Anticipate a prolonged Fight phase of 12-24 months

Scenarios and outcome driven by five key questions; shape varies based on regional assumptions

Five questions will shape the economic outcomes

1a What will be the LENGTH of “Flatten”?

1b To what DEPTH does the economy drop in “Flatten”?

2a What will be the LENGTH of “Fight”?

2b What LEVEL of recovery does the economy achieve in “Fight”?

3 Where does the economy return to relative to the pre-COVID era in “Future”?

Source: BCG
As of 15 May 2020

**Fight: Auto sales in China on recovery path**

**Vehicle sales**
- **China**: -20% in Jan, -82% in Feb, -46% in Mar, -3% in Apr
- **Europe**: -7% in Jan, -7% in Feb, -46% in Mar, ~80% in Apr
- **US**: 0% in Jan, +8% in Feb, -39% in Mar, -52% in Apr

**Notes:**
1. Passenger vehicles sales by month including Mini Vans
2. New passenger car registrations by month, Europe = EU26 + UK + Iceland, Norway, Switzerland
3. Light Vehicles (LV) include Passenger Vehicles (PV)

Sources: Marklines/China Association of Automobile Manufacturers (CAAM), ACEA actuals, Wards Automotive, BCG analysis and forecast
As of 15 May 2020

Economic forecasts deteriorating globally for 2020 while remaining stable for 2021

### GDP growth forecast (YoY in %)

#### 2020

- **China**
  - Range: -10% to 6.0%
  - Forecast: 1.2%

- **Europe**
  - Range: -7.5% to 1.3%
  - Forecast: -0.5% (Baseline: 2.0%)

- **US**
  - Range: -10% to 6.0%
  - Forecast: 1.7%

#### 2021

- **China**
  - Range: -10% to 5.8%
  - Forecast: 5.8%

- **Europe**
  - Range: -7.5% to 4.7%
  - Forecast: 4.7%

- **US**
  - Range: -10% to 4.7%
  - Forecast: 4.7%

### GDP level forecast

- **China**: 107–112%
- **Europe**: 95–101%
- **US**: 97–100%

Note: As of reports dated 31 March 2020 to 05 May 2020, YoY forecasts 1. Announced by the German Federal Ministry for Economic Affairs and Energy on 29 Apr 2020 2. Range calculated with 25th & 75th percentile values of forecast range 3. Range from forecasts (where available) of International Monetary Fond, JP Morgan Chase; Morgan Stanley; Bank of America; Fitch Solutions; Credit Suisse; Danske Bank; ING Group; HSBC Source: German Federal Ministry for Economic Affairs and Energy; Bloomberg; IMF; BCG analysis
Change in mobility behavior expected – intentions stronger in China

Risk associated with mode of transport after lockdown

- People see car as the safest mode of transportation
- Change in mobility behavior expected – intentions stronger in China

Mode of transport usage after lockdown

- Private car will be more preferred after lockdown – especially in China
- Clear picture in China on trend towards buying/owning car while EU/USA are mixed

Change of likelihood to buy/own car after COVID-19

- As of 15 May 2020
Four scenarios of the crisis are simulated along Flatten-Fight-Future

**1. Optimistic**
- **ARCHETYPE**: V-shape
- **MACROECONOMIC**:
  - Positive surprise in virus properties
  - Rapid catch-up in mitigation measures and their effectiveness
  - Significant monetary and fiscal response
  - Household and business spending stays largely in tact
  - Few businesses fail, unemployment recovers from initial dip
- **AUTO**:
  - Government backed incentives and cheap credit spur quick recovery
  - Deferred automotive demand recovered
- **UNLIKELY**

**2. Most likely I**
- **ARCHETYPE**: V skewed to a U
- **MACROECONOMIC**:
  - Virus properties stay or worsen
  - Mitigation efforts are slow / unsuccessful and have to be extended
  - Household & business confidence falls & remains depressed (08/09 crisis)
  - Rebound through governmental support in investments, business sector and households
- **AUTO**:
  - Confidence slowly increasing, supported by government incentives
  - Demand partly recovered, yet significant portion of sales lost in ’20
- **COVID-19 CRISIS MOST LIKELY IN RANGE OF THESE SCENARIOS**

**3. Most likely II**
- **ARCHETYPE**: U-shape
- **MACROECONOMIC**:
  - Virus properties linger with continued fear of mutation
  - Mitigation efforts are intense, yet ultimately unsuccessful
  - Heightened incidents as economies reopen necessitate new shutdowns
  - Household & business confidence remains depressed
  - Financial system begins to show cracks
- **AUTO**:
  - New vehicle sales remain depressed as market moves into prolonged economic downturn
  - Significant portion of sales lost
- **UNLIKELY**

**4. Pessimistic**
- **ARCHETYPE**: W-shape skewed to an L
- **MACROECONOMIC**:
  - Occurrence of 2nd wave with severe global impact
  - Repeated shocks on regional/local level lead to frequent lockdowns
  - Severe depression of household & business confidence
  - Severe implications on labor, capital and productivity of the economy
  - Economy increasingly embraces remote working
- **AUTO**:
  - Auto supply chains severely disrupted
  - Continued shutdowns e.g., plants, dealers
  - Lingering change to consumer mobility patterns; Immense loss of sales
- **UNLIKELY**

Source: BCG analysis

AUTOMOTIVE DEMAND POST COVID-19
As of 19 May 2020

Automotive Demand: Also in mid-term significant global impact

Sales forecast for CN, EU, US (vehicle units in M)

Most likely scenario

Optimistic scenario

Pessimistic scenario

Most likely I scenario

Optimistic scenario

Pessimistic scenario

Source: BCG Automotive Demand Model; IHS; BCG Analysis
Next step: Please feel free to reach out regarding our tools/insights

1. **Response toolbox**
   - Comprehensive approach to managing COVID-19 response
   - Handle immediate response and leverage crisis in long-term

2. **Digital offering**
   - Mid-long-term: Demand scenarios and P&L / cash flow wargaming
   - Short-term: Monitor and analyze indicators for decision support

3. **Our latest thinking**
   - Overarching and functional deep-dive material on demand
   - Regular publications on crisis, necessary actions & impact on auto
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