18 May 2020

Automotive industry

Covid-19's long-term effects on the industry

Covid-19 has triggered unprecedented lockdowns across the world, resulting in a supply and demand shock globally. Production closures as well as job and salary cuts are already weighing on the economy, while lending could be restricted to businesses and consumers despite generous government and central bank support. With the lockdown measures being only gradually relaxed, Covid-19 might have long lasting effects on our behaviour, the society and the economy.

One sector that had been under pressure even before the pandemic, is the automotive industry. Already weak sales in China, the largest automobile market in the world, the trade war, the search for the future of motoring, changing mobility concepts and the call for more climate protection had been leading to both cyclical and structural pressure on the industry. Now, with many economies having been in a complete lockdown, disrupted supply chains, dropping demand and short-time working schemes, the auto industry faces even greater challenges.

China, where the outbreak of Covid-19 began at the end of December, was the first country to go into lockdown, restricting travel, cancelling plans for Chinese New Year and shutting factories. While light vehicle sales had fallen by 18.6% YoY in January, February saw the biggest fall ever recorded in the time series, with sales contracting by 79.1%. Nevertheless, April sales recovered with light vehicle sales crossing the 2 million vehicle mark compared with sales of only 1.4 vehicles the month before, increasing by 4.4% YoY thanks to an uptick in commercial vehicles. In Europe, demand for vehicles fell sharply in March with the EU light vehicle market contracting by 44% YoY as lockdown measures, closed dealerships and consumer uncertainty caused a drag, while in the US new passenger car and light truck sales plummeted by 47.9% YoY in April. These monthly declines resemble the industry downturn in 2008 and 2009 or are even worse. However, back then, production and public life did not largely come to a halt. So how will the automotive industry get out of this unprecedented crisis and will there be major structural changes?

We explore the following questions in this report

- Could there be a 'renaissance' of individual transportation, ie, a return of the own car and a (temporary) reversal of trends like car sharing due to social distancing?
- What is the cyclical impact from higher unemployment and reduced income on the automotive industry?
- Will demand for electric vehicles fall due to the currently low oil price environment?
- Will supply chains be adjusted due to Covid-19?
- What is the impact of Covid-19 on OEMs and auto part suppliers in a period of transformation?

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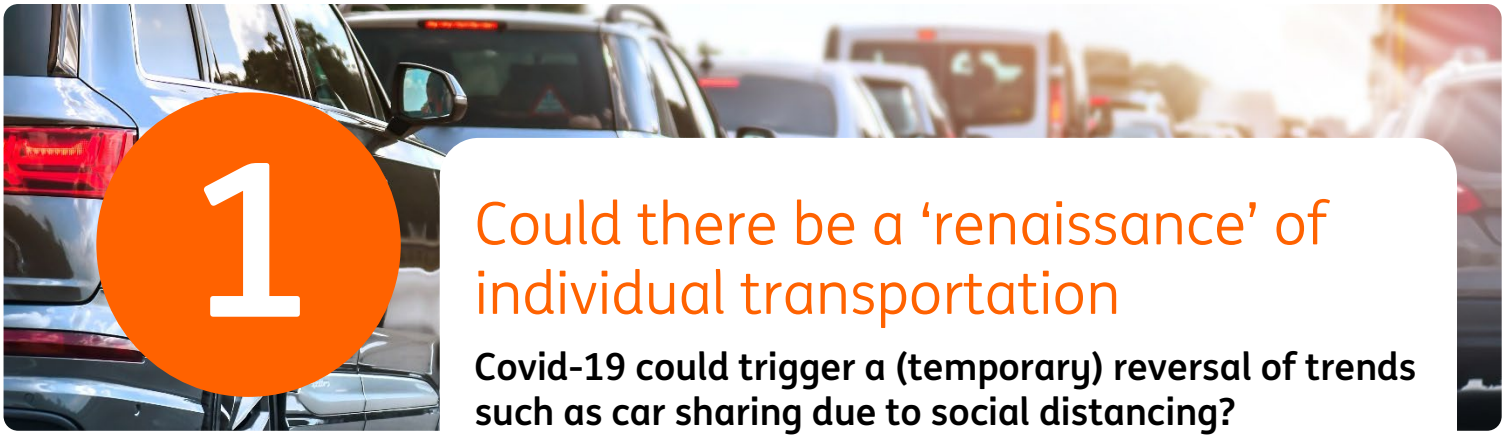


1 Could there be a ‘renaissance’ of individual transportation

Covid-19 could trigger a (temporary) reversal of trends such as car sharing due to social distancing?

Not only have car sales already seen a large drop, demand for urban mobility concepts such as car sharing, ride hailing or electric scooters has also been impacted. So while the cyclical slump does not really come as a surprise, the question is whether Covid-19 could lead to structural changes in shared transportation choices. Will there be a return of the car for personal use or will an increase in working from home post coronavirus reduce commuting of any kind, including with your own vehicle?

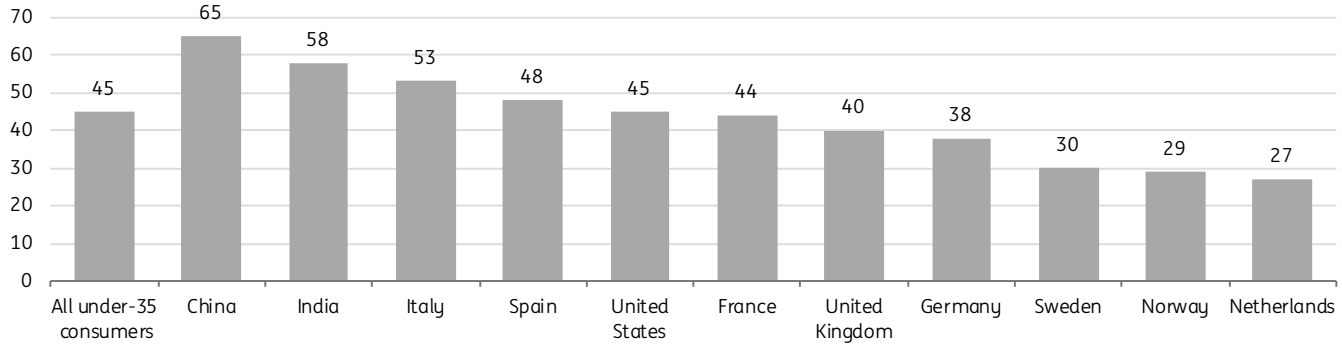
Does SARS provide any guidance?

During the SARS outbreak in China, the fear of risking infection led to consumers avoiding public transportation, resulting in increased demand for cars. Owning a car was considered safer and more reliable, such that consumers brought purchases forward. The same might hold true for the period during and after Covid-19. When looking at Google search requests data, we find that searches for car purchases increased in both the US and Europe in April, which could reflect interest in car ownership, possibly in the hope of future government schemes to support the automotive industry – or it might simply indicate the need for a distraction from lockdowns and cancelled vacations. Still, owning a car as an insurance against becoming infected could have resulted in increased buyer interest. While car ownership in China was much lower during SARS than it is now, the demand for first time vehicle purchases was certainly higher. In the current situation, demand for passenger car sales has remained muted despite a gradual easing of lockdowns and factory closures, with April sales posting a 2.5 percent decline compared to a year ago.

More younger people are considering buying a car – with online channels becoming increasingly important

A survey by Capgemini in April shows that especially younger age groups, among which 85 percent have never owned a car before, are now considering buying one. This applies particularly to potential buyers in China and India, as Figure 1 shows. Overall, 45 percent of those surveyed under the age of 35 show a strong preference for car ownership, while the percentage of all age groups considering buying a car in 2020 is a bit lower at 35 percent. Furthermore, half of those under 35 want to use public transport less often in favour of their car, while 44 percent state that they will make less use of ride-hailing due to health and safety concerns.

Fig 1 Percentage of potential car buyers under 35 years of age who are considering buying a car in 2020



Source: Capgemini

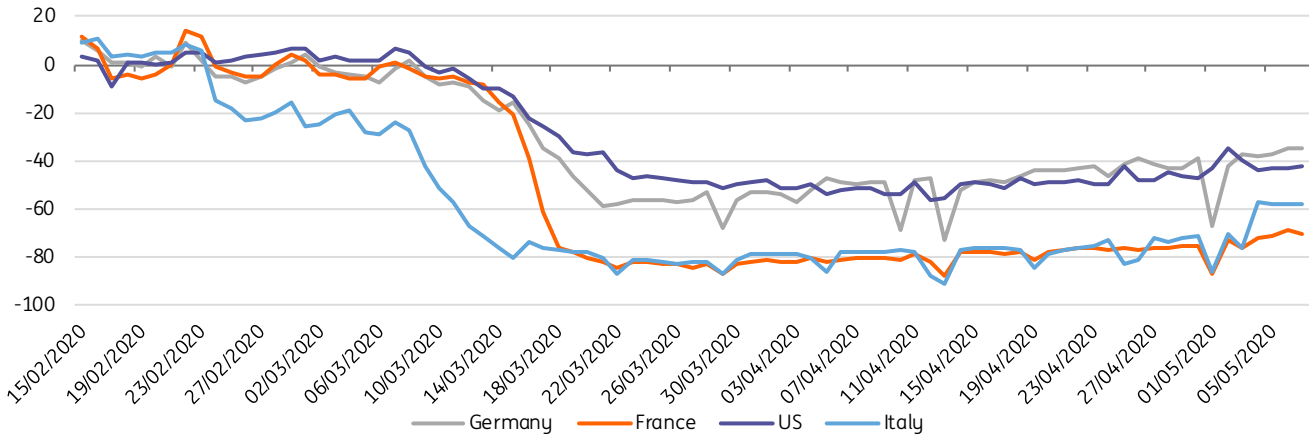
What is more, online channels are becoming increasingly important when making a car purchase. Not only do young customers have a strong preference for digital channels, consumers worldwide are shifting their preference to online offers and services. 46 percent of consumers globally state that they would prefer to avoid dealership visits to compare financing and deals, with online searches for information about vehicles increasing due to fear of contracting the virus.

What about shared mobility concepts such as car sharing or ride hailing?

As long as social distancing requirements and a fear of infection continue, owning a car seems to be considered more attractive than use of shared mobility concepts. While this does not mean that new mobility services will not be used at all after the pandemic settles, current usage has fallen drastically in cities around the world. In mid-March, Uber said that its ride hailing services had declined by 60 percent to 70 percent in cities worst hit by the virus. Many shared mobility providers even suspended their services completely or took precautionary measures to protect drivers and customers. However, some have also developed new concepts, such as delivering food or provision of low-cost car rental for essential workers. Yet, this does not replace general demand for shared transportation concepts and further declines can be expected due to an only gradual easing of containment measures.

While new mobility services were not widespread during the SARS episode, the change in behaviour during that time might be an indication of what lies ahead for providers now. In Taiwan, for example, empirical research on the usage of public transportation during the SARS period in 2003 showed that for each reported SARS case an immediate loss of 1,200 underground journeys occurred due to fear of catching the virus. About 50% of daily journeys was lost during the peak of the 2003 SARS period (1 April to 9 June) and it took until 27 October for the rate to return to the level observed before the SARS epidemic. According to Google mobility data for public transport hubs such as subway, bus and train stations, a similar pattern can already be observed in many countries. Will the impact of the crisis be permanent?

Fig 2 Mobility data for transit stations compared to baseline for Germany, France, the US and Italy (% compared to baseline)



Source: Google Covid-19 Community Mobility Report

Research by TU Darmstadt shows that almost all (98.4 percent) of the 5,000 people between the age of 14 to 89 years surveyed in Germany reported a reduction of at least one otherwise regular journey due to coronavirus containment measures. The most common reason was an abstinence from leisure time (85%). 58 percent said that their use of transportation has changed since the pandemic broke out. The greatest effects were seen in local and long-distance public transport (used less) as well as in cycling and

walking (used more). When asked about the reasons, the most common motive was to reduce the risk of infection for oneself and for others.

Smaller mobility providers might not recover

One inevitable result of this crisis might be increased consolidation of smaller mobility providers. These often relatively new companies had barely built up reserves prior to the crisis and are being hit hard by the lockdown and reduced need for mobility solutions. Even if shared mobility does start to be used again after the crisis, it may take a while for demand to recover. However, the resulting consolidation could make it easier for consumers to find a way through what was a burgeoning number of suppliers.

The crisis will leave its mark on mobility behaviour

Covid-19 has brought the global economy to a standstill with lockdowns only beginning to be eased slowly. Unlike the global financial crisis, the pandemic shut down all aspects of social life almost overnight. We expect the crisis to leave its mark on mobility behaviour, and see a temporary reversal of the upward trend in car sharing due to social distancing delaying the expected reduction in passenger car fleets. While we do not expect a complete reversal of the ongoing trends in the mobility sector, demand for an own car has certainly increased during the pandemic, especially for young first-time buyers.

Inga Fechner

2 What is the cyclical impact from higher unemployment and reduced income on the automotive industry?

Due to lockdown measures in response to Covid-19, unemployment rates have increased exponentially worldwide. The effects of the crisis on the labour market are particularly evident in the US, where the number of jobless claims filed climbed to more than 35 million people since mid-March, while in Europe, the impact of the crisis can clearly be seen in the short-time work applications.

Job losses and short-time work go hand-in-hand with a loss of income

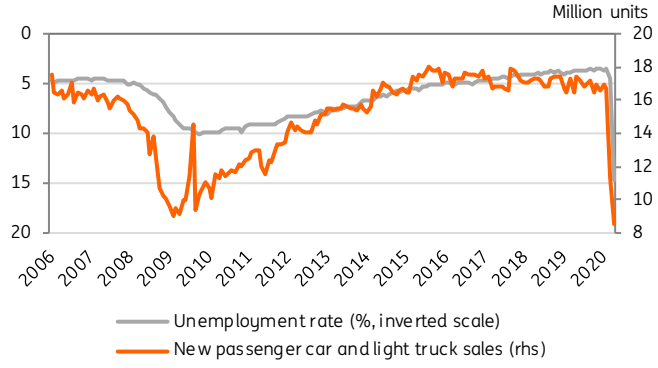
In the US, less than half of the working age population will be earning a wage in May, which is a significant barrier to consumption. Consumer demand for discretionary spending, in particular, is sinking rapidly with consumers scaling back on durable goods purchases such as cars, as has been seen in the data of previous crises. As a result of the 2008/2009 financial crisis, for example, car sales plummeted in China, the US and Europe as income took a large hit. The Federal Reserve Bank of San Francisco has estimated that the hit to the US economy in 2008/2009 and subsequent lower output resulted in a lifetime present-value income loss of about US$70,000 for every American. Not surprisingly, personal consumption expenditure on durables in the US dropped by up to 16% YoY during the peak of the crisis. In the Eurozone, disposable income plummeted into negative territory in 2009 driven by a fall in the compensation of employees, before automatic fiscal stabilisers kicked in.

Higher unemployment undoubtedly weighs on automotive sales

Figures 3 and 4 show the connection between unemployment rates and car sales in the US and in Europe. In the financial crisis, the unemployment rate in the US peaked at 10 percent in October, after hovering above 9 percent in the months before, while new passenger car and light truck sales saw the biggest decline on a yearly basis in February 2009, dropping by 40 percent. Since unemployment rates are lagging indicators, major distortions become first evident in car sales when comparing the time series.

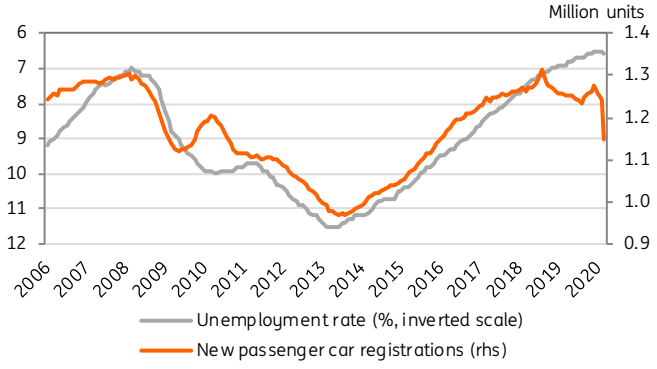
However, the damage induced by Covid-19 is already worse than that caused by the financial crisis. In March, consumer spending in the US dropped by 7.5 percent with the leading contributor to the decrease being spending on motor vehicles and parts. Sales of new passenger and light truck sales plummeted by 34 percent in March and a further 48 percent in April, while the unemployment rate shot up to 14.7 percent, the highest level since 1940.

Fig 3 US: Unemployment rate and car sales, 2006-2020



Source: Refinitiv Datastream, ING

Fig 4 EU: Unemployment rate and car sales, 2006-2020



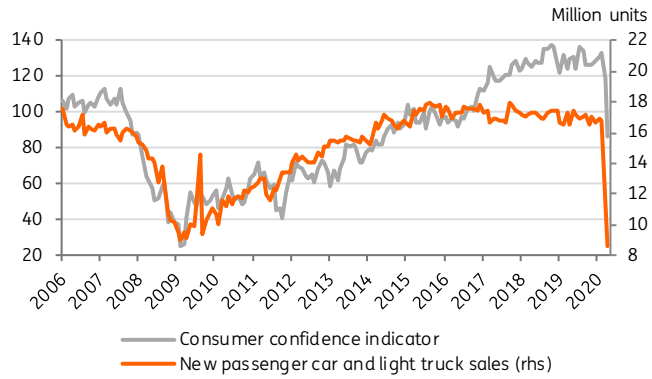
Source: Refinitiv Datastream, ING

While the damage in the European labour market still has to show in the data, the EU passenger car market has recorded a dramatic drop, with new passenger car registrations falling by 25.6 percent in the first quarter and by 55.1 percent in March alone.

Following the collapse of Lehman Brothers in September 2008, it took vehicle sales in the US 11 months to climb back into positive territory. With the unprecedented lockdown and distorted supply/demand situation effects of the coronavirus already having had a greater impact on the US economy, it might also take a while longer for the US auto market to recover. In the EU, scrappage schemes, which we discuss below, could revive demand shortly after the drop, at least temporarily.

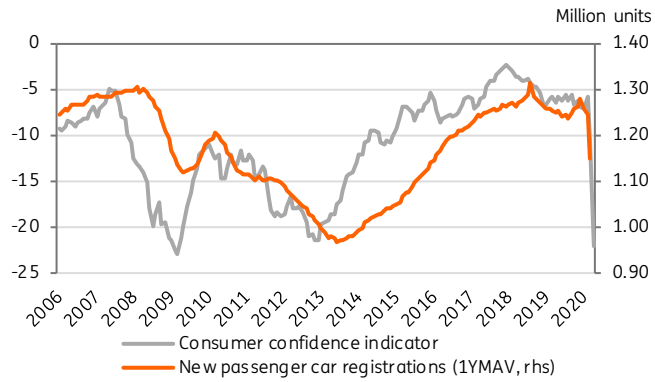
During the global financial crisis, consumer confidence was another good indicator for the development of car sales, and we will thus keep a close eye on these time series to identify a possible bounce back. Consumer confidence in the US saw an acute drop in April, with passenger car and light truck sales registering another deep contraction shortly after. Also in the EU, the leading role in consumer confidence is visible, indicating that we will see another significant fall in new passenger car registrations in April in the region. Applying a one-year moving average (1YMAV) to car sales in order to smooth the time series makes the lead even more evident.

Fig 5 US: Consumer confidence and car sales, 2006-2020



Source: Refinitiv Datastream, ING

Fig 6 EU: Consumer confidence and car sales, 2006-2020



Source: Refinitiv Datastream, ING

What about car financing?

Not only is falling consumer demand weighing on sales, a freeze in credit markets could also dent sales as consumers relying on loans and leases might not get access to credit in order to finance a car purchase. Especially in the US, cars are often financed by loans, with car loan debt making up almost 10% of all household debt, as shown in the Fed's 1Q20 report on household debt and credit. Although the rate of 5 percent of car loans falling delinquent by 90 days or more does not sound like a lot, it is close to the peak of 5.3% recorded during the financial crisis in 4Q10. While strong employment and cheap credit spurred car sales, consumers might now come under pressure to pay back their existing loans, not to mention buying a new car.

Will governments act as the white knight?

One decisive factor for vehicle demand in more mature markets could once again be government support measures. During the global financial crisis, car scrappage subsidies in which government money was provided when trading in an old vehicle for a new one, were put in place in some countries to stabilise car sales. Evidence from Europe shows that these schemes helped stabilise total car sales in 2009.

In 2009, the German government, for example, provided a sum of €2,500 for customers who exchanged their at least nine-year-old model for a new one. Between March and November 2009, €5bn was paid out to almost two million car buyers. New passenger car

sales rose to 3.8 million units that year compared to 3 million in 2008, before dropping to 2.9 million sold in 2010 as demand was brought forward due to the scrapping bonus.

Similarly, a scrappage bonus is currently being discussed, not only at national level but also whether a uniform regulation at EU level could be put in place, financed from the EU budget. However, discrepancies in the EU and the fact that the automotive industries of some countries are more affected than others means a common scrappage scheme across the industry is not readily facilitated, and producers and consumers are most likely to have to make do with national help.

It is expected that any new scrappage system might be centred around new energy vehicles (NEV). The Chinese government has already announced that it will extend subsidies and purchase tax exemptions for new energy vehicles through to 2022. According to IHS Markit, NEV sales in the first quarter fell by 56% year on year in China due to Covid-19, after already posting the first negative year-on-year decline in five years in 2019 with NEV sales falling by 4%. While the extension of the 2019 subsidies should help stabilise the market, the subsidies are lower than those offered in 2018, probably denting consumer appetite. The same holds true for many European countries that already offer incentives for buying NEVs, as any new bonus might have to be a lot more generous than during the global financial crisis. In addition, given current low oil prices, consumers might be less tempted to exchange an older model for an NEV as we explained in this article in our following section. Nevertheless, given higher unemployment rates, less spending power and an already battered automobile industry before the coronavirus outbreak, direct financial measures might be necessary to revive demand.

Inga Fechner

3 Will demand for electric vehicles fall due to low oil price environment?

Oil prices have tumbled following ongoing supply and falling demand as a result of Covid-19. With continued low energy prices, the question arises whether electric vehicles (EVs) could suffer even more in what will be a sharp drop in global light vehicle car sales. While sales of EVs will suffer, the trend remains.

Last year, the share of EVs in total car sales across the EU amounted to 2% of total new car sales (from 1% in 2018). In Norway the share of new sales is highest at 41% and the Netherlands follows with a share of 14%. Eastern European countries lag behind. The transition to EVs has begun to gain traction and various European countries have shown their ambition by mentioning future 100% electric sales targets. We were expecting European new car sales to move in the direction of 100% electric by 2035.

The price of oil is a cost factor for drivers and might influence choices when ordering a new vehicle. However, we do not believe there will be a deviation from the current electrification path, as we only expect it to experience a temporary slowdown. Despite low oil prices, we see three main reasons why the trend will not be affected.

1. The oil price drop will not equally equate to lower petrol prices

The market oil price is not the same as the fuel price at the petrol station. With excise duties varying from a fixed €0.36 to €0.80 per litre in Europe, only around one third of the fuel price at petrol stations relates to oil production costs, two thirds are taxes and retail trade margins. So when the oil price drops by two thirds, fuel costs drop by a fifth when lower prices are completely passed through. Accordingly, the petrol price could for instance drop from €1.25 to €1.00 per litre, resulting in a difference of only 1.0 to 1.5 cents in fuel costs per km for new cars. This might be disappointing to drivers, while electricity prices might also slide a bit and the current low oil prices probably won't persist for long.

2. EVs are approaching break-even and becoming more attractive with a larger range

Possibly most relevant to customers is the general competitiveness of EVs, which is continuously improving. A series of new models is about to be introduced this and next year and some of the newest battery electric models can reach a 500km range, making the EV option more attractive to a larger audience. EVs are reaching cost competitiveness and in some cases may already be financially beneficial where governments offer subsidies and tax exemptions. Furthermore, the purchasing price of new models comes down as production numbers go up. This is especially true for smaller EVs. The fall in purchasing price probably outweighs the current lower petrol costs as the operational cost of an EV is relatively low due to lower energy costs and less maintenance. Investment in electrification by the industry is substantial (for example, Volkswagen has raised its budget to €60bn) and any deviation in the market ramp-up extends the return on investment. Investor confidence in automotive players is largely dependent on the long-term competitiveness of manufacturers and suppliers, which is again directly dependent on the ability to deliver electrified products.

3. Regulatory pressure on car manufacturers is not relieved

A third reason we believe the transition to EVs will continue is regulatory. Around the world countries are adopting CO_2-reduction plans, and emission regulation by cities will probably sharpen as (fine) dust and nitrogen oxide emissions pollute the air and threaten the health of urban populations. EU regulation dictates that car manufacturers must cut average emissions of new produced cars to an average of 95 grams of CO_2 per km from 2020 onwards (phased in). As the average footprint of most car manufacturers

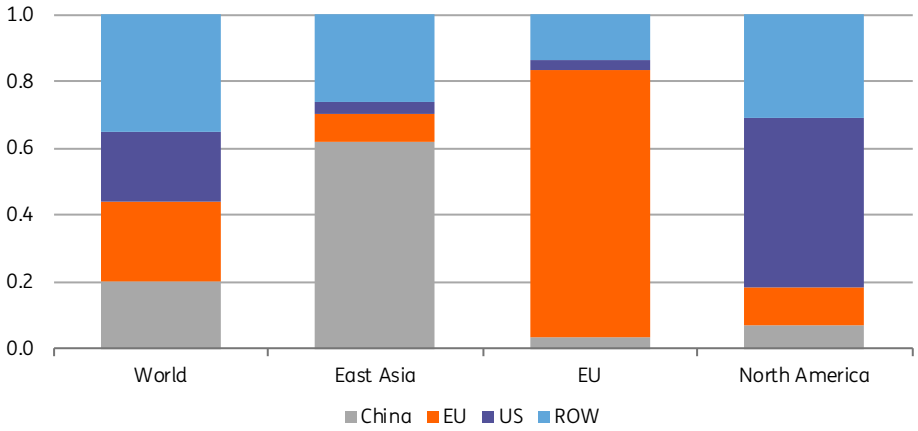
is still larger and SUVs are still popular, companies are forced to produce more zero emission cars. In the EU, CO_2 compliance will separately lead to an effective electrification of at least 30-40% of new vehicles by 2030. As there are no signs yet that regulation will be lifted or postponed, this is generally a clear incentive to push EVs. This is also the reason manufacturers seem to prefer to invest in development and introductions of EVs rather than in internal combustion engine cars when considering cutting costs.

Rico Luman

4 Will supply chains be adjusted due to Covid-19?

Supply chains in the automotive industry are clustered in regional hubs, with the lion's share of value added (ie, the production of vehicles from component parts) happening close to market (Figure 6). Even though inter-regional linkages contribute a smaller amount of value added than those within regions, their disruption have been enough to cause major issues across the industry. The outages in Hubei province forced some factories elsewhere in the world to stop work weeks before those in other countries as China began lockdown measures to stop the community spread of the virus.

Fig 7 Origin of value added in final demand for motor vehicles (%)



Source: OECD Trade in Value Added database

The complexity of automotive supply chains makes it difficult as well as costly to make them more resilient to shocks. It is difficult to define how to mitigate the risks posed by future shocks that could happen within a country, region or, as with Covid-19, globally. With upwards of 10,000 suppliers in a vehicle's value chain, organised across several tiers, there are further challenges in incentivising and enforcing de-risking comprehensively enough to cover all components.

Suppliers' margins were being squeezed during the downturn in global economic activity before Covid-19, making the higher costs of increasing resilience unaffordable without raising prices. There is considerable work and expense involved in finding and retaining suppliers, that need to be able to produce to detailed specifications, and meet quality and safety standards. Holding larger inventories is another way of increasing resilience by helping production to continue amid disruptions upstream in the supply chain, but involves higher storage and working capital costs.

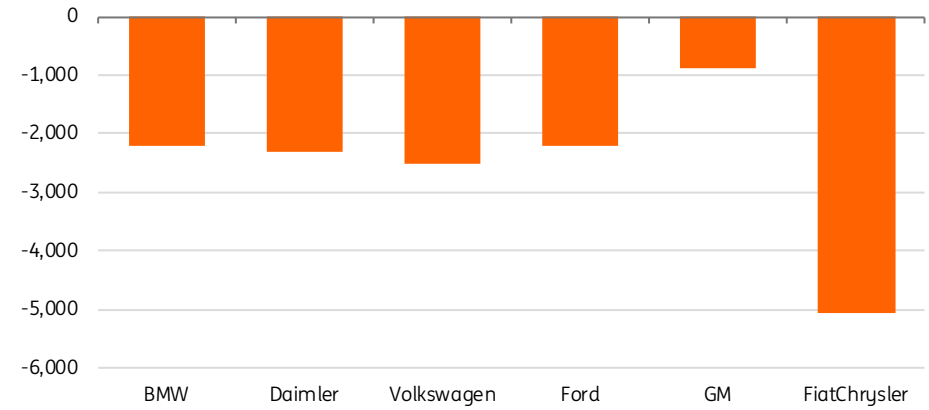
As a result of the coronavirus pandemic, existing supply chains are unlikely to be re-engineered, but as supply chains are established for new models, more redundancy could be built in. Electric vehicles involve fewer parts than engines in traditional vehicles, although more complex electronics. Having the capacity to produce batteries for electric vehicles has become a policy aim in the EU with the explicit aim of becoming less dependent on countries outside the EU. The scope for 'self sufficiency' is limited, however, as production of the cells uses raw materials imported from Latin America and Africa.

Joanna Konings and Timme Spakman

5 What is the impact of Covid-19 on OEMs and auto part suppliers in a period of transformation?

With production stoppages, lockdowns and the sharp rise in unemployment, both supply and demand for OEMs and auto part suppliers has been heavily disrupted. In this environment, car producers are burning significant amounts of cash, as fixed costs and working capital need to be financed. Management teams have taken measures to preserve cash, including cutting costs and delaying non-essential capex and R&D. Furthermore, car producers have been negotiating new credit facilities to shore up liquidity during these testing times.

Fig 8 Overview FCF industrial/auto free cash flow 1Q20 (€m; Ford and GM in US$m)



Source: Company data

Auto parts to suffer knock on effect and need to shore up liquidity

In terms of the auto parts manufacturers, we see the following effects from the current pandemic: (1) impact on volumes due to the shutdown of production facilities and lower new car sales and manufacturing, as addressed in the previous section; (2) greater pressures on auto part producers' liquidity due to the loss of revenue, earnings and cash flows and increase in debt to bridge the crisis; and (3) potential changes in the auto part manufacturers' own and OEM supply patterns.

We highlight the anticipated drop in light vehicle sales volumes earlier in this report. Understandably, this will have a corresponding knock-on effect on the demand for auto parts. While the demand for spare parts for repairs should be more stable, the new car manufacturing volumes look to be substantially impacted by both the temporary physical shutdowns as well as by the subsequent anticipated softer demand due to the likely weaker consumer confidence and household income. Conversely, if government incentives for buying new cars do materialise, this would help cushion such volume impact.

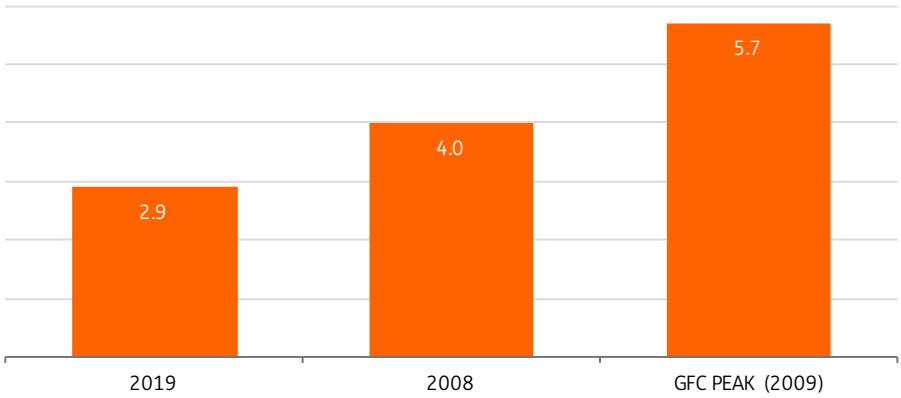
We note that for auto part manufacturers, the question of garnering sufficient liquidity is quite important at the current juncture. This is so for a number of reasons. Firstly, a significant section of prominent auto part manufacturers have a sub-investment grade rating or are unrated and, therefore, may face a more challenging environment for raising funding, including via bond markets. While bond issuance in the IG corporate space in Europe has been very active in recent weeks, helped by the ECB supportive measures, the non-IG issuance has been much more muted. However, at the right pricing levels, such debt funding can still be raised in financial markets as was illustrated by Adient which borrowed US$600m via a 2025 bond even while paying a notable coupon of 9.0%. Secondly, we believe that automakers have greater critical mass relative to auto part manufacturers, potentially compounding pressures on the latter in

terms of profitability and cash generation. We note that auto part manufacturers are taking remedial measures to preserve liquidity by cutting costs, introducing capacity reduction and temporary production shutdowns and taking advantage of various government support measures. Thirdly, auto part producers' revenue, earnings and credit profiles were already under certain pressure before the onset of the Covid-19 pandemic due to the relatively weak performance of the auto sector during 2019.

Conversely, we expect that the main auto parts manufacturers entered the current crisis with reasonable liquidity buffers, termed out or limited near-term maturities and a reasonable headroom under their bank facilities, which they have subsequently drawn down in many cases.

In its recent sector review, published at the end of April, Moody's largely echoes our conclusions expecting liquidity of the automotive part suppliers in Europe to come under pressure. However, the rating agency points out that the debt maturity profiles are currently in better shape than before the 2008 financial crisis, with short-term debt accounting for an average of 19% of Moody's adjusted total debt. Concurrently, the sector has instantly available liquidity equivalent to 14% of annual sales. Furthermore, the credit profile of the European auto part suppliers' universe is stronger at this juncture relative to the time of the global financial crisis, with Moody's aggregated adjusted debt/EBITDA ratio for the rated European auto parts suppliers at 2.9x at the end of 2019, compared to 4.0x in 2008. Leveraged measures are expected to deteriorate from present levels but, according to the rating agency, should peak below the global financial crisis highs of 5.7x. Lastly, as per Moody's, the level of profit margins at this moment is also higher than during the period of the global financial crisis when the EBITA margin troughed just above zero, at 1.4% versus 6.7% in 2019.

Fig 9 Moody's aggregate adjusted debt/EBITDA ratio for European rated auto parts suppliers



Source: Moody's, ING

On balance, we view that the matter of having sufficient liquidity will remain a concern for the sector given the uncertain outlook for manufacturing volumes, level of future demand and consequent impact on the corporate cash flows.

New measures to stimulate sales look increasingly necessary

As mentioned in this report, new measures to stimulate sales look increasingly necessary. Peugeot gave a very grim outlook for the European car market and expects sales to decline 25% this year. IHS Markit expects US cars sales to worsen 26.6% and global vehicle sales to drop 22% in 2020. In Europe, subsidies or tax advantages to scrap older cars could also help governments to achieve their climate goals and for car producers to meet their stricter EU CO_2 targets, seeing that petrol cars still accounted for 59% of car sales in Europe in 2019, diesel for 31%, hybrids for 6% and EVs (battery, fuel cell, plug-in hybrids and range extenders) for 3%. Incentives could spur sales of EVs, thereby avoiding possible fines.

Oleksiy Soroka and Hendrik Wiersma

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