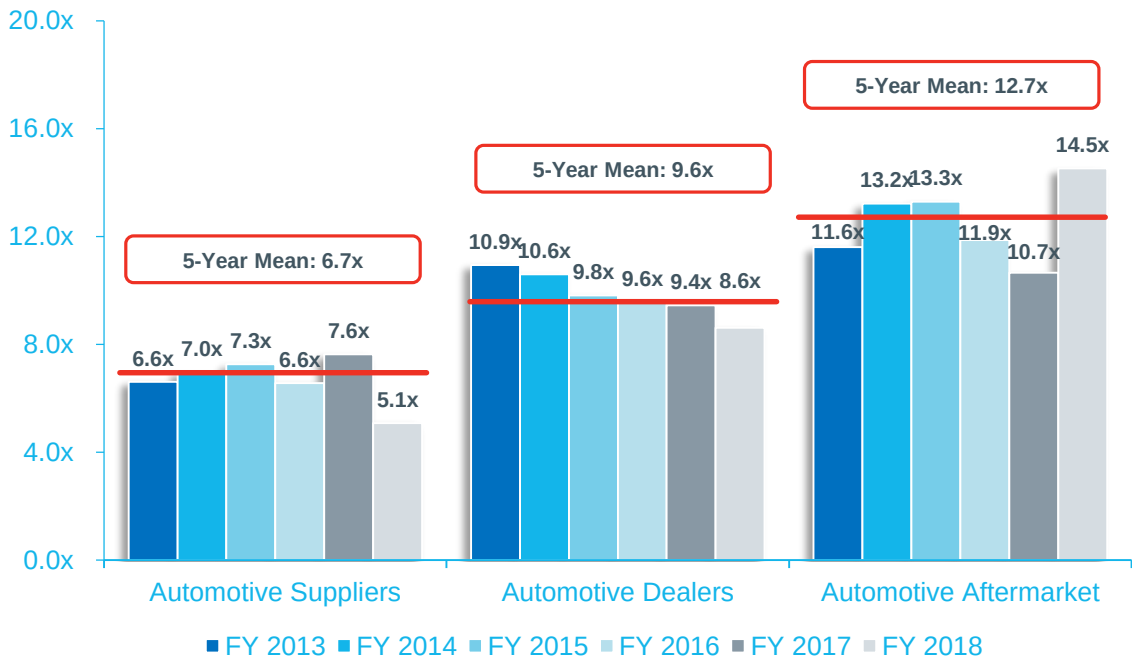
Historical Trading Multiples

On average, Automotive OEMs are trading at 10.9x FY 2018 EPS, over 2.0x lower than their 5-year average price-to-earnings (P/E) multiple. Automotive Suppliers (5.1x) are on average trading at EBITDA multiples just under 2x lower than their 5-year average, whereas Automotive Dealers are approximately 1.0x lower than their 5-year average. The Automotive Aftermarket index is currently trading well above its 5-year average, with strong multiples from Monro and O'Reilly.[7]

Historical P/E Multiples Since 2013



Historical EBITDA Multiples Since 2013

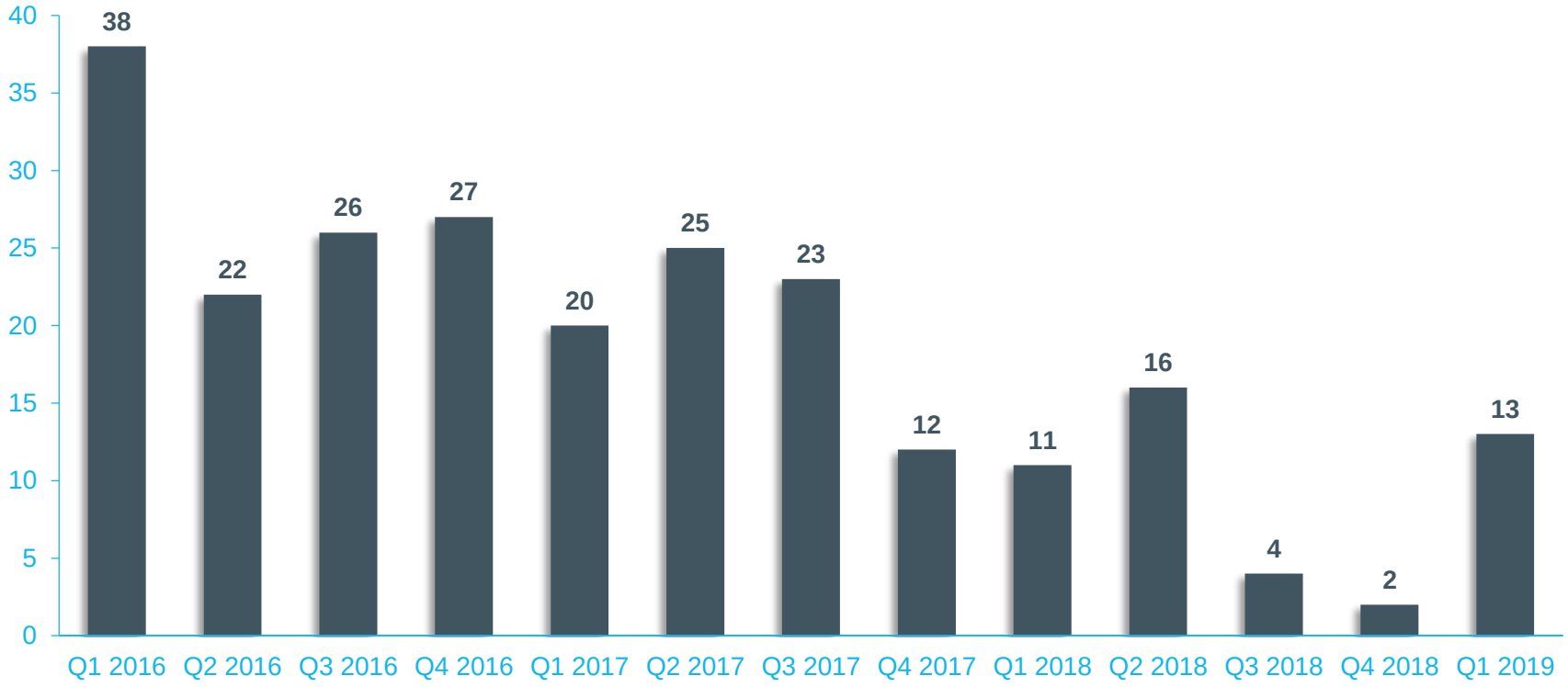


Note: Multiples have been adjusted historically to reflect corresponding adjustments made on pages 13-16
Source: S&P Global Market Intelligence as of December 31, 2018 and company filings.

Q1 2019 M&A Activity by Quarter

M&A activity in the automotive sector bounced back in Q1 2019, with 13 transactions completed in the first quarter of the year. However, with a total of 35 transactions for the last 12 months, M&A activity is still weak compared to recent years. In 2017 and 2016, 80 and 113 transactions, respectively, were closed in the Automotive sector. M&A activity has steadily fallen after a record high number of deals (38) were completed in Q1 2016.[7]

Automotive Industry M&A Trends



Note: All transactions with available target financials
Source: S&P Global Market Intelligence.

Notable M&A Activity

Automotive Suppliers

Selected M&A Transactions

($ in millions)

Announced	Target Name	Target Business Description	Acquirer Name	Enterprise Value	LTM Revenue	LTM EBITDA	EBITDA Margin	EV/ Revenue	EV/ EBITDA
Mar-19	Magna Powertrain Campiglione S.r.l.	Engages in the manufacture and sale of car parts	Hanon System EFP Corporation	$95.8	$218.4	NA	NA	0.44x	NA
Mar-19	Aurangabad Electricals Ltd.	Manufactures and sells automotive components in India and internationally	Mahindra CIE Automotive Limited	$119.2	$113.8	$10.7	9.4%	1.05x	11.1x
Nov-18	UQM Technologies, Inc.	Develops, manufactures, and sells electric motors, generators, power electronic controllers, and fuel cell compressors	Danfoss Power Solutions (US) Company	$100.9	$10.9	NA	NA	9.24x	NA
Nov-18	Öhlins Racing AB	Manufactures suspension systems and components for the automotive and motor sport industries	Tenneco Inc.	$160.0	$130.0	NA	NA	1.23x	NA
Nov-18	Vignal Systems SA	Designs, manufactures and distributes industrial vehicle signalling products and systems to aftermarkets in Europe	EMZ Partners	$134.3	$119.6	NA	NA	1.12x	NA
Nov-18	Agility Fuel Solutions LLC	Designs and manufactures alternative fuel storage and delivery systems, and cylinders for medium- and heavy-duty trucks, buses and specialty vehicles	Hexagon Composites ASA	$248.4	$157.3	$14.7	9.3%	1.58x	16.9x
Aug-18	Grakon Parent Inc.	Designs and develops interior and exterior lighting systems and engineered trim components for original equipment vehicle manufacturers worldwide	Methode Electronics Inc.	$496.6	$155.7	$37.8	24.3%	3.19x	13.1x
Jul-18	Sage Automotive Interiors Inc.	Designs, develops and manufactures automotive interior solutions for automotive manufacturers	Asahi Kasei Corporation	$1,060.0	$474.9	NA	NA	2.23x	NA
			Mean	**$659.3**	**$828.1**	**$156.0**	**11.2%**	**1.85x**	**10.1x**
			Median	**$173.0**	**$155.7**	**$68.0**	**9.3%**	**1.23x**	**11.1x**

Note: Listed transactions represent a select group of most relevant M&A activity in the last twelve months, selecting based on transaction relevance, size metrics and multiple availability.

Source: S&P Global Market Intelligence and company filings.

Notable M&A Activity

Automotive Suppliers

Selected M&A Transactions

($ in millions)

Announced	Target Name	Target Business Description	Acquirer Name	Enterprise Value	LTM Revenue	LTM EBITDA	EBITDA Margin	EV/ Revenue	EV/ EBITDA
Jul-18	Camso Inc.	Manufactures and distributes tires, tracks and track systems, as well as OEM undercarriages for material handling, agriculture and other industries	Compagnie Générale des Établissements Michelin	$1,611.0	$976.0	$136.0	13.9%	1.65x	11.8x
Jun-18	Disc Brakes Australia Pty Ltd.	Manufactures, designs and markets disc brake rotors, brake drums and disc brake pads	GUD Holdings Limited	$15.2	$15.2	NA	NA	1.00x	NA
May-18	Grammer AG	Develops and manufactures components and systems for automotive interiors worldwide	Ningbo Jifeng Auto Parts Co. Ltd.	$1,012.1	$2,196.5	$143.7	6.5%	0.46x	7.0x
May-18	Motec GmbH	Develops and manufactures camera systems for commercial vehicles, construction vehicles and agricultural machines internationally	AMETEK Inc.	$93.0	$35.0	NA	NA	2.66x	NA
May-18	Toledo Molding & Die Inc.	Supplies HVAC, powertrain, and interior/exterior components to customers	Grammer AG	$271.0	$300.0	NA	NA	0.90x	NA
May-18	Valves Business of Sensata Technologies Holding PLC	Comprises mechanical valves and assembles tire hardware aftermarket products for pressure applications in tires and fluid control businesses	Pacific Industrial Co. Ltd.	$173.0	$117.0	NA	NA	1.48x	NA
May-18	EMOSS Mobile Systems B.V.	Designs, manufactures and supplies electric powertrains for trucks, busses, military vehicles and heavy equipment	PCL (International) Holding B.V.	$17.0	$7.0	NA	NA	2.43x	NA
Apr-18	Federal-Mogul LLC	Manufactures and distributes automotive parts, including original equipment powertrain products	Tenneco Inc.	$5,400.0	$8,003.0	$681.0	8.5%	0.67x	7.9x
Apr-18	Reydel Automotive France SAS	Designs, develops, industrializes and manufactures complete and functional modular interior systems for car manufacturers	Samvardhana Motherson Automotive Systems Group B.V.	$201.0	$1,048.0	$68.0	6.5%	0.19x	3.0x
			Mean	**$659.3**	**$828.1**	**$156.0**	**11.2%**	**1.85x**	**10.1x**
			Median	**$173.0**	**$155.7**	**$68.0**	**9.3%**	**1.23x**	**11.1x**

Source: S&P Global Market Intelligence and company filings.

Duff & Phelps' Recent Transactions

Board Advisor

BMW Group and Daimler AG combined their mobility services in an equally owned joint venture

Sell Side Advisor

has been acquired by

ANGELES EQUITY PARTNERS

Fairness Opinion

has acquired

Power Solutions business

Sell Side Advisor

has been acquired by

MONOMOY CAPITAL PARTNERS

Fairness Opinion

has announced a transaction to be acquired by

Fairness Opinion

has been acquired by

Sell Side Advisor

has been acquired by

Solvency Opinion

Tekfor Global Holdings completed an internal restructuring

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Contact Us

North America

Mark Kwilosz
Head of North American Automotive M&A Advisory
Chicago
+1 312 697 4677
mark.kwilosz@duffandphelps.com

Steve Burt
Global Head of M&A Advisory
Chicago
+1 312 697 4620
steve.burt@duffandphelps.com

David Althoff
Global Head of Diversified Industrials M&A Advisory
Chicago
+1 312 697 4625
david.althoff@duffandphelps.com

Victor Caruso
Managing Director, M&A Advisory
New York
+1 212 871 2544
victor.caruso@duffandphelps.com

Howard Johnson
Managing Director, M&A Advisory
Toronto
+1 416 597 4500
howard.johnson@duffandphelps.com

Europe

Andreas Stoecklin
Country Head of Germany
Frankfurt
+49 697 191 8466
andreas.stoecklin@duffandphelps.com

Klaus Pflum
Senior Advisor, Corporate Finance
Munich
+49 893 8888 4110
klaus.pflum@duffandphelps.com

Paul Teuten
Managing Director, M&A Advisory
London
+44 (0) 20 7089 4840
paul.teuten@duffandphelps.com

Asia

David Lu
Managing Director, M&A Advisory
Shanghai
+86 21 6032 0608
david.lu@duffandphelps.com

Andy Watanabe
Managing Director, Valuation Advisory
Tokyo
+81 (0)3 3593 0101
atsuo.watanabe@duffandphelps.com

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