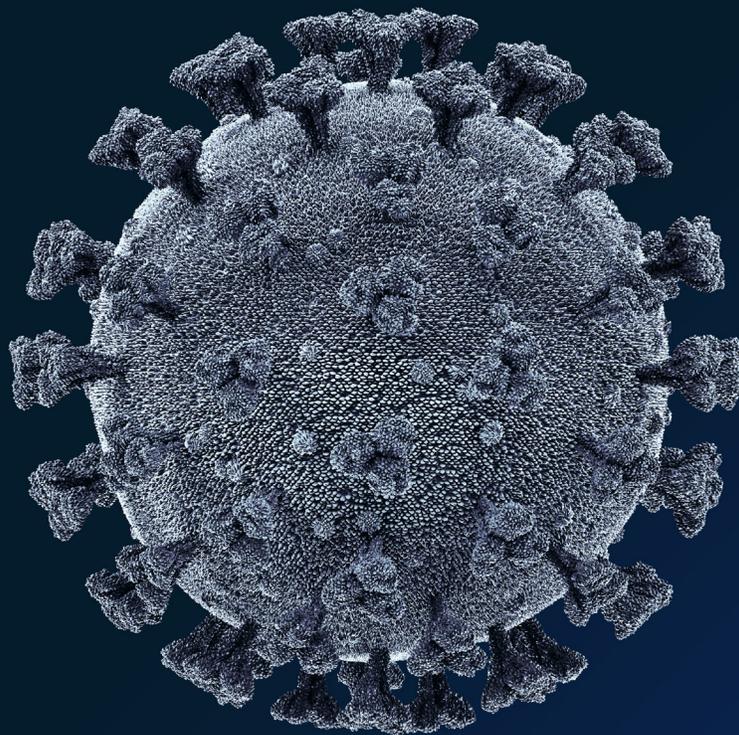


Risk Practice

COVID-19: Implications for business

The coronavirus outbreak is first and foremost a human tragedy, affecting hundreds of thousands of people. It is also having a growing impact on the global economy.

by Matt Craven, Linda Liu, Mihir Mysore, and Matt Wilson



This article is intended to provide business leaders with a perspective on the evolving COVID-19 situation and the implications for their companies. The outbreak is moving quickly, and some of these perspectives may fall rapidly out of date. This article reflects our view as of March 1st, 2020. We will update it regularly as the outbreak evolves.

What we know about the outbreak

COVID-19 crossed an inflection point during the week of February 24, 2020. Cases outside China exceeded those within China for the first time, with 54 countries reporting cases as of February 29. The outbreak is most concentrated in four transmission complexes—China (centered in Hubei), East Asia (centered in South Korea and Japan), the Middle East (centered in Iran), and Western Europe (centered in Italy). In total, the most-affected countries represent nearly 40 percent of the global economy. The daily movements of people and the sheer number of personal connections within these transmission complexes make it unlikely that COVID-19 can be contained. And while the situation in China has stabilized with the implementation of extraordinary public-health measures, new cases are also rising elsewhere, including Latin America (Brazil), the United States (California, Oregon, and Washington), and Africa (Algeria and Nigeria). The US Centers for Disease Control and Prevention has set clear expectations that the United States will experience community transmission, and evidence is emerging that it may be happening already.

While the future is uncertain, it is likely that countries in the four mature transmission complexes will see continued case growth; new complexes may emerge. This could contribute to a perception of “leakage,” as the public comes to believe that the infections aren’t contained. Consumer confidence, especially in those complexes, may erode, and could be further weakened by restrictions on travel and limits on mass gatherings. China will mostly likely recover first, but the global impact will be felt much longer. We expect a slowdown in global growth for 2020. In what follows, we review the two most likely scenarios for economic impact and recovery

and provide insights and best practices on how business leaders can navigate this uncertain and fast-changing situation.

Economic impact

In our base-case scenario (Exhibit 1), continued spread within established complexes, as well as community transmission in new complexes, drives a 0.3- to 0.7-percentage-point reduction in global GDP growth for 2020. China, meanwhile, continues on its path to recovery, achieving a near-complete economic restart by mid-Q2 (in spite of the current challenges of slow permissions and lack of migrant-worker capacity). As other geographies experience continued case growth, it is likely that movement restrictions will be imposed to attempt to stop or slow the progression of the disease. This will almost certainly drive a sharp reduction in demand, which in turn lowers economic growth through Q2 and early Q3. Demand recovery will depend on a slowing of case growth, the most likely cause of which would be “seasonality”—a reduction in transmissions similar to that seen with influenza in the northern hemisphere as the weather warms. Demand may also return if the disease’s fatality ratio proves to be much lower than we are currently seeing.

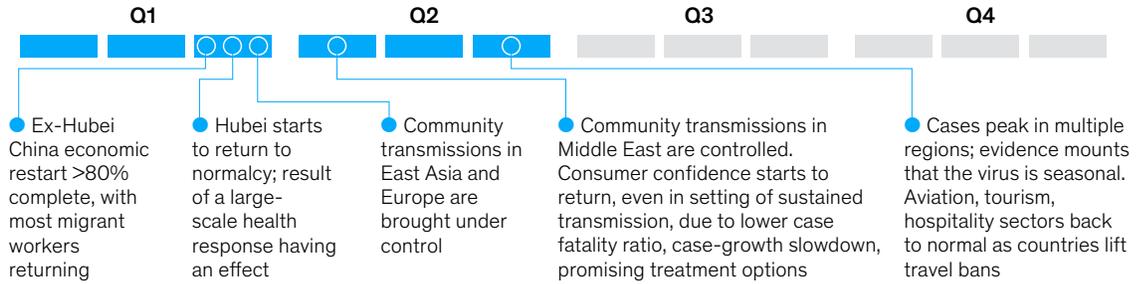
Regions that have not yet seen rapid case growth (such as the Americas) are increasingly likely to see more sustained community transmission (for example, expansion of the emergency clusters in the western United States). Greater awareness of COVID-19, plus additional time to prepare, may help these complexes manage case growth. However, complexes with less robust health systems could see more general transmission. Lower demand could slow growth of the global economy between 1.8 percent and 2.2 percent instead of the 2.5 percent envisioned at the start of the year.

Unsurprisingly, sectors will be affected to different degrees. Some sectors, like aviation, tourism, and hospitality, will see lost demand (once customers choose not to eat at a restaurant, those meals stay uneaten). This demand is largely irrecoverable. Other

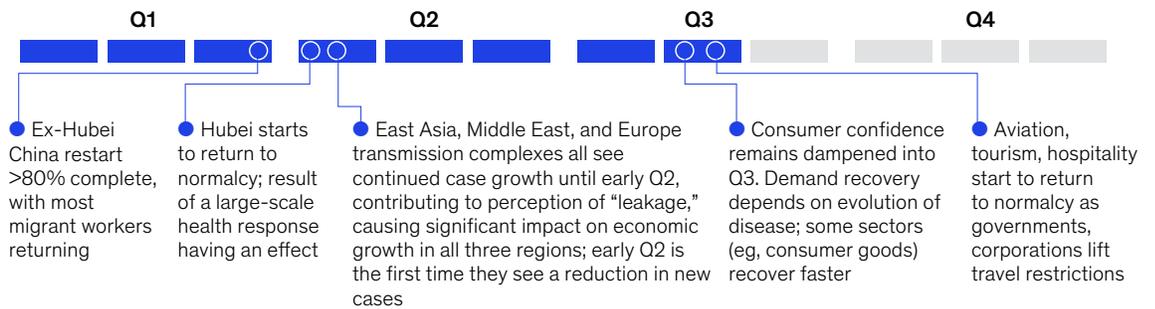
Exhibit 1

Businesses should consider three scenarios as part of their contingency planning.

1. Quick recovery (least likely): Intracomplex transmission contained; economic impact mostly restricted to Q1



2. Base case: global slowdown. Sustained intracomplex transmission; global slowdown in 2020



3. Pessimistic: global pandemic and recession. Transmission jumps, new complexes; a recession in 2020



sectors will see delayed demand. In consumer goods, for example, customers may put off discretionary spending because of worry about the pandemic but will eventually purchase such items later, once the fear subsides and confidence returns. These demand shocks—extended for some time in regions that are unable to contain the virus—can mean

significantly lower annual growth. Some sectors, such as aviation, will be more deeply affected.

In the pessimistic scenario, case numbers grow rapidly in current complexes and new centers of sustained community transmission erupt in North America, South America, and Africa. Our

pessimistic scenario assumes that the virus is not highly seasonal, and that cases continue to grow throughout 2020. This scenario would see significant impact on economic growth throughout 2020, resulting in a global recession.

In both the base-case and pessimistic scenarios, in addition to facing consumer-demand headwinds, companies will need to navigate supply-chain challenges. Currently, we see that companies with strong, centralized procurement teams and good relationships with suppliers in China are feeling more confident about their understanding of the risks these suppliers face (including tier-2 and tier-3 suppliers). Others are still grappling with their exposure in China and other transmission complexes. Given the relatively quick economic restart in China, many companies are focused on temporary stabilization measures rather than moving supply chains out of China. COVID-19 is also serving as an accelerant for companies to make strategic, longer-term changes to supply chains—changes that had often already been under consideration.

To better understand which scenario may prevail, planning teams can consider a set of leading indicators like those in Exhibit 2.

Where business should focus

Seven actions can help businesses of all kinds.

Protect your employees. The COVID-19 crisis has been emotionally challenging for many people, changing day-to-day life in unprecedented ways. For companies, business as usual is not an option. They can start by drawing up and executing a plan to support employees that is consistent with the most conservative guidelines that might apply and has trigger points for policy changes. Some companies are actively benchmarking their efforts against others to determine the right policies and levels of support for their people. Leaders must communicate with employees with the right level of specificity and frequency.

Set up a cross-functional COVID-19 response team.

Companies should nominate a direct report of the CEO to lead the effort and should appoint members from every function and discipline to assist. Further, in most cases, team members will need to step out of their day-to-day roles and dedicate most of their time to virus response. A few workstreams will be common for most companies: a) employees' health, welfare, and ability to perform their roles; b) financial stress-testing and development of a contingency plan; c) supply-chain monitoring, rapid response, and long-term resiliency (see below for more); d) marketing and sales responses to demand shocks; and e) coordination and communication with relevant constituencies. These subteams should define specific goals for the next 48 hours, adjusted continually, as well as weekly goals, all based on the company's agreed-on planning scenario. The response team should install a simple operating cadence and discipline that focuses on output and decisions, and does not tolerate meetings that achieve neither.

Ensure that liquidity is sufficient to weather the storm.

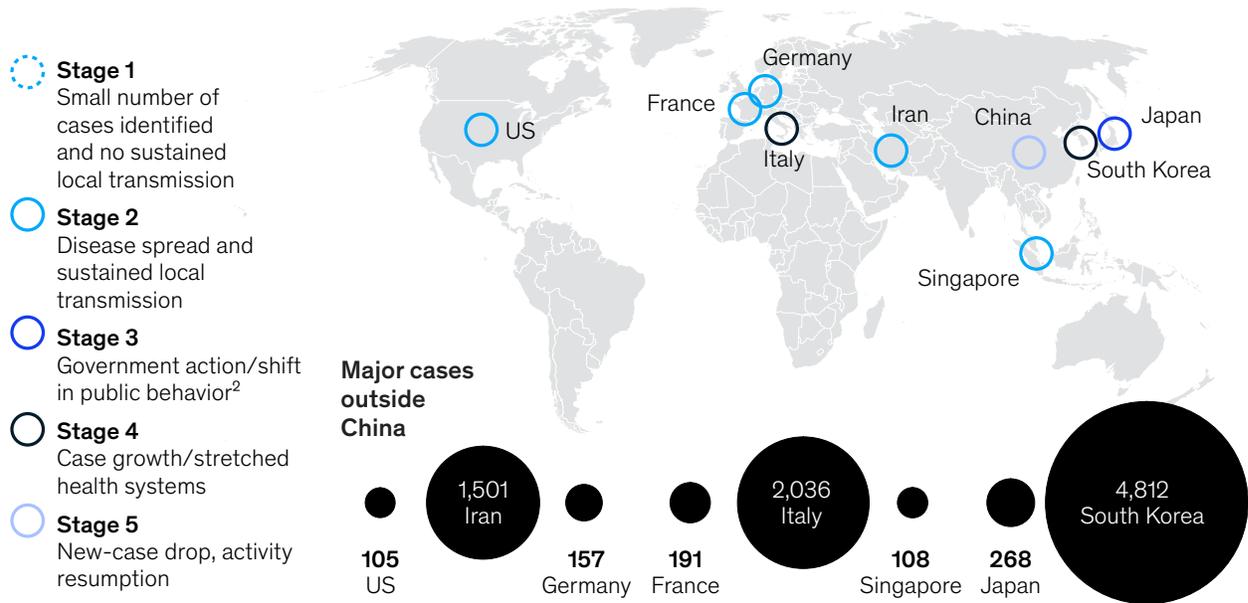
Businesses need to define scenarios tailored to the company's context. For the critical variables that will affect revenue and cost, they can define input numbers through analytics and expert input. Companies should model their financials (cash flow, P&L, balance sheet) in each scenario and identify triggers that might significantly impair liquidity. For each such trigger, companies should define moves to stabilize the organization in each scenario (optimizing accounts payable and receivable; cost reduction; divestments and M&A).

Stabilize the supply chain.

Companies need to define the extent and likely duration of their supply-chain exposure to areas that are experiencing community transmission, including tier-1, -2, and -3 suppliers, and inventory levels. Most companies are primarily focused on immediate stabilization, given that most Chinese plants are currently in restart mode. They also need to consider rationing critical parts, prebooking rail/air- freight capacity, using after-

Critical indicators of the impact of COVID-19 (March 3, 2020)

Disease phases around the world¹



¹The map includes a representative sample of transmission sites. There are other sites at stages 1 and 2 that are not represented on this map. The previous version of the map used community transmission and local transmission interchangeably, based on the WHO definition. ²Not all affected regions enter stage 3, but significant government intervention/economic impact signal prolonged recovery.

Source: CNBC; *Economist*; EgyptAir; International Air Transport Association; Johns Hopkins Center for Systems Science and Engineering; *New York Times*; OAG Aviation Worldwide; Reuters; World Health Organization situation reports

Impact of COVID-19 on Hubei, China

Question: How deeply is Hubei (especially Wuhan city) affected, and when could economic activity restart?

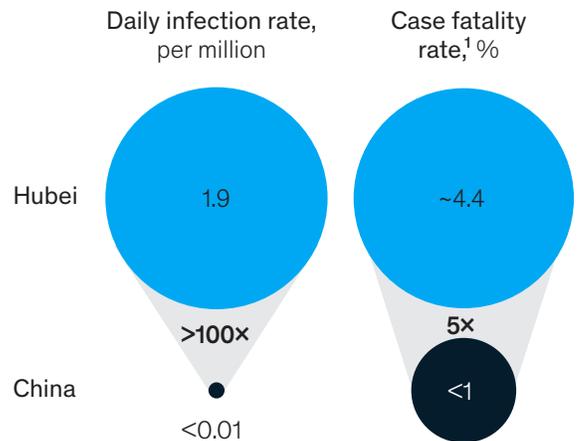
LATE Q2

- Hubei remains deeply affected
- Return to economic activity tough to foresee until mid Q2

Hubei recovery milestones to watch

- 1 Rate of confirmed cases consistently decreasing
- 2 New suspected/confirmed cases rate consistent with other provinces
- 3 Quarantine lifted
- 4 No additional spikes in case count
- 5 Public transport resumes
- 6 Factory activity returns to pre-outbreak levels

Hubei epidemiological status



¹Case fatality rate (CFR) calculated as (deaths on day X) / (cases on day X). Note that previous versions of this dashboard calculated CFR = (deaths on day X) / (cases on day X-7) to account for disease incubation period. We changed the definition because the old formula was causing confusion for some readers.

Source: Baidu QianXi; Centers for Disease Control; Columbia University; *Economist*; EgyptAir; *Jakarta Post*; Johns Hopkins Center for Systems Science and Engineering; London School of Hygiene & Tropical Medicine; National Bureau of Statistics of China; *New York Times*; OAG Aviation Worldwide; Organisation for Economic Co-operation Development; Peking University HSBC Business School; Reuters; TomTom Traffic Index; World Health Organization situation reports; Xian Jiaotong University; McKinsey Global Institute

Critical indicators of the impact of COVID-19 (March 3, 2020)

Impact on China's economy

Question: How quickly could economic activity restart in the rest of China?¹

LATE Q1

- Restart has begun but faces challenges – worker shortage and goods movement
- Larger companies witnessing higher business-resumption rate
- Small businesses are facing labor disruption—fewer workers returning
- Industrial activity likely to return late Q1

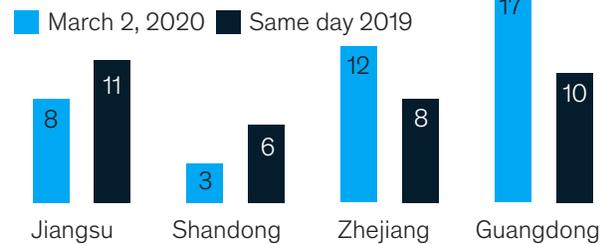
Industrial indicators



Industrial enterprises that have resumed work, %



Labor availability: inbound labor to major industrial provinces in China, index⁴



¹Latest data from Guangdong and Shandong as of Feb 21, 2020, Zhejiang, and Jiangsu as of Feb 24, 2020. ²Nitrogen dioxide 7-day average (Feb 24 to March 2) compared with 2019. ³Latest data from Guangdong as of Feb 14, 2020, while other provinces were as of Feb 17, 2020. ⁴The Baidu migration index represents the movement of population into a particular province in China. The index magnitudes are proportional to the volume of people as of Feb 24, 2020.

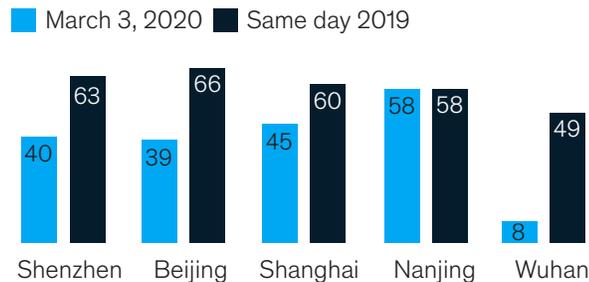
Impact on Chinese consumers' confidence

Question: How quickly will Chinese consumer confidence and purchasing activity return?

EARLY Q2

- Lags behind economic restart but has proved resilient (eg, online boom)
- Certain sectors (eg, tourism, hospitality) will be affected well into Q2 or longer

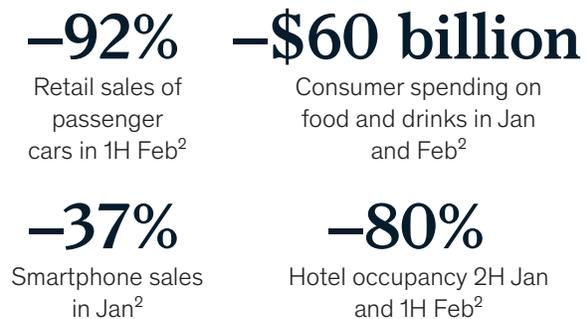
Automobile-traffic index¹



School restart dates, number of provinces



Example consumer-behavior metrics (anecdotal)



¹Car traffic only. Congestion level measures % increase in travel time compared with free-flow condition. ²Year-over-year comparison.

Companies that navigate disruptions better often succeed because they invest in their core customer segments and anticipate their behaviors.

sales stock as a bridge until production restarts, gaining higher priority from their suppliers, and, of course, supporting supplier restarts. Companies should start planning how to manage supply for products that may, as supply comes back on line, see unusual spikes in demand due to hoarding. In some cases, medium or longer-term stabilization may be warranted, which calls for updates to demand planning, further network optimization, and searching for and accelerating qualification of new suppliers. Some of this may be advisable anyway, absent the current crisis, to ensure resilience in their supply chain—an ongoing challenge that the COVID-19 situation has clearly highlighted.

Stay close to your customers. Companies that navigate disruptions better often succeed because they invest in their core customer segments and anticipate their behaviors. In China, for example, while consumer demand is down, it has not disappeared—people have dramatically shifted toward online shopping for all types of goods, including food and produce delivery. Companies should invest in online as part of their push for omnichannel distribution; this includes ensuring the quality of goods sold online. Customers' changing preferences are not likely to go back to pre-outbreak norms.

Practice the plan. Many top teams do not invest time in understanding what it takes to plan for disruptions until they are in one. This is where roundtables or simulations are invaluable. Companies can use tabletop simulations to define and verify their activation protocols for different phases of response (contingency planning only, full-scale response, other). Simulations should clarify decision owners, ensure that roles for each top-team member are clear, call out the “elephants in the room” that may slow down the response, and ensure that, in the event, the actions needed to carry out the plan are fully understood and the required investment readily available.

Demonstrate purpose. Businesses are only as strong as the communities of which they are a part. Companies need to figure out how to support response efforts—for example, by providing money, equipment, or expertise. For example, a few companies have shifted production to create medical masks and clothing.

The checklist in Exhibit 3 can help companies make sure they are doing everything necessary.

COVID-19 response: Companies can draw on seven sets of immediate actions.

1 Protect employees

- Follow the most conservative guidelines available from leading global and local health authorities (eg, CDC, WHO)
- Communicate with employees frequently and with the right specificity; support any affected employees per health guidance
- Benchmark your efforts (eg, some companies have started to curb nonessential travel)

2 Set up cross-functional response team

- Overall lead should be at the CEO or CEO-1 level; team should be cross-functional and dedicated
- Create 5 workstreams: a) employees; b) financial stress-testing and contingency plan; c) supply chain; d) marketing and sales; e) other relevant constituencies
- Define specific, rolling 48-hour and 1-week goals for each workstream based on planning scenario
- Ensure a simple but well managed operating cadence and discipline that's output and decision focused. Low tolerance for "meetings for the sake of meetings"
- Present minimum viable products: a) rolling 6-week calendar of milestones; b) 1-page plans for each workstream; c) dashboard of progress and triggers; d) threat map

3 Financial stress-testing and contingency plan

- Define scenarios that are tailored to the company. Identify planning scenario
- Identify variables that will affect revenue and cost. For each scenario, define input numbers for each variable through analytics and expert input
- Model cash flow, P&L, and balance sheet in each scenario; identify input-variable triggers that could drive significant liquidity events (including breach of covenants)
- Identify trigger-based moves to stabilize organization in each scenario (A/P, A/R optimization; cost reduction; portfolio optimization through divestments, M&A)

4 Supply chain

- Define extent and timing of exposure to areas that are experiencing community transmission (tier-1, -2, -3 suppliers; inventory levels)
- Immediate stabilization (ration critical parts, optimize alternatives, prebook rail/air-freight capacity, use after-sales stock as bridge, increase priority in supplier production, support supplier restart)
- Medium/longer-term stabilization (updated demand planning and network optimization—solve for cash, accelerate qualification for alternative suppliers, drive resilience in supply chain)

5 Marketing and sales

- Immediate stabilization (inventory planning, near-term pricing changes, discounts)
- Medium/longer-term stabilization (investment and microtargeting for priority segments with long-term growth)

6 Practice plan with top team through in-depth tabletop exercise

- Define activation protocol for different phases of response (eg, contingency planning only, full-scale response, other)
- Key considerations: clarity on decision owner (ideally a single leader), roles for each top-team member, "elephant in room" that may slow response, actions and investment needed to carry out plan

7 Demonstrate purpose

- Support epidemic efforts where possible

The coronavirus crisis is a story with an unclear ending. What is clear is that the human impact is already tragic, and that companies have an imperative to act immediately to protect their employees, address business challenges and risks, and help to mitigate the outbreak in whatever ways they can.

We welcome your comments and questions at coronavirus_client_response@mckinsey.com.

For more of the latest information on COVID-19, please see reports from the European Centre for Disease Control and Prevention, the US Centers for Disease Control and Prevention, and the World Health Organization; and Johns Hopkins University's live tracker of global cases.

Matt Craven is a partner in McKinsey's Silicon Valley office. **Linda Liu** is a partner in the New York office, where **Matt Wilson** is a senior partner. **Mihir Mysore** is a partner in the Houston office.