COVID IMPACT ON
AUTOMOBILE SECTOR

PIERIAN SERVICES

Simplify > Accelerate > Grow

The outbreak of COVID-19 has pushed the global economy and humanity into disaster. In the plan to control this pandemic, the governments of all the countries have imposed a nationwide lockdown. Although the lockdown has assisted in limiting the spread of the disease, it has brutally affected the country, unsettling the complete value-chains of the most important industries throughout the world. The Pandemic had a foremost impact on all features of industries which includes the automobile sector, with key manufacturers either completely close following the directions of local governments or running an organization with minimal staff at the manufacturing units to keep their personnel safe. Over the last 18-20 months, the automobile field had already undergone significant delay due to structural modification openings with goods and services tax, axle-load reforms, shift to shared mobility, liquidity crunch, and so on industries had faced major effect and has roughly been at a complete idle since 24 March, 2020 due to COVID-19's lockdown. Extended truncation of the customer demand due to lockdowns observed drastically distressing auto manufacturers. Most of the companies need the support of R&D (Research and development) to maintain their core functions and potentially get back the growth made on mobility technologies as well as alternate fuels.

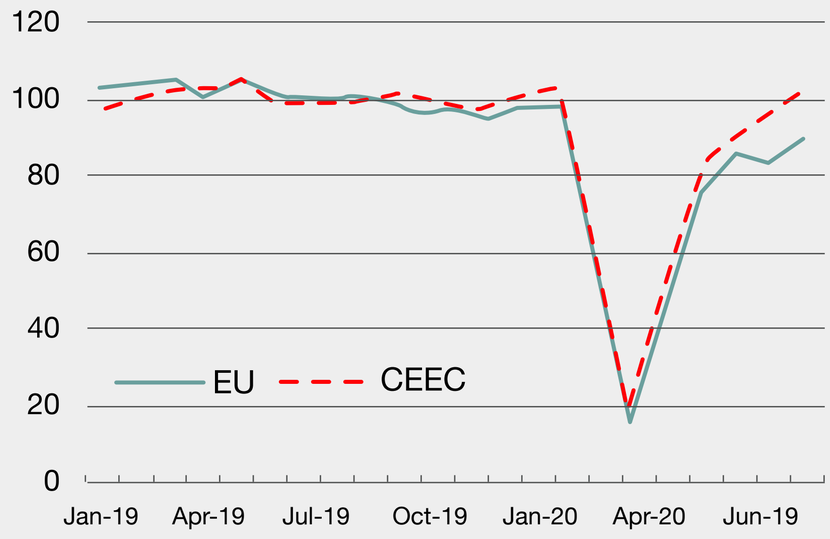
The automotive sector in Central and Eastern Europe and Asia has been severely hit. The Covid-19 pandemic exposed the worldwide automotive industry to an unprecedented shock. In Europe, the implementation of containment measures has caused production and demand disruptions to carmakers and their sub-contractors. In early 2020, the abrupt production stop rippled through the industry, effectively closing down the entire supply chain. Lifting of restrictions at a different speed across sectors and countries have resulted in input shortages in the sector's complex value chains. At the same time and more persistently, a demand shock markedly reduced production across all assemblers. More recently, the main factor affecting the automotive sector has been the ongoing negative demand shock. Recent lockdowns in response to the resurgence of the virus have not caused supply disruptions so far. The effects of the crisis materialized early and were pronounced in the CEE region (Figure 2,). **In particular, car sales have plunged by almost 32% in the first two quarters of 2020 (ACEA, 2020). Car production effectively stopped for an average 28 days. In September, the estimated fall in car production due to factory shutdowns and persistently reduced production capacity ranged from around 17% in Slovakia to 25% in Poland compared to 2019 levels (Figure 2). While the shock is significant, it has been lower in most CEE countries than on average in the EU.**

Prospects are uncertain and largely depend on German demand After the first lockdowns in spring 2020, production in the motor vehicle manufacturing industry has rebounded strongly in Europe and rapidly reached its pre-crisis level in the CEE region (Figure 2). However, it can remain well below full capacity levels in the longer term. In particular, demand for cars is highly sensitive to economic conditions and economic prospects have deteriorated significantly, with massive job destruction expected in the medium run (OECD, 2020). Losses to household purchasing power and a high level of uncertainty will weigh on demand for durable goods whose purchases can be delayed, such as cars. After a strong rebound, consumer interest in cars produced in the CEE regions has softened over the last few months (Figure 2). The European Automobile Manufacturers' Association and S&P see car sales in the European Union falling by 25% and 20% respectively in 2020 (ACEA, 2020) (S&P Global Ratings, 2020). **Based on the pre-crisis relationship between car sales and fundamental drivers and on the OECD Economic Outlook projections (OECD, 2020), demand for cars manufactured in Europe is projected to remain 8% below its 2019 level in 2021 in absence of policy support.**

FIGURE 2. PRODUCTION HAS SIGNIFICANTLY DECLINED

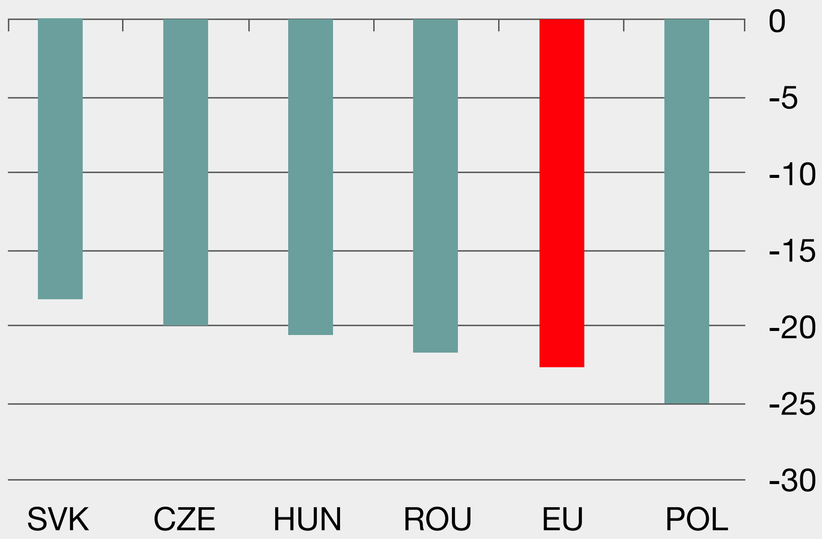
A. volume of production of motor vehicles, trailers and semi-trailers

Index 2019=100, seasonally adjusted

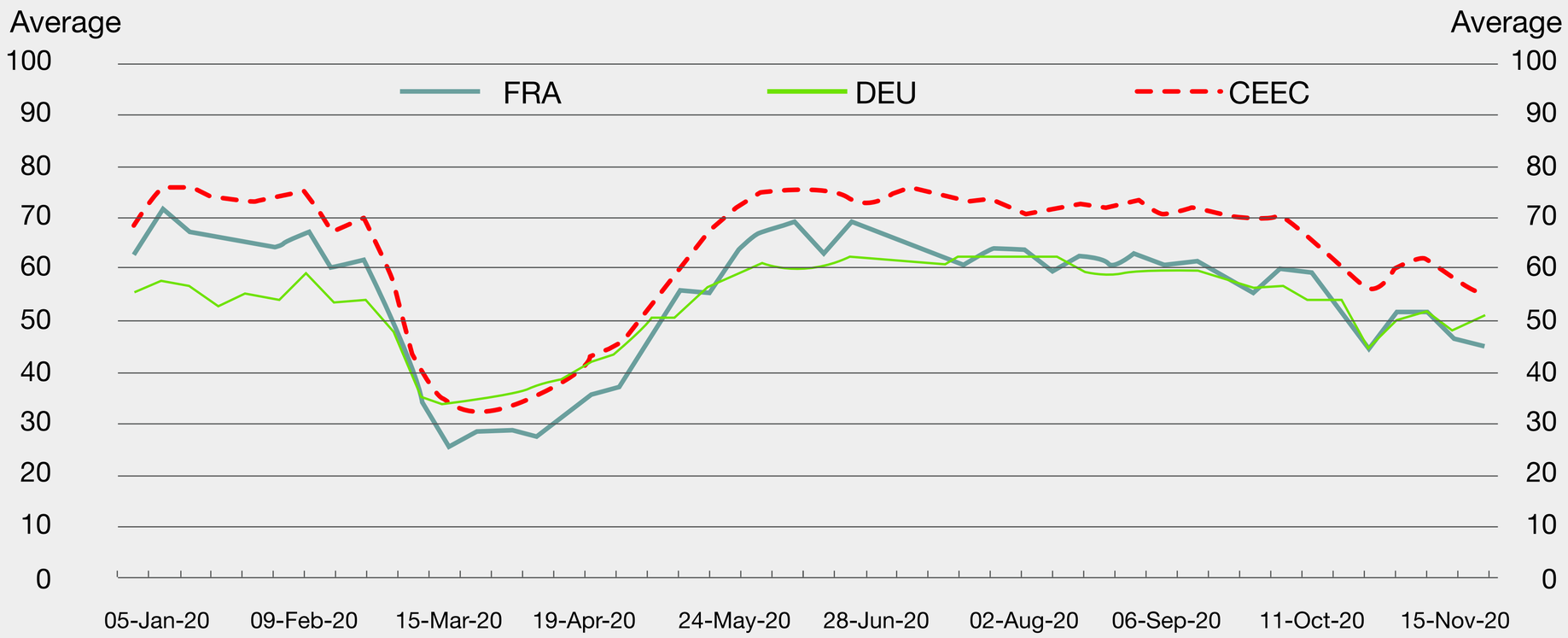


B. Estimated production reductions in the CEEC region until September 2020

ACEA's estimates compared to 2019 production[2]



C. Worldwide Google search on auto and vehicles produced in the CEEC region and selected countries



1. In panel A, CEEC include the Czech Republic, Hungary, Poland, Slovak Republic and Romania. This Data refers to the Motor vehicles, trailers and semi-trailers industry (i.e. category 29 in the ISIC Rev 4 classification), except for Slovak Republic (Manufacture of transport equipment industry i.e., categories 29 and 30).

2. Panel B shows the impact of the coronavirus pandemic on the production of passenger cars and light commercial vehicles (up to 6 tons) in 2020 (until September), compared to 2019 production. The EU aggregate take also into account the United Kingdom.

3. Averages of the interest over time on car models produced in each country/region (from Google Trends). The interest over time represents the number of worldwide searches for each car model produced in the country/region, relative to the highest number of researches recorded over the period from 1st January 2019 to 29th November 2020. This indicator varies between zero (no or limited number of searches) and 100 (peak of popularity).

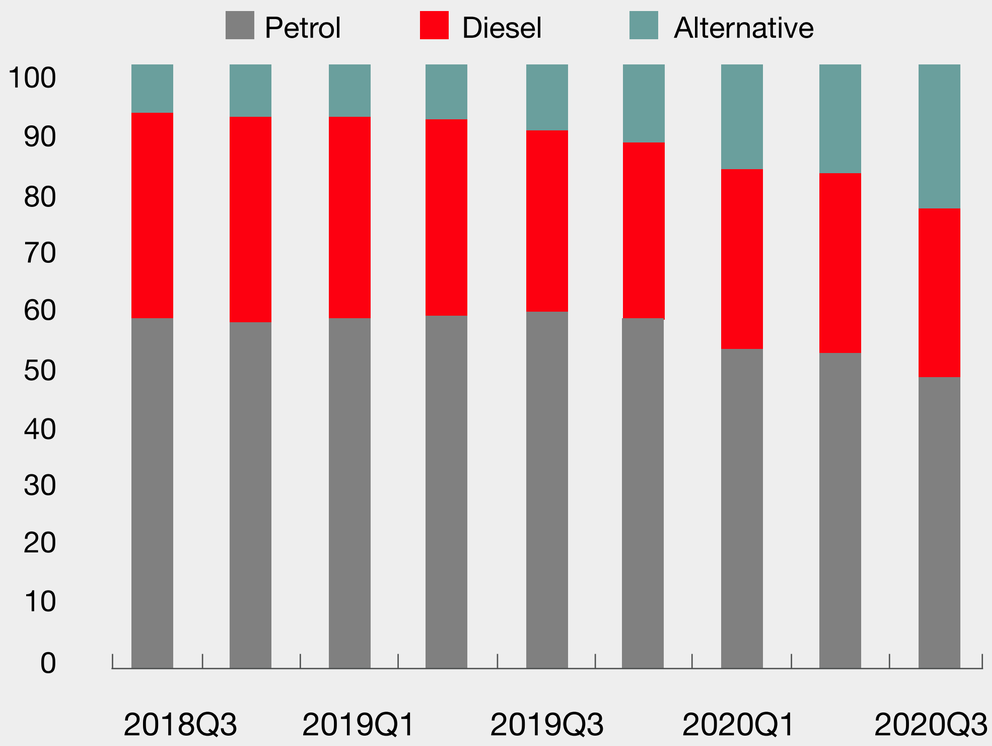
Source: Eurostat; National Bank of Slovakia; and OECD calculations based on ACEA and Google Trends.

The negative impact of the on-going economic crisis could also differ among market segments. The share of small cars in total car sales tends to increase during downturns, even when oil prices drop. As a result, car production in the CEE region could fare relatively better than elsewhere in Europe because of this focus on mass-market segments. Multi-national producers operating in CEE countries are mostly producing smaller and cheaper models within their respective model range.
By contrast, car producers in CEE countries might not benefit from the increasing appetite of consumers for electric cars. Demand for electric cars has surged since the beginning of the year, supported by government programs. While new car sales declined by 38% in the first half of 2020 in Europe, electric car sales increased by more than 20% and their market share reached almost 20% (Figure 4). As a result, production of electric cars fared much better than the combustion engine segment. Alternative car sales have increased in most CEEs as well, but electric cars continue to account for a relatively small share of automobile exports, with the notable exception of Slovakia, and, to a smaller extent, Romania (Figure 4)

FIGURE 4: ELECTRIC CARS ACCOUNT FOR AN INCREASING SHARE OF CAR DEMAND

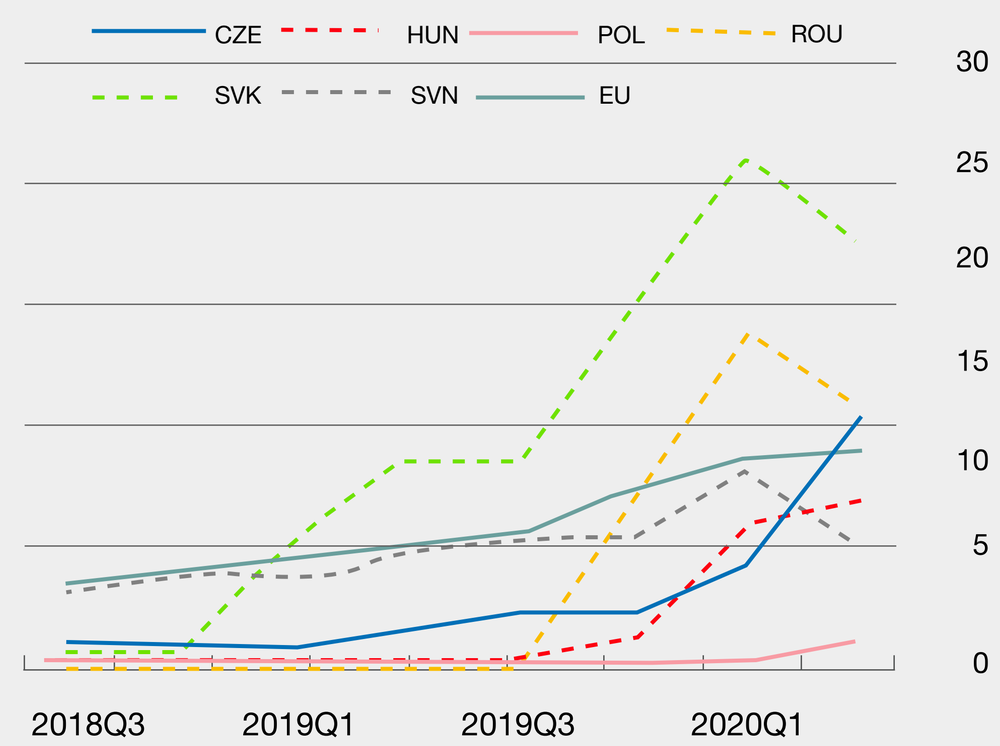
A. Car sales in Europe, by fuel type

%



B. Exports of alternative cars

% of exports of total road vehicles, monthly average



Note: The alternative cars category refers to vehicles principally designed for the transport of less than 10 persons, with both spark-ignition internal combustion reciprocating piston engine and electric motor; with both electric motor and diesel engine; and with only electric motor as motors for propulsion.
Source: OECD calculations based on Eurostat International Trade and ACEA database

A durable shift of demand toward electric cars could slow the recovery of car sales in the CEE region, by creating a mismatch between the cars currently produced and those demanded by consumers. Because electric cars contain fewer and simpler parts, fast penetration of electric cars can cause job losses and a decline in activity in countries that are specialized in more traditional market segments, such as Germany. Technological change towards the electric drive train poses challenges in particular for small and medium-sized companies in the supplier industry.

Second or third-tier suppliers in CEE countries could benefit from the electrification of the car fleet to the extent they adapt to the demand of carmakers and gain market shares in the production of components (mainly battery cells required for traction batteries that are largely produced in Asia).

The Covid-19 pandemic poses new risks to supply chains

The automotive industry is deeply integrated in global value chains (GVC). Import content of car production is high with domestic suppliers playing a limited role in the production process. The high degree of fragmentation of production implies a large exposure to shocks that arise from multiple points in upstream activities and geographical areas and can create coordination problems. The input-output linkages implied in supply chains propagate and amplify shocks across countries. At the same time, GVC help firms and countries to recover faster and allow for large efficiency gains (OECD, 2020). After the lockdown, the re-starting of production has been taking place in a staggered manner. Different lock-down schedules have complicated production restart and hampered the operation of some just-intime production lines. Differences in safety and health standards across countries have also prevented factories from working at full capacity and created production bottlenecks. Going forward, subdued car demand will raise bankruptcy risks to the supply chains, in particular for small lower-tier suppliers more vulnerable to negative shocks. Widespread bankruptcies among sub-contractors could disrupt production processes. The current industry-wide shock means that production disruptions can be at all levels of production. More resilient production networks can be achieved through better risk management strategies at the firm level, but features of the automotive production make strategies to improve the resilience of GVC challenging. The very high degree of specialization in the supply chains and the focus on minimizing stocks is a source of vulnerability, as a shock to a key sub-contractor cannot be absorbed by running down stocks or by switching supplier. The supply chains in the automotive sector are based on lean manufacturing techniques, which focuses on a closed-network approach with tight integration of product development and productions. Carmakers have established distinct and separate supply chains. This has hampered the development of industry-level standards preventing the emergence of readily available market for identifying alternative sub-contractors. As a result, relatively few products have industry level standards, such as batteries and tyres. In addition, lead firms prefer first-tier subcontractors with a global presence to serve their production across continents, further reducing entry opportunities for new sub-contractors.

Switching sub-contractor is a complicated and time-consuming process, arising from a high degree of search frictions. These comes from identification and validation issues, which requires extensive testing of and documentation from alternative suppliers. In addition, many sub-contractors are highly specialized, reflecting the importance of relation-specific investments along the supply chains. Diversification would lead to the loss of economies of scale and scope in production. Switching subcontractor is also complicated because companies wanting to do so would be in sharp competition with other companies with similar objectives to establish contacts with the limited number of specialized subcontractors

The Covid-19 crisis could induce profound structural transformation of the GVC. It could accelerate the shortening of GVC observed over the last decade (OECD, 2020). Since 2011, the expansion of GVC has stopped in the motor vehicle industry; the fragmentation of production across borders and the length of value chains have declined worldwide. In the automotive sectors, less fragmentation and shortening of GVC could mean a greater use of local and European sub-contractors. However, this would only materialize if shorter chains were at least as cost effective as existing arrangements. A recent OECD empirical analysis finds that re-shoring would lead to more stability, but large efficiency losses in the automotive sector.

Government support to the automotive sector in selected EU countries

The following data provides details on support measures put in place in four main export destinations of the CEE automotive industry, Germany, France, Spain and Italy in 2020.

Germany

The package for the automotive industry amounts to around EUR 8 billion (0.2% of Germany's GDP). It significantly strengthens subsidies for electric car sales. The bonus for the replacement of old cars by electric vehicles increased from EUR 3,000 to EUR 6,000. Other measures include 2 billion investments in the charging station infrastructure, a bonus program for future investments by vehicle manufacturers and their domestic suppliers, and support for the modernization of bus, truck and non-profit organization fleets.

France

The May-2020 EUR 8 billion package (0.3% of France's GDP) increases subsidies for buyers of electric vehicles, provides help for companies facing difficulties, and supports a medium-term investment program. The bonus for consumers buying electric cars increased from EUR 6,000 to EUR 7,000. Business customers can receive a new additional bonus of EUR 2,000 for the purchase of plug-in hybrids. In addition, consumers who buy new or used latest-generation petrol or diesel vehicles and full-electric models will be entitled to an increased bonus for their old cars. The package also includes a EUR 5 billion loan for the French carmaker Renault, and creates a EUR-1-billion fund to support new investment and innovation.

Spain

The Spanish plan for the automotive industry, worth around EUR 3.75 billion (0.3% of Spain's GDP) implies measures for the renewal of the vehicle fleet, extra-spending on R&D and training programs, loans (1.8 billion) and State guarantees (0.5 billion). As for the fleet renewal, the Moves plan promotes electric mobility and encourages the acquisition of alternative energy vehicles. The Park Renovation Program encourages the replacement of polluting vehicles in circulation by zero or low emission vehicles. Other measures also include the replacement of the vehicle fleet of the central administration by ZERO label vehicles and the deployment of infrastructure for charging electric vehicles.

Italy

Direct COVID support to the auto industry in 2020 stood at EUR 500 million. EUR 400 million was allocated to support households' purchases of new cars, with subsidies varying according to four CO2 emission bands, EUR 90 million to infrastructure in electric charging stations. The auto industry is also eligible for tax write-downs to support investment and to apply for state aid made available to a wide range of companies in response to the pandemic. Fiat received a EUR 6.3 billion loan, repayable in 3 years, through the State Guarantee Fund

Government support to the automotive sector in India

The Government of India encourages foreign investment in the automobile sector and has allowed 100% foreign direct investment (FDI) under the automatic route. In Union Budget 2021-22, the voluntary vehicle scrappage policy has been introduced by the government, which is likely to increase demand for new vehicles after removing old unfit vehicles currently running on the Indian roads. The Delhi government started the process of setting up 100 vehicle battery charging points across the state so as to push adoption of electric vehicles in February 2021.The Union Cabinet outlaid Rs. 57,042 crore (US$ 7.81 billion) for automobiles & auto components sector in production-linked incentive (PLI) scheme under the Department of Heavy Industries. The Government aims to develop India as a global manufacturing centre and a Research and Development (R&D) hub.

Under NATRiP, the Indian Government is planning to set up R&D centres at a total cost of US$ 388.5 million to enable the industry to be on par with global standards.11 cities has been shortlisted by The Ministry of Heavy Industries, Government of India in the country for introduction of EVs in their public transport systems under the FAME (Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles in India) scheme.

Conclusion and discussion

The impact of the coronavirus pandemic on the automotive industry has rapidly gone from a supply to a demand shock, which is rippling through the industry. In the spring of 2020, countries almost fully stopped car production as lockdown measures disrupted supply chains. Production lines and supply chains have then progressively been re-established. Nevertheless, the Covid-19 crisis poses important challenges to the automotive sectors. First, the economic crisis will likely depress demand for cars and will negatively affect the sector with large spillover effects to the economies. It might increase liquidity and solvency problems for sub-contractors, especially tier 2 and 3 suppliers that are more fragile, thereby raising the risk of bankruptcy-related interruptions in supply chains. Second, lower profitability of carmakers can undermine investment needed for the digital transformation and the adaptation to stricter environmental norms, with unclear consequences.

Government measures can improve the resilience of the automotive sectors to future virus outbreaks. First, governments can support efforts of firms to improve resilience of supply chains. Removing trade barriers and ensuring the smooth functioning of international transport and customs would facilitate exchanges and limit extra delays in deliveries. Second, government can help to maintain production lines and supply chains.

Finally, policies can improve the capacity of economies to attract foreign investors and to reap the benefit of on-going structural transformations of the automotive sector. Policies to improve the investment climate, support digital transformation and adapt to stricter environmental norms are central to sustain the recovery. They should be complemented by policies aiming at addressing large skill shortages, especially in countries where emigration rates are high and the population is ageing fast

Although the automotive industry is facing some headwinds due to the semiconductor shortage, which is predicted to be resolved by third quarter 2021, industry outlook is optimistic this year. Automotive production growth is expected to be around 13% this year, led by mainland China followed by Europe, North America, and other parts of Northeast Asia. Vehicle production from rest of the other region is also expected to grow sharply this year and the global auto sales is forecasted to expand by 8%-10% in 2021 to 83 million-85 million units, up from 77 million in 2020.

ABOUT PIERIAN

PIERIAN Services was founded in 2002 as a new age Consulting and Managed Services Company established by a team of Professionals and Industry experts. In the last 18 years, it has the privilege of serving some of the Fortune 500 Companies and new startups in the wide areas of its expertise, spanning across industry verticals. We help our clients to work smarter and achieve accelerated growth through process transformation, digital technology enablement, analytics driven industry and business insights. Information about how Pierian collects and uses personal data can be provided by our executives. For additional information about our organization, please visit our website **www.pierianservices.com**

This material has been prepared for general informational purposes only and is not intended to be relied upon as accounting, tax or other professional advice. Please refer to your advisors for specific advice. The company expressly disclaims all liabilities in respect to actions taken or not taken based on any or all the contents of this document.

INDIA

Bangalore

979, 19th Main,
13th Cross,
B.S.K. 2nd Stage,
Bangalore – 560 070
Karnataka

62, High Street
11th Main, 6th floor,
Jayanagar, 4th Block,
Bangalore – 560 041,
Karnataka

Shivmonga

Kaudki Towers,
Savalanga Road,
Near Shivamurthy Circle,
Shivamoga – 577 201,
Karnataka

Gurugram

Level 18, Tower-A,
Building No.5 (Epitome),
DLF Cyber City,
DLF Phase 3
Gurugram – 122002,
Haryana

Pune

310, Tower A,
World Trade Center,
Kharadi,
Pune – 411014,
Maharashtra

USA

Washington Dc

1899 L ST NW
Washington,
DC 20036

MIDDLE EAST

Abu Dhabi

Suite 012, 1st Floor,
Al Omran Building,
Hamdan Street,
P.O. Box: 53954
Abu Dhabi – UAE

Sharjah

SAIF Desk R5-45/C
P.O. Box: 513821
Sharjah – UAE

SINGAPORE

Singapore

Level 21
Centennial Tower
3 Temasek Avenue
Singapore - 039190

pie PIERIAN SERVICES

CONTACT US

www.pierianservices.com
info@pierianservices.com

Follow us on