COVID-19 BCG Perspectives

Objectives of this document

COVID-19 is a global societal crisis

We at BCG believe that the COVID-19 outbreak is first and foremost a societal crisis, threatening lives and the wellbeing of our global community. Society now, more than ever, needs to collaborate to protect people's lives and health, manage mid-term implications, and search for lasting solutions.

Leaders need to drive an integrated response to navigate the crisis

It is the duty of health, political, societal, and business leaders to navigate through this crisis. A complex interplay of epidemic progression, medical response, government action, sector impact, and company action is playing out. This document intends to help leaders find answers and shape opinions to navigate the crisis in their own environments. It encourages thinking across the multiple time horizons over which we see the crisis manifesting itself.
Executive Summary | COVID-19 BCG Perspectives

Many countries are starting to establish preconditions for a controlled restart, as COVID-19 continues to be a global challenge to societies

- Governments’ actions and societal adherence continue to deliver results in flattening the curve; allowing us to consider relaxation of lockdowns
- However, health care capacity (e.g. masks) and testing (e.g. currently unreliable serology) remain major issues
- Business preparation (e.g. health protocols; workplace safety) and public response (e.g. revised social norms) are key to ensure a sustainable transition

Impact on economy, sectors, and business remains severe in 2020; rebound to pre-crisis levels not expected by end of 2021

- Length of ‘Fight’ phase dependent on many unknowns; accelerated movement toward vaccine or treatment at scale could limit ‘Fight’ phase to 12-24 months; data from therapeutics will emerge in a few months—drugs likely to reduce severity of infection
- Estimating the economic, sector, and business impact requires scenario-thinking to navigate the crisis
- Current consumer sentiment suggests some willingness to resume activities post lockdown but not to pre-crisis levels (even with treatment)
- Economic forecasts point to severe downturn in 2020—global rebound to pre-COVID levels not expected before 2021
- Total shareholder returns (TSR) have rebounded over the last 20 days, most sectors still hit; there are clear winners even in hard hit sectors

To emerge stronger from the crisis requires fast, decisive action; business leaders need to concurrently think across multiple time horizons

- To navigate through the crisis, leaders can leverage real-time, high-frequency, leading indicators to understand patterns and societal shifts
- Experience from prior crises suggests that winners innovate to accelerate out of crisis and seek bold moves, e.g. M&A
- We recommend nine action areas to business leaders that allow companies to emerge stronger
- ‘Winning the Fight’ improves odds to also ‘Win the Future’

We believe during this crisis, leaders need to think along two dimensions:

1. Taking an integrated perspective on health/medical progression, governmental responses, societal reactions, and economic implications to understand business/sector impacts and
2. Thinking multi-timescale (the now, near, and long-term future—in a flatten-fight-future logic).

Source: BCG
COVID-19 will be a journey with three distinct phases requiring an integrated perspective

**Flatten**

Typically the initial phase after a pandemic outbreak – goal is to urgently limit number of confirmed cases, especially critical care

Social distancing (lockdown) and partial business closures outside a few, lead to economic recession with large employment impact

**Fight**

Finding paths to collectively fight the virus, restart the economy, and support society in balancing lives and livelihood

Moderate economic activity with recovering GDP, some business reopenings, and social distancing on sustainable level

**Future**

Disease controlled through vaccine/cure/herd immunity, and treatment within sustainable medical capacities possible

Reactivated economy with strong business rebound and job growth, social restrictions limited or completely suspended

All of the above five factors result in specific economic and social outcomes in each phase

Source: BCG
COVID-19 Progression and Response
Disease progression and health care capacity
Government policies and action

Economic and Business Impact and Scenarios
Economic response
Scenarios and key drivers

Guide for Leaders
Principles for leadership
Navigating businesses through uncertainty
Emerging stronger
COVID-19 pandemic spread: Cases doubling every ~20 days\(^1\) globally

As of 23 April 2020

Days of doubling cases:
- **0-3 days**
- **3-6 days**
- **6-14 days**
- **14-30 days**
- **>30 days**

**183** Countries with cases\(^2\)

**2.7M** [\(\Delta 4\%\)]\(^3\) Confirmed cases globally

**191k** [\(\Delta 5\%\)]\(^3\) Fatality globally

Note: Continued cases and fatalities are subject to different testing, propensity, reporting standards and hence imperfect measures

1. No. of doubling days based on 7 day CAGR  
2. Basis Johns Hopkins CSSE  
3. Daily growth rate basis 7 day CAGR

Sources: Johns Hopkins CSSE, Our world in data, WHO situation reports, BCG analysis

DISEASE PROGRESSION & HEALTH CARE CAPACITY
The week that was…

From 18 to 23 April 2020

Coronavirus infections have peaked in much of the rich world

But the fight to control the pandemic is likely to be a long and slow one.

DISEASE PROGRESSION & HEALTH CARE CAPACITY

A critical shortage of swabs and other testing components is, in many cases, making it impossible for labs across the country to expand their capacity.

The Moscow Times

Russia's Coronavirus Cases Rise By Over 4,000

Russia now has 47,121 cases.

April 20, 2020

The New York Times

Too Much Oil: How a Barrel Came to Be Worth Less Than Nothing

One oil price went negative on Monday, signaling that there is no place to store all the crude the world is producing but not using.

April 20, 2020

South Korea holds elections under strict safety measures amid coronavirus pandemic

Shirt measures have been put in place to ensure voter safety. 11 Apr 2020

The Economist

FOCUS

Rare lull in HK virus patients

20 Apr 2020 3:12 pm

For the first time since March 5, there are no coronavirus patients reported in Hong Kong as of 4:00pm today and health officials canceled their regular briefing to the media. The number of people infected since...
Leaders need to get the preconditions for Restart right

### Health care readiness

<table>
<thead>
<tr>
<th>Disease progression and impact</th>
<th>Health care capacity</th>
<th>Virus monitoring system</th>
<th>Business preparation</th>
<th>Public response</th>
<th>Government preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control of virus impact in terms of case growth rate, environmental factors, and disease impact</td>
<td>Adequate supply of hospital beds, ventilators, ICUs, PPE, trained staff, new treatments</td>
<td>Widespread and private virus testing; contact tracing, tracking, and isolation</td>
<td>Workplace health protocols and business readiness</td>
<td>Training and availability of hygiene products and PPE; civil awareness, compliance rates</td>
<td>Leadership capacity, Policy framework for public health, sectors, and economy</td>
</tr>
<tr>
<td>Leading indicator that measures are effective, public health is protected</td>
<td>Capacity sufficient to care for COVID-19 and other health needs</td>
<td>Testing to inform decisions, resource allocation, and outbreak resolution</td>
<td>Businesses ensure workplace safety for those returning to work</td>
<td>Public educated and empowered to adhere to guidelines, to play role in containment; societal response</td>
<td>Leadership capacity and decision-making on policy; clear guidance and expectations</td>
</tr>
</tbody>
</table>

### Public/economic readiness

- Leading indicator that measures are effective, public health is protected
- Capacity sufficient to care for COVID-19 and other health needs
- Testing to inform decisions, resource allocation, and outbreak resolution
- Businesses ensure workplace safety for those returning to work
- Public educated and empowered to adhere to guidelines, to play role in containment; societal response
- Leadership capacity and decision-making on policy; clear guidance and expectations

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1. Environmental factors: population density, demographics (age, health conditions), weather, etc.; mixing from other localities
2. Societal behavior: physical distancing, gatherings, intergenerational living, mass transit usage, shopping behavior, etc.

Source: BCG analysis
As of 22 April 2020

1. Includes Middle East
2. Countries selected from the chart on the left
3. # of days after exceeding 100 confirmed cases
4. Excludes Brazil
5. Singapore observed a steady decline in growth rate of cumulative cases from 22 Mar to 6 Apr post which the rate has mostly increased as of 22 Apr 2020. Source: Johns Hopkins CSSE, Our World in data, WHO situation reports
Disease progression | Governments actions are delivering results

Up to 15 Apr 2020

Note: “Day 0” reflects day measure was taken in each country and can vary across measures; daily growth rate of reported infections based on compound growth in 3-day window prior to date; Chinese province of Hubei considered as separate country for purpose of presentation; correlations between effects of measures not taken into account; threshold of 100 cases at date of measure introduction used per measure, not across measures

Countries (ISO 3166-1 alpha-2): AT, BE, BR, CH, CN (Hubei), CZ, DE, ES, FI, GR, ID, IL, IN, IQ, IR, IS, IT, JP, KR, MY, NO, PK, PT, QA, SE, SI, TH, US, ZA

Source: Oxford COVID-19 Government Response Tracker, Johns Hopkins University CSSE data, BCG analysis
Health care capacity | To support broader usage of masks, different countries planning ramp-up of production

Illustrative: Modeled* for a country with 100M population

<table>
<thead>
<tr>
<th>Groups affected &amp; usage description</th>
<th>Public facilities &amp; patients</th>
<th>Vulnerable groups &amp; patients</th>
<th>Essential workers &amp; patients</th>
<th>Optional daily use for general public</th>
<th>Mandatory daily use for general public</th>
</tr>
</thead>
<tbody>
<tr>
<td>People affected</td>
<td>Anyone using public facilities (e.g. shops, transport)</td>
<td>Recommended use for vulnerable people leaving home</td>
<td>Any worker going into a workspace with others</td>
<td>Recommended but optional use for anybody leaving home</td>
<td>Required use for anybody leaving home</td>
</tr>
</tbody>
</table>

Examples of where guidance is adopted

<table>
<thead>
<tr>
<th>No. people affected per month (M)</th>
<th>39</th>
<th>35</th>
<th>20</th>
<th>100</th>
<th>100</th>
</tr>
</thead>
</table>

Total masks/ month (M)4,5

| 18 | 34 | 154 | 85 | 180 |

NB: Analysis above is for 'population masks' and not those that are FDA or FDA EUA approved for health care workers interacting with COVID-19 patients

*Model has been built with US as a representative country and can be used as a near base case for developed countries
1. Brookings (2020); 2. Assumes one member of household goes shopping/to pharmacy 5x monthly – Census.gov (2020); 3. KFF (2020); 4. No of masks needed per person daily assumed to 1 for Public facilities & patients, Vulnerable groups & patients, Optional daily use for general public, Mandatory daily use for general public; and 4 for Essential workers & patients; 5. Assumes that 50-60% of people go out daily, 50% of general population will wear masks & 70% of vulnerable population will wear masks; 10% buy surgical masks instead of using homemade face coverings; 6. For selected states

\[\text{As of 23 April 2020}\]
Virus monitoring | Testing continues to be a pressing issue

As of 22 April 2020

Countries are continuing to ramp-up testing

Testing-to-cases ratios differ widely

Note – 1. Non-exhaustive list
Source: World Bank, Worldometers.info, Our World in Data, Johns Hopkins
Two test types available for Covid-19 that differ in what they detect and how well they detect

1. "Gold standard" molecular tests provide the most accurate detection of the virus genetic material (RNA), typically from respiratory swabs, and can detect the virus before symptoms appear

2. Serological tests detect the human immune response to the virus ~1 week from when symptoms appear; many "rapid" serology tests launched vary significantly in accuracy relative to molecular tests

Illustration: Implications of Accuracy for Covid-19 Testing

Base data: 100,000 tests performed; 5% disease prevalence

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Detection Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Molecular &quot;gold standard&quot; test for COVID-19</td>
<td>98%</td>
<td>99%</td>
<td>~2-4 days before symptoms</td>
</tr>
<tr>
<td>Rapid finger-stick serology &quot;high quality&quot;</td>
<td>80%</td>
<td>90%</td>
<td>~6-10 days after symptoms</td>
</tr>
<tr>
<td>Rapid finger-stick serology &quot;low quality&quot;</td>
<td>30%</td>
<td>60%</td>
<td>~6-10 days after symptoms</td>
</tr>
</tbody>
</table>

**False Negative Patients**

- Sick patients = 5,000
  - 100 False Negative Patients (sick patients misdiagnosed negative)

**False Positive Patients**

- Healthy patients = 95,000
  - 950 False Positive Patients (healthy patients misdiagnosed positive)

**Misdiagnosed Infectious People**

- Sick patients = 5,000
  - 3,500 Misdiagnosed infectious people do not isolate and propagate infection further

- Healthy patients = 95,000
  - 9,500 Misdiagnosed infectious people do not isolate and propagate infection further

**Note:** This presentation is not intended to: (i) constitute medical, legal or safety advice, nor be a substitute for the same; nor (ii) be seen as a formal endorsement or recommendation of a particular response. As such, you are advised to make your own continued assessments as to the appropriate course of action to take, using this presentation as general guidance only. Please carefully consider local laws and guidance in your area, particularly the most recent advice issued by your local (and national) health authorities, before making any decision.

As of 17 April 2020
Business preparation | Business readiness across health protocols and workplace safety key to ensure smoother transition during Restart

- Face masks
- Non-overlapping shifts
- Thermal imaging
- Physical separation (e.g., non-overlapping shifts)
- Hand sanitizer
- Revised social norms
- Special cleaning teams
- Remote working
- Paid sick leave
- Tracking & tracing

Good morning!

DO YOU FEEL SICK?

TEMPERATURE

John Doyhle

DISEASE PROGRESSION & HEALTH CARE CAPACITY

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COVID-19 Context and Development

1. Disease progression, health care system capacity, and response
   Government policies and action

Economic and Business Impact and Scenarios

2. Scenarios and economic impact
   Business implications

Guide for Leaders

3. Principles for leadership
   Navigating businesses through uncertainty
   Emerging stronger
Economic and Business Impact and Scenarios

'Flatten'
Negative economic impact during 'Flatten' depends on LENGTH of suppression and DEPTH of economic drop
Understanding of countries' sector composition critical to estimate direct negative economic impact of reduced contact

'Fight'
Accelerated movement toward vaccine or treatment at scale could limit 'Fight' phase to 12-24 months
Development in China gives a first idea on what LEVEL of recovery the economy can achieve
Current consumer sentiment suggests some willingness to resume activities post lockdown, but not to pre-crisis level even with treatment

Impact
Economic forecasts point to severe downturn in 2020—global rebound to pre-COVID levels not expected before 2021
Total shareholder return (TSR) has rebounded over last 20 days but impact visible across many sectors; no sector above pre-crisis level across regions
While all sectors are affected by the downturn there is a large spread with some winners within each sector

Source: BCG
Scenarios and potential outcomes driven by five key questions

As of 24 April 2020

**Economic activity**
- 100%

**Critical care patients**
- Shut down
- Restart
- Cure

**Five questions will shape the economic outcomes**

1a. What will be the LENGTH of "Flatten"?
   - What are the preconditions to transition?
   - When will we achieve them?

1b. To what DEPTH does the economy drop in "Flatten"?

2a. What will be the LENGTH of "Fight"?
   - What are the preconditions to transition?
   - When will we achieve them?

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
'Flatten': Economic impact depends on LENGTH of suppression and DEPTH of economic drop

As of 24 April 2020
US (Preliminary figures)

**Annualized economic impact**\(^1\) (in % of USD/year)
Scenario and impact outcome differs based on geography and industry

<table>
<thead>
<tr>
<th>Depth of economic drop in 'Flatten'</th>
<th>15-20% loss</th>
<th>20-25% loss</th>
<th>25-30% loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3%</td>
<td>3-4%</td>
<td>3-5%</td>
<td></td>
</tr>
<tr>
<td>2-4%</td>
<td>3-5%</td>
<td>5-7%</td>
<td></td>
</tr>
<tr>
<td>3-4%</td>
<td>4-6%</td>
<td>6-8%</td>
<td></td>
</tr>
</tbody>
</table>

**Length of 'Flatten'** (in weeks)

- W2 May\(^2\) (7 weeks)
- W1 June\(^2\) (10 weeks)
- W4 June\(^2\) (13 weeks)

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1. % in matrix indicate the annualized economic loss (as a % of USD/year) that occurs for a combination of the weekly economic loss (as a % of USD/week) and the length of the suppression period (in weeks). Lower end of ranges rounded down and upper end of ranges rounded up to reflect uncertainty. 2. Lockdown duration scenarios based on empirically observed 4-8 weeks from peak infection. Does not reflect impact from peak infection rate, local healthcare capacity, local testing/monitoring capability or local government policies.
Flatten': Understanding of countries' sector composition critical to estimate direct negative economic impact of reduced contact

As of 24 April 2020
US (Preliminary figures)

US employment by sector (%)

- Government: 15% of employment
- Biopharma & Banking: 39% of employment
- Telecom & Construction: 14% of employment
- Health care providers & Groceries: 14% of employment
- Software & Legal: 18% of employment

US revenue by sector (%)

- Government: 56% of revenue, Open under stay-at-home order, Low-to-high contact intensity
- Biopharma & Banking: 13% of revenue, Limited under stay-at-home order, Low contact intensity
- Telecom & Construction: 20% of revenue, Limited under stay-at-home order, Medium contact intensity
- Health care providers & Groceries: 11% of revenue, Limited under stay-at-home order, High contact intensity

Source: US Economic Census; St. Louis Fed Reserve; BCG COVID response teams; BCG Analysis
'Fight': Accelerated movement toward vaccine or treatment at scale could limit 'Fight' phase to 12-24 months

As of 24 April 2020

Timeframe (years) 0 1 2 3 4 5

Traditional vaccine development takes > 5 years

Potential accelerated pathway for Covid-19 vaccine

Key success factors/indicators:

- Published safety data to show vaccine has been well tolerated in healthy volunteers
- Manufacturing scale-up beginning immediately (expected ~6-12 month lead time)
- Expansion of clinical trials to include volunteers over 60 years old
- Established a clear view on a surrogate of efficacy (e.g. challenge model)
- Data from therapeutics emerging in a few months – drugs likely to reduce severity of infection

'Fight': China gives a first idea on what LEVEL of recovery the economy can achieve

As of 24 April 2020

China

People and goods are starting to move again

Coal consumption moving higher

Property transactions are restarting

Note: As of 24 April 2020; China data re-based for weekdays excl. weekends. Congestion delay index average include Beijing, Shanghai, Guangzhou, Shenzhen, and Wuhan; Daily coal consumption of major power plants = sum of daily average coal consumption of Jerdin Electric, Guangdon Yudean Group, Datang International Power Generation, and Huaneng Power International, Inc.; Source: www.cqcoal.com, and BCG Center for Macroeconomics
'Fight': Consumer sentiment suggests some willingness to resume activities post lockdown, but not to pre-crisis level even with treatment

<table>
<thead>
<tr>
<th>Willing to resume some level of the activity (%)</th>
<th>Activities</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Flights²</td>
<td>Hotel²</td>
</tr>
<tr>
<td>Available vaccine and/or drugs to treat</td>
<td>82</td>
<td>85</td>
</tr>
<tr>
<td>No new cases in my country</td>
<td>82</td>
<td>80</td>
</tr>
<tr>
<td>Number of new cases in my country slows</td>
<td>61</td>
<td>56</td>
</tr>
<tr>
<td>Government removes restrictions</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>I’m already comfortable doing this or will be as soon as they reopen</td>
<td>16</td>
<td>18</td>
</tr>
</tbody>
</table>

I would never do this, even after we return to 'normal' times (%)

<table>
<thead>
<tr>
<th>Flights²</th>
<th>Hotel²</th>
<th>Local</th>
<th>Restaurant</th>
<th>Shopping</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>9</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: BCG COVID-19 Consumer Sentiment Survey, April 10-13, 2020 (N=2,960 US), unweighted; representative within ±3% of US census demographics.

Note: Question text: "When will you feel comfortable [on activity]? Please select up to 3." Respondents who are already comfortable with an activity are assumed to be comfortable with all other measures as well; respondents who selected "government removes restrictions" are assumed to be comfortable with "number of new cases in my country slows."

1. Data includes only respondents who have been on a cruise in 2016-2020.; 2. Data includes only respondents who have done these activities on 2019-2020.
Economic forecasts point to severe downturn in 2020—global rebound to pre-COVID levels not expected before 2021

As of 22 April 2020

**GDP growth forecast vs. baseline**

**US**
- Baseline: 2.0%
- Forecast: -5.9%

**Europe**
- Baseline: 2.0%
- Forecast: -7.5%

**China**
- Baseline: 6.0%
- Forecast: 1.2%

**India**
- Baseline: 1.3%
- Forecast: 1.9%

**Japan**
- Baseline: -5.2%
- Forecast: 0.7%

**GDP level forecast**

**EOY 2021 vs. EOY 2019**
- **US**: 96-103%
- **Europe**: 95-101%
- **China**: 107-113%
- **India**: 106-112%
- **Japan**: 96-100%

Note: As of reports dated 31 March 2020 to 22 April 2020, YoY forecasts; Last week’s forecast based on forecast of IMF and same banks. 1. Range calculated with 25th & 75th percentile values of forecast range; 2. Range from forecasts (where available) of International Monetary Fund, JP Morgan Chase; Morgan Stanley; Bank of America; Fitch Solutions; Credit Suisse; Danske Bank; ING Group; HSBC; Source: Bloomberg, IMF, BCG analysis.
TSR improved over last 20 days, but impact visible across all sectors; no sector above pre-crisis level across regions

As of 22 April 2020

Order of sectors reflects economic scenario and consumer sentiment

<table>
<thead>
<tr>
<th>TSR performance¹</th>
<th>Americas</th>
<th>Europe</th>
<th>Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21 Feb '20 – 20 Mar '20</td>
<td>21 Feb '20 – 22 Apr '20</td>
<td>21 Feb '20 – 20 Mar '20</td>
</tr>
<tr>
<td><strong>Healthy sectors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food/staples Retail</td>
<td>-10%</td>
<td>-3%</td>
<td>-15%</td>
</tr>
<tr>
<td>Pharma</td>
<td>-19%</td>
<td>1%</td>
<td>-20%</td>
</tr>
<tr>
<td>Household Products</td>
<td>-19%</td>
<td>-6%</td>
<td>-16%</td>
</tr>
<tr>
<td>Telecom</td>
<td>-17%</td>
<td>-11%</td>
<td>-20%</td>
</tr>
<tr>
<td>Semiconductors</td>
<td>-30%</td>
<td>-10%</td>
<td>-43%</td>
</tr>
<tr>
<td><strong>Pressured sectors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food &amp; Beverage</td>
<td>-26%</td>
<td>-14%</td>
<td>-24%</td>
</tr>
<tr>
<td>Utilities</td>
<td>-33%</td>
<td>-17%</td>
<td>-30%</td>
</tr>
<tr>
<td>Health Equipment</td>
<td>-33%</td>
<td>-14%</td>
<td>-31%</td>
</tr>
<tr>
<td>Software</td>
<td>-30%</td>
<td>-14%</td>
<td>-32%</td>
</tr>
<tr>
<td>Tech Hardware</td>
<td>-29%</td>
<td>-17%</td>
<td>-25%</td>
</tr>
<tr>
<td>Prof. Services</td>
<td>-30%</td>
<td>-21%</td>
<td>-29%</td>
</tr>
<tr>
<td>Materials</td>
<td>-34%</td>
<td>-20%</td>
<td>-31%</td>
</tr>
<tr>
<td>Retailing</td>
<td>-42%</td>
<td>-28%</td>
<td>-36%</td>
</tr>
<tr>
<td>Capital Goods</td>
<td>-38%</td>
<td>-24%</td>
<td>-35%</td>
</tr>
<tr>
<td>Financials</td>
<td>-36%</td>
<td>-22%</td>
<td>-35%</td>
</tr>
<tr>
<td><strong>Vulnerable sectors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>-37%</td>
<td>-25%</td>
<td>-38%</td>
</tr>
<tr>
<td>Media</td>
<td>-36%</td>
<td>-24%</td>
<td>-47%</td>
</tr>
<tr>
<td>Insurance</td>
<td>-42%</td>
<td>-34%</td>
<td>-40%</td>
</tr>
<tr>
<td>Hospitality</td>
<td>-44%</td>
<td>-30%</td>
<td>-47%</td>
</tr>
<tr>
<td>Banks</td>
<td>-41%</td>
<td>-37%</td>
<td>-44%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>-42%</td>
<td>-33%</td>
<td>-26%</td>
</tr>
<tr>
<td>Auto</td>
<td>-47%</td>
<td>-38%</td>
<td>-45%</td>
</tr>
<tr>
<td>Durable Goods</td>
<td>-49%</td>
<td>-38%</td>
<td>-32%</td>
</tr>
<tr>
<td>Energy</td>
<td>-57%</td>
<td>-43%</td>
<td>-45%</td>
</tr>
</tbody>
</table>

Note: Based on top S&P Global 1200 companies; Industries are based on GICS definitions ¹ Performance is tracked for two periods, first from 21 February 2020 (before international acceleration of outbreak) to 20 March 2020 (trough of the market) and from 21 February 2020 through 22 April 2020

Source: S&P Capital IQ; BCG ValueScience® Center; BCG

Observations

- Non-discretionary/essential service less hit but still had recovery
- Broad set of industries experiencing pressure, with some regions particularly affected for certain sectors
- Utilities and health equipment generally better off in Asia
- Hardest hit sectors had some recoveries but still performing way below 21 Feb 2020 levels
Credit risk continues to be a concern for majority of sectors

As of 22 April 2020

<table>
<thead>
<tr>
<th>Sector</th>
<th>Median 5-year CDS implied probability of default</th>
<th>Companies in distress (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21 Feb 2020</td>
<td>22 Apr 2020</td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td>2020</td>
</tr>
<tr>
<td>Healthier sectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food/staples Retail</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Pharma</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Household Products</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Telecom</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Semiconductors</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Pressured sectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food &amp; Beverage</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Utilities</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Health Equipment</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Software</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Tech Hardware</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Prof. Services</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Materials</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Retailing</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Capital Goods</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Financials</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Vulnerable sectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Media</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Insurance</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Hospitality</td>
<td>5%</td>
<td>12%</td>
</tr>
<tr>
<td>Banks</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>Auto</td>
<td>5%</td>
<td>13%</td>
</tr>
<tr>
<td>Durable Goods</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Energy</td>
<td>5%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Observations

- Less discretionary and cash-rich sectors are largely at lower risk of default in current climate
- Retailing with spike in companies in distress (~50% of retailing sector with > 15% implied probability of default)
- Auto, hospitality, and energy industries facing greatest risk of default based on current credit profile

Note: As of 22 April 2020; Based on top S&P Global 1200 companies; Sectors are based on GICS definitions
1. Credit Default Swap 2. Performance is tracked on 21 February 2020 (before international acceleration of outbreak), and 22 April 2020 3. Distressed comprises over 15% implied probability of default Source: S&P Capital IQ; BCG ValueScience® Center; BCG
Business leaders can navigate through 'Flatten' and 'Fight' leveraging a dynamic cockpit for their specific industry

### Dynamic Cockpit

#### External data sources

<table>
<thead>
<tr>
<th>Macro indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public health situation</td>
</tr>
<tr>
<td>• Virus spread scenarios</td>
</tr>
<tr>
<td>• Medical demand/ supply assessment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Macroeconomic developments</th>
</tr>
</thead>
<tbody>
<tr>
<td>• GDP estimated development</td>
</tr>
<tr>
<td>• Government policies</td>
</tr>
<tr>
<td>• Labor impact</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Governmental measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Government response timelines</td>
</tr>
<tr>
<td>• Lockdown status and estimated end date</td>
</tr>
</tbody>
</table>

### Category demand evolution

#### Category economic scenarios

- COVID eco. impacts on categories
- Scenario-based future sales
- Short-term demand by product/location

#### Customer behavior shifts

- Online user behaviors
- Sentiment surveys

#### Internal data sources

**Demand data**

- Segments / categories, channels, company vs. competition

**Stock data**

- Sell-in / sell out scenarios
- Sell-in / sell out actuals (customer, week and location / channel level)

**Orders**

- Stock levels, purchase materials and location

**Product and customer master data**

- Product and customer attributes and hierarchies

**Production data**

- Production planning for coming weeks

**Commercial data**

- Promo calendar

---

Source: BCG
# Example for the Fashion and Luxury industry

**As of 12 April 2020**

**US**

<table>
<thead>
<tr>
<th>Demand</th>
<th>7 days momentum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment patterns</td>
<td>Fashion</td>
</tr>
<tr>
<td></td>
<td>Pre-crisis to bottom</td>
</tr>
<tr>
<td>Web traffic</td>
<td>-4%</td>
</tr>
<tr>
<td>Online search trends</td>
<td>-42%</td>
</tr>
<tr>
<td>Open retail space</td>
<td>-100%</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>+146%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>-67%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supply</th>
<th>7 days momentum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job listings</td>
<td>Fashion</td>
</tr>
<tr>
<td></td>
<td>Pre-crisis to bottom</td>
</tr>
<tr>
<td>Discount penetration</td>
<td>~7%</td>
</tr>
<tr>
<td>Average discount rate</td>
<td>~+3%</td>
</tr>
<tr>
<td>Cotton Futures</td>
<td>-17%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>-23%</td>
</tr>
</tbody>
</table>

Source: BCG

Note: Bottom is defined as the lowest point during the (partial) lockdown period, for Fashion & Luxury in the US this would be 15 March 2020; pre-crisis refers to 21 April 2019
## Example for the Machinery industry (including automation)

**Machinery (including automation)**

### Demand
- **Energy consumption**: ~21% to ~21% (Pre-crisis to bottom), ~21% to ~1% (Pre-crisis to current), ~1% (7 days momentum)
- **Carbon certificate price**: ~1% to ~1% (Pre-crisis to bottom and current), ~1% (7 days momentum)
- **Automotive**: ~33% to ~21% (Pre-crisis to bottom), ~21% to ~1% (Pre-crisis to current), ~1% (7 days momentum)
- **Construction**: ~11% to ~9% (Pre-crisis to bottom), ~9% to ~1% (Pre-crisis to current), ~1% (7 days momentum)
- **Oil & Gas**: ~5% to ~+9% (Pre-crisis to bottom), ~9% to ~+1% (Pre-crisis to current), ~1% (7 days momentum)
- **Food & Beverage**: ~11% to ~+1% (Pre-crisis to bottom), ~+1% to ~+4% (Pre-crisis to current), ~4% (7 days momentum)
- **Chemicals**: ~9% to ~+2% (Pre-crisis to bottom), ~2% to ~+7% (Pre-crisis to current), ~7% (7 days momentum)
- **Insolvency filing**: ~+6 (Pre-crisis to bottom), ~0 (Pre-crisis to current), ~0 (7 days momentum)
- **Automotive prod. volume loss**: ~15% to ~15% (Pre-crisis to bottom and current), ~15% (7 days momentum)
- **Chemical commodities' price develop**: ~9% to ~9% (Pre-crisis to bottom), ~9% (Pre-crisis to current), ~4% (7 days momentum)
- **Average**: ~13% to ~6% (Pre-crisis to bottom), ~6% to ~2% (Pre-crisis to current), ~2% (7 days momentum)

### Supply
- **Job listings**: ~76% to ~76% (Pre-crisis to bottom and current), ~76% (7 days momentum)
- **Traffic load**: ~50% to ~38% (Pre-crisis to bottom), ~38% to ~0% (Pre-crisis to current), ~0% (7 days momentum)
- **Cargo volume**: ~+45% to ~42% (Pre-crisis to bottom), ~42% to ~20% (Pre-crisis to current), ~20% (7 days momentum)
- **Average**: ~27% to ~57% (Pre-crisis to bottom), ~57% to ~20% (Pre-crisis to current), ~20% (7 days momentum)
- **Price levels**: ~10% to ~9% (Pre-crisis to bottom), ~9% to ~+2% (Pre-crisis to current), ~2% (7 days momentum)

**Source:** BCG

**Note:** Bottom is defined as the lowest point during the (partial) lockdown period, for MIA in the US this would be 5 April 2020; pre-crisis refers to 1 January 2020.

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**BUSINESS IMPLICATIONS**

As of 12 April 2020

US

<table>
<thead>
<tr>
<th>Metric</th>
<th>Pre-crisis to bottom</th>
<th>Pre-crisis to current</th>
<th>7 days momentum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy consumption</td>
<td>~21%</td>
<td>~21%</td>
<td>~1%</td>
</tr>
<tr>
<td>Carbon certificate price</td>
<td>~1%</td>
<td>~1%</td>
<td>~1%</td>
</tr>
<tr>
<td>Automotive</td>
<td>~33%</td>
<td>~21%</td>
<td>~16%</td>
</tr>
<tr>
<td>Construction</td>
<td>~11%</td>
<td>~9%</td>
<td>~1%</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>~5%</td>
<td>~9%</td>
<td>~1%</td>
</tr>
<tr>
<td>Food &amp; Beverage</td>
<td>~11%</td>
<td>~1%</td>
<td>~4%</td>
</tr>
<tr>
<td>Chemicals</td>
<td>~9%</td>
<td>~2%</td>
<td>~7%</td>
</tr>
<tr>
<td>Insolvency filing</td>
<td>+6</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>Automotive prod. volume loss</td>
<td>~15%</td>
<td>~15%</td>
<td>~5%</td>
</tr>
<tr>
<td>Chemical commodities' price develop</td>
<td>~9%</td>
<td>~9%</td>
<td>~4%</td>
</tr>
<tr>
<td>Average</td>
<td>~13%</td>
<td>~6%</td>
<td>~2%</td>
</tr>
<tr>
<td>Job listings</td>
<td>~76%</td>
<td>~76%</td>
<td>~1%</td>
</tr>
<tr>
<td>Traffic load</td>
<td>~50%</td>
<td>~38%</td>
<td>~0%</td>
</tr>
<tr>
<td>Cargo volume</td>
<td>~+45%</td>
<td>~42%</td>
<td>~20%</td>
</tr>
<tr>
<td>Average</td>
<td>~27%</td>
<td>~57%</td>
<td>~20%</td>
</tr>
<tr>
<td>Price levels</td>
<td>~10%</td>
<td>~9%</td>
<td>~2%</td>
</tr>
</tbody>
</table>
While all sectors are affected by the downturn, some companies emerge as winners within each sector.

As of 22 April 2020

**Year-to-date shareholder return in % per sector**

**Healthier sectors**

**Pressed sectors**

**Vulnerable sectors**

Top 10%  Bottom 10%  Median  Performance spread between bottom & top 10%

Note: Data as of 22 April 2020; Sectors are based on GICS definitions; Companies sampled from S&P Global 1200
Source: S&P Capital IQ; BCG ValueScience® Center
COVID-19 Context and Development
Disease progression, health care system capacity, and response
Government policies and action

Economic and Business Impact and Scenarios
Economic response
Scenarios and key drivers

Guide for leaders
Principles for leadership
Navigating businesses through uncertainty
Emerging stronger
Guiding principles for leadership in crisis

“THOSE are the times that try men's souls. The summer soldier and the sunshine patriot will, in this crisis, shrink from the service of their country; but he that stands by it now, deserves the love and thanks of man and woman. Tyranny, like hell, is not easily conquered; yet we have this consolation with us, that the harder the conflict, the more glorious the triumph.”

*Thomas Paine, The Crisis*

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**Be visible, purposeful, and authentic**

Communicate in ways that engage and increase the relevance of your teams and clarify the reasons underlying your communications.

**Leverage the principle of “commander’s intent”**

Share only key objectives and rationale of required actions to allow the organization to be flexible and adaptive, and allow a focus on execution.

**Use multiple clock-speeds**

Think on multiple timescales by considering the now, the next, and the later. Ensure that leadership teams look ahead and prepare for the future.

**Engage externally**

Communicate with customers and stakeholders to gather frequent, fresh, firsthand information to adapt and respond effectively.

**Cut through bureaucracy**

Assemble a multi-functional task force that is empowered to make decisions and suspend normal decision protocols.

**Keep imagination alive**

Look out for new needs and opportunities to serve clients now and beyond the crisis. We will not be reverting to a 2019 reality.

Source: When Leadership Matters Most, BCG Henderson Institute

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PRINCIPLES OF LEADERSHIP

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Updated 24 April 2020 Version 3.1.
Questions on every business leader's mind right now

1 What will the "new future" look like?

- What are potential long-term impacts to consumer behavior?
- How will business economics be structurally different?
- What will the competitor landscape look like in the future?
- What (digital) trends will have accelerated due to COVID-19?
- Which new trends will appear?
- Can our supply chain still rely on international trade?
- How will the future of work develop?
- Which changes in employee routines will remain?

2 How should we prepare and win?

- How do we emerge stronger after the crisis?
- How do we build capabilities for the future?
- What "no regret" or "low regret" moves can we make? When should we make various moves?
- How can we accelerate innovation, adoption of future digital, and technology trends?
- How do we collaborate effectively with society and government?

Source: BCG
Winners innovate to accelerate out of a crisis

Example based on companies that leveraged the 2008 crisis to innovate

Note: Chart compares TSR performance of publically listed MIC (Most Innovative Companies) 50 companies in 2007 (pre-financial crisis) and follows their TSR performance through the crisis until 31.12.2012; Source: Accelerating out of the great recession book, BCG Innovation Journey Analytics Database; CapitalIQ

+4.0% TSR p.a.
In the new normal, existing trends will accelerate and winners will define new ones

### Medtech example

<table>
<thead>
<tr>
<th>1</th>
<th>What will the &quot;new future&quot; look like?</th>
</tr>
</thead>
</table>

**COVID-19 likely accelerating existing/anticipated trends**

- **Telemedicine**
  - Increasing patient adoption of virtual interactions with physicians for a wider range of maladies/treatments

- **Point of care**
  - Disruption in industry will see rise of new care models; may spark move away from hospitals for some less invasive/complicated surgeries (e.g. hip replacements)

- **Provider consolidation**
  - Potential liquidity crisis could put smaller players out of business and advantage larger networks of provider services going forward

- **Digital engagement**
  - New investments in digital marketing and novel sales tactics could yield long-term structural changes to how manufacturers engage with physicians (and physicians with patients)

**COVID-19 may introduce new long-term trends/impacts**

- **Protectionism**
  - More restrictive flow of goods, innovation, and people could result in balkanized markets and the need to focus on different set of markets for future growth

- **Economic downturn**
  - Global recession will lower overall demand for elective health care services; rise in unemployed and uninsured will dampen demand

Note: These analyses represent only potential scenarios based on discrete data from one point in time. They are not intended as a prediction or forecast, and the situation is changing daily (as of April 6, 2020); Source: BCG
In the new normal, existing trends will accelerate and winners will define new ones

Retail (non essential) example

What will the "new future" look like?

### Market

Many sub-sectors will consolidate into a triumvirate of or two traditional players, at-scale marketplaces, and niche players (including pureplays, direct to consumer).

Marketplaces and essential retailers will disruptively steal share in non-essential categories (less so where barriers to entry are high or supply chains are different e.g. DIY).

### Channels

Large share of physical retail may permanently close as lower spending, and decline in relevance of malls, brings less foot traffic (less so where stores provide experience).

Omnichannel growth will challenge retailer economics, and require business model and customer experience innovation, as consumers push toward e-commerce as the norm.

Customer communication will largely move to digital marketing as retailers lose ability to use stores to drive traffic (less so for categories with structural need for stores e.g. DIY).

### Operating model

Cost base will be restructured for most companies, potentially through bankruptcy or insolvency proceedings (e.g. Chapter 11, Company Voluntary Agreements).

Supply chains will become diversified with pressure to shift inventory to vendors as retailers seek to reduce inventory costs, cash-outs, and the risk of product not selling.

Note: These analyses represent only potential scenarios based on discrete data from one point in time. They are not intended as a prediction or forecast, and the situation is changing daily (as of April 6, 2020); Source: BCG
To emerge stronger, leverage disruption by making bold, strategic moves

- **Reevaluate portfolio strategy and restructure**
- **Innovate** across the value chain
- Evaluate **org. structure**; ways of working
- **Accelerate E2E digitization**
- **Consider inorganic opportunities**

- Adjust portfolio priorities to capture demand across key categories, over "Fight" and "Future" phases
- Accelerate innovation—reimagine the system to scale value-creating ideas across the value chain and customer journeys (e.g. Transform go-to-market approach)
- Transform organization to enable strategic change—leverage 'future of work' models
- Double down on shift to digital during COVID—embrace opportunities across all processes
- Pursue attractive M&A options or other opportunistic moves during downturn—consider macro and company landscape
Weak-economy M&A deals outperform strong-economy deals

Observations

Weak-economy deals outperform strong-economy deals by more than 9 percentage points.

The benefits are even higher for non-core acquisitions (outside the buyer’s industry).

Both experienced M&A dealmakers and occasional acquirers create value from downturn deals.

Note: Strong-economy (weak-economy) years are those in which the respective global real GDP growth rate is in the top (bottom) third of all growth rates in the observation period. The total of 9,987 M&A transactions comprises pending, partly completed, completed, unconditional and withdrawn majority deals announced between 1980 and 2018 with a deal value greater than $250 million. Only deals with a public buyer were considered. The share price three days before the announcement date (T-3) equals 100. Share performance from T-3 to three days after the announcement (T+3) equals the announcement effect.

Source: Revinitiv; Datastream; BCG analysis.
## How should we prepare and win?

### 1. Managed services and Cloud – Health care
- **Tailwind**: Increase in requirement for digitization of records and cloud storage for analytics.
- **Headwind**: Government may mandate need for more providers to be connected to cloud to be able to access inflow and capacity real-time.

### 2. BPO – Banking, Securities, and Retail
- **Tailwind**: Increased adoption of remote banking and digital processing by banks; increased e-commerce transactions to positively impact BPO services requirement.
- **Headwind**: Transaction-based services like brokering, collections, are negatively impacted; physical retail stores may see lasting footfall decrease as e-commerce adoption increases.

### 3. All IT services – Insurance
- **Tailwind**: Increase in number of claims, fresh policies and renewals, higher volumes will require more outsourcing for processing.
- **Headwind**: However, in the shorter term insurance companies will have stretched financials due to high claim ratio.

### 4. Cybersecurity – Banking and Securities
- **Tailwind**: Increased focus on cybersecurity of assets as WFH/remote working proliferates.
- **Headwind**: Increase in online banking and digitization of processes.

### 5. Unified Communications and Collaboration across industries
- **Tailwind**: Increased requirement for remote and secured connectivity due to remote operations.
- **Headwind**: More spend on collaborations software including task management, communication, etc.

### 6. Engineering services – Health care
- **Tailwind**: Increased spending on testing and health care (ventilators) equipment.
- **Headwind**: More spent on health care infrastructure across the board by governments world over.

---

**IT Services example**

Six pools that could potentially provide good acquisition targets:

- **Tailwind**
- **Headwind**
9 action areas for business leaders

Establish crisis management

1. Develop Scenario-Based Planning Approach to manage uncertainty
2. Create a Rapid Response and Transformation (RR&T) team

Navigate through Flatten, Fight, and Future

3. Revamp Organization and People for the new normal
4. Drive Topline Security and Customer trust
5. Stabilize and restart Supply Chain, Manufacturing
6. Manage Cost, Cash, and Liquidity
7. Emerge Stronger; drive advantage in adversity
8. Accelerate Digital and Technology transformation

Note: RR&T = Rapid Response and Transformation Team
Source: BCG
Establish crisis management

1. Develop Scenario-Based Planning Approach to manage uncertainty

   - Deep-dive into possible outcomes of disease spread, demand shifts, supply/ops issues, regulatory requirements, and potential operations restart; adjust for sector-specific issues
   - Perform scenario stress tests around cash-flow
   - Establish preconditions for what it will take to get workforce back to offices, factories, etc.
   - Set up teams to work on different time horizons (Flatten, Fight, Future) to avoid reverting to crisis management across all

2. Create a Rapid Response and Transformation (RR&T) team

   - Establish nimble cross-functional Rapid Response & Transformation team (RR&T)
   - Refine processes to manage the crisis situation, remote working, disruption in supply
   - Ensure smooth transition of operations and workforce to the 'new reality'
   - Shift to digital/remote customer interactions

   - Frequently run scenarios and update plan; focus on understanding the de-averaged impact by geography and line of business, depth of demand drop, duration of Fight phase
   - Develop recommendations for daily planning, resources, supply chain, workforce, and other stakeholder management as per modeled scenarios

3. Revamp Organization and People for the new normal

   - Define policies to keep employees safe with high morale
   - Engage across levels to retain talent
   - Move to online/remote working; redefine rosters and train for efficiency/effectiveness
   - Establish preconditions for coming back to the working environment; clearly communicate them
   - Build SWAT teams to address critical business areas, such as product launch, digital channel redesign, retail delivery models

   - Get ahead of the curve on team to manage policies to get teams back to work safely
   - Take a clear view of forward demand and the new normal: manage/restructure organization to fit capacity needs
   - Create dedicated focus to accelerate digital, process automation, new ways of working

Source: BCG
Detailed measures across priority action areas (2/3)

**Flatten**

- Reach out to customers for their situation and needs,
- Drive actions to inspire confidence and ensure ability to deliver (e.g., multichannel, people-light approaches)
- Manage volatility in demand, and refine sales motions (e.g. to virtual) and objectives

**Fight**

- Assess changes in customers’ behaviors
- Adapt and transform channels (e-commerce), sales, marketing spend, pricing, and support
- Ramp up commercial efforts significantly to seize market shifts; leverage learnings to accelerate digital capabilities

**Future**

- Ensure quick and safe restart of facilities; drive centrally driven efficiency measures
- Set up capabilities (org, control tower) to manage unstable supply chain; explore alternate networks, dual/multiple suppliers for critical goods and services, delivery methods, etc.
- Accelerate production as demand rebounds; account for product shifts

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**Drive Topline Security & Customer Trust**

**Stabilize and restart Supply Chain, Manufacturing**

**Manage Cost, Cash, and Liquidity**

Source: BCG
Detailed measures across priority action areas (3/3)

**Flatten**

- Stress-test current value proposition and business offerings, and scan crisis impact on key customer/market trends
- Address and serve immediate workforce needs for remote working
- Leverage tools for conducting key processes online
- Adapt traditional processes to become digitally viable
- Ensure immediate support to employees, suppliers, communities, etc.
- Team with government/local communities/industries to address crisis
- Leverage assets, supplier relationships, logistics networks, and employees to help adjacent communities
- Work across industry boundaries to identify cross-sectoral synergies to deploy solutions

**Fight**

- Plan for new projects to shift the portfolio and leverage the ‘new normal’; plug capability gaps
- Identify white spaces in own industry and ecosystem
- Selectively invest in areas where opportunistic M&A can be conducted
- Develop and implement strategy to exploit greater talent availability
- Identify and implement key digital use cases and adapt to agile way of working
- Accelerate use cases to meet demand shifts
- Redesign key customer journeys with emphasis on digital interventions
- Determine how to contribute in the crisis to employees, customers, through medical response, supply of essential items for society, or by playing a positive economic/employment role
- Allocate innovation resources where possible to focus on solutions to COVID-19 crisis
- Leverage expertise developed to support government policies and responses, rebuild business for local customers, suppliers, etc.

Source: BCG
Additional perspectives on COVID-19

Selected overarching publications

Transformation
COVID19: Win the Fight, Win the Future

Strategy
Advantage Beyond the Crisis

Globalization
COVID-19 and the Emerging-Market Consumer

Leadership & Talent
Leading Out of Adversity

People & Organizations
Take Care of Tech Talent When it Matters

Crisis Response Checklist
Checklist

Selected sector publications

Public Sector
Beyond the Curve: How to Restart in the Wake of COVID-19

Automotive
Auto Companies Will Outlast COVID-19 & Come Out Stronger

Financial Institutions
Global Risk 2020: It’s Time for Banks to Self-Disrupt

Energy
How Uncertainty Is Hitting M&A in Oil and Gas

Health Care
Biopharma Applies New Service & Support Models amid COVID-19

Consumer
COVID-19 Consumer Sentiment Snapshot #5: Hitting the Straightaway

Travel & Tourism
The Great Reset for Revenue Management in Travel

Telecommunications
Time for action: In times of COVID-19 Telcos need to move rapidly to be part of the solution

Transportation & Logistics
Transportation & logistics companies must adapt to keep supplies moving

Source: BCG
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