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# 2020 Automotive Outlook

The credit outlook is negative as automakers face twin financial challenges: the cost of the transition to electric vehicles and declining sales volumes.

Corporates, Scope Ratings GmbH

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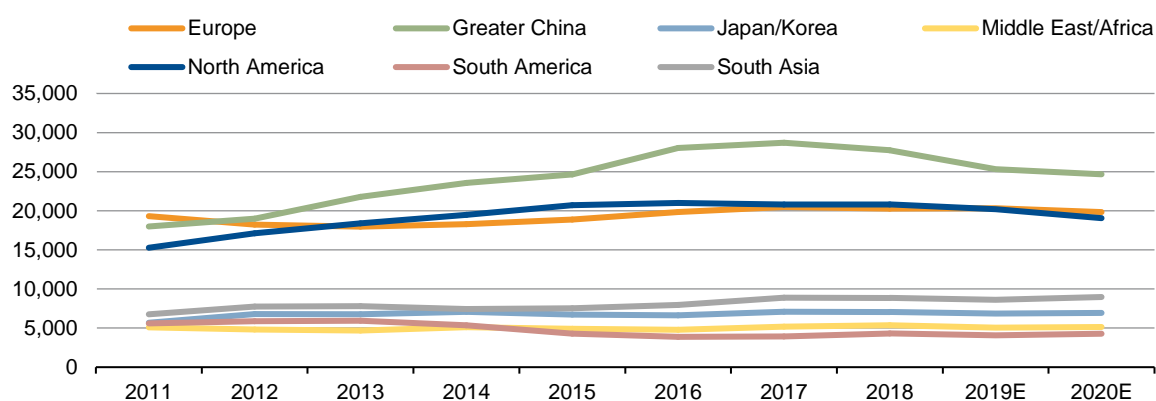
## Executive summary

**The credit outlook for the automotive sector in 2020 is negative. Automakers face twin short-term challenges: the transition toward producing a higher share of electric vehicles in response to tightening emission legislation and declining volumes in their biggest markets: Europe, China, US.**

Higher costs related to electrification, investments in autonomous driving, and lower volumes in 2020 will leave their mark on profitability. However, most manufacturers have the buffer of adequate financial resources and sufficiently low leverage to cope with these secular and cyclical trends.

Global sales of light vehicles will decline by about 2% in 2020 after an estimated decline of 4% in 2019.

**Figure 1: Global automotive sales volumes (thousands of units)**



Source: LMC Automotive, Scope Ratings

The main trends we expect for 2020 are:

- Europe, US, China face a slowdown in sales volumes 2020, with the largest decline in the US light-vehicle market.
- We see no rebound in the Chinese market in 2020: we forecast a further decline.
- The mature Western European market has almost reached pre-crisis (2007) volumes.
- The transition towards a higher share of electrified vehicles in 2020/2021 to comply with more stringent emissions legislation, principally in Europe, will leave its mark on original equipment manufacturer (OEM) profitability.
- Tariff risks are not off the table, notably in Europe.
- Most OEMs will benefit from a long-standing strategy to keep leverage at low levels. Companies are well prepared financially (liquidity, leverage) to weather the transition toward electrification and autonomous driving.

### Scope Corporate Ratings

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## Key themes for 2020

### Light vehicle markets outlook by region, market shares; auto suppliers; financial services; credit outlook

#### Outlooks by region

##### North America / U.S.

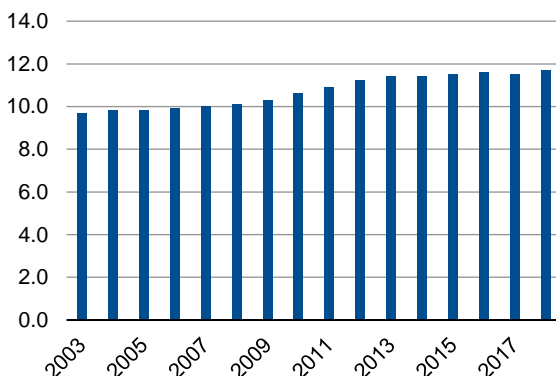
We expect the North American light vehicle market to have declined by about 2% in 2019 and expect a further decline of 5% in 2020. The key driver for this is the weakening US market, despite a measure of resilience, partly reflecting record-high incentives offered in the final months of the year. The market has outperformed expectations for the past two to three years.

The US market has reached a cyclical peak and our scenario of a further decline in volumes remains intact, based on the following:

**Market saturation:** Volume growth in the US market over the years 2010-2017 was strongly supported by a combination of declining and very low interest rates, ample availability of credit, replacement demand, a favourable labour market and manufacturer incentive programs.

The one-time effect of replacement purchases for vehicles destroyed during the hurricanes Harvey, Irma and Maria in autumn 2017 helped underpin sales that year. Hurricanes in 2018 (e.g., Florence, Sept. 2018) have not added the same magnitude of damage-related replacement demand, but the tax cuts enacted in the US in early 2018 have certainly helped volumes in 2018 and 2019. Possible but marginal support for light-vehicle sales may still come from replacement demand given the above-average age of the car fleet in the US (11.6 years by the most recent reading).

**Figure 2: Average fleet age, light vehicles, US (years)**



Source: Statista, Scope Ratings

**Rising auto loan rates and peak employment:** We see the supportive financing conditions of the past few years (low auto loan interest rates, extended financing

periods, risks appetite by car financial companies and lenders in general) gradually coming to an end.

Tightening of consumer/auto credit including tighter underwriting by car-financing companies, combined with rising interest rates should reduce affordability of new car purchases and may have a negative impact on the OEMs' vehicle mix. Finance rates are an important factor in the US light-vehicle market because of the high share of vehicle purchases financed with consumer credit. About 85% of all new vehicles are financed – the highest reading in the US for a decade.

An increase of auto loan rates by 100 basis points leads to an estimated increase of monthly instalments of about USD 25-100, depending on the type vehicle.

Average interest rates on new vehicle loans hit the highest level in a decade (6.4%) in April 2019 according to Edmunds and interest rates of 6% for new car financings are viewed as the new normal following a period of new vehicle auto loan rates at around 4%. As Volkswagen has pointed out, the favourable labour market in the US combined with greater purchasing power from the tax reform early 2018 largely compensated for the increase in financing costs from higher auto loan rates in the period 2018/2019.

Strong job growth over the past years, and low unemployment levels also suggests that any further improvement in the labour market will not provide much extra stimulus for demand for new cars.

Fleet sales (large fleets) are currently running at 3.2m units, slightly above the normal average of 3.0m and we would not expect the fleet market to be a significant support in terms of volumes in 2020.

**Vehicles coming off lease:** The US market enjoyed high single-digit growth rates in the years 2013-2015 and peaked at a volume of 17.6m units in 2016. Consequently, and considering the typical duration of auto leases of 3-4 years, we see a significant number of passenger cars and trucks to come off lease in 2020.

Very popular SUVs and cross-over utility vehicles (CUVs) from 2014/2015 such as the Ford F-150, Cadillac Escalade, Chevrolet Silverado, Chevrolet Colorado are about to "enter" the used car market following lease expiration.

We continue to see some "excess supply" of 500k vehicles off lease in 2020, possibly dragging down used car prices. This, with the absence of higher purchase incentives offered, may reduce demand for new light vehicles.

Lower residual values and availability of a broad range of used popular vehicles could make new vehicle purchases less attractive.

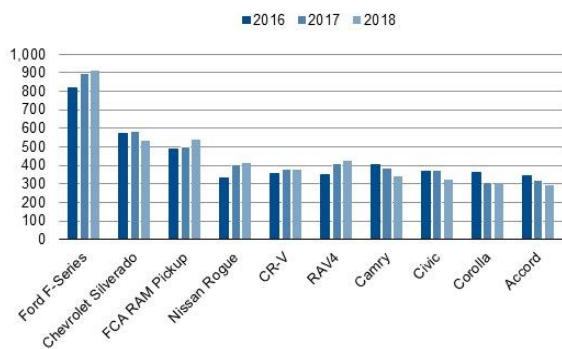
**Trend towards SUVs favours Detroit Big 3:**

The preference of US consumers for light trucks (SUVs, pick-up trucks and crossovers) continued in 2019.

The split of light trucks/SUVs to passenger cars (sedans/coupes/station wagon etc.) was about 70%/30% in 2019, similar to the 70%/30% split in 2018 and significantly different from the 50%/50% light trucks/SUVs versus passenger cars split in the market observed in 2013 and preceding years. The accelerated demand for SUVs, CUVs, and light trucks is supported by improved fuel consumption of those “larger” cars while possibly also a reflection of lower oil prices.

Natural beneficiaries of the trend are the Detroit 3 - General Motors, Ford Motor Co., FiatChrysler Automobiles – whose product offering is geared more towards the light-truck/SUV segment. The best-selling sedans such as Camry, Civic, Corolla – made by Toyota Motor Co. – and Honda’s Accord have seen a gradual decline in market share over the past few years. Individually, the volumes of those models remain, however, at high levels (> 300k units per year).

**Figure 3: Best-selling vehicles in the US market (thousands of units)**



Source: Auto OEMs, Scope Ratings

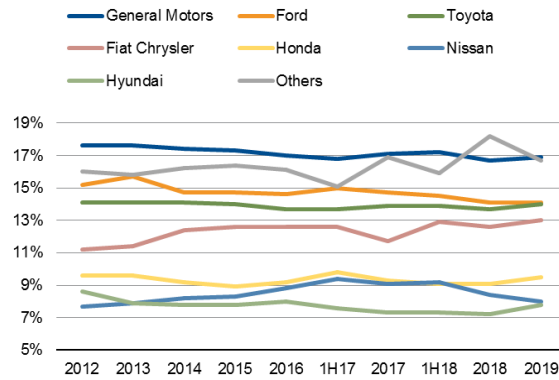
Market shares and market-share changes in the US have been quite moderate over recent years. Except for the Hyundai-Kia tandem, with slightly sliding market share given the narrower SUV focus in the product portfolio, and rising share of the “other” car maker - which includes Tesla Inc. but also Volkswagen AG, Daimler AG, BMW AG, Subaru, Mazda - we observe a fairly stable US market.

Following key product launches such as Jeep Compass, Wrangler, Ram 1500, FiatChrysler’s share has moved back to the long-term average.

Market shares and market share movements must be interpreted in conjunction with the product launches/facelifts of the respective OEMs with two exceptions: the loss of market share of OEMs currently more focused on the passenger car market rather than light trucks/SUVs/CUVs; and the share of vehicles grabbed by electric-car pioneer Tesla. Otherwise, we have not observed significant shifts in market shares. We continue to caution against “over-interpreting” market share data. In our assessment of auto OEM’s

business risk profile, which forms an essential part of the credit rating, we look at market-share variations over time – two-year intervals - to capture both the absolute level of market share and market share improvements that are purely driven by the life-cycle, such as new product launches versus end-of cycle vehicles.

**Figure 4: OEM US market shares (%)**



Source: LMC Automotive, Scope Ratings

**China**

In 2019, the largest market for light vehicles worldwide, China, continued to shrink. We expect a decline of 9%. Light vehicle sales in China declined by about 12% in 1H19 (-12% in 1Q19 and -13% in 2H19). The marked decline in 2019 follows an “untypically” weak year in 2018 when volumes were down 3%. The year 2018 was the first year in the Chinese light vehicle market with a declining volume since the 1990s and our earlier expectation for 2019 that the market is “at best flat” formulated in late 2018 has turned out to be too optimistic. We take solace from the fact that we were one of the few to expect no growth or slightly negative growth for China at that time.

For 2020, we remain cautious and expect a further low-single digit percentage decline in the Chinese market.

The lingering influence of the “pay-back” of pre-buy effects for light vehicles in the years 2016 and 2017 hangs heavily over the market. Governmental incentive schemes from those years help explain why the market peaked at levels of about 28m units in the period 2016-2018, with a material decline in 2019.

The various changes of the Chinese vehicle-purchase tax over the years 2015 to 2018 have had prolonged after-effects on customers’ purchasing decisions.

The reduction of the vehicle-purchase tax in Oct. 2015 for vehicles with engine displacement of 1.6 litres and below (from 10% to 5%) is an indication that the Chinese light vehicle market was “in need of” governmental incentives to maintain unit sales levels at that time. Auto customers brought forward vehicle purchases into 2016 in anticipation that the tax rate on vehicles with a displacement of up to 1.6 litres would be

raised to 7.5% in 2017 from 5%, which resulted in substantial market volume expansion (+14% year on year in 2016). Roughly 75% of the Chinese light vehicle market is represented by engines with displacement of 1.6 litres and below.

The pre-buy effect of 2016 was observable in 2017 and the Chinese light vehicle growth rate was a mere 2.0% in 2017.

At the beginning of 2018, the tax rate on purchases of vehicles with small engines (up to 1.6 litres) was raised back to its normal level of 10%. As this led to purchases being brought forward to late 2017, moderate demand in 2018 was not unexpected.

Much of the automotive demand was pulled forward into the years 2016-2018, leading to the first market decline in the region for decades in the year 2018 (-3%).

The effects continued to leave their mark on automotive demand in 2019 and should continue into 2020. The high number of new vehicle sales in the period 2013-2018 should limit near-term replacement demand.

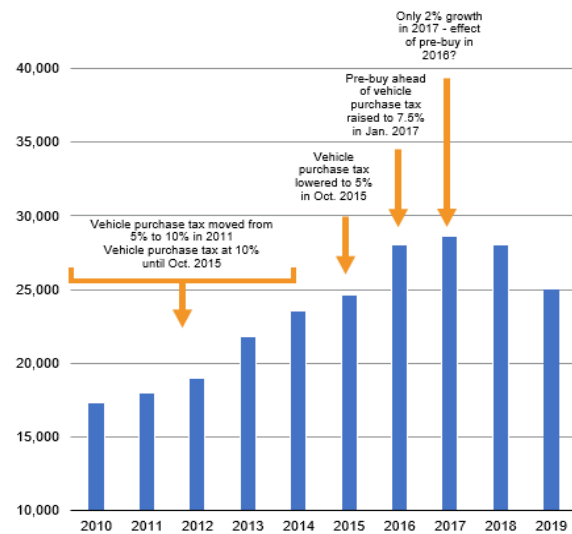
In August 2019, the China State Council announced policies to support demand for light vehicles through measures such as lifting license plate restrictions for internal combustion engine vehicles. Larger cities such as Guangzhou and Shenzhen lifted the licence plate quota by 180k units for a one-year period. License plate limitations have been eased across the country. The examples of larger cities (Shenzhen/Guangzhou) with a small incremental number of licence plates available for potential vehicle buyers suggests that the demand created by this policy is likely limited to a small fraction of the market.

In Dec. 2018, the authorities confirmed an unchanged vehicle-purchase tax of 10%. Any reduction of the vehicle-purchase tax would only lead once more to another effect of front-end loaded volume increases reflecting buying decisions of customers in anticipation of the tax changes.

The Chinese Central Government announced a reduction of value-added tax (VAT) from 16% to 13% for most manufactured goods in March 2019. A similar move of lowering the VAT from 17% to 16% back in May 2018 has not led to markedly lower vehicle prices at that time. The VAT reduction in 2019 has led to some price adjustments. Mercedes, BMW, and Volvo, for example, reduced their respective manufacturer's suggested retail prices by 2%-3% after the VAT cut. As the numbers for the Chinese light vehicle market for 2019 show, the VAT change has not stopped the marked volume decline in 2019 – possibly, the market decline could have been worse without the VAT cut.

We believe the Chinese light vehicle market has reached a plateau of around 25m units.

**Figure 5: Light vehicle sales in China and influence of vehicle-purchase tax (thousands of units)**



Source: LMC Automotive, Scope Ratings

## Europe

For the saturated market in Western Europe, we see a decline of about 3% in 2020. Initial data suggest that the Western European car market remained robust and stable in 2019. Passenger car registrations were down 3.1% in the first half of 2019, notably in France (-1.8%), Spain (-5.7%), UK (-3.4%), Italy (-3.5%) and only Germany posting a small improvement (+0.5%) according to the European Automobile Manufacturers Association (ACEA). LMC, measuring light vehicle sales (rather than registrations), measured a 2.9% decline in the first half of 2019. Initial numbers for 2019 suggest that light-vehicle sales were broadly stable in 2019. ACEA data reported for 2019 point to a 1% rise with Germany (+5.0%) recording the strongest momentum followed by France (+1.9%), and Italy (+0.3%). Spain (-4.8%) and the UK (-2.4%) remained weak on the full year. The modest growth in 2019 in terms of registrations marked the sixth year of growth in the EU. The Western European market has almost reached its pre-crisis (2007) level.

Sales data and registrations in 2019 can be understood only by looking at how the September 2018 introduction of the Worldwide Harmonised Light Vehicle Test Procedure (WLTP), the EU's latest emissions-testing protocol, distorted the regional car market. Light vehicle sales were weak in the second half of 2018 due to limited availability of WLTP-uncertified vehicles, making for flattering comparisons with second-half 2019 data.

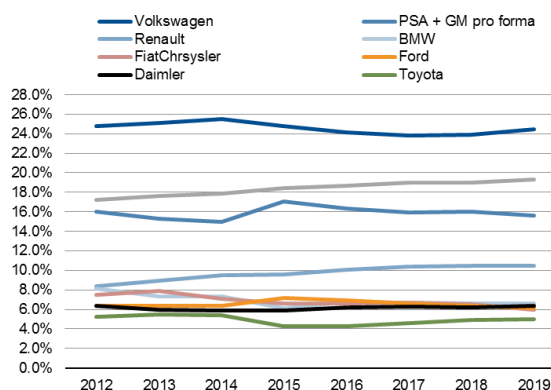
We think that 2019 numbers in Europe reflected de-stocking related to the introduction of WLTP test procedures in autumn 2018. Further support in the German market came from trade-in bonuses, environmental bonuses, various discounts and incentives for older diesel vehicles. We do not see 2020 to be supported by the same WLTP/diesel effects, notably in Germany. We expect a decline of 3% in 2020. The Eastern European market has shown a small increase in 2019 (+1.5%) but remains small on an absolute level (around 2.7m units).

**Market share:** OEMs share of the EU market in recent years suggest similar stability to that of the US market with a few exceptions. First, Renault has gradually improved its market share by almost 200 basis points over the years, partly supported by the new model launches of its high-volume models (Renault Espace, 2014, new Megane in 2013 and facelifted Scenic in 2013).

Despite the diesel-emissions testing scandal, Volkswagen – whose brands include VW, Skoda, Audi, Seat, Porsche – held its market share fairly stable at around 24%. The Volkswagen brand (also stable in 2019) should make up some basis points in EU-wide market share following the launch of the all-new Golf VIII in late 2019, a high-volume vehicle that attracts customer interest in all European countries. FiatChrysler – owner of the Fiat and Alfa Romeo brands - continued to lose market share, a trend of the past 5-

6 years: the auto maker has lost 150 basis points in the period 2012-2019. Much of the resulting gains in market share for other OEMs were picked up PSA – the maker Peugeot and Citroën which is planning to merge with FiatChrysler - and smaller players such as Hyundai/Kia.

**Figure 6: OEM European market shares (%)**



Source: ACEA, Scope Ratings

## Tariffs and tariff risks

At the time of writing, it looks as if tariff risks affecting the automotive industry are likely to be lower in 2020. On Dec. 13, 2019, the US and China announced an initial deal where new tariffs originally planned to be imposed mutually as of Dec. 15, 2019 (China had previously announced to increase tariffs for vehicles shipped from the US to China from 15% to 40%, effective 15 Dec. 2019) would not be implemented. Not much detail is known about this “deal in principle” but we have the impression that auto/auto parts were not specifically mentioned in the tentative agreement.

Uncertainty from a continuation of the trade war and tariff increases between the US and China, potentially expanding to the US and Europe are not reflected in our forecasts.

## Brexit

The UK is scheduled to exit the EU on 31 January, setting the stage for second-phase negotiations for the long-term trading relationship between the two parties.

Vehicles exported to the EU from the UK could become subject to a 10% tariff (UK to become a “third country” following Brexit) pending any new free trade agreement.

About two thirds of UK light vehicle sales are imported from EU countries (mainly Germany, Spain, France, and Czech Republic). LMC Automotive estimated (in Feb. 2019) that a 10% import levy on EU vehicles could result in 4% decline of market volumes in the UK as a result of higher prices. This would equate to about 100k vehicles. The UK market is about 2.5m light vehicles in size and currently already runs below the longer-term average (market down to 2.2m in 2019). Brexit is unlikely to have much impact on volumes. OEMs in the

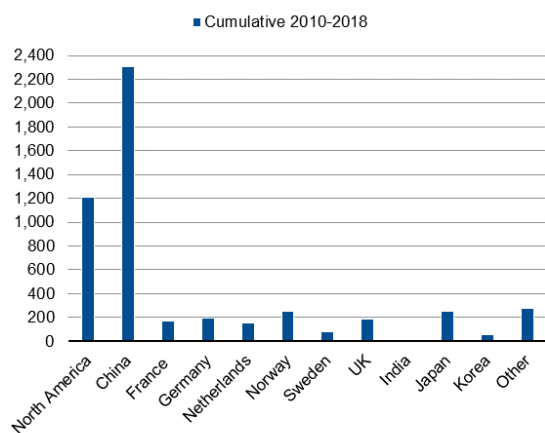
region had sufficient time to prepare back-up plans for Brexit.

The overall effect for car OEMs from the Brexit is neutral in our view even in the case of the UK failing to reach a new trade deal with the EU by the end of 2020. The risk of a potential devaluation of sterling against the euro might have some impact on demand in the UK, but the overall impact on OEMs is likely to be negligible given the small size of the UK market in relation to China, the US and the rest of Europe.

## Electrification strategies

Sales of battery-electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV) continue to grow fast. The number of all BEV/PHEV sold worldwide exceeded one million for the first time in 2017 (1.15m units) and almost doubled to 2.0m vehicles in 2018 according to the latest consistent set of data from the International Energy Agency (IEA). By the end of 2018, the cumulative number of BEV/PHEVs sold in the period 2010-2018 stood at 5.1m vehicles. Adding to this the expected 2.8m number of PHEV/BEVs sold in 2019 brings the cumulative global stock of electrified vehicles to 8.0m sold in one decade.

**Figure 7: Electrified vehicles (BEV and PHEV) cumulative new registrations by country (thousands of units)**



Source: International Energy Agency, Scope Ratings; break-down by country for 2019 to become available throughout 2020

Sales of electrified vehicles remain centred on the regions where subsidization of vehicle purchases is high (US, China). Demand for BEV/PHEV is far from entirely market-driven and clearly correlated with incentives put in place by policymakers (tax breaks, direct purchase subsidies, and other incentives such as discounts on toll roads or dedicated parking space).

Sales of electrified vehicles remain limited to a few countries and more than 95% of all electrified vehicles were sold in only 10 countries.

Governmental stimulation of demand for BEV continues to be a pre-requisite for further take-up – essential if OEMs are to meet their own targets while BEVs are yet

to become a true alternative to vehicles with internal combustion engine. This perception will change only if proper incentives are on offer. The same was true with other “green” products in the past such as wind energy or solar energy – here, subsidies in the form of favourable feed-in tariffs were essential - which eventually supported the adoption of alternative energy sources. While BEVs have zero tailpipe emissions, the current electricity generation mix (mostly with coal) does not make BEVs “green” products through the entire value chain, but this limitation should disappear with an increasing share of renewable energy in the electricity-generation mix.

**China:** China continues to be the largest electric car market globally and accounts for about one half of the BEVs/PHEVs sold in 2018/2019. While the share of electrified vehicles as a percentage of all new light vehicles sold worldwide remains low (2%), we see this proportion growing rapidly in the years ahead.

A key volume driver in this regard will once again be the Chinese market as it was the case with unit volume sales of vehicles with internal combustion engines over the past decade. China is one of the regions where BEV/PHEV buyers receive substantial cash incentives on a country-wide and regional level. China is also one of the first markets with a regulatory mandate for car OEMs to achieve certain volume targets for electrified vehicles.

In Sept. 2017, China’s Ministry of Industry and Information Technology set out a policy that “new-energy vehicles” (these include BEVs and PHEVs but also alternative technologies such as fuel cells) should reach 12% in 2020. Failure to achieve these targets could result in fines for auto makers, though OEMs can buy credits from those competitors that exceed their targets on the sale of electrified vehicles.

Going by the numbers of 2019, about 2.7m “new-energy vehicles” should be sold in China in 2020. This compares with about 5.1m electric cars (BEV and PHEV) sold worldwide over the period 2010-2018 and 2.8m PHEV/BEVs sold worldwide in 2019.

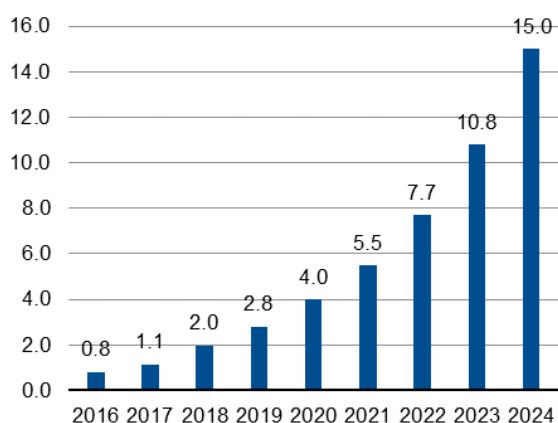
The regulatory targets for “new-energy vehicles” in China appear ambitious, but achievable for auto OEMs. For instance, Volkswagen has announced a target of a unit volume of electrified vehicles in China of 400k units by 2020 – this compares with a total of 4.1m vehicles sold in China by the Volkswagen Group.

China introduced a new subsidy regime in July 2019. Long-range BEVs (range > 300km) will be subsidised more favourably than short-range vehicles, possibly leading to a higher demand for (more expensive) models with longer range, expected to be launched in the coming years.

Going by our estimates and projections of the International Energy Agency, the total number of PHEV/BEV sold in 2020 should reach 4.0m units of which the largest share (75%) will be PHEVs.

**US:** An interesting market to watch in this regard will be the US. The substantial rise of BEV vehicles sold in the US can only be understood in the context of the hefty tax credit (US\$7,500 per vehicle) offered to buyers of fully electrified vehicles.

**Figure 8: Outlook for BEV and PHEV market in units (million)**



Source: International Energy Agency, Scope Ratings

It remains to be seen whether this tax credit stays in place. The Trump administration has entertained the idea of scrapping the BEV-subsidy. The USD 7,500 tax credit for battery-powered vehicles is granted to each car OEM for the first 200,000 vehicles sold. Tesla and GM have already reached a cumulative sale of 200,000 electrified vehicles. The tax credit for Tesla buyers was lowered to USD 3,750 in Jan. 2019 (according to the tax credit regime in place, the tax credit is cut in half after the sale of 200k vehicles by an OEM) and lowered to USD 1,875 in July 2019. Tax credits will no longer be available for Tesla buyers in Jan. 2020 and for GM buyers in April 2020.

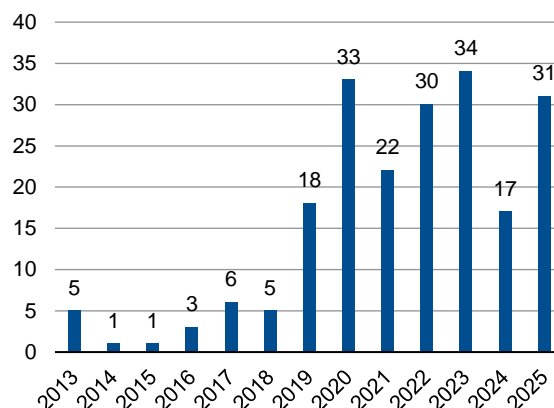
With the reduction of governmental subsidies, electrified models made by Tesla and GM will be at a clear pricing disadvantage to those OEMs that can factor in subsidies to their pricing strategy. All things being equal, an OEM that has not reached the 200k ceiling under the tax credit regime in the US for electrified vehicles, has a price advantage of USD 7,500 per vehicle. The year 2020 will be a "proof of concept" whether the strong demand for Tesla vehicles in the US was market-driven (i.e. appealing product in the eyes of the customer with willingness to pay) or simply policy-driven (appealing product in the eyes of the customers and bought because of governmental subsidies on top).

The expanded line-up of EV/PHEV models should encourage further growth in sales, assuming that public policy measures (eg, direct purchase subsidies, reduced VAT on BEVs, exemptions from vehicle taxes, free access to toll roads) remain in place.

OEM electric-car strategies differ but together imply a significant ramp-up in the number of models on offer (see Appendix), with battery-powered vehicles set to

account for 25% of their product portfolios by 2025. Plug-in hybrids and so-called mild hybrids and a gradually rising share of BEVs will make up the initial EV mix.

**Figure 9: Number of BEV models available in Europe**



Source: International Energy Agency, Scope Ratings

## Auto Suppliers

We see similar fundamentals for the automotive parts industry for 2020 as the broader light-vehicle sector, mainly due to the expected volume declines in key global markets. Organic revenue growth of auto suppliers is typically three-to-five percentage points above the growth rate of light-vehicle production. Selected automotive suppliers should continue to benefit from rising fitment rates of their components and increased content per vehicle with organic growth above the projected unit numbers for light vehicle production in 2020.

Suppliers with components that help reduce CO<sub>2</sub> (such as 48V technology) are the best positioned.

We see the overall fundamentals for the auto supply chain to remain more favourable, largely because the parts suppliers are not directly affected by carbon-dioxide emission thresholds.

While most OEMs have announced cost-reduction programs to address material costs, we see this as a normal characteristic in the auto industry. Auto suppliers have worked under constant cost pressure and have been able to adjust to the high demands from OEMs. We do not see increasing pressure on auto suppliers. Noting the higher operating profit margins of auto suppliers against average OEM margins over a time, it is clear to us that suppliers can manage the various demands imposed on them by their customers.

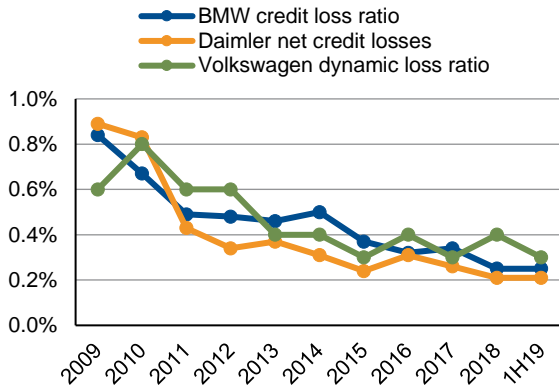
## OEM financial units – credit loss rates

Credit loss rates at the financing arms of BMW, Daimler and Volkswagen are still bumping around multi-year lows, as much a warning of possibly tougher times to come as a sign of the auto sector's health.



Financial services are one of the strengths of the three manufacturers. BMW, Daimler (A-/Stable) and VW exploit strong investment-grade credit ratings to offer customers attractive terms for leasing vehicles compared with those of rivals and other credit providers.

**Figure 10: Credit loss rates auto OEM**



Source: BMW, Daimler, Volkswagen, Scope Ratings

As with any form of lending, a percentage of customers inevitably fail to make repayments. For the German auto makers, that percentage was reassuringly low throughout 2019, much as it has been since the end of the Global Financial Crisis in 2010.

Daimler's net credit losses run at 0.26% of total lending and BMW's credit losses from captive-finance activities likewise show readings of less than 0.30%. Volkswagen's dynamic loss ratio has moved in line with those of the premium car makers at 0.30%.

Encouraging as the data appear, there is a caveat. Years of ultra-low interest rates and falling unemployment have been unusually favourable for car makers to accommodate the rising demand for new vehicles including retail financings. We have not observed rising penetration rates at car OEMs, i.e. higher share of vehicles funded via captive financings arms and likewise feel assured that underwriting policies have not changed. The probability of credit risks arising in the retail lending portfolio has been low but once those benign conditions change, the outlook for credit losses on auto loans will also deteriorate.

Credit risk can intensify quickly when the economic environment worsens. BMW's credit-loss ratio was nearly three times higher in 2009 at 0.84% than it was last year. Daimler's was similarly at an elevated 0.89%, with VW's at 0.60% in 2009 and then 0.80% in 2010.

The German automakers are well covered in the event of any uptick in credit losses. Daimler's reserves ratio of 1% last year was nearly four times the loss ratio. BMW and Volkswagen have made similar provisions. Given that provisions for expected credit losses are booked using the current run-rate of credit losses, OEMs have not much leeway to build more provisions for

unexpected deteriorations in the lending portfolio (mainly the retail lending portfolio).

Growing credit losses, however, have a double impact on returns on equity and operating profits at the financing units via higher write-offs and higher provisioning when the credit ratio worsen.

## Impact on credit quality of auto makers and auto suppliers

The fundamentals for the industry in terms of volumes are challenging in 2020. For OEMs, the additional cost of complying with carbon-dioxide is putting pressure on earnings before interest, taxes, depreciation and amortisation (EBITDA). The margin dilution through less profitable electric vehicles (mainly battery pack costs), potentially higher incentives to support the sale of vehicles and avoid potential fines will not be offset through cost-reduction programs announced (including reduction of material costs, realignment of platforms, reduction of model variants etc.).

The constrained profitability for OEMs remains the weak element of the industry's players business-risk profiles in the near term.

The financial risk profiles of the players in the industry, however, remain the key support for ratings overall. Companies in the auto industry have maintained fairly low leverage over the past decade. Low adjusted debt, and significant liquidity buffers provide headroom for most of the players to "cruise" through the structural changes that shape automotive markets today (electrification, autonomous driving).

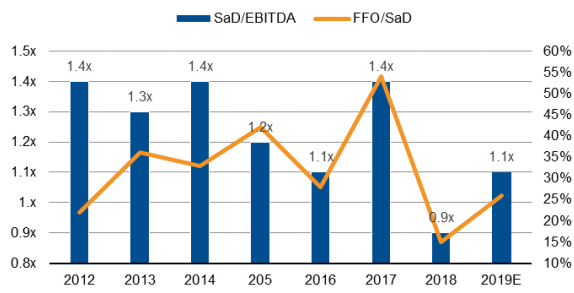
The transformation of the industry toward manufacturing a higher share of electrified vehicles is here to stay and will likely last for many years to come. The negative volume trends in key global automotive markets in 2020 with a mild decline is something that we would view the players in the industry to be able to weather, supported by the comparably supportive financials and the "typical" automotive financial strategies that have been applied in the past few years (low leverage, substantial liquidity balances in the industrial business). The picture on the ratings could change if unforeseen event such as a re-emergence of trade tensions was to materialize.

The same would be true if consumer demand for electrified vehicles proves to be less strong than expected, leading to substantially higher costs for OEMs to attract buyers to avoid paying carbon-emissions penalties.

Ratings in the industry remain supported by the comparably supportive financial-risk profiles. Both OEMs and suppliers have not used the favourable period in the aftermath of the financial crisis to expand their leverage. Financial discipline has remained strong as is typically the case in the sector.

**Figure 11: Sector leverage multiples – OEM**

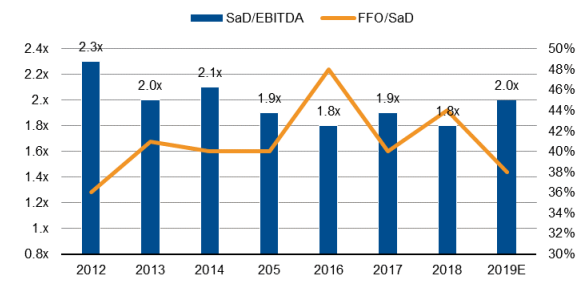
(Scope-adjusted debt/EBITDA; funds from operations/Scope-adjusted debt)



Source: Company data, Scope Ratings

**Figure 12: Sector leverage multiples: auto suppliers**

(Scope-adjusted debt/EBITDA; funds from operations/Scope-adjusted debt)



Source: Company data, Scope Ratings

## Annex I: OEMs electrification strategies

Figure 3: Selected OEM announcements on electric car models

Selected OEM announcements on electric car models	
<b>BMW</b>	25 electrified vehicles by 2025 (announced at International Motor Show, IAA, in 2017 and repeated at 2017 results release), of which 12 BEVs; 15%-25% of global sales expected to be BEV/PHEV in 2025
<b>Daimler</b>	More than 10 pure electric vehicles by 2022; share of BEV in a range of 15%-25% of Mercedes unit volume sold by 2025, investments of more than EUR 10m in expansion of electrified fleet and EUR 0.5bn for network of global battery production; 130 electrified pass car variants planned by 2022; >50% of vehicle sales in 2030 electrified (either BEV or PHEV or FCEV)
<b>Volkswagen</b>	Targets 80 electrified vehicles by 2025. 50 BEV and 30 plug-in hybrids with ~70 BEVs by 2028. Announced with Volkswagen "RoadmapE" strategy in Sept. 2017; share of BEV in a range of 20%-25% of unit volume sold by 2025 (about 2-3m electrified cars); 40 new models with alternative drivetrain in China by 2025 (announced Nov. 2017), goal of 400 thsd. electrified vehicles by 2020 1.5m electrified vehicles by 2025 (announced Nov. 2017); 27 BEV models by end of 2022 (announced Oct. 2018)
<b>Jaguar and Land Rover</b>	Production of only BEV or hybrid electric vehicles from 2020
<b>Volvo Cars</b>	Production of only BEV or hybrid electric vehicles from 2019; targets 1m cumulative "electrified" vehicles by 2025.
<b>Ford</b>	40 electrified models until 2022 of which 10 BEVs
<b>Tesla</b>	1 mio. BEV to be sold in 2020, 0.5 mio. BEV sold in 2018
<b>Toyota</b>	10 new BEV, every model with either PHEV or fuel cell until 2025; investments of US\$ 13bn for electrification; announced in Dec. 2017
<b>Renault-Nissan</b>	Targets 1.5m cumulative BEV by 2020
<b>Peugeot</b>	Targets 1.0m BEV sales until 2020; expects to have 80% of its 34 core models to be electrified by 2023 (either PHEV or BEV)
<b>GM</b>	20 new models on new platforms until 2023
<b>Hyundai-Kia</b>	31 electrified models until 2020 of which 8 are BEVs
<b>FCA</b>	Half of the fleet electrified by 2022

## Annex II: Related research

“Germany’s auto industry grapples with twin challenges of cyclical downturn, EV ramp-up”, published Dec 2019 available [here](#)

“European automotive sector: customer loyalty defies scandals, crises as market shares hold steady”, published Oct 2019 available [here](#)

“Power, oil & gas executives look beyond dazzle of electric cars: interview with Scope Ratings”, published Sep 2019 available [here](#)

“Global auto makers: megamergers may do little to meet industry challenges”, published May 2019, available [here](#)

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