The Impact of COVID-19 on the European Automotive Market

Learnings from past crises, future market outlook and recommended actions for OEMs

May, 2020
The European automotive market is on its way out of the lockdown period. Most dealers have reopened their showrooms and manufacturing plants have restarted their production at selected locations, or are planning to do so in the upcoming days.

In April 2020 new car registrations of major European markets reached their lowest level since World War II. The preliminary sales figures for May 2020 show a modest rebound effect generated by pent-up demand and confirm that the crisis goes beyond the restrictive measures imposed by the lockdown.

The crisis is rather due to the negative sentiment around the demand side as confirmed by the collapsing consumer confidence index in all European markets. Most of those who were intending to buy a car before the crisis are now undecided and it is likely to take several months before the market makes a full return.

The previous crises can help predict the impact that the pandemic is likely to have on the different lines of business, countries and market players. Yet this is a one-of-a-kind crisis, with demand trends being mostly unpredictable as driven by health and safety concerns in addition to the effects due to the economic turmoil.

During these days, automotive trade associations are calling for vehicle parc renewal incentives to kickstart economic recovery. State subsidies can mitigate the impacts of the pandemic in the months to come, yet they do not tackle the fundamental issue of the innovation gap characterizing the automotive retailing.

Carmakers and dealerships have to rethink their existing sales strategies and make critical decisions in a very compressed timeframe. How will the market evolve in the next months? How purchasing behaviors are changing? Which capabilities need to be developed right away to meet emerging customer needs?

These are the key questions addressed by our Report, which aims at providing carmakers and their national sales companies with pragmatic recommendations on how to best manage the post lockdown period.

"We can not expect things to change if we keep doing the same things. The crisis is the best blessing that can happen to people and countries, because the crisis brings progress. [...] It is in crisis that invention, discovery and large strategies are born”

The crisis according to Albert Einstein
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Executive Summary (1/2)

Automotive market context before COVID-19

- A slowdown in the automotive industry was already ongoing before the pandemic, with a decreasing trend due to diminishing contribution from mature markets
- COVID-19 accelerates and amplifies already existing industry challenges, triggered by new technology and mobility trends
- These disruptive market trends are shifting car makers’ revenues and profitability away from traditional value pools, leading to a declining share of vehicle sales

Short-term scenarios for the automotive industry in Europe

- COVID-19 affected the whole automotive value chain, resulting in almost synchronous sales and production reduction; the magnitude of sales reduction is correlated to the start/duration of the lockdown and consumer confidence trend – Spain and Italy result as the most hit markets in EU-5 (Germany, UK, France, Italy, Spain)
- The impact of COVID-19 has been modeled in 4 scenarios (Impact, Incentive, Deep Impact and Double-dip), differing on the effectiveness of public health measures to contain the spread of the virus and the adoption of possible economic policies to kickstart the automotive sector
- According to most likely scenarios car registrations in Europe are not projected to bounce back to pre-crisis levels before 24 months, with an expected decline in sales in the range of -32% to -38% in 2020
- On the other hand, European production is projected to decrease in a range of -28% to -35% in 2020 due to plants closure and supply chain disruption

Key learnings from past automotive crises

- European automotive market has been hit by two major crises over the last decade: the financial crisis (2007-2010) triggered by the sub-prime mortgage crash and the eurozone crisis (2011-2013), which was generated by sovereign debts turmoil
- Fragile economies were the hardest hit: Italy and Spain experienced a double-digit decrease of sales triggered by a steep real GDP decline and falling consumer confidence \(\text{[this scenario is likely to reoccur, as Italy and Spain have been also severely hit by the pandemic]}\)
- During both crises, the aftermarket was the most recession-resilient part of the automotive industry, followed by used cars sales \(\text{[the same trend is expected in the months to come as during times of economic distress many customers tend to delay purchasing of new cars while waiting for the approval of scrappage incentives]}\)
- In terms of new cars sales, premium brands were more resilient and product mix shifted from large towards medium segment \(\text{[the low-medium segments are likely to gain additional share since the lack of trust in public transport for health concerns is stimulating non-car owners demand, especially from younger customers]}\)
- The sales decline registered during past crises led to a reduction of main dealer outlets in EU-5 of ~13% from 2007 to 2013 \(\text{[the consolidation of dealer network will further accelerate, with small dealers with fast-deteriorating liquidity position which are likely to be acquired by more prominent operators looking for economies of scale]}\)
Executive Summary (2/2)

Recommended actions for the “next normal”

- **We recommend OEMs to focus on 5 business imperatives to mitigate the short-term impact of COVID-19 and get ready for the recovery phase**
- **Our recommendations are grounded on a 2-step approach: i) ensure the continuity of both manufacturing and retail operations; ii) reshape the value proposition**

1. **Supply Base Resilience**
   - **Context:** the COVID-19 amplifies the liquidity issues that affected several European suppliers already in 2019 and put their financials under additional pressure
   - **Goal:** enhance supply chain visibility and mitigate suppliers default risk to secure production ramp-up
   - **Proposed actions:** prioritize most critical suppliers, assess their risk exposure and help distressed suppliers enhance liquidity position and production capacity

2. **Retail Network Consolidation**
   - **Context:** the projected sales decline in EU-5 will put at risk dealerships business, which already suffered from sluggish profitability before the spread of COVID-19
   - **Goal:** help future-state dealerships improve financials by securing the minimum critical mass (in terms of average sales per dealer) to ensure business continuity
   - **Proposed actions:** perform dealerships risk assessment, drive a retail network consolidation process and launch performance improvement programs

3. **Customer Sentiment Analysis**
   - **Context:** being shaped by the evolution of the pandemic and government measures, demand sentiment and preferences are fast-changing and unpredictable
   - **Goal:** listen attentively and regularly to evolving customers behaviors/ongoing concerns and promptly adapt value proposition accordingly
   - **Proposed actions:** perform customer sentiment analysis, tailor offering to tap into emerging demand, ensure communication is in tune with emerging clients’ needs

4. **Electric Vehicles Boost**
   - **Context:** despite the general context of declining sales, electric vehicles are expected to gain shares driven by higher-income demand and likely state subsidies
   - **Goal:** push forward with Electric Vehicles commercial offering to tap the potential of a short-term rising demand
   - **Proposed actions:** prioritize demand segments, launch tailored marketing campaigns to stimulate intention to buy and deliver a specific Customer Experience

5. **Digital Customer Experience**
   - **Context:** clients with intention to buy prefer to minimize showroom visits due to health reasons and are willing to rely on online channels to deal with salespersons
   - **Goal:** complement brick-and-mortar sales with a seamless on-line customer experience to engage remotely with customers
   - **Proposed actions:** embrace new technologies (i.e. live digital showroom) and upskill dealers sales force to ensure familiarity with new tools and selling methods
Agenda

1. Automotive market context before COVID-19
2. Short-term scenarios for the automotive industry in Europe
3. Key learnings from past automotive crises
4. Recommended actions for the “next normal”
Global auto market showed a steady ~3.4% growth over the last decade, with a decreasing contribution from mature markets.

Global automotive market trend

Global Light Vehicle Sales and World GDP trend (2002-2024F)

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1) Mature Markets = US, Canada, Japan, S Korea, Australia, New Zealand, Western Europe

Source: IHS Markit, International Monetary Fund, Strategy& Analysis
COVID-19 accelerates and amplifies already existing industry challenges, triggered by new technology and mobility trends

Emerging automotive trends

Main automotive trends

- **Connected** → Connected vehicles enabling remote control, data sharing and onboard entertainment
- **Autonomous** → Progressive penetration of level 3+ of autonomous features
- **Shared** → Progressive shift from vehicle ownership towards mobility-as-a-service solutions
- **Electrified** → Increasing shares of Full Hybrid, Plug-in Hybrid (PHEV) and Battery Electric (BEV) vehicles

Scenario Analysis (EU Market)

Driving Forces
- Technology readiness
- Market demand/adoption
- OEMs attitude towards innovation
- Regulatory framework

![Diagram of Scenario Analysis](image-url)

- **Introduction**
  - Newly emerging trend
  - Low business impact

- **Growth**
  - Connected Vehicles
  - Mobility as a Service

- **Maturity**
  - Consolidated trend
  - High business impact

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Source: Strategy& analysis

May 2020
These disruptive market trends are shifting car makers’ revenues and profitability away from traditional value pools

**Shifting in global automotive value pools**

**Revenue distribution** (in Bln USD)

- **MaaS**
- Suppliers - Technology
- Connected Services
- Insurance

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional Pools</th>
<th>MaaS</th>
<th>Connected Services</th>
<th>Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>48%</td>
<td>13%</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>2030</td>
<td>14%</td>
<td>59%</td>
<td>40%</td>
<td>40%</td>
</tr>
</tbody>
</table>

**Profit distribution** (in Bln USD)

- Financing
- New Vehicle Sales
- Aftermarket
- Suppliers - Traditional

<table>
<thead>
<tr>
<th>Year</th>
<th>Traditional Pools</th>
<th>MaaS</th>
<th>Financing</th>
<th>New Vehicle Sales</th>
<th>Aftermarket</th>
<th>Suppliers - Traditional</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>13%</td>
<td>5%</td>
<td>13%</td>
<td>15%</td>
<td>14%</td>
<td>8%</td>
</tr>
<tr>
<td>2030</td>
<td>14%</td>
<td>70%</td>
<td>11%</td>
<td>31%</td>
<td>11%</td>
<td>8%</td>
</tr>
</tbody>
</table>

**Highlights**

- **Mobility as a Service (MaaS)** increases *vehicle utilization* and vehicle wear and tear, leading to higher parts sales but a declining share of vehicle sales.
- **MaaS fleet owners** emerge as an important new group of buyers with higher bargaining power, leading to lower margins in aftermarket, financing and insurance.
- **Autonomous features** increase vehicles’ technical complexity and the share of value provided by new tech suppliers. However, fewer collisions will cut insurance and aftersales demand.
- **Electric powertrains** are less complex than ICE equivalents and need less maintenance, which reduces traditional aftermarket suppliers revenue streams.

Source: Strategy& Digital Auto Report 2019
Car parc in EU is projected to peak in 2025 as a consequence of the increasing penetration of the shared mobility.

Vehicle parc evolution in major automotive markets

- **Europe:**
  - Total car parc: -0.2%
  - Connected cars: 254, 260, 266, 272
  - Electric cars: 263, 269, 273, 258
  - Autonomous cars: 258, 266, 272, 272

- **US:**
  - Total car parc: 0.6%
  - Connected cars: 254, 260, 266, 272
  - Electric cars: 263, 269, 273, 258
  - Autonomous cars: 258, 266, 272, 272

- **China:**
  - Total car parc: 5.4%
  - Connected cars: 197, 227, 303, 369
  - Electric cars: 17%
  - Autonomous cars: 6%

**Incidence of shared mobility**

- Europe: 1%, 2%, 6%, 17%
- US: 1%, 2%, 8%, 14%
- China: 3%, 4%, 10%, 25%

*Source: Strategy& Digital Auto Report 2019*

1) including "shared autonomous" and "shared driver-driven"
Agenda

1. Automotive market context before COVID-19
2. Short-term scenarios for the automotive industry in Europe
3. Key learnings from past automotive crises
4. Recommended actions for the “next normal”
COVID-19 affected the whole automotive value chain, resulting in almost synchronous sales and production decline

**COVID-19 impacts**

<table>
<thead>
<tr>
<th>Sales trend YTD Apr 2020 vs. YTD Apr 2019 (%)</th>
<th>Production trend YTD Apr 2020 vs. YTD Apr 2019 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-5*</td>
<td>EU-5*</td>
</tr>
<tr>
<td>Other mature markets</td>
<td>Other mature markets</td>
</tr>
<tr>
<td><img src="chart1.png" alt="EU-5* chart" /></td>
<td><img src="chart2.png" alt="EU-5* chart" /></td>
</tr>
<tr>
<td><img src="chart3.png" alt="Other mature markets chart" /></td>
<td><img src="chart4.png" alt="Other mature markets chart" /></td>
</tr>
</tbody>
</table>

- Magnitude of sales decline is correlated with country-specific start and duration of the lockdown period, as well as with consumer confidence trend.
- Germany resulted as the most resilient market in EU-5, indeed lockdown measures started up to 13 days later than other EU markets.
- South Korea that managed the COVID-19 crisis without enforcing a widespread lockdown showed the lowest contraction in sales.

- From 16th March onwards, a synchronized shutdown of vehicle production in Western Europe set in, correspondingly also at Tier-1 suppliers.
- Plant closures were triggered by restrictive measures to ensure workers safety and re-opening is subject to the definition of health protocols.
- Production slowdown and sluggish customer demand resulted in increasing default risk of Tier-2/3 suppliers.
The downtrend of consumer confidence and intention to buy a car worsened with the COVID-19, consistently with GDP drop

Consumer confidence and intention to buy a car in EU-28

**Consumer Confidence (2006=100) and GDP trend**

- Financial Crisis
- Eurozone Crisis
- COVID-19 Crisis

**Intention to Buy a Car (2006=100) and GDP trend**

- Consumer Intention to buy a car in the next 12 months
- Real GDP

Source: European Commission, Eurostat, Strategy& analysis

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The impact of COVID-19 has been modeled in 4 scenarios, differing on the effectiveness of health and economic measures.

**Possible scenarios for post-lockdown period**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Macroeconomic</th>
<th>Automotive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact – V-Shape</strong></td>
<td>Modestly optimistic</td>
<td>Strong car sales rebound in Q3 2020, returning to original levels by Q4 2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Production recovers to originally expected level from Q3 2020</td>
</tr>
<tr>
<td><strong>Incentive – Long V-Shape</strong></td>
<td>Partial response to public health measures</td>
<td>Slight recovery of sales thanks to government incentives</td>
</tr>
<tr>
<td></td>
<td>Protracted containment measures</td>
<td>Slow restart of production due to supply chain under pressure</td>
</tr>
<tr>
<td></td>
<td>Sluggish demand stimulated by incentives</td>
<td>Persistent drop in sales throughout 2020</td>
</tr>
<tr>
<td></td>
<td>Delayed return to normal activities</td>
<td>Production capacity negatively affected by extended shutdowns at some locations</td>
</tr>
<tr>
<td></td>
<td>Persistent economic losses</td>
<td>Collapse in sales</td>
</tr>
<tr>
<td></td>
<td>GDP dip by ~6%-8%</td>
<td>Profound disruption of the whole Automotive value chain</td>
</tr>
<tr>
<td><strong>Deep Impact – U-Shape</strong></td>
<td>Ineffective containment measures</td>
<td>Failure to control the virus</td>
</tr>
<tr>
<td></td>
<td>Prolonged lockdown in some markets</td>
<td>Continued lockdown due to virus rebound</td>
</tr>
<tr>
<td></td>
<td>Consumers’ confidence drops</td>
<td>Persistent fall of consumers’ confidence</td>
</tr>
<tr>
<td></td>
<td>Economic recession</td>
<td>Strong economic recession</td>
</tr>
<tr>
<td></td>
<td>Restrictions of major investments</td>
<td>General restrictions of investments</td>
</tr>
<tr>
<td></td>
<td>GDP dip by ~9%-11%</td>
<td>GDP dip by ~12%</td>
</tr>
<tr>
<td><strong>Double Dip – L-Shape</strong></td>
<td>Moderate pessimistic</td>
<td>No longer possible</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GDP dip by ~4%-5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slight recovery of sales thanks to government incentives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slow restart of production due to supply chain under pressure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Persistent drop in sales throughout 2020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Production capacity negatively affected by extended shutdowns at some locations</td>
</tr>
<tr>
<td><strong>no longer possible</strong></td>
<td></td>
<td>Collapse in sales</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Profound disruption of the whole Automotive value chain</td>
</tr>
</tbody>
</table>

Source: European Central Bank, European Commission, Strategy& analysis
COVID-19 is projected to have a severe impact on car registrations in Europe in 2020, in a range of -32% to -38%

Projected passenger cars sales trend in Europe

Post-COVID Sales trend based on most likely scenarios (2019=100)

<table>
<thead>
<tr>
<th>Basis 2020</th>
<th>'20 vs. '19</th>
<th>'21 vs. '20</th>
<th>'22 vs. '21</th>
<th>'23 vs. '22</th>
<th>Sales Loss (Mln units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentive</td>
<td>-2.8%</td>
<td>-0.7%</td>
<td>0.7%</td>
<td>0.8%</td>
<td>-</td>
</tr>
<tr>
<td>(Long V)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deep Impact</td>
<td>-32.1%</td>
<td>27.8%</td>
<td>8.2%</td>
<td>3.1%</td>
<td>6.9</td>
</tr>
<tr>
<td>(U Shape)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Highlights**

Passenger car registrations are not projected to bounce back to pre-crisis levels in the next 24 months. Time to recovery and magnitude of sales loss vary according to the following scenarios:

- **Incentive – Long V**: plummeting demand in H1 2020, with government incentives leading to a slight recovery in H2 2020. Overall sales loss over the next 3 years is estimated at 6.9 Mln of cars (-11%)
- **Deep Impact – U Shape**: steady fall-down of demand, prolonged to H2 2020, with persistent loss of sales throughout the year due to missing government incentives. Overall sales loss over the next 3 years is estimated at 10.6 Mln of cars (-17%)
Production is projected to decrease in a range of -28% to -35% in 2020 due to plant closures and supply chain disruption.

Projected passenger cars production trend in Europe

Post-COVID Production trend based on most likely scenarios (2019=100)

<table>
<thead>
<tr>
<th>Basis 2020</th>
<th>'20 vs. '19</th>
<th>'21 vs. '20</th>
<th>'22 vs. '21</th>
<th>'23 vs. '22</th>
<th>Prod. Loss (Mln units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentive</td>
<td>-1,1%</td>
<td>3,4%</td>
<td>0,0%</td>
<td>-0,2%</td>
<td></td>
</tr>
<tr>
<td>Long V</td>
<td>-28,3%</td>
<td>29,9%</td>
<td>6,5%</td>
<td>1,9%</td>
<td>6,2</td>
</tr>
<tr>
<td>Deep Impact</td>
<td>-34,6%</td>
<td>30,8%</td>
<td>9,8%</td>
<td>4,3%</td>
<td>9,6</td>
</tr>
</tbody>
</table>

The full return to the pre-crisis production levels is projected to take at least 20 months from today. Time to recovery and magnitude of production loss vary according to the scenario:

- **Incentive – Long V**: sluggish restart of production due to supply chain disruption with OEMs taking advantage of government incentives and focusing on selling off existing stock at high discounts. The overall production loss over the next 3 years is estimated at 6,2 Mln of cars (-10%).

- **Deep Impact – U shape**: production negatively affected by persistent shutdowns and broken supply chain (especially Tier 2/3 suppliers). Expected production loss of 9,6 Mln of cars at the end of 2023 (-15%).
Spain is expected to record the highest sales drop at end 2020, while UK and France will be the most hit in terms of production.

Sales and production trends in EU-5*

Sales trend based on “Deep Impact” scenario

Production trend based on “Deep Impact” scenario

* EU-5 = Germany, UK, France, Italy, Spain

Source: PwC Autofacts (data release 13.05.2020), Strategy& analysis
Agenda

1. Automotive market context before COVID-19
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European automotive market has been hit by two major crises over the last decade, triggered by economic turmoil.

**Automotive market sales trend in EU-5**

**Passenger Cars and GDP trend (2006-2019)**

- Car sales have not yet recovered to the pre-crisis level
- Car sales crisis highly exceeded GDP decline (-16% vs. -3%)

**Financial Crisis**
- Sub-prime mortgage crisis
- Lehman Bros collapse
- Credit crunch
- Global recession

**Eurozone Crisis**
- Sovereign debt crisis
- Falling markets' confidence
- Fiscal pressure
- Parc replacement

- Car sales crisis highly exceeded GDP decline (-11% vs. -1%)
- Sales downturn lasted 2 years
- Time to recovery was approx. 3,5 years
- Car sales crisis highly exceeded GDP decline (-11% vs. -1%)

Source: IHS Markit, Eurostat, Strategy& analysis
Aftermarket was the most recession-resilient part of the automotive industry, while new cars sale was the most affected.

All lines of business trend in EU-5*

Trend New Cars, Used Cars, Aftermarket parts and Car parc (2006=100)

- **Aftermarket** was the most recession-resilient part of the automotive industry, since its growth primarily depends on the size of the car parc, rather than new vehicle sales.

- **Used Cars** business was less impacted and showed a quicker rebound if compared to new car sales, as during times of economic distress and weak consumer confidence many customers tend to delay purchasing new cars.

- **New car sales** were the most affected line of business during past crises in EU-5 – sales decline during the financial crisis was partially offset by the financial incentives instituted by the German Government in 2008.

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*C EU-5 = Germany, UK, France, Italy, Spain

Source: UNRAE, ACEA, IHS Markit, Datamonitor, Strategy& analysis

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In terms of new cars sales, premium brands were more resilient while product mix shifted from large towards medium segment.

New cars sales trend in EU-5* (1/2)

Trend Passenger Cars by Brand segment (Mln units, %)

<table>
<thead>
<tr>
<th></th>
<th>CAGR 2007-2010</th>
<th>CAGR 2011-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium + Luxury brands</td>
<td>-3,2%</td>
<td>2,0%</td>
</tr>
<tr>
<td>Volume brands</td>
<td>-6,4%</td>
<td>-8,0%</td>
</tr>
</tbody>
</table>

Trend Passenger Cars by Product segment¹ (Mln units, %)

<table>
<thead>
<tr>
<th></th>
<th>CAGR 2007-2010</th>
<th>CAGR 2011-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>-3,8%</td>
<td>-8,5%</td>
</tr>
<tr>
<td>Medium</td>
<td>-5,7%</td>
<td>-1,1%</td>
</tr>
<tr>
<td>Large</td>
<td>-9,3%</td>
<td>-8,6%</td>
</tr>
</tbody>
</table>

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* EU-5 = Germany, UK, France, Italy, Spain; 1) Small = A/B segments; Medium = C segment; Large = D/E/F segments

Source: IHS Markit, Strategy& analysis
Italy and Spain were the most-affected countries in EU-5 as both countries experienced a steep real GDP decline.

**New cars sales trend in EU-5* (2/2)**

**Trend Passenger Cars Sales by Market (2006=100)**

- **Financial Crisis**
- **Eurozone Crisis**

**Correlation of Passenger Cars Sales trend vs. GDP trend**

* EU-5 = Germany, UK, France, Italy, Spain

Source: IHS Markit, Eurostat, Strategy& analysis
The sales drop from '07 to '13 triggered a network consolidation process in EU-5 to preserve profitability of surviving dealers

Dealers network in EU-5*

Trend of Main Dealers\(^1\) outlets and Sales per outlet

<table>
<thead>
<tr>
<th>Year</th>
<th>Total sales outlets ('000 units)</th>
<th>Yearly sales per outlet (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>35,6</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>35,3</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>34,9</td>
<td>-4,8%</td>
</tr>
<tr>
<td>2009</td>
<td>34,2</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>33,6</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>32,8</td>
<td>-6,8%</td>
</tr>
<tr>
<td>2012</td>
<td>31,6</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>30,5</td>
<td>-4,7%</td>
</tr>
<tr>
<td>2014</td>
<td>29,5</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>29,6</td>
<td></td>
</tr>
</tbody>
</table>

Financial Crisis

- The number of main dealers\(^1\) operating in EU-5 declined by ~5% during the financial crisis (2007-2010)
- In the same time interval sales plunged by ~12%, leading to a strong decrease of average units sold per each main dealer
- Dealerships consolidation process accelerated during the eurozone crisis, led by Italy and Spain which were hit hard by the downturn
- Several family-owned and small dealers with fast-deteriorating liquidity position were acquired by more prominent operators looking for economies of scale to better absorb fixed costs and mitigate profitability reduction trend

* EU-5 = Germany, UK, France, Italy, Spain

Source: ICDP, IHS Markit, Strategy\& analysis

1) Including both outlets owned and operated by OEMs/Importers and independent dealers; outlets of independent resellers and agents are excluded

The Impact of COVID-19 on the European Automotive Market
PwC Strategy\&

May 2020
Italy case study: dealerships stayed highly unprofitable during the Eurozone crisis despite total outlets dropped by 13%

Dealers network in Italy

Trend of Main Dealers\(^1\) outlets and Sales per outlet

<table>
<thead>
<tr>
<th>Year</th>
<th>Total sales outlets ('000 units)</th>
<th>Yearly sales per outlet (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>338</td>
<td>5.9</td>
</tr>
<tr>
<td>2007</td>
<td>362</td>
<td>5.8</td>
</tr>
<tr>
<td>2008</td>
<td>340</td>
<td>5.7</td>
</tr>
<tr>
<td>2009</td>
<td>304</td>
<td>5.6</td>
</tr>
<tr>
<td>2010</td>
<td>267</td>
<td>5.5</td>
</tr>
<tr>
<td>2011</td>
<td>221</td>
<td>5.2</td>
</tr>
<tr>
<td>2012</td>
<td>224</td>
<td>4.8</td>
</tr>
<tr>
<td>2013</td>
<td>247</td>
<td>4.5</td>
</tr>
<tr>
<td>2014</td>
<td>291</td>
<td>4.4</td>
</tr>
</tbody>
</table>

1) Including both outlets owned and operated by OEMs/Importers and independent dealers; outlets of independent resellers and agents are excluded

Source: Italia Bilanci, IHS Markit, Strategy& analysis

Trend of Dealerships Profitability

<table>
<thead>
<tr>
<th>Year</th>
<th>Dealers in loss (%)</th>
<th>Dealers profit before tax margin (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>25%</td>
<td>53%</td>
</tr>
<tr>
<td>2007</td>
<td>28%</td>
<td>53%</td>
</tr>
<tr>
<td>2008</td>
<td>-0.1%</td>
<td>35%</td>
</tr>
<tr>
<td>2009</td>
<td>0.0%</td>
<td>25%</td>
</tr>
<tr>
<td>2010</td>
<td>0.2%</td>
<td>35%</td>
</tr>
<tr>
<td>2011</td>
<td>-0.2%</td>
<td>25%</td>
</tr>
<tr>
<td>2012</td>
<td>-1.7%</td>
<td>35%</td>
</tr>
<tr>
<td>2013</td>
<td>-0.9%</td>
<td>25%</td>
</tr>
<tr>
<td>2014</td>
<td>0.1%</td>
<td>25%</td>
</tr>
<tr>
<td>2015</td>
<td>0.7%</td>
<td>25%</td>
</tr>
</tbody>
</table>

The Impact of COVID-19 on the European Automotive Market
PwC Strategy&

May 2020
Agenda

1. Automotive market context before COVID-19
2. Short-term scenarios for the automotive industry in Europe
3. Key learnings from past automotive crises
4. **Recommended actions for the “next normal”**
OEMs need to focus on 5 business imperatives to mitigate the short-term impact of COVID-19 and get ready for the recovery

<table>
<thead>
<tr>
<th>Our short-term recommendations for OEMs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fix the basics first</strong></td>
</tr>
<tr>
<td>Supply Chain</td>
</tr>
<tr>
<td><strong>Supply Base Resilience</strong></td>
</tr>
<tr>
<td>Help distressed suppliers enhance liquidity position and operations resilience</td>
</tr>
<tr>
<td>Sales Channels</td>
</tr>
<tr>
<td><strong>Retail Network Consolidation</strong></td>
</tr>
<tr>
<td>Help troubled dealerships improve financials and secure business continuity</td>
</tr>
<tr>
<td>Demand Planning</td>
</tr>
<tr>
<td><strong>Customer Sentiment Analysis</strong></td>
</tr>
<tr>
<td>Listen attentively to fast-changing customers behaviors and ongoing concerns</td>
</tr>
<tr>
<td>Portfolio Prioritization</td>
</tr>
<tr>
<td><strong>Electric Vehicles Boost</strong></td>
</tr>
<tr>
<td>Push forward with Electric Vehicles to tap the potential of a rising demand</td>
</tr>
<tr>
<td>Customer Experience</td>
</tr>
<tr>
<td><strong>Digital Customer Experience</strong></td>
</tr>
<tr>
<td>Embrace new technologies to engage remotely with customers</td>
</tr>
</tbody>
</table>
OEMs need to enhance supply chain visibility and mitigate suppliers default risk to secure production ramp-up

**Recommended short-term actions – Supply Base Resilience**

Our perspective on post-COVID-19 market evolution

**Supply chain visibility is crucial**
- Several North American and EU-based suppliers fell into the higher risk quadrant already in 2019
- FY 2019 data highlights that several EU suppliers were already highly levered, with low liquidity relative to their business size
- The COVID-19 amplifies the existing liquidity issues and puts suppliers’ financials under additional pressure
- Many of them have already accessed their credit lines in Q1 20, therefore the real hit is expected to come in Q2 20
- OEMs need to gain higher visibility onto their financial health of their supply base, in particular Tier 2/3 suppliers

**Our recommendations for OEMs**
- Prioritize most critical suppliers based on priority vehicle programs
- Assess critical suppliers’ risk exposure levels in terms of production readiness and financial stability
- Help distressed suppliers enhance liquidity position and production capacity
- Look for alternative (local) sources to back-up critical suppliers (if needed)

**Our distinctive value proposition**
- Proven methodologies, successfully tested in Q2 2020 with leading OEMs
- Extensive track-record with Tier 1/2 suppliers
- Multi-disciplinary team, combining ops consulting and restructuring expertise

Source: CapIQ, Data is 2019 (when available), 2018 otherwise
OEMs have to consolidate their retail networks to mitigate dealerships default risk exacerbated by the COVID-19 outbreak

Recommended short-term actions – *Retail Network Consolidation*

Our perspective on post-COVID-19 market evolution

**Dealer network will shrink further**

- Dealerships in EU-5 suffered from sluggish profitability levels before the COVID-19, with average ROS ranging from 0.5% to 1.7%, based on countries
- 45% of Italian 100 biggest dealers were already at risk in 2019, with high debt exposure and low profitability
- The COVID-19 puts dealerships financials under additional pressure
- The number of dealerships in EU-5 decreased by 13% between 2007 and 2013 due to shrinking sale volumes
- We estimate that network consolidation process will further accelerate, with dealers’ outlets in EU-5 decreasing by ~6% in the next 3 years

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**N° of dealers and sales per outlet in EU-5***

Dealers number in ‘000 units, Average sales per year

<table>
<thead>
<tr>
<th>Year</th>
<th>Total sales outlets (‘000 units)</th>
<th>Yearly sales per outlet (units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>345</td>
<td>29.6</td>
</tr>
<tr>
<td>2016</td>
<td>365</td>
<td>29.7</td>
</tr>
<tr>
<td>2017</td>
<td>378</td>
<td>29.3</td>
</tr>
<tr>
<td>2018</td>
<td>377</td>
<td>29.2</td>
</tr>
<tr>
<td>2019</td>
<td>368</td>
<td>29.4</td>
</tr>
<tr>
<td>2020F</td>
<td>28.6</td>
<td>-6.1%</td>
</tr>
<tr>
<td>2021F</td>
<td>27.9</td>
<td>-6.1%</td>
</tr>
<tr>
<td>2022F</td>
<td>27.6</td>
<td>-6.1%</td>
</tr>
</tbody>
</table>

---

**Our recommendations for OEMs**

- Perform dealerships risk assessment based on short-term market projections and identify investors with default risk
- Drive a retail network consolidation process to help dealerships preserve the critical mass ensuring business continuity
- Launch turnaround and performance improvement programs to help future-state dealerships survive the crisis

---

**Our distinctive value proposition**

- Unmatchable strategy-through-execution value proposition, including:
  - retail network strategy review
  - M&A operations support
  - dealerships turnaround/ performance improvement programs roll-out

---

* EU-5 = Germany, UK, France, Italy, Spain; 1) Sales simulation was modeled considering the “Deep Impact” scenario

Source: ICDP, IHS Markit, Italia Bilanci, PwC Autofacts, Strategy& analysis

May 2020
OEMs need to timely identify new customers’ needs and evolve their value proposition to tap into emerging consumer demand

Recommended short-term actions – Customer Sentiment Analysis

Our perspective on post-COVID-19 market evolution

Health shapes customers behavior

• Among the lessons we can learn from past crises, there is the higher resilience of aftermarket and used cars business

• Yet this is a one-of-a-kind crisis, with demand preferences being mainly driven by health and safety concerns

• According to a sentiment analysis we conducted in May 2020, customers prefer individual mobility rather than relying on public transportation

• Being shaped by the evolution of the pandemic and government measures, customer behaviors are unpredictable

• OEMs need to listen attentively to fast-changing customers behaviors and evolve quickly to serve their needs

Our recommendations for OEMs

• Perform customer sentiment analysis to find out how consumers attitude toward the brand and mobility evolves

• Tailor products and services to tap into emerging demand (e.g. mid-term rental and pay-per-use payment models for younger, low-income clients)

• Ensure marketing communication is in tune with emerging customers’ needs

Our distinctive value proposition

• Machine learning tools for real-time sentiment analysis & trend watching

• In-house data scientist team with long-lasting industry expertise

• Consolidated partnerships with editorial groups for communication testing & tuning
Electric vehicles market in EU-5 is expected to gain shares, driven by high-income demand and likely scrappage subsidies

**Our perspective on post-COVID-19 market evolution**

**Electric cars get a likely boost**
- One potential upside to the slowing short-term demand in cars is a medium-term uptick in electric sales.
- Consumers putting off buying this year may instead jump straight to a hybrid or fully electric car in the next few months, bringing forward an intended purchase.
- Consumer intention could be supported by policy as governments choose to subsidize electric cars as part of any stimulus package to kick-start the economy.
- April 2020 car registrations in EU-5 highlight the higher resilience of Electric Vehicles vs ICE vehicles.

**Recommended short-term actions – Electric Vehicles Boost**

- Identify and target most recession-resilient demand segments (i.e. large companies and high-income privates).
- Launch tailored marketing campaigns aimed at stimulating intention to buy, by addressing key customer concerns or leveraging key inner needs.
- Design a specific Customer Experience for electric vehicles (EV) customers.

**Our recommendations for OEMs**
- Detailed forecasts on the EV markets by geography, segment, powertrain.
- In-depth knowledge of demand drivers/inhibitors based on recurring surveys.
- Customer Experience benchmarks and best practices for all market segments.

**PCs registrations in EU-5* by powertrain**

<table>
<thead>
<tr>
<th>Powertrain</th>
<th>YTD Apr ’19</th>
<th>YTD Apr ’20</th>
<th>YoY (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEV</td>
<td>1,2%</td>
<td>3,9%</td>
<td>+85%</td>
</tr>
<tr>
<td>PHEV</td>
<td>4,8%</td>
<td>2,8%</td>
<td>+105%</td>
</tr>
<tr>
<td>Hybrid</td>
<td>93,2%</td>
<td>9,4%</td>
<td>+11%</td>
</tr>
<tr>
<td>Other ICE</td>
<td>84,0%</td>
<td>-49%</td>
<td></td>
</tr>
</tbody>
</table>

* EU-5 = Germany, UK, France, Italy, Spain

Source: UNRAE, Kba, CCFA, ANFAC, SMMT data, Strategy& analysis.
OEMs and dealers have to complement brick-and-mortar sales with a seamless and contactless on-line customer experience

**Recommended short-term actions – Digital Customer Experience**

**Our perspective on post-COVID-19 market evolution**

**Remote interaction will gain speed**
- The number of customers visits to dealerships has dropped radically over the last decade and it is expected to further decrease in the next months
- Health and safety concerns will continue to shape customer behavior
- Since the lockdown began up until these days, consumers interest shifted towards online channels for information search and purchase
- This crisis presents the opportunity to bring the showroom experience to the home, via technology solutions enabling real-time video interaction with customer from car presentation to contract closure

**Customer interest trend**

<table>
<thead>
<tr>
<th></th>
<th>Conversations and searches volumes (Feb ‘20 = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Online</td>
</tr>
<tr>
<td></td>
<td>Traditional</td>
</tr>
<tr>
<td>Feb ’20</td>
<td>1</td>
</tr>
<tr>
<td>Mar ’20</td>
<td>2</td>
</tr>
<tr>
<td>Apr ’20</td>
<td>4</td>
</tr>
<tr>
<td>May ’20</td>
<td>4</td>
</tr>
</tbody>
</table>

**Our recommendations for OEMs**

- Review Customer Experience to address new customer needs/concerns
- **Embrace new technologies** (i.e. live digital showroom) to enable omnichannel remote interactions with customers from lead generation to contract closure
- Upskill dealerships sales force to ensure familiarity with the new digital tools and selling methodologies

**Our distinctive value proposition**

- Detailed benchmarks and best practices regarding Live Digital Showroom models
- Consolidated partnerships with leading technology providers
- Extensive experience in international programs for dealers professionalization
Get in touch

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It’s the strategy that turns vision into reality. It’s strategy, made real

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This Report has been prepared by PwC Strategy& independently from any PwC Strategy& client relationship to provide our perspectives on the short-term impact of COVID-19 outbreak on the European automotive market, with focus on EU-5 major markets (France, Germany, UK, Italy and Spain).

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