The Big Read **Electric Vehicles**

# Carmakers face threat from new drivers of profit

As vehicle ownership declines, industry leaders risk becoming low-margin businesses but their suppliers are in ever greater demand

9 HOURS AGO by: Patrick McGee

When General Motors spun off its car parts supplier in 1999, the idea was to unburden itself from a low-margin, commoditised business.

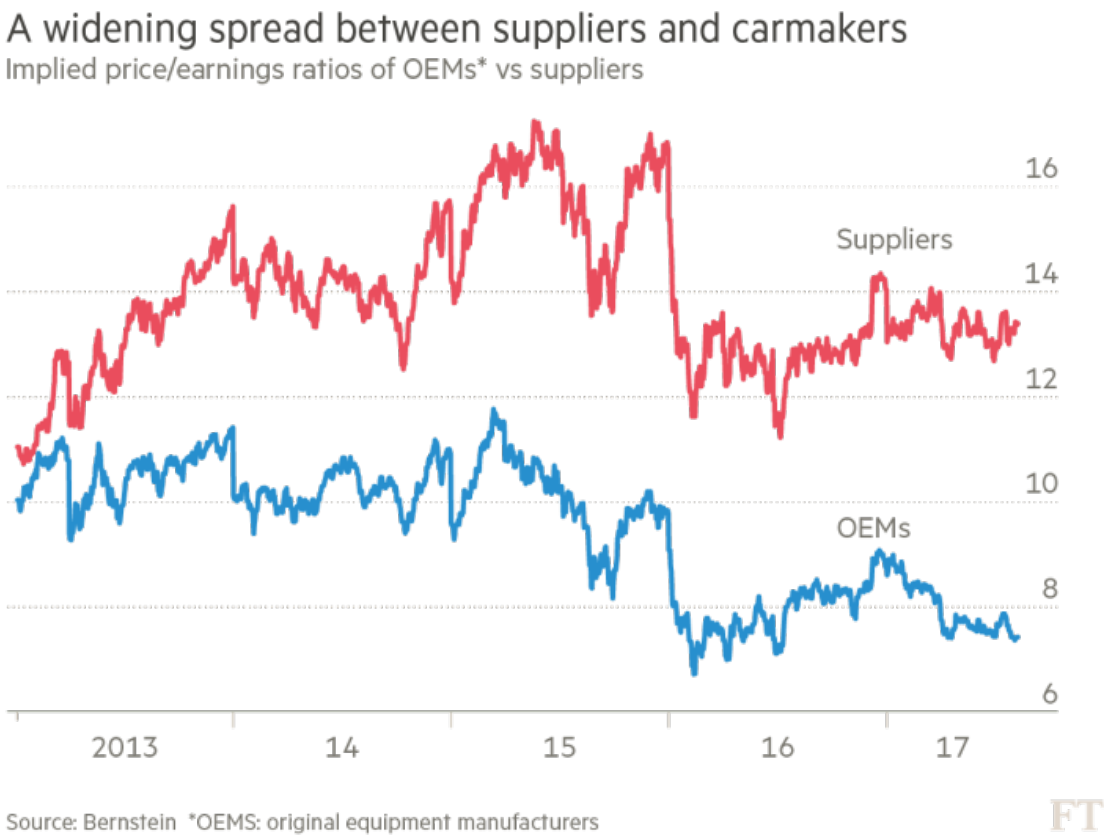
Then the world's largest carmaker, GM wanted to focus on the part of the industry where it believed the real value lay — building vehicles and marketing them directly to the consumer.

As cars evolve into smartphones on wheels, and ride-sharing takes the place of vehicle ownership, the balance of power in the auto industry is undergoing a fundamental shift at the expense of the likes of GM, Ford, Honda and BMW — and in favour of the once unfashionable parts suppliers.

Judging by recent developments, many of the world's biggest carmakers are lurching from one setback to another. The big three in Germany — Volkswagen, Daimler and BMW — face accusations that they held secret meetings over a number of years to collude on technology. In the US, Tesla has won blanket free advertising in the media for its new electric car, the Model 3.

Yet the established companies face an even deeper dilemma that goes to the core of their business model. There is a growing fear that carmakers will be shut out from selling vehicles to individual buyers, as ride-hailing apps — soon to feature self-driving vehicles — displace car ownership. Their new buyers will instead be fleet services that can purchase in bulk at lower prices, robbing carmakers of their brand value.

"The carmakers will be like the cell-phone handset providers, only worse," says Bob Lutz, former vice-chairman of GM. "Module production will be as profitable as lead-acid car batteries: lousy. A commodity. Suppliers are pretty much insulated; they really have no 'brands', so nothing much changes for them."




For the time being the industry's value lies with the carmakers. But investors are more confident in the future of suppliers such as Delphi — the unit spun off by GM — Bosch, Valeo and Continental, which have stepped up their game in technology, electronics and the safety features that are seen as critical for what Bosch calls "vision zero": zero emissions, zero accidents and zero stress.

Thousands of suppliers have long played a pivotal but unglamorous role in the production of vehicles. Today their components account for more than 70 per cent of a car, up from 40-50 per cent in the early 1990s, according to industry experts. Their share has grown as cars have become more technologically complex, requiring niche expertise.

In the late 1990s, the introduction of stringent "Euro 2" environmental standards was a threat to carmakers, but a boon to suppliers. As the former pushed to make diesel-engine cars mainstream to cut carbon dioxide emissions, they shifted more of the value-added systems to third parties.

"Carmakers felt threatened," says Axel Höfer, managing director at Goldman Sachs. "Diesel was viable because it produced less CO2. But power-train technology became more complex. It's tough to do everything by yourself."

A test driver in a Tesla Model S electric car that is fitted with self-driving technology © Bloomberg

In Germany, Audi, BMW, Daimler, Porsche and VW even took the step of establishing the first combined research institute of its kind to advance "pre-competitive" technology for emission control systems.

The pressure grew so great to maintain control of this technology that the five companies may have illegally crossed the line into collusion — according to allegations made in German weekly Der Spiegel last month. Brussels is investigating the case.

The shift to suppliers is likely to accelerate as the differentiating factor between cars moves from power-trains, which includes the engine and transmission, to software and electronics.

"These three megatrends — electrification, car sharing and autonomous driving — change the business model for the [carmakers] more than they do for the suppliers," says Wolfgang Schäfer, chief financial officer at Continental, Europe's largest listed supplier.

Just five years ago carmakers and suppliers had roughly the same price-to-earnings ratios. But carmakers' valuations have fallen from double digits to just 7.4 times this year's earnings, while big suppliers' valuations have increased to 13.4 times, Bernstein data show.

The growing divergence might seem peculiar, given that both groups are subject to the same cyclical factors, such as a recession or a slowdown in car sales. But investors are, in effect, betting that the sum of an automobile's parts are worth far more than the whole.

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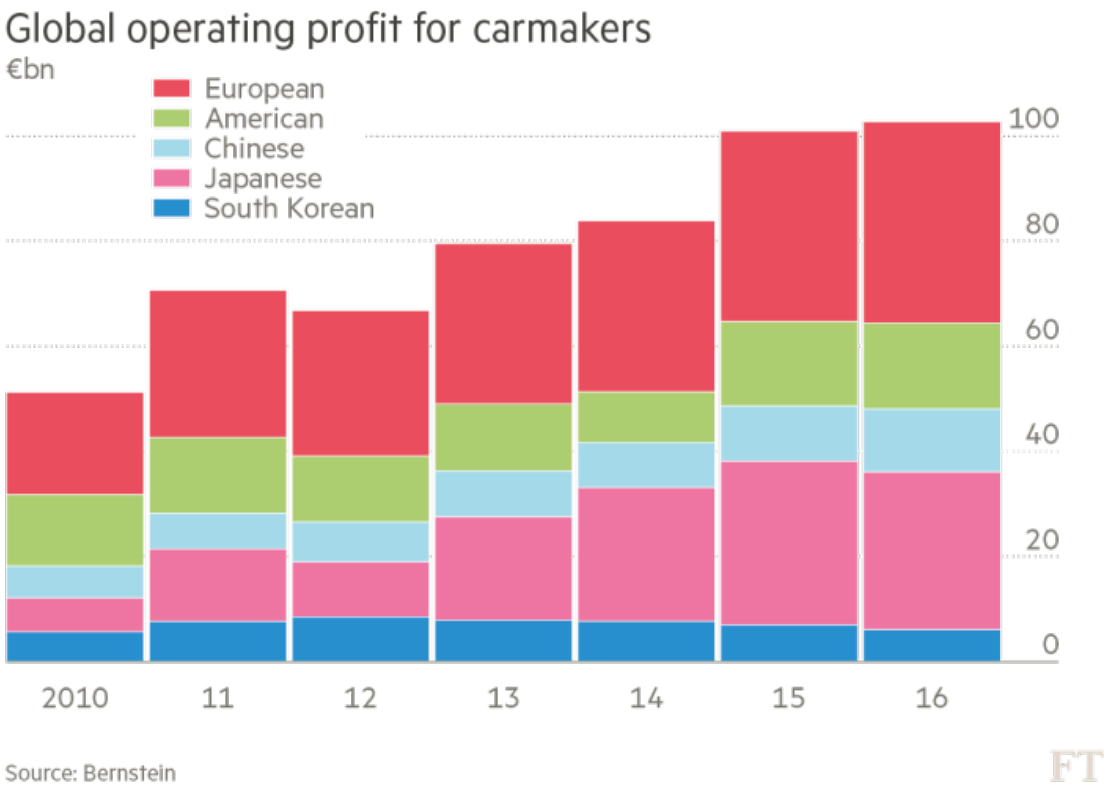
The shift has not occurred yet. Operating margins at European carmakers are at their highest since 1990 and global production has increased since 2009. Thanks to a booming market in China total sales are forecast to rise from a record 92m last year to 114m in 2024, according to consultants AlixPartners.




Carmakers have thrived. Global operating profit doubled from 2010 to last year, hitting a record €102.7bn. In the US, GM posted $9.4bn in net profit, achieving record earnings per share after selling 10m cars for the first time. But its stock trades at a depressed multiple of 5.6 times 2017 earnings — making it one of the least valued companies in the S&P 500.

Goldman's Mr Höfer explains the low valuations by pointing to how the rise of electric cars will turn carmakers' unique selling point — the internal combustion engine — into a liability. Carmakers must ramp up investment, while engines, transmissions and exhausts will increasingly be replaced by batteries imported from Asia, lowering the barriers to entry for newcomers — as Tesla in the US has already shown.

Many suppliers are unaffected by these trends, and some will thrive. Whether cars are shared or autonomous, they still need brakes, windows, doors and tyres, plus a host of new semiconductors, electronic gadgets and safety features that make up the 30,000 parts that go into a typical car. Researchers at consultants Strategy& estimate that new features such as haptic sensors and infotainment systems will account for 20 per cent or more of a car's value by 2019, up from 13 per cent in 2015.

Arndt Ellinghorst, analyst at Evercore ISI, says investors turned bullish on suppliers two to three years ago as their earnings started to grow. The VW diesel scandal magnified the divergence. "The supplier in the value chain has become more important than it ever was before," he adds.

In its annual car report published last month, AlixPartners lists 16 parts of a vehicle that will see "significant upside": 14 of them are dominated by suppliers.

## The drive for value

A TDI diesel engine on display at an Audi launch. German car manufacturers have faced claims that they colluded on technology © Bloomberg

**€102.7bn** *Global operating profit for carmakers last year — a record and a doubling in value from 2010*

**10m** *Cars sold by GM last year, but its shares trade at a depressed multiple of 5.6 times 2017 earnings*

**$31bn** Value of autonomous driving and assistive safety market in 2015. It is set to triple in value by 2025

**$1.5tn** *McKinsey estimate of automotive revenue from car-sharing by 2030, up from $30bn now*

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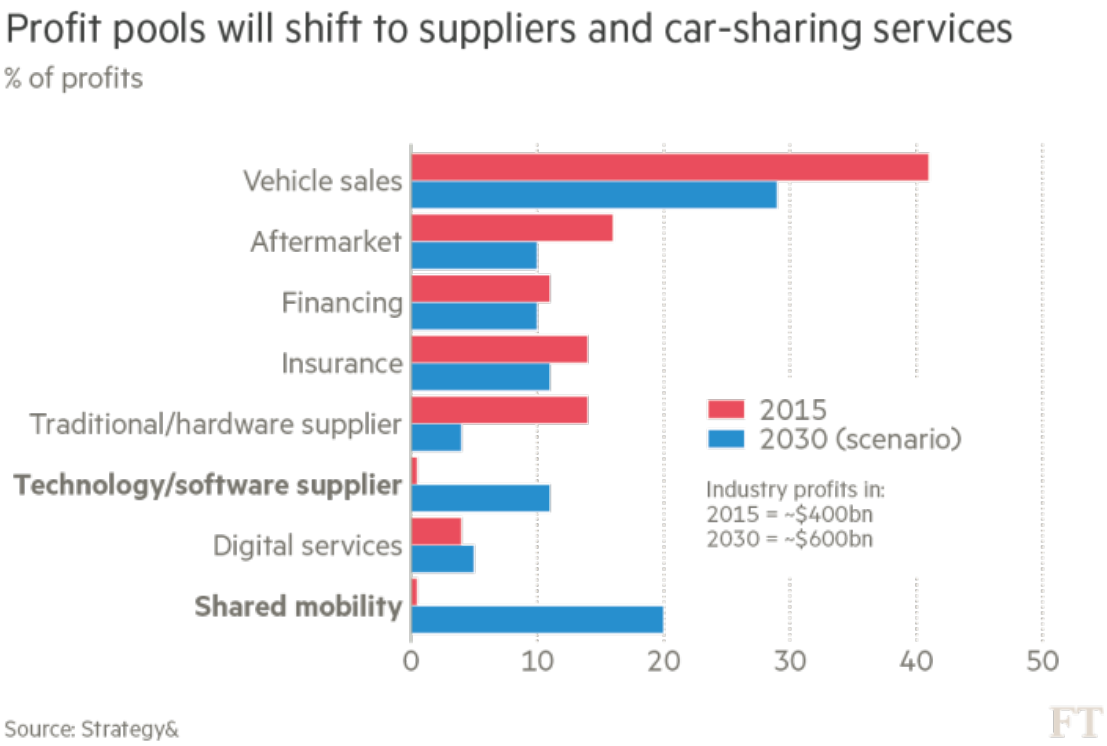
**One central area for** growing demand is autonomous driving and assistive safety features — a $31bn market in 2015 that is set to triple in value by 2025, according to Strategy&. Last year the number of cars produced with collision avoidance systems was under 11m; that number should rise to nearly 86m by 2020, as regulations on automated emergency braking are introduced, believes Gartner Research.

“It’s additional sales potential for the whole industry, but lots will be for suppliers,” says Continental’s Mr Schäfer. “We are talking about additional products in the car. It’s not that we are replacing existing elements.”

Safety features today typically add up to about $2,500 to the cost of a car, he says. That is likely to rise to between $3,000 and $3,500 in the coming years.




Even seat makers will be in a comfortable position by adding swivel features for front-seat passengers in autonomous vehicles who want to switch directions, says Sarwant Singh at Frost & Sullivan. “There is always new business everywhere, you just have to go out and grab it,” adds Dietmar Siemssen, chief executive of Stabilus, a Luxembourg-based supplier.

Stabilus supplies electromechanical drive systems to Tesla that allow the “Falcon” doors on its Model X sport utility vehicle to open automatically. With the advent of self-driving technology, such automatic doors will become a “must-feature” for safety reasons.

“If your door is not properly closed and your self-driving car hits a tree on the first turn, that’s not good,” Mr Siemssen says. “So for us, who are able to do electric doors, it’s a revolution.”

A Bosch worker supervises the etching process of semiconductor manufacture at a factory in Renningen, Germany © Bloomberg

Meanwhile, carmakers face structural disadvantages. Suppliers operate in a business-to-business environment that requires little advertising other than a presence at trade conferences, whereas carmakers spend more on ads than any other industry.

GM spent $5.3bn on ads last year, while Delphi's outlay was $123m, according to Schonfeld & Associates. The total ad budget for 14 major suppliers tracked by Schonfeld was $1.25bn, or 0.7 per cent of sales. The 12 big carmakers spent $42bn, or 2.8 per cent of sales.

"It's a burden on [the carmakers]," says Mr Ellinghorst. "That's part of the reason why suppliers are doing better."

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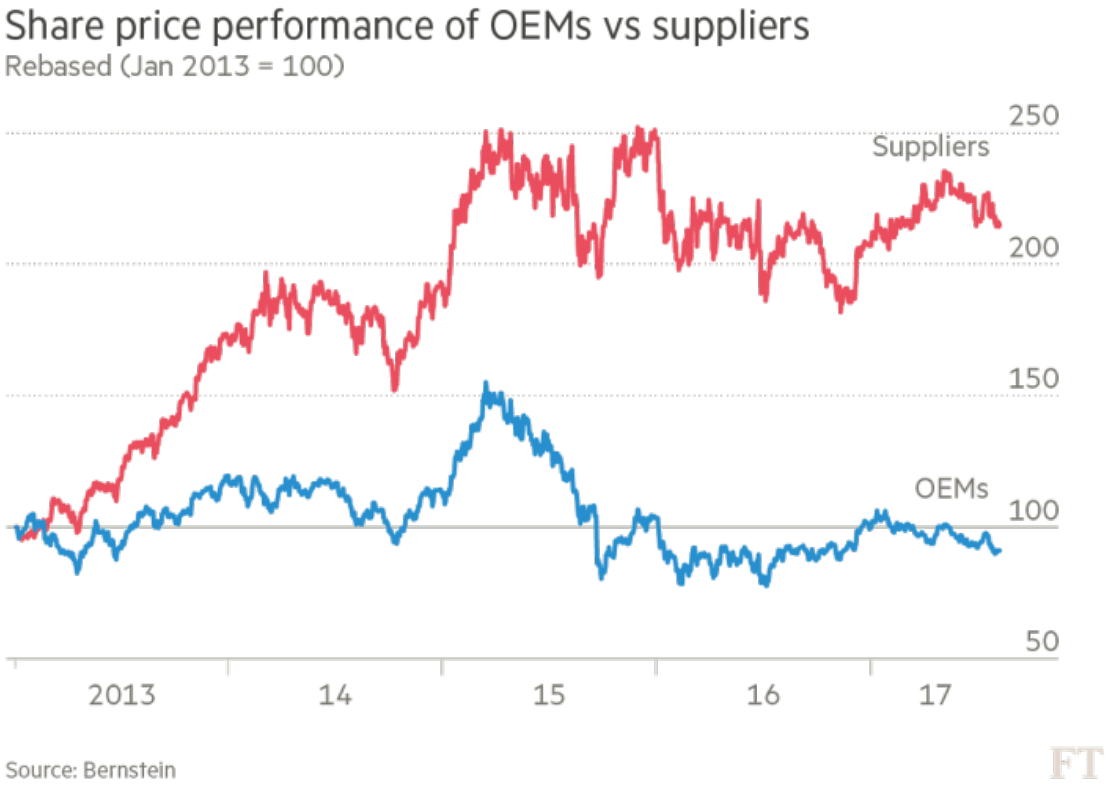
Despite these structural challenges, plenty of experts believe the bearishness on carmakers is signalling a big investing opportunity. "Markets are ignoring the sales numbers, the balance sheet strength, and the technical expertise these companies have," says Michael Muders, portfolio manager at Union Investment.




According to Barclays, VW should generate net profit equal to its current market value — nearly €70bn — by 2021, even as it spends €65bn on research and development and grows its cash pile by another €8bn. "We don't know when investors will wake up to this," says Kristina Church, a Barclays analyst. "We've been bullish [on carmakers] for 12 months."

Ms Church is convinced an "inflection point" is coming that will erode the valuation gap between carmakers and suppliers, once the markets recognise the technology held by the carmakers. The challenge, she adds, is for carmakers to make sure that even as they rely on batteries for electric cars, they remain in control of the intellectual property in the power-train, including "critical" battery thermal management systems.

Mr Lutz, by contrast, says the carmakers' business model is "doomed" but holds out hope they can "capture the downstream value" by becoming a platform for shared, autonomous vehicles, coupling their hardware and software expertise to run mobility services.

A concept car showing a Bosch dashboard that could be used for sending emails or video-chatting as soon as the vehicle senses it can switch to automatic driving © Bosch

Most auto executives agree. In a recent KPMG survey, 59 per cent said "half of today's car owners" will not want to own a car in 2025 and 85 per cent agreed "the digital ecosystem will generate higher revenues than the hardware of the car itself". McKinsey adds that automotive revenue from car-sharing could rise from $30bn to $1.5tn by 2030.

Carmakers are launching their own mobility services, or buying stakes in them, underscoring a recognition that their core competencies must change. GM has a stake in ride-hailing app Lyft and owns car-sharing service Maven.

So far, that has made no difference on the stock market. But Mr Lutz says GM is "way better placed than Tesla — more prepared for the future", and at some point the stock market might see it. "Ultimately, the fundamentals will prevail," he says. "But today's investors have no patience for ultimately."

Employees work on a Volkswagen e-Golf electric car in Germany © Bloomberg

## Changing gear: demand for automotive technology drives M&A

Competition among suppliers is intense. The sector has seen a wave of “unprecedented” merger and acquisition activity that consultant Strategy& expects to continue.

Suppliers that invest in the wrong areas will be hit hard. Just ask Torotrak, the UK-based engineering group that spent six years on a project to boost the power of mechanical engines, before shelving it this year. Its shares are down almost 90 per cent in the past 12 months.

However, many major parts suppliers enjoy “oligopolistic positions” with no more than two or three competitors, according to Jefferies. And those nimble enough to keep up with trends are competing for a growing slice of the pie. Not only because car sales are rising, but because the proportion of their kit within each car is growing.

“The industry has been relying heavily on the innovation power of their supplier partners,” says Klaus Stricker, head of the global automotive practice at Bain & Company. “And when you think about connectivity, digitisation, autonomous driving, this will increase rather than decrease.”

Even under the hood, US-based propulsion systems maker BorgWarner sees no existential threat from the shift to electric cars, even though its focus has always been on internal combustion engines.

Last year, BorgWarner provided technology for nearly half of all new cars, at an average cost of $185 apiece. By 2023, it hopes to equip 42 per cent of the 18m hybrid vehicles that will be sold, at an average price tag of $225.

Although BorgWarner faces stiff competition to meet these targets, its core purpose “remains unchanged”, says Frederic Lissalde, president of turbo systems. “Our goal is to move cars from point A to point B, whether it’s connected, shared, autonomous, or none of those three.”

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