



GLOBAL AUTO SECTOR



Groundwork Intel
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Automobile is a significant contributor to the economy and is expected to take a big hit from the outbreak

Automotive industry employs 59 million people worldwide (directly or indirectly) and contributes an estimated \$5.5 trillion to the global economy.

The global automotive industry is expected to take a big hit from the Covid-19 outbreak

IHS Markit expects worldwide vehicle sales to decline 22% this year to 70.3 million units, led by a 26.6% fall in the U.S. to 12.5 million units, compared with a year ago.

- Sales in China are likely to drop by more than 10% in 2020
- Sales in the USA are estimated to decline by 15% in 2020
- Sales in Western Europe are expected to decline by 14% in 2020

The automotive sector, with its large-scale production and tightly interconnected global supply chain, remains the worst impacted.

The sector was already undergoing a massive transformation owing to the four disruptive trends of connected, autonomous, electric and shared driving.

The pandemic has exacerbated the threat on the industry.



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Some of the major challenges the sector is currently facing include...

Significant decline in new vehicle sales:

Owing to widespread job losses, pay cuts, economic uncertainty and significant decline in consumer spending as well as closing of factories and dealerships.

Liquidity crunch:

Several OEMs will likely soon face liquidity issues as operating cash flow weakens during the crisis. Even though the major automakers may not face an immediate cash challenge, but the small-to-medium-sized companies are already dealing with this.

The auto suppliers are also facing vulnerabilities - With most factories being down since March, suppliers are now receiving little to no revenue as they restart production, which can be a capital-intensive process.

The Original Equipment Supplier Association says an influx of around \$20 billion to \$25 billion is needed to avoid widespread issues.

Supply Chain Disruption:

The sector relies on a highly complex and globally connected supply chain, with parts and components moving cross-border multiple times before being assembled into a whole car. Global auto production is heavily depending on China. Supply shortage is affecting assembly of all OEMs in NA, Europa and Asia.

In China, almost 2/3 of auto production was directly affected by the shutdown with a large impact on their suppliers as well.

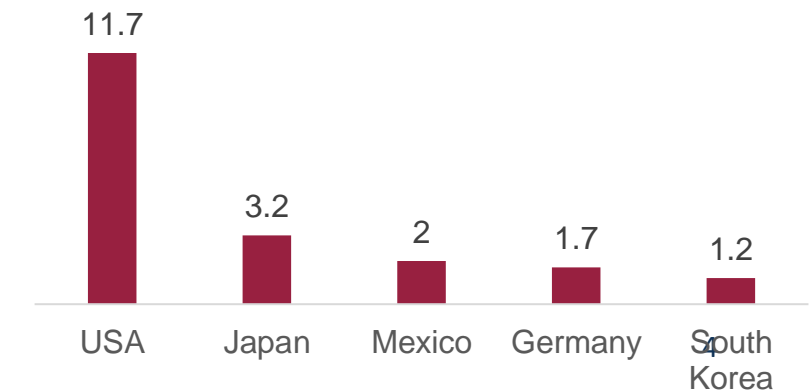
Legal and trade restrictions have exacerbated the situation.

Credit rating agency Moody's Investor Service recently cut its 2020 outlook for global auto sales to 20 percent

The amount of pressure on suppliers regarding cash during the coronavirus pandemic is two and a half times that of the Great Recession due to the "zero revenue situation,

Kristin Dzciczek, VP of industry, labor and economics at the Center for Automotive Research

Global Network: Chinese exports of vehicle parts and accessories [in USD billion]





Companies are gearing up for the new normal

- **Employee Wellbeing Has Gained Tremendous Importance:**
 - Auto manufacturers and suppliers are conducting daily temperature screening, daily health questionnaires, assembly lines redesigned to keep workers 3 to 6 feet apart, and lots and lots of masks and gloves. Toyota Motor announced multidimensional approach to safeguard the physical and mental health of its employees. Similarly VW has overhauled its procedures to include extra hygiene measures.
- **Various Cost-cutting Measures Adopted By The Companies:**
 - Renault is cutting 15,000 jobs worldwide as part of a €2bn (£1.8bn) cost-cutting plan after seeing sales plunge because of the virus pandemic.
 - Daimler AG's departing chief executive, Dieter Zetsche, on May 22 warned sweeping cost reductions are ahead to prepare for unprecedented industry upheaval.
 - Ford Motor Co. said May 20 that it will eliminate 7,000 jobs, or 10% of its white-collar workforce worldwide.
- **Making Manufacturing More Agile**
 - As the sector struggles from the current uncertainty, the focus is shifting away from pure production to adoption of agile and lean. Smaller lot sizes, shorter times to market and lower manufacturing cost will drive automobile manufacturers towards the adoption of agile and lean manufacturing
 - Digital adoption on manufacturing shop floors will see a significant rise.
 - In the longer term, investing in advanced technology and automation to reduce human interventions in the plants



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■ Reimagining the Supply Chain:

- As auto makers plan a restart, technology, resilience and flexibility will become important.
- The pandemic may encourage supplier consolidation.
- Automakers are looking to fast-track plans for agile supply chains as they prepare for a volatile demand environment.
- A heavy focus by automakers on forecasting of raw material prices using neural network-based artificial intelligence to help them prepare for hikes in prices and better allocation of spends.
- New level of geopolitical and trade friction has come to the fore with COVID and the pressure to relocate China sources to local or near-shore sites has gained momentum.

■ The Pandemic Has Put The Automaker's Electric Ambitions At Risk, In The Near Term

- Global EV sales will shrink this year, falling 18% to about 1.7 million units, according to BloombergNEF, although they're likely to return to growth over the next four years, topping 6.9 million by 2024. Even as COVID has destroyed demand, for the car makers that are committed to electric, there is no looking back. VW CEO Herbert Diess over the past three months have reaffirmed Volkswagen's commitment to electrification. Other German automakers are similarly pushing ahead with EV plans. Daimler AG is sticking to a plan to flank an electric SUV with a battery-powered van and a compact later this year. BMW AG plans to introduce the SUV-size iNEXT in 2021 as well as the i4, a sedan seeking to challenge Tesla's best-selling Model 3.

"We all have a historic task to accomplish. To protect the health of our employees—and at the same time get business back on track responsibly."

Thomas Ulbrich, who runs Volkswagen's EV business





Thank You!



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