Contents

[OEM Highlights] BMW sets ambitious corporate CO2 reduction goal as 2-Series Coupé set for launch 3
[OEM Highlights] Great Wall Motor sets up R&D subsidiary in Jiangsu province 4
[Energy Highlights] Geely and Farasis Energy team up for development of Li-ion-battery-related technologies 6
[Energy Highlights] DiDi, GAC team up to develop autonomous NEV model 6
[MHCV Highlights] Scania improves profits in Q1, reshuffles executive board on organisational change 8
[MHCV Highlights] UK MHCV market grows 9.5% y/y in Q1 10
[GSP] Europe Sales and Production Commentary -2021.04 12
[Supplier Trends and Highlights] Grupo Antolin develops lightweight plastic frames for panorama headliners 17
[Supplier Trends and Highlights] Baidu launches Apollo Air V2X platform 17
[VIP ASSET] Mainland Chinese medium & heavy commercial-vehicle market to fall in 2021 19
[OEM Highlights] BMW sets ambitious corporate CO2 reduction goal as 2-Series Coupé set for launch

IHS Markit perspective

Implications
The BMW Group has outlined a new environmental target to cut 200 million tonnes from its CO2 emissions from the current level by 2030, while it is also about to launch its new 2-Series Coupé.

Outlook
Much of the company’s new environmental policy will be centred around the use of reusable and recycled material, with the firm’s whole R&D policy being realigned to take into account using as much second-use materials as possible.

The BMW Group has announced a new environmental policy to cut 200 million tonnes of CO2 from its current total emissions between now and 2030, according to a company press statement. To put this into context, this is the equivalent to 20 times the annual emissions of a city with over 1 million inhabitants, such as BMW’s home base of Munich. Speaking at the company’s AGM last week, CEO Oliver Zipse outlined a new holistic approach to cutting emissions, from purchasing, production, research and development, to full vehicle lifecycle emissions. He said, “A climate-friendly car is not created solely by using green power. We must design our vehicles for sustainability from the very first day of development: reducing the amount of material used to manufacture them and, above all, planning for reuse and recycling from the very beginning. In the face of rising raw material prices, this is not just an environmental, but also a business imperative. The technology for this is extremely demanding: That is why we want to lead the way on the circular economy and play a pioneering role. We are already working on quotas for the use of secondary material in our “Neue Klasse” that are both concrete and ambitious to meet our high standards.”

At the heart of the plan is a new focus on what BMW calls its “secondary first” approach, where it will use recycled or reusable materials wherever the quality and availability of materials allow. Recycling needs are already considered in vehicle design – because extracting materials in a very pure form is key to the current recycling process, although BMW will now work with suppliers and with its own R&D processes to further hone and improve these processes. Production techniques will also be re-examined to ensure recycling is as efficient as possible, and to reuse as much material as possible at the end of the vehicle’s life. A small example of this is considering how components are attached to each other. By not securing connections with adhesive, but designing them so they can be detached again at the end of the vehicle’s life and ensuring different materials are not mixed with one another, recycling can be expedited. Last month, BMW announced that it would be developing its first ever bespoke battery electric vehicle (BEV) platform in the form of the ‘Neue Klasse’ architecture. BMW will apply the ‘secondary first’ philosophy as much as possible to this design, facilitated by it being an all-new, ‘clean sheet’ design. There will be significant focus on increasing the percentage of secondary material, such as recycled steel, plastics and
aluminium. Faced with a shortage of natural resources and rising raw material prices, BMW sees this simply as a necessary business strategy as well as a core component of lowering its carbon emissions.

Meanwhile, BMW is undertaking the final proving testing of its brand-new 2-Series Coupé. The company is currently doing the final chassis and handling tuning of the car on track, with particular emphasis on what will be the new range-topping M240i coupé, with testing taking place at the Nurburgring. The car will offer traditional BMW sporting dynamics thanks to the rear-wheel drive setup, an extremely powerful in-line six-cylinder engine, the almost 50:50 weight distribution, and a torsionally very stiff platform architecture. The car has already had and continues to undertake an extensive on-road testing programme to ensure it is equally as capable in conventional driving conditions. The range-topping M240i xDrive Coupé has the same engine and powertrain as the M340i xDrive, developing 374bhp. The xDrive powertrain is rear-wheel orientated in terms of its torque bias and delivery. However, it is not clear whether BMW will offer a pure rear-wheel drive set-up for the M240i, which some enthusiast customers will prefer.

**Outlook and implications**

This new environmental strategy described by Zipse certainly sets some bold corporate targets for BMW in terms of cutting its greenhouse gas emissions. And it is increasingly clear that OEMs are more and more keen to present a holistic environmental model that does not just focus on vehicle emissions, or even whole-life vehicle emissions. BMW is looking at every single aspect of its business in an effort to cut its emissions across the board and present itself as environmentally responsible organisation across all its activities. This makes sense from a business, branding and marketing point of view. BMW will look to cut 80% of its emissions between now and 2030 from its production and office locations, 20% per vehicle on supply chain, 40% on the vehicle use phase and 33% on entire vehicle lifecycle phase. Meanwhile the 2-Series Coupé looks as though it will be an attractive addition to the range and a worthy successor to the strong selling first-generation 2-Series Coupé. The M240i X Drive may also end up being something of a favourite for fans of BMW’s traditional performance cars. It is likely to be about 60% the price of the M4 high performance coupé, while offering a very high level of performance in comparison to the bigger, full M Car coupé, while the fact it has a six-cylinder powertrain is also likely to attract buyers put off by the four-cylinder unit in the M135i.

**[OEM Highlights] Great Wall Motor sets up R&D subsidiary in Jiangsu province**

Great Wall Motor (GWM) has set up a research and development (R&D) subsidiary in Zhangjiagang, Jiangsu province (China), reports Gasgoo. Called the Zhangjiagang Great Wall Motor R&D Co.,Ltd., the entity is fully controlled by the automaker and will focus on R&D of new material technologies, auto parts, and software, and the sale of new energy vehicles and software. The newly set-up subsidiary involves a registered capital of CNY100 million (USD15.56 million).
Outlook and implications

GWM is already setting up a new plant in Zhangjiagang with its joint venture (JV) partner BMW. The plant will have annual capacity of 160,000 units upon completion. GWM has also been actively investing in R&D of new-vehicle-related and alternative-energy technologies and launched the “331 Strategy” under its “Coffee Intelligence” programme as it aims to be a leading intelligent driving tech developer. Earlier this year, the automaker signed agreements with Qualcomm and Huawei to co-operate on in-vehicle smart chips and high computing power smart driving computing platforms. The automaker also aims to be a market leader in the hydrogen fuel-cell vehicle (FCV) sector and plans to roll out its first hydrogen-powered sport utility vehicle (SUV) this year. It claims to have invested CNY2 billion over the past five years to develop hydrogen-power-related technologies to be used in vehicles, as well as marine and rail transport. The company plans to invest another CNY3 billion over the next three years in hydrogen-related vehicle technologies.
[Energy Highlights] Geely and Farasis Energy team up for development of Li-ion-battery-related technologies

Geely Technology Group and Farasis Energy will set up a joint venture (JV) focused on battery-related businesses, according to Gasgoo. The JV will involve a registered capital of CNY1 billion (USD155.5 million), with Geely holding 65%. The scope of the JV includes research and development (R&D), as well as manufacturing and sales of energy storage and management systems such as lithium-ion (Li-ion) battery, battery module management system, and electric vehicle (EV) charging system. The JV will also work towards research, development, production, and sales of battery components such as cathode and anode materials, electrolyte, and membrane separators. Furthermore, Geely Technology will assist Farasis Energy with the validation and application of batteries in Geely Technology and Geely Commercial Vehicles Group vehicles.

Outlook and implications

The recent announcement is in line with the agreement between the two parties in December last year on the establishment of an EV battery JV. Under the agreement, construction of a battery plant with annual capacity of 20 GWh will begin during 2021. Geely Technology Group, a company directly controlled by Geely Group’s chairman, Li Shufu, also recently signed an agreement with local authorities to invest CNY30 billion to build an EV battery factory in Ganzhou, Jiangxi province. The plant will have annual capacity of 42 GWh and will be constructed in two phases, with the first phase to have annual capacity of 12 GWh.

[Energy Highlights] DiDi, GAC team up to develop autonomous NEV model

GAC Aion, the electric vehicle (EV) subsidiary of GAC Group, has teamed up with DiDi to co-operate on the development of an autonomous new energy vehicle (NEV) model for large-scale commercial application, according to Gasgoo. The two companies will integrate DiDi Autonomous Driving’s hardware and software technologies with GAC Aion’s NEV design and manufacturing capabilities and the resources of autonomous car platform. Zhang Bo, CTO of DiDi, said “DiDi will continue to increase investment in the R&D of autonomous driving technologies to make future transportation and travelling safer and more efficient”.

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Outlook and implications

GAC Aion has stepped up its efforts in the area of autonomous and electric vehicles (AVs, EVs). The company introduced the Aion LX in 2019 with Level 3 autonomous capabilities and last year, announced plans to pilot Level 4 AV operation in designated regions in 2023. DiDi and GAC already have a partnership in areas such as ride-hailing operations and fleet management. DiDi has been working on autonomous vehicle technologies for around five years and has established a subsidiary in Shanghai to develop technologies for connected and automated vehicles. DiDi also has partnerships with other companies for development of connected vehicles and autonomous vehicle technology.
[MHCV Highlights] Scania improves profits in Q1, reshuffles executive board on organisational change

IHS Markit perspective

| Implications | Scania has announced that its profitability has returned to around normal levels during the first quarter of 2021 following pressures brought on by the COVID-19 virus pandemic a year ago, as well as making changes to its organisation to reflect shifts in business and technology. Despite the improvement during the most recent quarter alongside a strong truck order intake, the company continues to face challenges from the COVID-19 virus in some markets as well as the semiconductor shortage, although it appears to have been less affected than some. IHS Markit expects that sales volumes will increase by almost 19% y/y during 2021 to nearly 85,000 units, a solid improvement on 2020, but below the levels recorded in 2019. |
|--------------------------------|
| Outlook | Scania has announced that its profitability has returned to around normal levels during the first quarter of 2021 following pressures brought on by the coronavirus disease 2019 (COVID-19) virus pandemic a year ago. For the three months ending 31 March, the truck- and bus-maker reported net sales had increased by 8% year on year (y/y) to SEK35,708 million. Operating income jumped by 55% y/y to SEK4,657 million, while its operating margin jumped from 9.1% in the first quarter of 2020 to 13.1%. Net income also almost doubled to SEK3,469 million from SEK1,783 million. Net sales at its core Vehicle and Services unit increased by 8.8% y/y to SEK34,610 million during the quarter. Of this, Trucks made up SEK16,036 million, a gain of 20% y/y, as deliveries plummeted leapt by 32.6% y/y to 22,023 units. However, its Buses division's revenues continued to fall, this quarter by 35.1% y/y to SEK1,789 million as its delivery volume dropped by 36% y/y to 1,010 units. In addition, its Service-related products business recorded a decline in revenues of 3.1% y/y to SEK7,274 million, while its Power Solutions unit fell 14% y/y to SEK552 million. Operating profit at its Vehicle and Services units increased by 51.6% y/y to SEK4,135 million. |

Separately, Scania has also announced that it has made some changes to its organisation to reflect shifts in business and technology. According to a statement, Scania is merging Research and Development (R&D), Production and Logistics and Purchasing together into a single organisation, known as Industrial Operations. This, it said, “enables an extended focus on productivity and flow, and to be better prepared for the challenges in a transformative environment.” It has also created a new Mobility Solutions unit, which merges Autonomous Solutions and its wholly owned subsidiary, LOTS Group. This reflects the pair’s existing work in a more service-based business model and other customers than Scania’s traditional heavy vehicles and services customers. These changes came into effect on 7 May.
In addition to the changes at an organisational level, the company has undertaken changes at an Executive Board level. Anders Williamsson, formerly executive vice-president and head of Purchasing, has been made head of the new Industrial Operations unit. Mats Gunnarsson, formerly Executive Regional Director for the Americas, Commercial Operations, has been made an executive vice-president and head of Commercial Operations across the business. Martin Lewerth was also made an executive vice-president and head of the new Mobility Solutions from 1 April, having previously been the manager for LOTS Group. The Executive Board also has three other members who carry the title executive vice-president. These are Alexander Vlaskamp, head of Sales and Marketing; Helle Bay, head of People and Culture (which replaces Human Resources); and Johan Haeggman, chief financial officer.

**Outlook and implications**

The improved performance in the first quarter of 2021 reflects the challenging situation as the COVID-19 virus pandemic emerged a year ago as well as fulfilling orders that were previously delayed or cancelled due to the uncertainty that followed. Indeed, this is underlined by a growth in truck deliveries across all its regions. In Europe, deliveries are up by 16% y/y to 11,806 units, while Asia has grown by 22.9% y/y to 2,837 units and Africa and Oceania has expanded 27.2% y/y to 1,025 units. Even more impressive gains were recorded in its America region, which reflects its South American operations, which has increased by 71.7% y/y to 4,618 units, and its Eurasia region which nearly trebled as it grew from 622 units to 1,737 units. Scania is also seeing a much larger order intake than it did a year ago, when it orders dropped by 27.2% y/y. During the most recent quarter, the number of orders it received almost doubled from 18,058 units to 35,937 units, reflecting the greater activity.

However, the current situation is not without its challenges. With restrictions related to the pandemic still ongoing in parts of the world, especially as new variants emerge, the Buses unit continues to struggle, as public transport and tourism remain areas of weakness. As well as a drop in sales volumes compared to a year ago in nearly all its regions, the number of orders placed during the quarter is down by 61.5% y/y to 1,007 units. The America region has been an especially big drag with volumes down by 77.3% y/y to 377 units.

Furthermore, the semiconductor shortage that has been plaguing the automotive industry in recent times due to a combination of competition from consumer goods manufacturers, a faster ramp-up of automotive production than expected, and the impact of bad weather and a fire hitting key production sites, continues to overhang its business. However, the truck-maker’s president and CEO, Christian Levin, has said in a statement that “despite an imminent risk of production disruptions Scania, as one of the few European manufacturers, has managed to maintain a high production rate without any stoppages due to shortage of components in the first quarter.” He added, “This is thanks to intense and successful cross-functional efforts in close collaboration with our suppliers.” However, he said that the daily production pace of its European production footprint “is slightly reduced during a few number of days in
the second quarter, as a temporary measure to handle the shortage of semiconductors”. Even so, this is a far less significant disruption than some have suffered.

Looking at the full year, IHS Markit expects that sales volumes will increase by almost 19% y/y during 2021 to nearly 85,000 units, a solid improvement on 2020 when some of the biggest COVID-19 virus hit has been felt. However, this will be just above the levels recorded in 2017 and around 15.5% below 2019's volumes, which is a level we do not envisage being reached again before the end of the decade.

[MHCV Highlights] UK MHCV market grows 9.5% y/y in Q1

The UK medium and heavy commercial vehicle (MHCV) market grew by 9.5% year on year (y/y) during the first quarter of 2021. According to the latest data published by the Society of Motor Manufacturers and Traders (SMMT), demand for vehicles with a gross vehicle weight (GVW) of 6 tonnes during this period increased from 9,193 units to 10,064 units. Of this total, tractor types led the way in terms of both volume and growth, increasing by 26.6% y/y to 4,456 units. Registrations of tippers also increased, by 10.4% y/y to 1,057 units. However, sales of vehicles with box van bodies dropped 9.7% y/y to 1,084 units and those of vehicles with curtain-sided bodies contracted by 17.6% y/y to 646 units. Sales of vehicles with refuse disposal bodies also dipped modestly, by 1.0% y/y to 575 units. Separately, bus and coach data for the UK market published by the SMMT show registrations plunging by 58.5% y/y to 582 units in the first quarter. Of this total, sales of minibus-type vehicles over 3.5 tonnes shrunk 59.2% y/y to 384 units, while sales of single-deck vehicles contracted by 72.6% y/y to 91 units. Sales of double-deck variants fell by “only” 17.7% y/y to 107 units.

Outlook and implications

It has been a positive start to 2021 for the MHCV category, although this growth will have been partly helped by the low base towards the end of the first quarter of 2020 when the first coronavirus disease 2019 (COVID-19) virus-related lockdowns were introduced. This brought the UK to a halt as restrictions on movement were implemented that kept workers in many industries at home. Although restrictions were in place across most of the first quarter of 2021, manufacturing kept going, and other businesses tried to find ways to work around the restrictions. Nevertheless, despite the growth in the first quarter, volumes remained down by 15.1% compared with the first quarter of 2019, suggesting that the market is still subdued. However, the situation is far, far worse in the bus and coach market. The SMMT said that the national lockdowns imposed during the first quarter hurt sales, combined with “a longer-term challenge of declining ridership”. This has been compounded by the COVID-19 virus, with ridership down by 32% y/y during the period. The SMMT has called on the UK government’s “Bus Back Better” plan to address these issues, “especially given the potential change in future travel patterns with working from home on the rise, and transport mode preferences changing as the nation emerges from lockdown”. Mike Hawes, the chief executive of the SMMT, added, “The sector urgently needs a boost in operator confidence to restore order books before we can even to begin to talk about recovery. Given that the UK needs to replace at least 4,000 vehicles a year as they retire from service, we are dangerously at risk of a bus shortage at a time when public transport will be needed most as businesses return to work.” IHS Markit expects UK MHCV sales to grow by around 18% y/y to 42,300 units in 2021, although this will still be down by around 20% compared
with 2019. Furthermore, we see bus registrations increasing by around 31% y/y to 2,500 units in 2021, but this will still be down by around 28% compared with 2019 and 43.5% compared with 2017.
Europe sales
March 2021: +53.0%; 1.869 million units vs. 1.221 million units
YTD 2021: +3.3%; 4.228 million units vs. 4.093 million units

- The global spread of the COVID-19 virus and efforts to contain it are shaping the near-term economic outlook. The IHS Markit baseline forecast assumes that an effective vaccine will not be widely available until late 2021 or early 2022 and government restrictions on activities will be progressively eased through the remainder of the second quarter of 2021. The COVID-19 pandemic has emerged as the single-biggest risk factor facing the automotive industry for many years. The COVID-19 crisis piles intense additional pressure on an already stressed automotive industry, and the latest forecast includes downgrades across virtually all regions.

- Although the declines were steep during the first two months of 2021, they are not as heavy as those recorded in early 2020. This is expected owing to the level of dealer readiness for new sales and handover processes that were not in place at the time of earlier lockdowns, which will support ongoing vehicle registrations. However, although automakers have begun offering online vehicle orders and some dealers can take orders over the phone, customers either seem to be less confident about this method or preoccupied by the wider implications of the lockdowns. This will likely lead to a depleted orderbook and therefore, will have a knock-on effect during earlier months of 2021. At the same time, those in the most heavily affected sectors, such as nonessential retail and hospitality, which will be more reliant on government support measures, are also less likely to enter the market when dealers reopen.

- The European passenger car market dropped almost one-fourth in 2020 as key markets implemented restrictions to tackle the spread of the COVID-19 virus during the year. The European market fell 20.4% year on year (y/y) to 16.41 million registrations in 2020. Registrations in February slipped 15.0% y/y to 1,208,218 units owing to COVID-19-related restrictions remaining in some markets along with other factors.

- Light vehicle sales have jumped by 53.0% y/y during March on the low base caused by the strict COVID-19 virus restrictions that were introduced in some key markets a year ago. According to the latest IHS Markit forecast, the region has risen to 1,869,411 units from 1,221,981 units. Despite steep declines during the first two months of 2021, the recent improvement has managed to offset the fall. During the first quarter, registrations have now grown by 3.3% y/y to 4,228,035 units. The huge swing upward is thanks to the exceptionally low base of comparison caused by measures introduced in several key markets to prevent the spread of the COVID-19 virus in 2020. Similar or even greater growth rates are expected during the next month or so because of this situation, although like this month, volumes may well be lower than they were before the pandemic.
During March, the Western European markets performed quite equally, with strong gains in most countries, which was expected owing to the low base of comparison caused by the first strict COVID-19 virus–related lockdown that was introduced part way through March 2020. There were triple-digit gains in countries such as Austria (up 162.9%), France (up 190.2%), Greece (up 143.8%), Italy (up 447.3%), and Spain (up 133.1%). Out of the Big Five markets, Italy showed the biggest gains with an increase of 447.3%, followed by France (up 190.2%). The other three markets showed strong gains with Spain up 133.1%, Germany up 34.6%, and the UK up 14.1%. Moreover, the implemented car stimulus programs directly affect the recovery of the different markets.

Looking back to 2020, the Western European market was down 19.2% y/y. The market started solidly in first quarter 2020, but the COVID-19 outbreak significantly changed the trend and pushed the market into a deep recession, with sales volumes falling massively in second quarter 2020. With lower infection numbers and government support, sales volumes improved in the third quarter, until the second wave of COVID-19 infections arrived and again dragged down sales volumes. On the positive side, governments around the world are working toward sustainable ways to manage the COVID-19 pandemic. Recovery cycles will be largely determined by the path of the pandemic, including progress on vaccine programs. All parts of Western Europe face a spring of stubbornly high COVID-19 infection rates and ongoing restrictions, which could further dent automotive demand prospects. The crisis intensifies operational and economic pressures on an already-stressed global automotive industry, especially as OEMs and suppliers finetune strategies toward coping with “new normal” vehicle demand levels.

The eurozone is set for a second, albeit less severe, recession. The rebound after the easing of COVID-19 containment measures in mid-2020 was curtailed by the reintroduction of widespread restrictions in late 2020. Eurozone GDP contracted by a smaller-than-expected 0.6% quarter on quarter (q/q) in fourth quarter 2020, but a somewhat deeper q/q decline is likely in first quarter 2021. Service-sector activity will continue to underperform manufacturing, reflecting current containment measures.

Eurozone GDP will contract again in the first quarter. Leading indicators and high-frequency activity data continue to show the effects of COVID-19 virus containment measures on key areas of economic activity. Weakness in private consumption and services will drive a second successive q/q decline in GDP.

Manufacturing sector outperformance has continued. Business surveys, including the IHS Markit Purchasing Managers’ Index® (PMI®) data, show continued buoyant conditions in manufacturing, with production experiencing a V-shaped recovery. Strength in external demand has played a key role.

A consumer-led growth spurt is forecast starting in the second quarter. The easing of restrictions and the unwinding of the 2020 jump in household savings rates will drive a strong rebound in GDP growth rates in mid-2021. Still, GDP is not forecast to return to its pre-COVID-19 level until 2022.

Conditions will continue to vary across eurozone member states. Given variations in the containment of the COVID-19 virus, related restrictions, economic structure, and available policy space, economic performance will continue to diverge at a country level. The more manufacturing-driven economies, such as Germany,
outperformed in fourth quarter 2020. The highly indebted, services-orientated economies of southern Europe will take longer to return to their pre-COVID-19 GDP levels.

- Multiple risks surround the outlook. The European Central Bank’s (ECB’s) ongoing expansion of net asset purchases and long-term loan provision to banks has contributed to favorable financial conditions, coupled with the EU-wide agreement on the Recovery and Resilience Facility (RRF). Still, high public-sector debt burdens, legal constraints on the ECB, and banking-sector vulnerabilities remain sources of concern. Long-term interest rates have also started to rise, albeit from exceptionally low levels, owing to concerns over higher future inflation rates.

- The latest COVID-19 developments suggest the first quarter of 2021 will be weaker, with eurozone real GDP contracting q/q for a second consecutive quarter. With the downturn extended, the eurozone economy should bounce back more vigorously in the second quarter, followed by well above-potential growth in the second half of 2021 as vaccinations allow fewer restrictions on activity. The third quarter and the holiday season will be pivotal to some of the economies hardest hit by the pandemic.

- Compared with the development in Western Europe, demand in Central Europe was on a similar positive level and recorded a 43.5% gain in March 2021 with 129,941 units, which means a 0.2% loss during the first quarter of 2021. After more than one year of steep falls, the Central European market posted an increase of 43.5% during the third month of the year, which is a bit lower than the performance of the Western European region. Increases and volume gains in March were seen in all Central European markets, such as Bulgaria (up 31.2%), Poland (up 50.7%), Czech Republic (up 27.1%), Hungary (up 9.3%), and Romania (up 74.9%). In addition, Eastern Europe was not able to show a similar result than the other two markets in European region again. Demand in Eastern Europe during the month posted growth of 11.3% compared with the same period last year. The main reason for this solid volume was again the strong result in the Turkish market (up 92.8%), which is related to the low base level in the Turkish car market during 2019–20.

- For full-year 2020, the European light vehicle market posted a significant loss of 20.4%, with sales of 16,417,367 units, mainly related to the outbreak of the COVID-19 pandemic in spring 2020. The results were affected by losses in Western Europe (down 23.7%) and similar losses in Central Europe (down 23.8%). The Eastern European region was dragging up the sales level of the whole European region with a gain of 2.1% for full-year 2020. Despite the good news that effective vaccines will be widely available by third quarter 2021, expectations for the second quarter of 2021 leaned toward the cautious side. The global spread of the COVID-19 virus will still have a fundamentally impact on the near-term economic outlook.

- Other than the COVID-19 virus outbreak, which will have a massive effect for a longer period, there are further downside risks. Protectionism is a prominent source of concern. The threat of an all-out trade war could be enough to defer some expenditure, especially investment. Emerging-market turbulence is an additional headwind to growth and a source of uncertainty. Political developments in Italy, the potential effect on sovereign yields and spreads, and contagion to other member states also merit attention.
For the western part of the continent, IHS Markit analysts predict a recovery within this region with a 9.9% increase, up to 13.72 million units—about 1.2 million units more than in 2020. Western and Central Europe combined, recovery is expected to reach only 15.2 million units in 2021—about 9.7% above the 2020 level. In the east, turmoil is far from over in Russia and its neighboring countries, with expectations being held at bay. The recovery of the Turkish economy, especially with the stabilization of the Turkish lira and changes in local taxation, has resulted in a jump of vehicle sales in the country. The latest data show a better performance than in the Western and Central European markets, with growth of 5.3% in Eastern European sales after the first quarter of 2021. For full-year 2020, Turkish light vehicle sales advanced 61.3% y/y thanks to the low base of comparison. The ongoing economic recovery and interest rate cuts have boosted deferred vehicle demand. However, the recent geopolitical tensions may affect growth performance. Aimed at boosting domestic demand in the face of the COVID-19 virus crisis, lower interest rates significantly raise downside risks to the stability of the lira. Some OEMs announced suspended production at Turkish plants for several weeks amid the COVID-19 virus outbreak. Currently, the net effect of the COVID-19 virus to Turkey's economic activity remains uncertain. Generally, for the short term, a gradual recovery in the new vehicle market will be seen on the back of an economic growth rebound that started in 2020.

For the Eastern European region, the outcome for 2021 is uncertain because of the COVID-19 global pandemic. Because of various restrictive measures imposed by national governments and the expected overall economic downturn, IHS Markit analysts have considerably decreased the assumptions in 2020–21 for Russia, Belarus, Kazakhstan, and Ukraine. In 2021, sales in Eastern Europe are expected to grow only slightly by 2.2%. A marginal improvement in Russia is likely along with an ongoing slight recovery in Turkey, where the market might suffer a light payback effect after the advanced buying in 2020. Demand in Ukraine, Kazakhstan, and Uzbekistan is expected to slightly increase, while the Belarusian market might further contract. Sales will exceed 4.0 million units in the next decade, as Russia approaches the 2.0-million-unit mark and Turkey becomes a 1.0-million-unit market in 2026–27. Nevertheless, Eastern Europe is not expected to return to its 2012 mark (23%) of European sales before 2034. Europe is now gripped by a full-scale COVID-19 crisis, with demand conditions worsening by the day. The region faces months of rolling disruption, as the conjoined health and economic crises play out across economies. Combined Western and Central European auto demand for 2021 is set at 15.2 million units, up 9.7% over 2020, but still significantly below pre-virus settings.

In the longer term, Western Europe is not expected to return to the 2007 sales peak level. Some markets may even enter a demotorization phase in the early stages of the next decade. Surprisingly, the recovery path is expected to be on the positive side. Pent-up demand is larger and, above all, releasing far sooner and faster than anticipated. This result was helped by a general environment that has been supportive, which includes extremely low energy prices, fast gains in purchasing power in many countries, and the ECB’s monetary policy. However, for the longer term, many of the core issues—including public debt, unemployment, and pension systems—will still be in place. Moreover, Europe will have to cope with structural constraints—such as dull
demographics (with some exceptions); increasingly constraining transport legislation; and disruptive social evolutions (e.g., shifts in transport habits and relationship with cars)—in the same time frame, which could hamper vehicle sales potential. The continent must also cope with the Brexit effect. Moreover, the transfer to electrification will lead to a phase of uncertainty because it is not clear which concept (plug-in hybrid electric, battery electric, compressed natural gas, fuel cell, gasoline, or diesel) will come out on top. Especially in the private-car buyer sector, the uncertainty will continue because nobody wants to be stuck with an "outdated" car or concept. In addition, OEMs’ fleet carbon dioxide (CO₂) emissions targets starting from 2020/21 will be a huge challenge for all participants and will affect the market structure, powertrain mix, and car prices. On the positive side, growth in Central European countries should become more sustainable, since the market is far from being saturated, and new demand (i.e., newcomers to the new car market) should keep building, along with wealth and income gains. Eastern Europe should also rebound in the medium-to-longer term. Prospects in Turkey are bright, thanks to strong demographic and economic potentials. Russia presents a more complex case. Undoubtedly, this market can easily yield 2.5 million units on a regular basis, but some structural evolutions (e.g., creating a more diversified economy) are necessary to turn the fragile giant into a top player.

Europe production

March 2021: +40.5%; 1.72 million units vs. 1.22 million units
YTD 2021: -0.9%; 4.67 million units vs. 4.71 million units

- Since the December forecast update and the rise of the semiconductor crisis, the forecast for production in Europe was downgraded by 345,000 units, with first quarter down by 230,000 units, second quarter down by 205,000 units, and second half upgraded by 90,000 units. The peak of the impact of the chip shortage will likely take place during the second quarter of 2021, but the return to normal is unlikely before the first quarter of 2022.
[Supplier Trends and Highlights] Grupo Antolin develops lightweight plastic frames for panorama headliners

Company claims the new plastic frames allow to reduce up to 60% the weight of the part over other traditional solutions

Grupo Antolin has developed lightweight plastic frames for panorama headliners. According to a company press release on 14 May, Grupo Antolin, in collaboration with BASF, have successfully validated the use of material family Ultradur® in plastic frames of solar and panorama headliners. The Spanish supplier has used BASF’s PBT-ASA-PET, a material from the polyester family. It is reinforced with fiber glass to increase the rigidity and stability of the part. Key advantages of this material are high rigidity, ease of molding and processing, low total shrinkage and high dimensional stability, and good resistance to high and low temperatures.

Grupo Antolin has informed that following the predevelopment work done with a German customer, the first pilot with this material was launched for an undisclosed vehicle. Later, more programs have been marketed with this solution for several OEMs at global scale.

Outlook and implications

The company claims that design of these plastic frame allows to reduce up to 60% the weight of the part over other traditional solutions on the market. Grupo Antolin was able to achieve this by changing the process of attaching the frame to the headliner that allows to eliminate additional process steps, to improve tolerances assembly and, ultimately, improve perceived quality of the final part. In addition, this new process is completely sustainable by not involving solvents or generating emissions.

[Supplier Trends and Highlights] Baidu launches Apollo Air V2X platform

Apollo Air was codeveloped by the Institute for AI Industry Research
Baidu has launched the Apollo Air vehicle-to-everything (V2X) technology which enables Level 4 autonomous driving on public roads using roadside sensing, Traffic Technology Today reported on 14 May.

Apollo Air was codeveloped by the Institute for AI Industry Research (AIR). The technology uses vehicle-road-cloud coordination to augment the perception system of an autonomous car. The article states that Apollo Air enables vehicle without sensor equipment to attain high-level autonomous driving capabilities.

“Apollo Air enables a high degree of coordination between sensor-less vehicles, smart roads and data clouds through a series of miniature roadside sensors with 5G and V2X wireless communication technology,” said Ji Tao, general manager of intelligent transportation product development at Baidu, as quoted in the article.

**Outlook and implications**

Apollo Air’s capabilities in L4 autonomous driving scenarios were tested at multiple intersections in Beijing, Guangzhou, and Cangzhou. Baidu wishes to gradually integrate parts of Apollo Air’s road sensing capabilities with mass-production-ready V2X solutions for reliable road sensing data for robo-taxi operation and advanced driver-assistance systems (ADAS).

In April, Baidu announced plans to open fully driverless robo-taxi services in Beijing's Shougang Park—one of the venues for the 2022 Beijing Winter Olympics—and will be transporting visitors to the venue.
[VIP ASSET] Mainland Chinese medium & heavy commercial-vehicle market to fall in 2021

After peaking at 1.88 million units in the 2020 pandemic year, mainland Chinese sales of new trucks and buses above 6 tons gross vehicle weight (GVW) is expected to decline by more than 20% y/y in 2021. Demand of trucks, particularly in the heavy-duty segment which accounts for nearly 80% market share, represents the key dragger of the weak prospect. Meanwhile, demand of buses is forecast to rise by 11% y/y, yet the gains will be too small to reverse the downward trend.

Although the restoration of road freight transport and infrastructural construction under the government's effective containment measures, fiscal incentive packages, as well as initiation of the 14th Five-Year-Plan will support a solid incremental demand for heavy tractor and construction trucks, the replacement demand, contributing to over 60% of new truck sales in mainland China, may lose steam in 2021 with stimulus from anti-pollution campaigns and the expressway tolling reform fading away. In contrast to the massive environmental governance in 2020 that forced out above 600,000 units pre-2015 trucks meeting the China I-III emission standards, the enforcement actions in 2021 will be regional and are estimated to bring up to 300,000 units truck replacements under extended traffic bans on pre-2017 China IV trucks. The heavy truck replacements will decrease further with the weight-to-axle expressway tolling becoming normalized. On the other hand, the intensified overloading and oversize control on light-duty trucks may generate some upsize demand for medium trucks.

According to the latest data released by the China Association of Automobile Manufacturers (CAAM), sales of new trucks above 6 tons GVW reached 211,000 units in April 2021, down 18% from March. IHS Markit anticipates the truck market downside to accelerate in the second half of 2021, as the government began to unwind investments in infrastructural and transportation fixed assets and put priority to deleveraging and financial de-risking, and moreover, there are several stimulus opportunities remaining in place before July. The main driver is nationwide implementation of the China VI-a diesel emission standard on July 1, 2021, which will lead to about 200,000 units de-stocking of China V diesel trucks during the first half under the recent price competition. Another 30,000 units pre-purchase is projected, considering around 2% price inflation after the mandatory installation of electronic stability control systems and autonomous emergency braking systems on new heavy tractors from May, as required by the safety specification for towing vehicles and trailers for cargo transportation. In addition, the upgrade of heavy dumper trucks to full-enclosed and intelligent ones in the city of Dongguan will trigger 5,000 units truck replacements ahead of the deadline in June.

In terms of buses, the market stayed gloomy during the first four months of 2021, given overdrawn demand after pre-buy in response to the downhill of new energy vehicle (NEV) subsidies from January and subdued public transit under tightened containment measures against the epidemic resurgence from late last year. Sales of new buses above 6 tons GVW, as per CAAM update, plunged 37% from the pre-pandemic norm of 2019.. IHS Markit expects the market to
rebound from the second quarter supported by the mass vaccination campaign and the government's policy objective to expand NEV penetration in the public transport sector of key regions to 80% by end-2021.

Mainland Chinese medium and heavy commercial-vehicle exports are projected to regain double-digit growth in 2021 with the revival of global demand, but it will stay below 10% of total production. Therefore, IHS Markit anticipates mainland Chinese production of trucks and buses in 2021 to be corrected with domestic demand by 24% y/y to 1.39 million units and 11% y/y to 114,000 units, respectively.

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