The Covid-19 Pandemic is spreading at an extraordinary speed. You have put a Crisis
team in place and are doing all you can to keep your people safe, stay on top of your
Business and deal with the uncertainty amid constantly changing conditions. However, that
is not likely to be good enough.
Close on the heels of the coronavirus outbreak, the next wave of disruption-the biggest
economic shock since World War-2 is headed our way. And it is not just an economic shock: it
is a shock to customer behaviors and business models too. The challenges associated with it
will be orders of magnitude bigger than what we are used to dealing with. To handle them, you
need to adopt an operating model that accommodates the extreme level of uncertainty facing your business.
Most companies will be very vulnerable to the economic fallout of extended public and
employee-isolation measures. As the number of issues your business is facing will likely rapidly
escalate, there are two practical steps you can take to help stay ahead.

Morteza Kohansal,EDBA,DBA,MBA:Worked as Head of Iranian Elite Academy,Iran,His Research and Writing interests include Sales and Marketing,Business Management,Men in the early years,Creative learning and teaching,Supporting adult learning,and Children's Behavior...

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World War III With Coronavirus

Kohansal, Salehilalehmarzi

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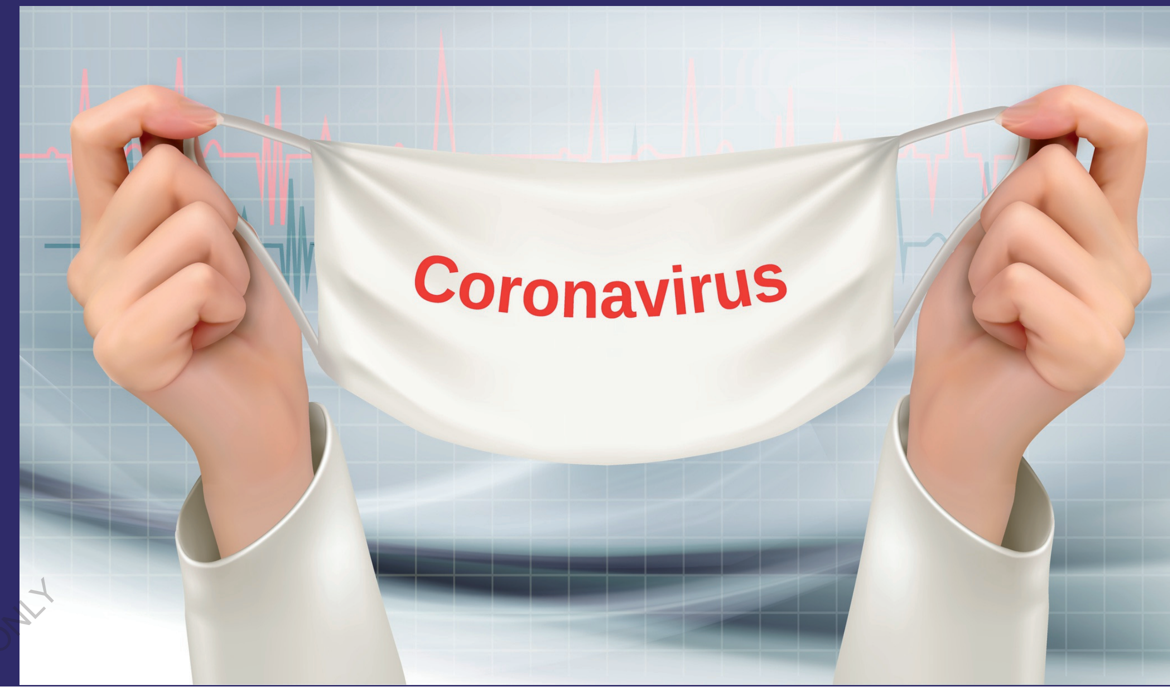

Morteza Kohansal
Maryam Salehilalehmarzi

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How can man overcome coronavirus?

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An instant economic crisis: How deep and how long?

Analysis of a range of economic data tracks the worsening effects of the pandemic in the West—and the cautious reopening of social and economic life in China.

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The human tragedy of the COVID-19 pandemic continues to deepen, with the heaviest toll now seen in Europe and the United States. Although testing remains limited, the number of confirmed cases of the virus worldwide has exceeded 1 million, and more than 70,000 have died. The United States, Italy, and Spain have the most confirmed cases and highest death tolls. Hundreds have died in each of the past several days in Britain and France. Healthcare systems in these relatively wealthy countries are strained beyond capacities, with shortages of protective equipment for health workers and ventilators for afflicted patients contributing to infection and mortality rates. Data from China suggest that the outbreak has been largely contained there; the government is cautiously reopening economic activity but is wary of the potential for new cases.

The restrictions applied to populations to stop the spread of the virus—including quarantines, stay-at-home orders, business closures, and travel prohibitions—have produced massive fallout for the world economy. The data to measure these effects are still arriving; available indicators reveal conditions have dramatically darkened since February. An early arresting statistic was that 3.3 million Americans applied for unemployment benefits in the week ending on March 21. The following week, 6.6 million applied. Until these two shocking totals were triggered by this crisis, the highest number of unemployment applications ever received in one week was 695,000 (in 1982). Around the world, stock markets lost approximately one-third of their values between February 20 and the end of March (Exhibits 1 and 2).

Exhibit 1

Equity markets plunged in March as fear of recession drove investors to safe havens; most exchanges lost around one-third of their values.

Equity markets by country, index (2007 = 100)

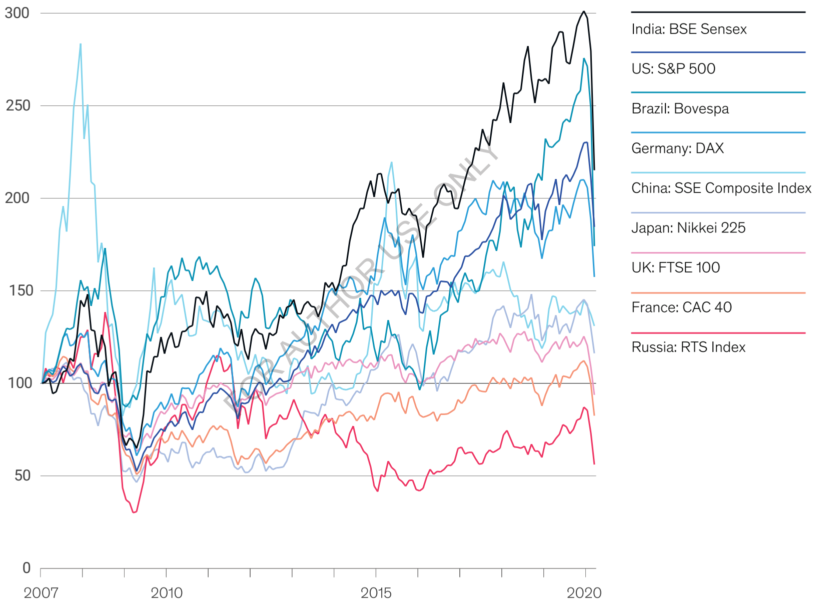

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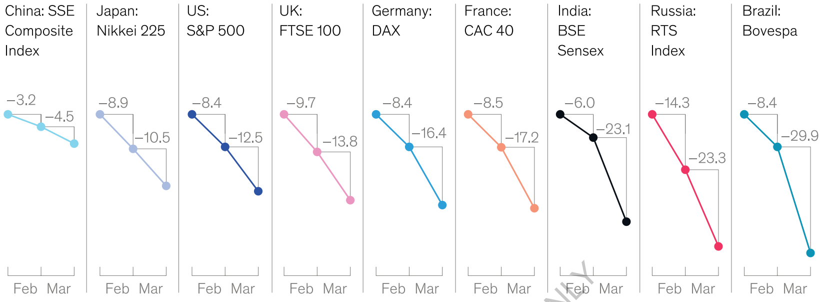
Exhibit 2

In China, where the pandemic has subsided, equity markets have suffered less in recent weeks.

Equity market in Feb and Mar 2020 by country, % change



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East and West—yesterday and today

The reality today is that the Chinese economy has begun to reopen as the West shuts down. The most recent edition of McKinsey's Global Economics Intelligence (GEI), released to subscribers on March 31, reveals the damage the Chinese economy experienced in January and February, when it was at the center of the outbreak. Forward-looking indicators for manufacturing and services fell to unprecedented lows; exports contracted 17 percent compared with those in 2019. For Europe and the United States, the data were still largely positive in advance of the coming storm. In Europe, a moderate pickup in growth experienced early in 2020 has since been stopped in its tracks, as large employers curtail operations and lay off workers. Indicators for India presented in the GEI report were largely positive as well, but they are set to fall steeply, as the entire nation has been under a stay-at-home order since March 25.

Alongside the steps taken to stop the spread of the virus, governments and central banks intervened in economic life with mitigating measures of increasing force. The financial markets responded positively but remain unusually sensitive to fluctuating medical and political developments. Among the enormous relief programs being enacted to sustain companies and citizens during the lockdowns, the largest of the large is the US stimulus package, valued at more than $2 trillion. The European Central Bank (ECB) announced €870 billion in quantitative easing; in an effort to forestall a credit crunch, ECB has also prohibited eurozone banks from paying dividends to investors or buying back shares until later in 2020. The European Parliament released €37 billion to support small and medium-size enterprises (SMEs) and the healthcare sector. The People's Bank of China has taken steps to supply the banking system with an additional 550 billion renminbi (around $78 billion) in liquidity. The US Federal Reserve Board brought its policy rate near zero (0.00 to 0.25 percent) and announced $700 billion in quantitative easing.

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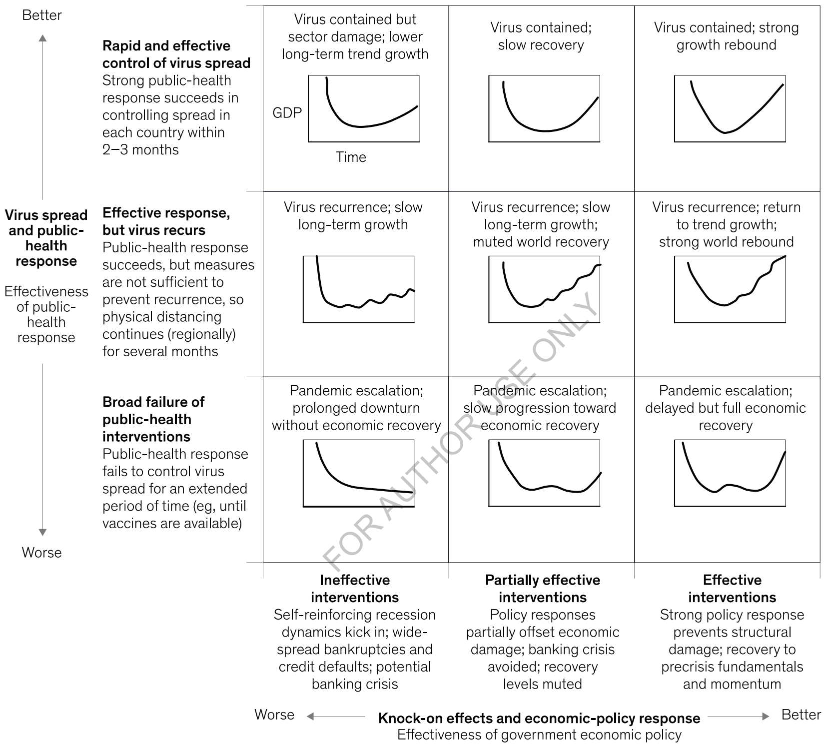
Amid the fast-moving pandemic and the policy responses, economic forecasting has become an unusually uncertain enterprise. The Organisation for Economic Co-operation and Development, for example, canceled the March release of its forward-looking composite leading indicator. Forecasts in this period must be looked upon with robust skepticism. Moody's Investors Service, one of the most respected forecasting agencies, cut its 2020 GDP-growth estimate for India to 5.3 percent on March 17 because of the expected effects of the pandemic. Ten days later, it cut the estimate to 2.5 percent. The McKinsey Global Institute has taken a different approach, developing scenarios that help conceptualize the course of the pandemic and potential paths to public-health and economic recovery (Exhibit 3). The scenarios consolidate assumptions into a range of estimates of the GDP impact of lockdowns on consumption and economic activity.

Exhibit 3

Scenarios for the economic impact of the COVID-19 crisis

GDP impact of COVID-19 spread, public-health response, and economic policies



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From expansion to contraction and back again?

The logarithmic progressions of new COVID-19 cases indicate that the curves in the East (China and South Korea) are now essentially flat. The curves are flattening in Iran, reaching an apex in Western Europe, and yet climbing in the United States. The course of the pandemic and the human tragedy it is causing are far from exhausted. Measures to limit its deadliness will remain in effect in many countries, including in Europe and North America, for weeks to come. Economic recovery can only follow the recovery of public health. The March GEI report, coupled with subsequently released economic data, does, however, suggest a pattern—yet embryonic and fragile—toward that recovery.

The global Purchasing Managers Indexes (PMIs) for February (released in March) mainly reflected the preoutbreak economy. PMI readings above 50 indicate expanding manufacturing or services activity; those below 50 indicate contraction. February PMIs in China revealed dramatic contractions. Services are especially hard hit by quarantines and physical-distancing measures. In China, an expansionary reading in the Caixin Global services PMI of 51.8 in January went into free fall, bottoming out at 26.5 in February—the lowest reading in the history of that indicator.

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Readings for March in China's official PMIs (a different index) show, however, a significant recovery in both manufacturing (52.0 in March, from 35.7 in February) and services (52.3 in March, from 29.6 in February). As the Chinese economy hopefully climbs out of the COVID-19 hole, the US and eurozone economies are still descending into it. Recently released IHS Markit PMIs for the United States show a moderate contraction in manufacturing (48.5) and a historic fall in services, to 39.1 (from 49.5 in February). A similar pattern is observed in the eurozone, with the manufacturing PMI retreating from 49.2 in February to 44.5 in March and the services PMI falling disastrously, from 52.6 in February to a never-before-seen 28.4 in March.

The time delay for trade data is longer than for the PMIs. The most recent readings from some indicators are based on data for January, when trade momentum (imports plus exports) was slowing moderately in most surveyed economies. The CPB World Trade Monitor showed that trade volumes shrank in January (–1.2 percent), after rising in December (+0.4 percent). The Container Throughput Index, which measures traffic in most major ports globally, fell 10 percent in February (to 102.5, from 113.4 in January). The reading aligns with reports of subdued activity in US Pacific ports and suggests the disruption in US–China trade caused by COVID-19.

Preoutbreak inflation indicators (for February) showed easing prices for both consumers and producers in advanced and developing economies. Commodity price indexes provide more recent data, showing prices falling in March, especially in the energy sector. Oil prices have plunged below $25 (Brent). The steep fall was precipitated by two coinciding events: Russian–Saudi competition ramped up production just as pandemic-fighting restrictions on movement depressed demand. Inflation expectations, as expressed in the yield spread between US Treasury inflation-protected securities (TIPs) and Treasury bills of the same maturity, have fallen because of the falling commodity prices and rising fears of recession. The euro and the yen gained in March against the US dollar, while other major currencies depreciated significantly.

The price of gold was volatile in March, lately rising above $1,600. Volatility indexes have generally spiked, hitting readings not seen since the financial crisis of 2008–09 (Exhibit 4). Yields on government bonds, meanwhile, rose significantly in March in most surveyed economies, especially those of Brazil and Italy.

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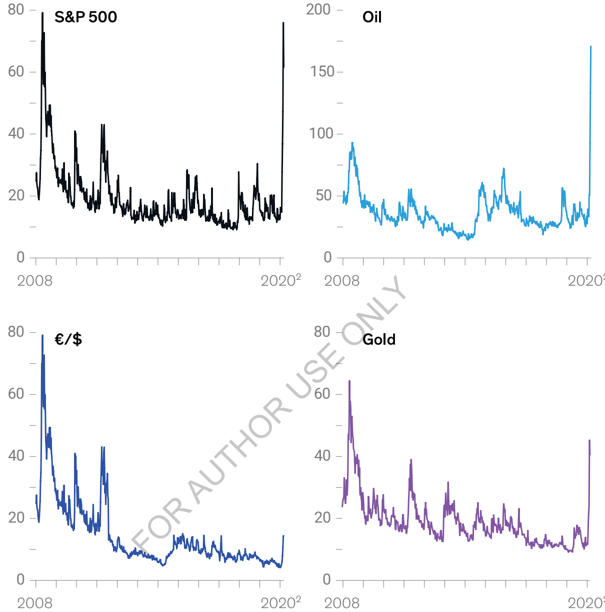
Exhibit 4

Volatility indexes have generally spiked, hitting readings not seen since the financial crisis of 2008–09.

Selection of volatility indexes[1]



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Economic intervention

Governments and central banks have scrambled to apply accommodative monetary policies and assemble stimulus packages to sustain businesses and individuals during lockdown periods. China's policy response was initially modest. In mid-March, the People's Bank of China released financial institutions from liquidity requirements totaling 550 billion renminbi. Reports of a March 25 Politburo meeting suggest that fiscal-deficit limits will be lifted and national and local bond sales increased. In Europe and the United States, the policy measures have already been clearly described.

The United States

The US Congress came together to pass a stimulus package of unprecedented size, with provisions to support businesses and individuals. Around $500 billion is aimed at aiding citizens. Adult Americans making less than $75,000 per year will receive a single payment of $1,200. The sum will be higher for those with children and lower for those with higher incomes. The package also expands unemployment benefits, lengthening coverage for up to 39 weeks and supplementing state payments with a weekly federal payment of $600. Previously ineligible workers, such as part-time workers and freelancers, will become eligible. Some requirements on retirement funds and student loans are to be relaxed.

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To businesses large and small, $867 billion is to be provided. Cargo and passenger airlines will receive an additional $58 billion support package, with the stipulation that no employees are laid off before September 30. Aircraft manufacturers could receive support under a separate national-security provision. For industries, a $500 billion liquidity fund has been set aside. The US Small Business Administration will administer a fund of $350 billion to provide SMEs with partly forgivable loans on favorable terms for payroll, rent, mortgage, and utilities. Hospitals are to receive $100 billion and state and local governments $150 billion in aid.

The stimulus came on top of attempts by the US Federal Reserve to bolster crumbling financial markets. The efforts included an announced $700 billion quantitative-easing program and two policy-rate cuts, on March 3 and 15, which brought the effective rate to zero. A measure of investor confidence did not return, however, until the passage of the stimulus. The S&P 500, for example, climbed 15 percent in the final week of March.

Measures to limit the pandemic's deadliness will remain in effect in many countries for weeks to come. Economic recovery can only follow the recovery of public health.

The European Union

For many weeks, Western Europe has been at the center of the crisis. In response to the economic fallout of the pandemic, ECB announced two quantitative-easing packages in succession, the first worth €120 billion and the second totaling €750 billion. Speaking of this unprecedented intervention, ECB president Christine Lagarde stated, "There are no limits to our commitment to the euro." The European Union announced the Coronavirus Response Investment Initiative, which is to provide €37 billion in liquidity relief to SMEs and the healthcare sector. The European Commission proposed softening fiscal rules, including increasing limits for state aid to companies affected by the crisis to as much as €800,000 per undertaking in direct grants.

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The European Commission also created a strategic stockpile of medical equipment, including respirators and medical masks, and launched a joint public-procurement program to alleviate the shortage of medical supplies within the European Union. Along with the response by central European Union and eurozone authorities, individual member states have also implemented their own fiscal measures in an effort to stabilize the markets and assist companies and workers in coping with the drop in the demand for work.

Toward the return

In recent weeks, restrictions on movement and travel have been tentatively relaxed in China, as the number of new infections drops toward zero. Millions of migrant workers are returning to the country's major cities, and workplaces are restarting operations. Employees are temperature tested when they come to work and must show a green national-health-code designation. Most receive this information as a QR code on a mobile platform designed by Alipay. A green tag indicates good health; yellow and red tags require one- and two-week quarantines, respectively. Evidence indicates that these rules are strictly enforced and that life, even in Wuhan, has begun returning to a semblance of normal.

COVID-19: Implications for business

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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. This article is intended to provide business leaders with a perspective on the evolving situation and implications for their companies. The outbreak is moving quickly, and some of the perspectives in this article may fall rapidly out of date. This article reflects our perspective as of March 30, 2020. We will update it regularly as the outbreak evolves.

COVID-19: Briefing note, March 30, 2020

Our latest perspectives on the coronavirus pandemic.

The pandemic continues to expand. More than 175 countries and territories have reported cases of COVID-19, the disease caused by the coronavirus (SARS-CoV-2). Case growth has accelerated to more than 735,000 cases and 35,000 deaths as of March 30. Some geographies have a handful of cases, others with early community transmission have a few hundred, and those with uncontrolled, widespread transmission have tens of thousands. Governments have launched unprecedented public-health and economic responses. The situation evolves by the day.

In this note, we offer some of our latest insights, starting with five likely epidemiologic swing factors that will largely determine the contours of the pandemic in the next year. We then summarize two new articles designed to help senior executives lead through the crisis. In "Beyond coronavirus: The path to the next normal," we outline five time frames to help leaders organize their thinking and responses. And in "Safeguarding our lives and our livelihoods: The imperative of our time," we explain how business and society can and must take on both spheres of action, right away. These and many more are available in our collection of coronavirus thinking. We conclude with a short list of the areas in which executives should be concentrating their thought and attention.

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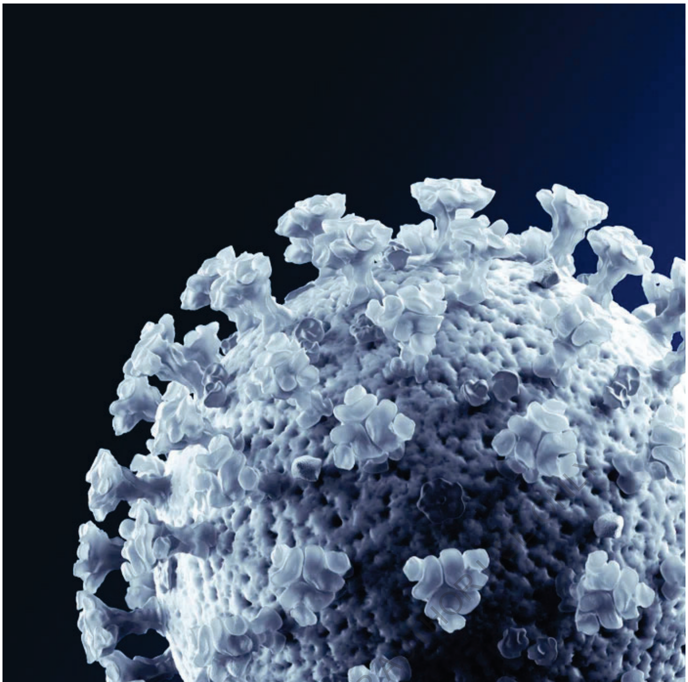
Epidemiological swing factors for COVID-19

Every country is looking to join the few that have controlled the epidemic for now and are focusing on preventing a resurgence. The next stages in every country are unknowable (Exhibit 1). But in our view, the spread or control of the virus in the next year comes down to five factors:



Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

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- *Growth of new transmission complexes and evidence of seasonality.* While most countries in the world have at least one case, most counts are relatively low. The extent to which these countries follow the path of countries such as Singapore that have achieved rapid control, versus that of western Europe and the United States, will be a major driver of outcomes. Moreover, these geographies also skew to more tropical climates and will provide some evidence on how much of a mitigating effect heat and humidity will have on the coronavirus. If the virus proves to be seasonal, this has the potential to shape both emerging and existing transmission complexes.

- *Impact of physical-distancing measures.* We know that rigorous, at-scale physical-distancing measures can drive a significant reduction in the number of new COVID-19 cases. However, given the range of approaches in use—and the varying stringency with which they are being applied—there's much still to learn about what exactly works and how long it takes. In the next one to two weeks, we will learn much more, as we begin to see evidence of the impact of physical distancing in Europe and the United States.

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- *Efficacy of health-system surge.* As the world has awakened to the potential risks of COVID-19, there has been a massive effort to add capacity to the healthcare system rapidly. This has rightly focused on adding acute-care capacity, providing ventilators, and building stocks of other critical medical supplies, such as personal protective equipment. If this surge (combined with efforts to reduce the demand on the health system) can prevent health systems from being overwhelmed, mortality from COVID-19 will be significantly lower. The development of clinically validated treatments could be a similar boon, but the emerging evidence on that front is mixed, thus far.

- *Readiness of the health system to navigate recurrence.* As authorities begin to think about what's needed to navigate a postpeak environment, the public-health tools deployed will have a different emphasis from today's focus in Europe and the United States. They will include at-scale testing, sophisticated real-time surveillance, rigorous contact tracing, and rapid, targeted quarantine to isolate cases and contacts. This mix of tools is how Korea, Singapore, and Taiwan have rapidly contained COVID-19. An antibody test would be a powerful tool in this arsenal, since it would show which people are at risk and which aren't. Even as public-health authorities negotiate an unprecedented period of demand on the health system, they will need to design and build systems to prevent resurgence of the disease as we pass the peak.

- *Emergence of herd immunity.* Herd immunity occurs when a sufficient portion of the population isn't susceptible to an infectious disease; at that point, transmission doesn't propagate, for lack of available hosts. It typically occurs through either widespread exposure or immunization. With a disease as infectious as COVID-19, experts believe that more than two-thirds of the population would need to be immune to create herd immunity. But there's much that we don't know about the possibility of multiple strains of the virus—and about the duration of human immunity. Answering those questions will have important implications for the course of the pandemic.

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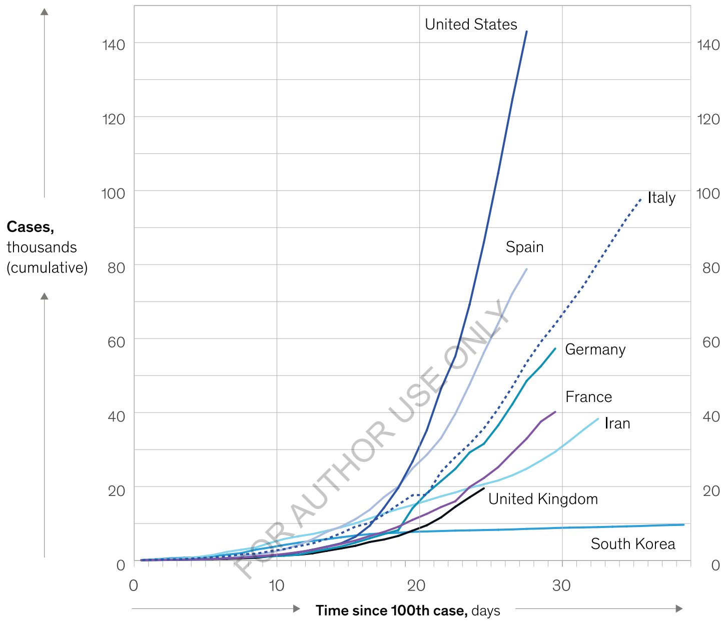
Exhibit 1

Case counts have diverged, based largely on public-health response.

COVID-19 cases by country



Source: European Centre for Disease Prevention and Control

Two new insights

We have recently published several new articles on the pandemic. Two have captured the attention of leaders worldwide. We summarize them here and invite you to take in the full case in our collection.

‘Beyond coronavirus: The path to the next normal’

What will it take to navigate this crisis, now that our traditional metrics and assumptions have been rendered irrelevant? More simply put, it’s our turn to answer a question that many of us once asked of our grandparents: What did you do during the war?

Our answer is a call to act across five stages, leading from the crisis of today to the next normal that will emerge after the battle against coronavirus has been won: Resolve, Resilience, Return, Reimagination, and Reform (Exhibit 2).

Exhibit 2

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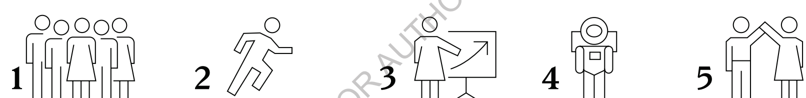
Companies need to think and act across five horizons.

The five horizons



Resolve

Address the immediate challenges that COVID-19 represents to institution’s workforce, customers, technology, and business partners

Resilience

Address near-term cash-management challenges and broader resiliency issues during virus-related shutdowns and economic knock-on effects

Return

Create detailed plan to return business to scale quickly as COVID-19 situation evolves and knock-on effects become clearer

Reimagination

Reimagine the next normal: what a discontinuous shift looks like and implications for how institutions should reinvent

Reform

Be clear about how regulatory and competitive environments in industry may shift

Collectively, these five stages represent the imperative of our time: the battle against COVID-19 is one that leaders today must win if we are to find an economically and socially viable path to the next normal.

‘Safeguarding our lives and our livelihoods: The imperative of our time’

We see enormous energy invested in suppressing the coronavirus, while many urge even faster and more rigorous measures. We also see enormous energy expended on stabilizing the economy through public-policy responses. However, to avoid permanent damage to our livelihoods, we need to find ways to “timebox” this event: we must think about how to suppress the virus and shorten the duration of the economic shock.

To aid decision makers, we have developed scenarios, based on three likely paths for the spread of the virus and the public health response, and three potential levels of effectiveness for governmental economic response (Exhibit 3).

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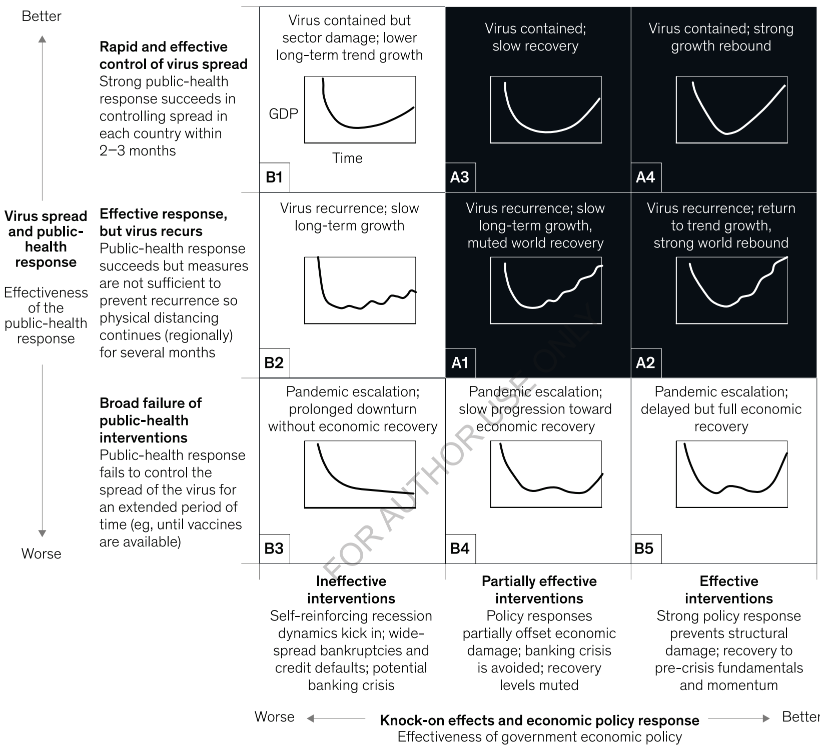
Exhibit 3

Scenarios for the economic impact of the COVID-19 crisis.

GDP impact of COVID-19 spread, public-health response, and economic policies



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Many leaders currently expect one of the scenarios shaded in Exhibit 3 (A1–A4) to materialize. In each of these, the COVID-19 spread is eventually controlled, and catastrophic structural economic damage is avoided. These scenarios describe a global average, while situations will inevitably vary by country and region. But all four of these scenarios lead to V- or U-shaped recoveries.

Other, more extreme scenarios can also be conceived, and some of them are already being discussed (B1–B5 in Exhibit 3). One can't exclude the possibility of a "black swan of black swans": structural damage to the economy, caused by a yearlong spread of the virus until a vaccine is widely available, combined with the lack of policy response to prevent widescale bankruptcies, unemployment, and a financial crisis.

Steps to take now

Amid the chaos and all the incoming advice, it's hard to know exactly what leaders should do today. We suggest they focus their time on four areas:

- *Support and protect employees in this brave new world.* Many institutions have put basic protections in place for their employees and customers. Companies have activated no-travel and work-from-home policies for some workers and physical-distancing-at-work measures for others. The challenge is evolving. For remote workers, interruptions are more frequent than in the office. Making a mental separation from a sometimes-chaotic home life is tough. Workers are finding that they don't have the skills to be successful in an extended remote environment, from networking to creating routines that drive productivity. They worry that staying remote could make them less valuable, especially in a recessionary environment.

  As our colleagues recently explained, three goals are essential. Companies need to increase communication, balancing the needs of the business with expectation setting and morale building, so employees know that their well-being is top of mind. They also need to change working norms, making remote work practical and simple whenever possible. And of course, they must protect people's health, with whatever measures are appropriate to the workplace: positive hygiene habits, personal protective equipment, amended sick-leave policies—whatever it takes to ensure health and safety.

- *Monitor leading indicators of how and where the pandemic is evolving and conduct scenario planning using both epidemiological and economic inputs.* Earlier, we sketched out the swing factors to watch to understand how the coronavirus pandemic might develop. As companies develop scenarios, they might want to consider the article "Safeguarding our lives and our livelihoods: The imperative of our time," which details McKinsey's nine epidemiologic and economic scenarios.

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- *Think about the next horizons of COVID-19.* In the urgency of the moment, it's easy to lose sight of the actions that might be needed tomorrow—and the day after that. The article "Beyond coronavirus: The path to the next normal," explains the five horizons that every executive should use to ensure an organization's rapid response, adaptation to change, and reemergence in a position of strength.

- *Evolve the nerve center to plan for the next phase.* Every assumption underpinning a business is open to question. To take one example, we might be in the midst of the largest drawdown in demand since the Second World War. The pendulum might not swing back fully once the outbreak has relented. Having experienced a new way of living, consumers are recalibrating their spending, increasing the likelihood that spending may permanently shift between categories and that online services could get adopted far faster. Decoding this new normal—and ensuring that the company has a strategy to navigate it—is an important part of the work of a nerve center . Approaches such as using a portfolio of initiatives and planning for decision making under uncertainty can go a long way toward creating a compass for business leaders to follow.

The next normal will look unlike any in the years preceding the coronavirus, the pandemic that changed everything. In these briefing notes, we aim to provide leaders with an integrated perspective on the unfolding crisis and insight into the coming weeks and months.

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COVID-19: Briefing note, March 16, 2020

Current perspectives on the coronavirus outbreak.

At the time of writing, there have been more than 160,000 confirmed cases of COVID-19 and more than 6,000 deaths from the disease. Older people, especially, are at risk (Exhibit 1). More than 140 countries and territories have reported cases; more than 80 have confirmed local transmission. Even as the number of new cases in China is falling (to less than 20, on some days), it is increasing exponentially in Italy (doubling approximately every four days). China's share of new cases has dropped from more than 90 percent a month ago to less than 1 percent today.

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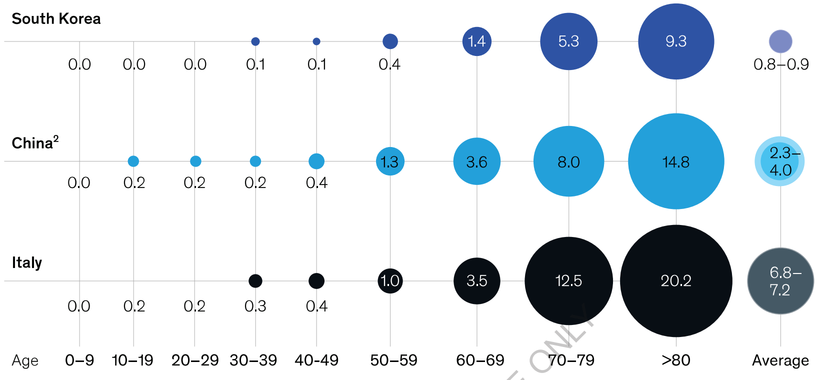
Exhibit 1

Data from three countries show that older populations are at greater risk.

Case-fatality rate by age segment,[1] % mortality



[1] As of data from Feb 11, 2020, in China and as of March 16 and 15, 2020, in South Korea and Italy, respectively.
[2] Data reported from China Feb 11, 2020, reports 2.3%, however latest deaths/cases from WHO indicate this may be higher.
Source: China CDC; Korea CDC; L'Istituto Superiore di Sanità (ISS) Italy; WHO; McKinsey analysis

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WHO declared COVID-19 a pandemic on March 11, 2020. In its message, it balanced the certainty that the coronavirus (SARS-CoV-2) will inevitably spread to all parts of the world, with the observation that governments, businesses, and individuals still have substantial ability to change the disease's trajectory. In this note, we describe emerging archetypes of epidemic progressions; outline two scenarios for the pandemic and its economic effects; and observe some of the ways that business can improve on its early responses.

Our perspective is based on our analysis of past emergencies and our industry expertise. It is only one view, however. Others could review the same facts and emerge with a different view. Our scenarios should be considered only as two among many possibilities. This perspective is current as of March 16, 2020. We will update it regularly as the outbreak evolves.

Archetypes for epidemic progression

Many countries now face the need to bring widespread community transmission of coronavirus under control. While every country's response is unique, there are three archetypes emerging—two successful and one not—that offer valuable lessons. We present these archetypes while acknowledging that there is much still to be learned about local transmission dynamics and that other outcomes are possible:

- *Extraordinary measures to limit spread.* After the devastating impact of COVID-19 became evident in the Hubei province, China imposed unprecedented measures—building hospitals in ten days, instituting a "lockdown" for almost 60 million people and significant restrictions for hundreds of millions of others, and using broad-based surveillance to ensure compliance—in an attempt to combat the spread. These measures have been successful in rapidly reducing transmission of the virus, even as the economy has been restarting.
- *Gradual control through effective use of public-health best practices.* South Korea experienced rapid case-count growth in the first two weeks of its outbreak, from about 100 total cases on February 19 to more than 800 new cases on February 29. Since then, the number of new cases has dropped steadily, though not as steeply as in China. This was achieved through rigorous implementation of classic public-health tools, often integrating technology. Examples include rapid and widespread deployment of testing (including the drive-through model) (Exhibit 2), rigorous contact tracing informed by technology, a focus on healthcare-provider safety, and real-time integrated tracking and analytics. Singapore and Taiwan appear to have applied a similar approach, also with broadly successful results.

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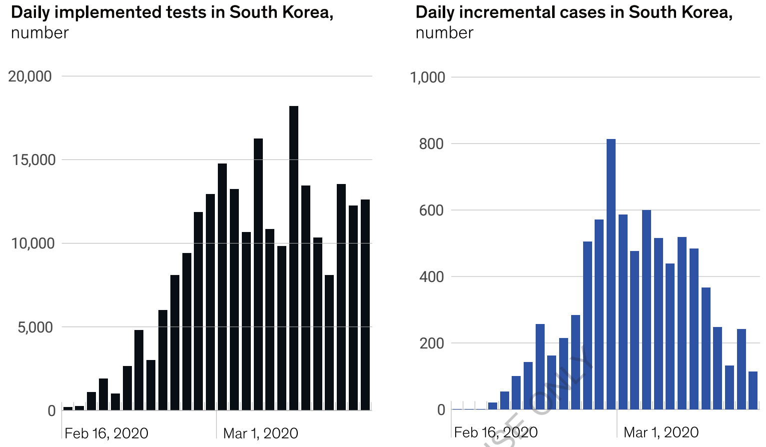
Exhibit 2

Rapid increase in testing seems to have helped cut new cases in South Korea.



Source: KCDC; press search; WHO

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- *Unsuccessful initial control, leading to overwhelmed health systems.* In some outbreaks where case growth has not been contained, hospital capacity has been overwhelmed. The disproportionate impact on healthcare workers and lack of flexibility in the system create a vicious cycle that makes it harder to bring the epidemic under control.

There are also other approaches being considered (such as a focus on reaching herd immunity); the impact of these is unclear.

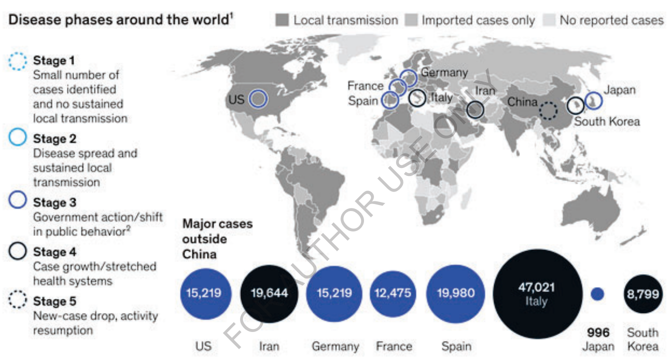
Two scenarios

Based on new information that emerged last week, we have significantly updated and simplified our earlier scenarios. A number of respected institutions are now projecting very high case counts. The most pessimistic projections typically give the virus full credit for exponential growth but assume that humans will not respond effectively—that is, they assume that many countries will fall into the third archetype described earlier. We believe this is possible but by no means certain. The scenarios below outline two ways that the interplay between the virus and society's response might unfold and the implications on the economy in each case. Exhibit 3 lays out a number of critical indicators that may provide early notice of which scenario is unfolding.

Exhibit 3

Critical indicators of the impact of COVID-19 (March 21, 2020)

< Prev 01 — 04 Next >



[1]The stage indicators highlight representative 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. [2]Not all affected regions enter stage 3, but significant government intervention/economic impact signal prolonged recovery. Source: CNBC; *Economist;* International Air Transport Association; Johns Hopkins Center for Systems Science and Engineering; *New York Times;* OAG Aviation Worldwide; Reuters; World Health Organization situation reports

Delayed recovery

Epidemiology. In this scenario, new case counts in the Americas and Europe rise until mid-April. Asian countries peak earlier; epidemics in Africa and Oceania are limited. Growth in case counts is slowed by effective social distancing through a combination of national and local quarantines, employers choosing to restrict travel and implement work-from-home policies, and individual choices. Testing capacity catches up to need, allowing an accurate picture of the epidemic. The virus proves to be seasonal, further limiting its spread. By mid-May, public sentiment is significantly more optimistic about the epidemic. The Southern Hemisphere winter sees an uptick in cases, but by that point, countries have a better-developed playbook for response. While the autumn of 2020 sees a resurgence of infections, better preparedness enables continued economic activity.

Economic impact. Large-scale quarantines, travel restrictions, and social-distancing measures drive a sharp fall in consumer and business spending until the end of Q2, producing a recession. Although the outbreak comes under control in most parts of the world by late in Q2, the self-reinforcing dynamics of a recession kick in and prolong the slump until the end of Q3. Consumers stay home, businesses lose revenue and lay off workers, and unemployment levels rise sharply. Business investment contracts, and corporate bankruptcies soar, putting significant pressure on the banking and financial system.

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Monetary policy is further eased in Q1 but has limited impact, given the prevailing low interest rates. Modest fiscal responses prove insufficient to overcome economic damage in Q2 and Q3. It takes until Q4 for European and US economies to see a genuine recovery. Global GDP in 2020 falls slightly.

Prolonged contraction

Epidemiology. In this scenario, the epidemic does not peak in the Americas and Europe until May, as delayed testing and weak adoption of social distancing stymie the public-health response. The virus does not prove to be seasonal, leading to a long tail of cases through the rest of the year. Africa, Oceania, and some Asian countries also experience widespread epidemics, though countries with younger populations experience fewer deaths in percentage terms. Even countries that have been successful in controlling the epidemic (such as China) are forced to keep some public-health measures in place to prevent resurgence.

Economic impact. Demand suffers as consumers cut spending throughout the year. In the most affected sectors, the number of corporate layoffs and bankruptcies rises throughout 2020, feeding a self-reinforcing downward spiral.

The financial system suffers significant distress, but a full-scale banking crisis is averted because of banks' strong capitalization and the macroprudential supervision now in place. Fiscal and monetary-policy responses prove insufficient to break the downward spiral.

The global economic impact is severe, approaching the global financial crisis of 2008–09. GDP contracts significantly in most major economies in 2020, and recovery begins only in Q2 2021.

Responding to COVID-19: What companies are missing

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Our conversations with hundreds of companies around the world on COVID-19 challenges have allowed us to compile a view of the major work streams that companies are pursuing (Exhibit 4).

Exhibit 4

Companies are responding to the outbreak with five sets of actions.

Response structure: 5 teams; 18 work streams

A Workforce protection

Policy and management	Portfolio of policies and actions, including prevention and incident response
2-way communication	Multichannel communications; confidential reporting mechanisms; source of truth
Personnel and contractors	Tiering (eg, all, some, or no work from home); infrastructure setup (eg, VPN, laptops, desktops); broadband availability
Facility and on-site norms	Staggered work shifts; spread prevention (eg, social distancing); closures
Health and government engagement	Engagement with local and federal regulators and public-health officials

B Supply-chain stabilization

Supplier engagement	Cross-tier risk transparency; supplier restart; order management; new supplier qualifications
Inventory management	Critical-part identification; parts rationing; location optimization
Production and operations	Operational-impact assessment; production-capacity optimization
Demand management	Sales and operations SKU-level demand-signal estimates by microscenario; production and sourcing plans
Logistics	Ports; logistics-capacity prebooking; route optimization

C Customer engagement

B2B transparency	Communications to B2B customers (eg, by microsite); scenario-based risk communications
Customer protection	Spread-prevention interventions across customer journeys; customer-team training; execution monitoring
Customer outreach	Customer communications on COVID-19 practices; fact-based reports on issues; situation communications

D Financials stress testing

Scenario definition	Relevant scenarios, based on latest epidemiological and economic outlooks
Financial stress tests	Financials, especially working-capital requirements, in different scenarios

E Nerve-center integration

Issue map and management	Single source of truth for issue resolution, tapping surge resources when needed
Portfolio of actions	Trigger-based portfolio of actions (across all work streams)
Leadership alignment	Alignment of leaders on scenarios; roundtable exercises

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While this list is fairly comprehensive, some companies are taking other steps. However, we have seen evidence that many companies are finding it hard to get the major actions right. We have consistently heard about five challenges.

Having an intellectual understanding isn't the same as internalizing the reality

Exponential case-count growth is hard to internalize unless you have experienced it before. Managers who haven't experienced this or been through a "tabletop" simulation are finding it difficult to respond correctly. In particular, escalation mechanisms may be understood in theory, but companies are finding them hard to execute in reality, as the facts on the ground don't always conform to what it says in the manual. Crisis case studies are replete with examples of managers who chose not to escalate, creating worse issues for their institutions.

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Employee safety is paramount, but mechanisms are ineffective

Policy making at many companies is scattershot, especially at those that haven't yet seen the coronavirus directly. Many, such as professional-services and tech companies, lean very conservative: their protection mechanisms often add to a perception of safety without actually keeping people safer. For instance, temperature checks may not be the most effective form of screening, given that the virus may transmit asymptomatically. Asking employees to stay at home if they are unwell may do more to reduce transmissibility. Such policies are more effective if employees receive compensation protection—and insulation from other consequences too.

Some companies aren't thinking through the second-order effects of their policies. For example, a ban on travel without a concomitant work-from-home policy can make the office very crowded, leading to higher risk of transmission. Others are adopting company-wide policies without thinking through the needs of each location and each employee segment.

Optimism about the return of demand is dangerous

Being optimistic about demand recovery is a real problem, especially for companies with working-capital or liquidity shortages and those veering toward bankruptcy. Troubled organizations are more likely to believe in a faster recovery—or a shallower downturn. Facing up to the possibility of a deeper, more protracted downturn is essential, since the options available now, before a recession sets in, may be more palatable than those available later. For example, divestments to provide needed cash can be completed at a higher price today than in a few weeks or months.

Assumptions across the enterprise are misaligned

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Some companies are pursuing their coronavirus responses strictly within organizational silos (for example, the procurement team is driving supply-chain efforts, sales and marketing teams are working on customer communications, and so on). But these teams have different assumptions and tend to get highly tactical, going deep in their own particular patch of weeds rather than thinking about what other parts of the company are doing—or about what might come next.

The near term is essential, but don't lose focus on the longer term (which might be worse)

Immediate and effective response is, of course, vital. We think that companies are by and large pursuing the right set of responses, as shown in Exhibit 4. But on many of these work streams, the longer-term dimensions are even more critical. Recession may set in. The disruption of the current outbreak is shifting industry structures. Credit markets may seize up, in spite of stimulus. Supply-chain resilience will be at a premium. It may sound impossible for management teams that are already working 18-hour days, but too few are dedicating the needed time and effort to responses focused on the longer term.

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.

For the full set of our latest perspectives, please see the attached full briefing materials, which we will update regularly. 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 WHO; and the live tracker of global cases from Johns Hopkins University.

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COVID-19: Briefing note, March 9, 2020

A range of outcomes is possible. Decision makers should not assume the worst.

Less than ten weeks have passed since China reported the existence of a new virus to the World Health Organization. This virus, now known as SARS-CoV-2, causing COVID-19 disease, spread quickly in the city of Wuhan and throughout China. The country has experienced a deep humanitarian challenge, with more than 80,000 cases and more than 3,000 deaths. COVID-19 progressed quickly beyond China's borders. Four other major transmission complexes are now established across the world: East Asia (especially South Korea, with more than 7,000 cases, as well as Singapore and Japan), the Middle East (centered in Iran, with more than 6,500 cases), Europe (especially the Lombardy region in northern Italy, with more than 7,300 cases, but with widespread transmission across the continent), and the United States, with more than 200 cases. Each of these transmission complexes has sprung up in a region where millions of people travel every day for social and economic reasons, making it difficult to prevent the spread of the disease. In addition to these major complexes, many other countries have been affected. Exhibit 1 (see an updated version of the exhibit here) offers a snapshot of the current progress of the disease and its economic impact.

The next phases of the outbreak are profoundly uncertain. In our view, the prevalent narrative, focused on pandemic, to which both markets and policy makers have gravitated as they respond to the virus, is possible but underweights the possibility of a more optimistic outcome. In this briefing note, we attempt to distinguish the things we know from those we don't, and the potential implications of both sets of factors. We then outline three potential economic scenarios, to illustrate the range of possibilities, and conclude with some discussion of the implications for companies' supply chains, and seven steps businesses can take now to prepare.

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Our perspective is based on our analysis of past emergencies and on our industry expertise. It is only one view, however. Others could review the same facts and emerge with a different view. Our scenarios should be considered only as three among many possibilities. This perspective is current as of March 9, 2020. We will update it regularly as the outbreak evolves.

What we know, and what we are discovering

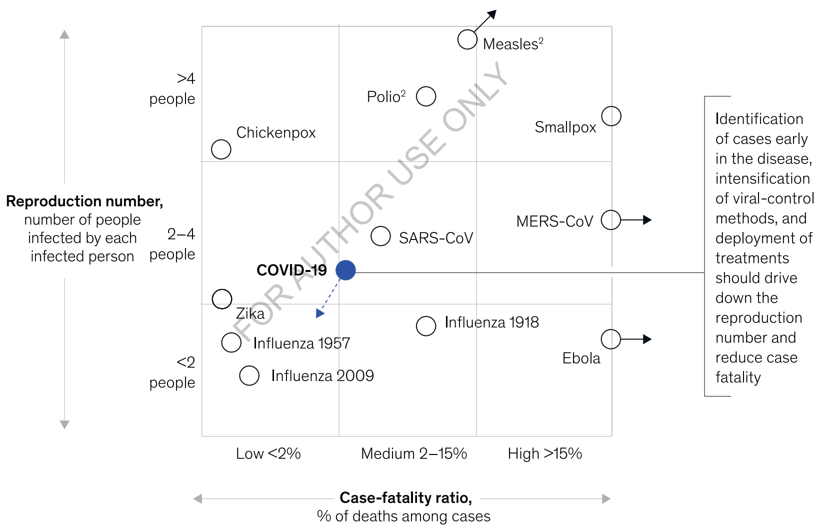
What we know. Epidemiologists are in general agreement on two characteristics of COVID-19:

- *The virus is highly transmissible.* Both observed experience and emerging scientific evidence show that the virus causing COVID-19 is easily transmitted from person to person. The US Centers for Disease Control and Prevention estimates that the virus's reproduction number (the number of additional cases that likely result from an initial case) is between 1.6 and 2.4, making COVID-19 significantly more transmissible than seasonal flu (whose reproduction number is estimated at 1.2 to 1.4) (Exhibit 2).

Exhibit 2

COVID-19 is more infectious than influenza.

Reproduction[1] and fatality[2] for selected human viruses



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[1]As determined at the beginning of an outbreak; can be reduced by effective intervention.
[2]Case-fatality numbers are reflective of the outbreak setting and depend on a number of factors, including patient's age, community immunity, health-system capabilities, etc. This graphic aims to offer a broad comparison.
Source: Expert interviews; World Health Organization; McKinsey analysis

- *The virus disproportionately affects older people with underlying conditions.* Epidemiologists Zunyou Wu and Jennifer McGoogan analyzed a report from China Centers for Disease Control and Prevention that looked at more than 72,000 cases and concluded that the fatality rate for patients 80 and older was seven times the average, and three to four times the average for patients in their 70s. Other reports describe fatality rates for people under 40 to be 0.2 percent.

What we are still discovering. Three characteristics of the virus are not fully understood, but are key variables that will affect how the disease progresses, and the economic scenario that evolves:

- *The extent of undetected milder cases.* We know that those infected often display only mild symptoms (or no symptoms at all), so it is easy for public-health systems to miss such cases. For example, 55 percent of the cases on board the Diamond Princess cruise ship did not exhibit significant symptoms (even though many passengers were middle-aged or older). But we don't know for sure whether official statistics are capturing 80 percent, 50 percent, or 20 percent of cases.
- *Seasonality.* There is no evidence so far about the virus's seasonality (that is, a tendency to subside in the northern hemisphere as spring progresses). Coronaviruses in animals are not always seasonal but have historically been so in humans for reasons that are not fully understood. In the current outbreak, regions with higher temperatures (such as Singapore, India, and Africa) have not yet seen a broad, rapid propagation of the disease.
- *Asymptomatic transmission.* The evidence is mixed about whether asymptomatic people can transmit the virus, and about the length of the incubation period. If asymptomatic transfer is a major driver of the epidemic, then different public-health measures will be needed.

These factors notwithstanding, we have seen that robust public-health responses, like those in China outside Hubei and in Singapore, can help stem the epidemic. But it remains to be seen how these factors will play out and the direct impact they will have. The economic impact too will vary considerably.

Economic impact

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In our analysis, three broad economic scenarios might unfold: a quick recovery, a global slowdown, and a pandemic-driven recession. Here, we outline all three. We believe that the prevalent pessimistic narrative (which both markets and policy makers seem to favor as they respond to the virus) underweights the possibility of a more optimistic outcome to COVID-19 evolution.

Quick recovery

In this scenario, case count continues to grow, given the virus's high transmissibility. While this inevitably causes a strong public reaction and drop in demand, other countries are able to achieve the same rapid control seen in China, so that the peak in public concern comes relatively soon (within one to two weeks). Given the low fatality rates in children and working-age adults, we might also see levels of concern start to ebb even as the disease continues to spread. Working-age adults remain concerned about their parents and older friends, neighbors, and colleagues, and take steps to ensure their safety. Older people, especially those with underlying conditions, pull back from many activities. Most people outside the transmission complexes continue their normal daily lives.

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The scenario assumes that younger people are affected enough to change some daily habits (for example, they wash hands more frequently) but not so much that they shift to survival mode and take steps that come at a higher cost, such as staying home from work and keeping children home from school. A complicating factor, not yet analyzed, is that workers in the gig economy, such as rideshare drivers, may continue to report to work despite requests to stay home, lest they lose income. This scenario also presumes that the virus is seasonal.

In this scenario, our model developed in partnership with Oxford Economics suggests that global GDP growth for 2020 falls from previous consensus estimates of about 2.5 percent to about 2.0 percent. The biggest factors are a fall in China's GDP from nearly 6 percent growth to about 4.7 percent; a one-percentage-point drop in GDP growth for East Asia; and drops of up to 0.5 percentage points for other large economies around the world. The US economy recovers by the end of Q1. By that point, China resumes most of its factory output; but consumer confidence there does not fully recover until end Q2. These are estimates, based on a particular scenario. They should not be considered predictions.

Global slowdown

This scenario assumes that most countries are not able to achieve the same rapid control that China managed. In Europe and the United States, transmission is high but remains localized, partly because individuals, firms, and governments take strong countermeasures (including school closings and cancellation of public events). For the United States, the scenario assumes between 10,000 and 500,000 total cases. It assumes one major epicenter with 40 to 50 percent of all cases, two or three smaller centers with 10 to 15 percent of all cases, and a "long tail" of towns with a handful or a few dozen cases. This scenario sees some spread in Africa, India, and other densely populated areas, but the transmissibility of the virus declines naturally with the northern hemisphere spring.

This scenario sees much greater shifts in people's daily behaviors. This reaction lasts for six to eight weeks in towns and cities with active transmission, and three to four weeks in neighboring towns. The resulting demand shock cuts global GDP growth for 2020 in half, to between 1 percent and 1.5 percent, and pulls the global economy into a slowdown, though not recession.

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In this scenario, a global slowdown would affect small and mid-size companies more acutely. Less developed economies would suffer more than advanced economies. And not all sectors are equally affected in this scenario. Service sectors, including aviation, travel, and tourism, are likely to be hardest hit. Airlines have already experienced a steep fall in traffic on their highest-profit international routes (especially in Asia–Pacific). In this scenario, airlines miss out on the summer peak travel season, leading to bankruptcies (FlyBe, the UK regional carrier, is an early example) and consolidation across the sector. A wave of consolidation was already possible in some parts of the industry; COVID-19 would serve as an accelerant.

In consumer goods, the steep drop in consumer demand will likely mean delayed demand. This has implications for the many consumer companies (and their suppliers) that operate on thin working-capital margins. But demand returns in May–June as concern about the virus diminishes. For most other sectors, the impact is a function primarily of the drop in national and global GDP, rather than a direct impact of changed behaviors. Oil and gas, for instance, will be adversely affected as oil prices stay lower than expected until Q3.

Pandemic and recession

This scenario is similar to the global slowdown, except it assumes that the virus is not seasonal (unaffected by spring in the northern hemisphere). Case growth continues throughout Q2 and Q3, potentially overwhelming healthcare systems around the world and pushing out a recovery in consumer confidence to Q3 or beyond. This scenario results in a recession, with global growth in 2020 falling to between –1.5 percent and 0.5 percent.

Supply-chain challenges

For many companies around the world, the most important consideration from the first ten weeks of the COVID-19 outbreak has been the effect on supply chains that begin in or go through China. As a result of the factory shutdowns in China during Q1, many disruptions have been felt across the supply chain, though the full effects are of course still unclear.

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Hubei is still in the early phases of its recovery; case count is down, but fatality rates remain high, and many restrictions remain that will prevent a resumption of normal activity until early Q2. In the rest of China, however, many large companies report that they are running at more than 90 percent capacity as of March 1. While some real challenges remain, such as lower than usual availability of migrant labor, there is little question that plants are returning back to work quickly.

Trucking capacity to ship goods from factories to ports is at about 60 to 80 percent of normal capacity. Goods are facing delays of between eight and ten days on their journey to ports.

The Baltic Dry Index (which measures freight rates for grains and other dry goods around the world) dropped by about 15 percent at the onset of the outbreak but has increased by nearly 30 percent since then. The TAC index, which measures air-freight prices, has also risen by about 15 percent since early February.

In the next few months, the phased restart of plants outside Hubei (and the slower progress of plants within Hubei) is likely to lead to challenges in securing critical parts. As inventories are run down faster, parts shortages are likely to become the new reason why plants in China cannot operate at full capacity. Moreover, plants that depend on Chinese output (which is to say, most factories around the world) have not yet experienced the brunt of the initial Chinese shutdown and are likely to experience inventory "whiplash" in the coming weeks.

Perhaps the biggest uncertainty for supply-chain managers and production heads is customer demand. Customers that have prebooked logistics capacity may not use it; customers may compete for prioritization in receiving a factory's output; and the unpredictability of the timing and extent of demand rebound will mean confusing signals for several weeks.

Responding to COVID-19

In our experience, seven actions can help businesses of all kinds. We outline them here as an aid to leaders as they think through crisis management for their companies. These are only guidelines; they are by no means exhaustive or detailed enough to substitute for a thorough analysis of a company's particular situation.

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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. Some of the more interesting models we have seen involve providing clear, simple language to local managers on how to deal with COVID-19 (consistent with WHO, CDC, and other health-agency guidelines) while providing autonomy to them so they feel empowered to deal with any quickly evolving situation. This autonomy is combined with establishing two-way communications that provide a safe space for employees to express if they are feeling unsafe for any reason, as well as monitoring adherence to updated policies.

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).

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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-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—such as 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.

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Exhibit 3

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 Test for stress, ensure liquidity, and build a 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 Stabilize the 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 Stay close to customers

- ☐ 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

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COVID-19: Briefing note, March 2, 2020

The following is McKinsey's perspective as of March 2, 2020.

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.

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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, 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.

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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 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 the exhibit (see an updated version of the exhibit here).

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Getting ahead of the next stage of the coronavirus crisis

First the virus, now the economic fallout—you need to launch your plan-ahead team.

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The COVID-19 pandemic is spreading at an extraordinary speed. You have put a crisis team in place and are doing all you can to keep your people safe, stay on top of your business, and deal with the uncertainty amid constantly changing conditions. However, that isn't likely to be good enough.

Close on the heels of the coronavirus outbreak, the next wave of disruption—the biggest economic shock since World War II—is headed our way. And it isn't just an economic shock: it is a shock to customer behaviors and business models too. The challenges associated with it will be orders of magnitude bigger than what we are used to dealing with. To handle them, you need to adopt an operating model that accommodates the extreme level of uncertainty facing your business.

Most companies will be very vulnerable to the economic fallout of extended public- and employee-isolation measures. As the number of issues your business is facing will likely rapidly escalate, there are two practical steps you can take to help stay ahead:

1. Launch a PLAN-AHEAD TEAM to get ahead of the next stage of the crisis.

2. Direct that team to work across *multiple time horizons*, using *five frames*.

The plan-ahead team will help elevate your view above the day-to-day response that your crisis team is managing. Its objective is to enable modular, scalable thinking that any CEO needs to navigate this unprecedented and rapidly evolving situation. The plan-ahead team will deliver a STRATEGIC CRISIS-ACTION PLAN to guide and accelerate your decision making.

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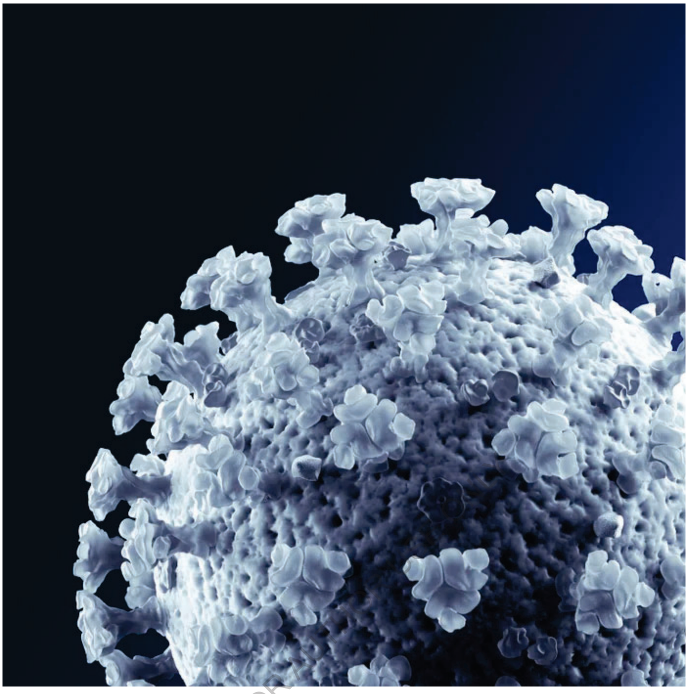

Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

Launch a plan-ahead team

Military organizations, which specialize in dealing with large-scale crises, often establish granular structures accountable for highly specific tasks, such as operations, communication, and intelligence gathering. However, they all use plan-ahead teams for key decision makers to leverage when dealing with complex and escalating sets of issues.

Your plan-ahead team should be charged with collecting forward-looking intelligence, developing scenarios, and identifying the options and actions needed to act tactically and strategically. Unlike a typical strategy team, it will have to plan across all time horizons (two, four, and seven days; two and four weeks; one and two quarters; one and two years; and the next normal) to enable you to stay on top of escalating issues and the decisions that you need to make in this time of high uncertainty.

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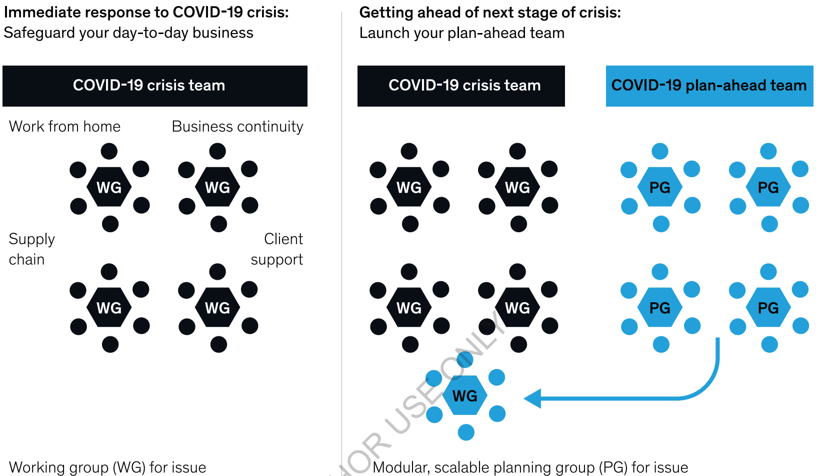
A plan-ahead team delivers scenarios, recommendations for actions, and trigger points to the CEO and the management team so that they can decide on the right course of action. The decisions will be communicated to the crisis team or other parts of the organization for execution. If further clarification is necessary, the plan-ahead team will do another turn, collecting further information to reduce uncertainty.

Importantly, the structure of the plan-ahead team is modular, with individual cells focusing on specific issues across time horizons. As new issues come up or time horizons expand, you may need to add new cells. This will enable the team to scale in line with the magnitude of the crisis (Exhibit 1).

Exhibit 1

A plan-ahead team is modular, with cells focusing on specific issues across time horizons.



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While staff from a regular strategy group may form part of a plan-ahead team, the team's responsibilities are far from the strategy function's usual purview. Planning ahead today requires a dedicated effort, with a full-time senior executive leading and accountable for a team of ring-fenced high-potential employees located "next door" to the CEO.

As a first task, the team needs to develop a day-one version of a strategic crisis-action plan by working through the five frames outlined in the next section of this article. Speed is of the essence, and waiting for perfect answers can be counterproductive: you need to deal with uncertainty, not let it bottleneck your decision making. Your plan-ahead team will need to update and improve plans continually by integrating new intelligence as it becomes available.

Work across multiple time horizons using five frames

The best response to navigating through the COVID-19 crisis and the subsequent recovery will differ based on a company's circumstances. For some, simply staying calm and carrying on will be the optimal approach. Others may need to undertake radical restructuring of their cost bases and business models immediately.

Even as you assess the best course forward, the one thing you shouldn't do is rely on what we frequently see in regular strategic-planning processes: ducking uncertainty altogether or relegating it to a risk analysis at the back of the presentation deck. You can use a strategic crisis-action plan to guide your response through the next stages of the crisis as events unfold (Exhibit 2).

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Exhibit 2

A strategic crisis-action plan guides responses to a crisis's unfolding stages.

Starting position (baseline and crisis context)

This week	2–4 weeks	1–2 quarters	1–2 years	Next normal
Zoom will run out of capacity Need to increase ventilator production 4-fold Exports 40% down Government bailouts offered	Capacity running out Supply-chain instability	Liquidity position	Growth likely to return	Business challenged postcrisis (eg, cruise ship) Business demand greater postcrisis (eg, home delivery)

Scenarios (issues and opportunities)

This week	2–4 weeks	1–2 quarters	1–2 years	Next normal
All exports shut down Share buyback unwise Need for/conse-quences of accepting government bailout	Access and nonaccess Claims on production Collaboration across players	Nationalization M&A wave Market rebound ahead of fundamentals No revenues Price controls	Still not recovered Quarantine still needed Surveillance government	Business returns to normal because of testing (eg, hotels) Drug approvals much faster Pace of all delivery expected to stay at crisis-level pace

Posture and broad direction of travel

This week	2–4 weeks	1–2 quarters	1–2 years	Next normal
Back to normal in 8 weeks Back to normal in 6 months Independence	Lean into government crisis response to get access	Through cycle, with good balance sheet Mothballing	Back to business as normal or reset	Will now be model of 21st-century cooperation Resilience over profit; more working capital

Strategic moves (options, safety nets, and no-regrets moves)

This week	2–4 weeks	1–2 quarters	1–2 years	Next normal
Scale capacity now Ship last supplies Split workforce Accept partial bailout	Push for critical-product funding Work to reopen exports safely to get supply Support clients and suppliers in critical areas	Test tourism to get back to work Massive testing 50-50 workforce quarantine	Keep certain projects; stop others	Prioritize investments now based on what what will be necessary in future

Trigger points

This week	2–4 weeks	1–2 quarters	1–2 years	Next normal
Availability of machines Government-bailout deadline	Analyze tier ≥3 suppliers to reveal critical-supplier exposure/extended shutdowns because of crisis	Analyze 13-week cash flow for liquidity challenges across scenarios	50% of geographic market regions facing demand drawdowns after Q4 2019	Significantly lower number of new-project opportunities because of market-segment shift

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To produce this plan, you need to confront uncertainty head on. Your plan-ahead team needs to work through the following five frames:

1. Gain a realistic view of your *starting position*.
2. Develop *scenarios* for multiple versions of your future.
3. Establish your posture and *broad direction of travel*.
4. Determine actions and *strategic moves* that are robust across scenarios.
5. Set *trigger points* that drive your organization to act at the right time.

We can't stress the idea enough: speed is of the essence. Your plan-ahead team must move fast, give you the day-one answer tomorrow, and iterate at high velocity. If new issues or opportunities come up, add modules for your plan-ahead team; don't slow down. The next few weeks and months will shape the future of your company—and possibly, your industry.

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1. Gain a realistic view of your starting position

In times of extreme uncertainty, you should start by developing a clear baseline of your company's last-known position. Think of it as doing a "system restore" back to January. You don't have time for a cleansheet exercise; your existing strategy can be an anchor to use in systematically assessing what has changed.

Your plan-ahead team should take stock in three main areas: your financial assumptions, your ongoing initiatives, and your big strategic choices. Referring to a three-year plan and cataloging the planning assumptions made in that document will help determine what drives the financial performance of the company. Those factors should be sorted into three buckets: those that still seem about right, those that are wrong, and those about which you are unsure. If possible, do a quick sensitivity analysis to assess which assumptions matter most.

The next task is to list the big ongoing initiatives, starting with major projects on the capital-expenditure list, and organize them into the same bucket categories. The final step is to list the big strategic choices that underpin your company's business model—for example, sustain a price premium, keep investing in a physical network, and invest faster than the competition. Sort those into the three buckets too. You have now clarified the starting picture and brought the critical issues to the foreground.

2. Develop scenarios for multiple versions of your future

The traditional approach to strategic planning too often either adopts a head-in-the-sand position (assuming away uncertainty) or suffers from "deer in the headlights" syndrome (being paralyzed by unpredictability).Now more than ever, you can't get rid of uncertainty; you have to confront it. A good way of doing this is to build scenarios, and McKinsey's global COVID-19 scenarios are a useful starting point (Exhibit 3).

We took the two biggest uncertainties associated with the crisis—the virus spread (and the associated health response) and the economic knock-on effects (along with the public-policy response)—and combined them into potential macroeconomic outcomes.

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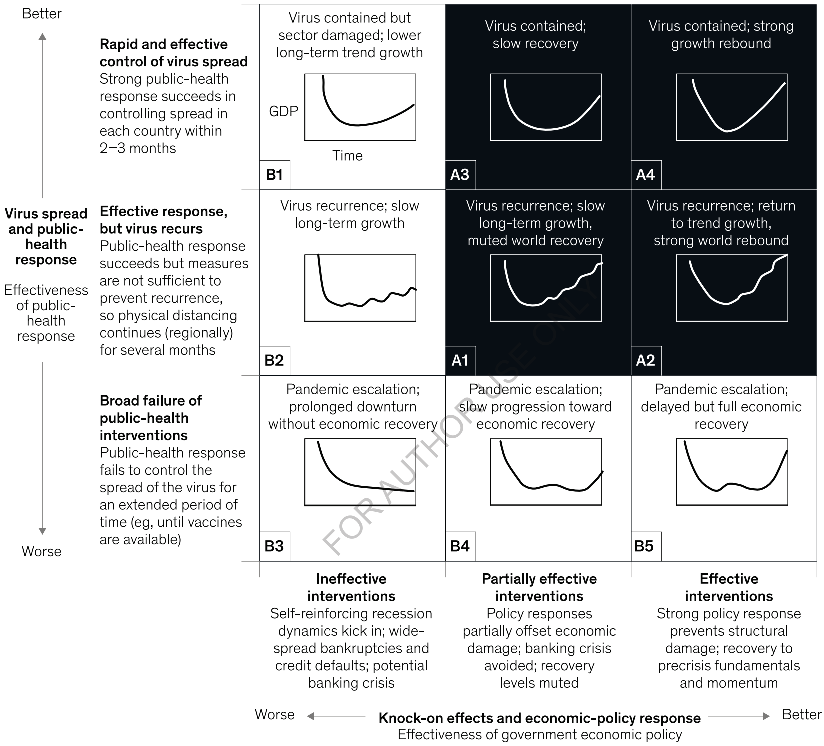
Exhibit 3

Scenarios for the economic impact of the COVID-19 crisis are useful as starting points.

GDP impact of COVID-19 spread, public-health response, and economic policies



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The aim isn't to debate which scenarios are more likely but rather to explore what is possible—and to ready yourself for anything that looks plausible. Chopping off "the tails" to eliminate the most extreme eventualities is where scenario analyses often fail, resulting in mere variants of a base case. While some scenarios may seem too awful to contemplate, that doesn't mean they should be disregarded. Your plan-ahead team should develop at least four scenarios. If you only have three, it is all too tempting to default to a middle option as the base case.

Next, your plan-ahead team should stress-test your company's performance and strategy against each scenario by translating them into modeled business outcomes. Identify where your business is most at risk and where it is most resilient; estimate your capital "headroom" (or shortfall) in the worst-case scenario. Then assess your current slate of strategic initiatives against each scenario, determining whether each initiative should continue as planned, accelerate, or stop.

Developing scenarios brings immediate benefits. It allows you to bound uncertainty into manageable and measurable boxes, reducing confusion, and to sort out what is truly unknown and what really matters. You can identify, with confidence, the no-regret moves with which you should promptly proceed while creating a clear structure to use when working through options to handle a range of possible outcomes. Finally, it enables you to identify the signals that will be early markers that a scenario is coming to pass.

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It is extremely important that a plan-ahead team considers multiple scenarios as input and converts them to tangible ideas for action. However, it is also important that the team has a set of planning assumptions provided as an input to delivery teams. If the plan-ahead team believes that the company needs to operate under an assumption of an 8 percent drop in GDP, then the team that is constructing the financial portfolio can't make an assumption that is different than that.

One approach we have found useful is to start by developing a clear view on how the primary threat or opportunity that you face (for example, macrolevel and industry trends, operations, and regulation) could evolve. Then think through how the evolution of that threat or opportunity could affect your business performance. Running this loop a few times helps you acquire a nuanced view of how the environment is likely to change.

A plan-ahead team is in the best position to define the inputs that are necessary for an organization's scenario-development and decision-making processes because it is the team responsible for gathering pertinent, high-quality information for the organization. The reason is simple: gathering high-quality information about the environment is a costly exercise that usually requires a lot of nuance and judgment. It is far more involved than a simple exercise of analyzing positive and negative sentiments on Twitter.

3. Establish your posture and broad direction of travel

One of the key responsibilities of a plan-ahead team is to determine the best response to an evolving situation based on the company's circumstances after the immediate crisis passes. While some companies may need to enter a long and difficult period of slow rebuilding, others will find near-term opportunities in big, strategic moves and innovations. The point isn't to develop detailed plans but rather to figure out your broad direction of travel—the big thematic idea around which you can form a strategic response. In a world full of uncertainty, you have to stand for a goal that will matter above all else. This big idea will bring coherence and determination to your evolving tactical response.

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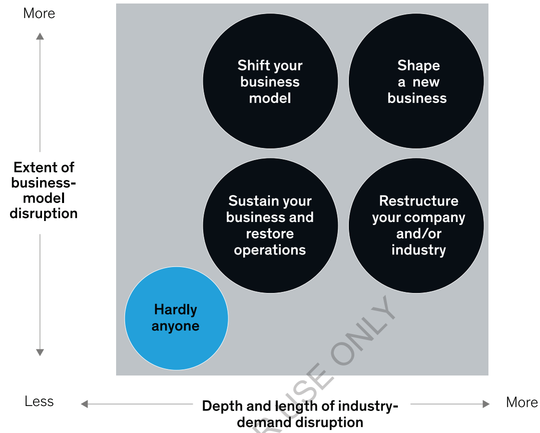
In a disruption of the magnitude of the COVID-19 pandemic, a point of view on what has changed permanently is essential. It helps you avoid a hedging approach to the future in which you spread your resources like peanut butter across a range of opportunities without really taking a clear stance. Many successful companies have confronted these moments when they have had to commit to a vision of the future. In the 1980s, for example, Bill Gates didn't know which operating system would emerge as dominant, but he did know that, in all scenarios, personal computing would be the next big thing and computers would run on graphical user interfaces. He also knew that it was likely that the winners would take all. This led Microsoft to adopt a clear posture of trying to win the race for the PC operating system.

Coming out of developing your scenarios, you will have thought through how the dual shocks to your demand and your business model might play out. You might see a few possible versions of the next normal. While you are staying open to multiple possibilities, it might help to consider in which direction you need to establish your broad direction of travel (Exhibit 4).

Exhibit 4

Choose a strategic direction based on shifting disruption and options.

Broad direction of travel toward next normal



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With the COVID-19 crisis, hardly anyone will be in the bottom corner of the map shown in Exhibit 4, as the challenge is so ubiquitous. Some businesses will have a dominant imperative to *sustain*, as they will return in similar form but at different recovery speeds (for example, with essential subscription services, such as core consumer telephony and electricity retailing). Others will primarily orient to *restructure* to match a much leaner demand environment (for example, the cases of airlines and cruise ships). Other companies will have less severe demand shocks but will face radically different customer behaviors. They will have to *shift* their business models. Yet other companies and industries will find themselves in a completely different territory on both the axes shown in Exhibit 4, and they will have to *shape* entirely new businesses.

One notable feature of the COVID-19 crisis is a radical shift to distance business models. In a matter of days, people massively stepped up their use of technologies that enable remote learning, working, services, and consumption. Will that adoption recede postcrisis, or will we move to a new status quo? As a result, should you now accelerate your investments in a digital business model? Do you need to scale back your capital-investment plans focused on increasing your physical footprint and instead secure bandwidth to host your virtualized business? Given the level of uncertainty, you can't put all your eggs in one basket or bet on hope. The critical output of this frame is to establish conviction on future themes before defining any initiatives.

4. Determine actions and strategic moves that are robust across scenarios

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In a world of extreme uncertainty, a rigid, deterministic plan won't be right for very long. But making everything flexible can be an expensive path to nowhere. Rather, you need to think about building a portfolio of strategic moves that will perform relatively well as a collective across all likely scenarios, even if every move isn't a winner on its own.

A tried-and-tested approach is to work through one scenario at a time, defining the optimal set of moves you would make if you knew for sure that the scenario would pan out. Start with your list of existing initiatives—those that were on the slate before the crisis—then scan widely for opportunities and threats before deciding which initiatives to cull and which new ones to add. Then check for the big commonalities and differences among the scenario-specific strategies.

Some initiatives will make sense in all scenarios; those are no-regret moves with which you can proceed with confidence. Others will pay off big in some scenarios but may hurt in others; those are big bets, and the key here is to gather as much information as possible before making a go/no-go decision. If possible, you should try to break them down into smaller parts, investing in phases to reduce the risk associated with a large, one-off investment under high uncertainty.

Other moves are about buying the right to act preferentially later–real options. Options are worth a lot more money when volatility is high, so now is a good time to create optionality where you can. Companies in oil and gas exploration and movie studios, for instance, do this as part of everyday business, but real options can be everywhere in your business when you look for them. Finally, there are moves you could consider that mostly protect you from the downside. You can't avoid risk, but these safety nets help you make sure your risk exposure is smart and offers a good upside, with a protected downside.

The outcome of this frame needs to be a portfolio of several dozen strategic moves, ranging from no-regret moves to point-of-no-return moves that can irreversibly alter the future of a company. Ensure that the moves on each topic are thoroughly syndicated with major decision makers and stakeholders, inside and outside the organization. Ideally, you do this through tabletop exercises or workshops that force decision makers to engage on the very real possibility of pulling the trigger on moves that may appear unlikely at the moment.

5. Set trigger points that drive your organization to act at the right time

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In an environment as uncertain as the one with COVID-19, the passing of time will make a rigid plan rapidly outdated. The world is going to evolve fast. You don't yet know which scenario we are approaching. But you need to try to be the best learner (the first to know where the world is going) and the best adapter (the one making the best decisions and iterating the plan). It isn't about starting with the perfect plan: it's about being on the fastest improvement trajectory. In a fast-moving world, that will matter most, as even a great plan will become obsolete.

As discussed, the majority of the moves we describe will only make sense to make under a certain set of circumstances. However, many companies that face disruption only start to debate those moves once the circumstances clearly present themselves. This, together with high emotive and potentially consensus-driven decision making, is the root of the delayed or lack of action that befalls many management teams.

To avoid such an issue, it is extremely important to ensure that every move comes with a clearly articulated set of trigger points for when the organization should begin detailed planning and execution for that move. That point, or the trip wire, is the time at which the probability of that move being necessary has increased and it makes sense to invest a team in ensuring that the organization can act quickly. Making a decision on when trigger points have been reached—and when detailed planning and execution should commence—is a key role of the CEO, in conjunction with the plan-ahead team.

Stay ahead in the race against time

In times like these, being on the fastest trajectory matters more than having a great plan because plans quickly become outdated. Staying ahead in the race against time means making the following moves:

- Convert your actions and portfolio of moves into a *strategic crisis-action plan*, ideally syndicated and "decision primed" through a tabletop simulation.
- Roll back all initiatives in the plan to *near-term goals and decision points*. That will give you visibility and allow you to direct the action in real time.
- Create a set of indicators aggregated into a *control tower* that serves as an early-warning system to signal which scenario is emerging. Your job isn't to know the unknowable but to be the first to know and the fastest to act. This requires a sentinel that can see the signals first, combined with a plan that is flexible and ready to act on the trigger points.

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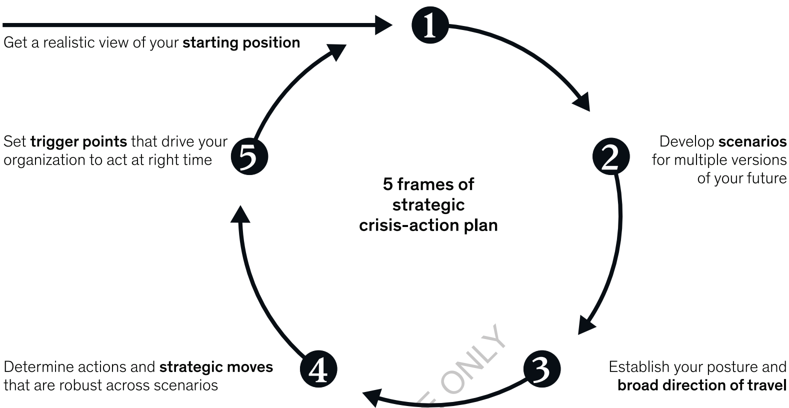
Additionally, a reality of many of the companies we are speaking to is that their current budgets are dead in the water and they have no credible way of setting new budgets. This will force a much more agile, real-time approach to resource allocation, perhaps one of working in quarterly sprints. Funding will be stage gated and released, and there will also need to be trigger points for disinvestment or further cutbacks. You might have to demolish the long-held divide between strategy and finance functions swiftly.

That all might feel like a lot, and you most likely don't have the bandwidth to manage it on your own. That's why, even as your crisis team is busy keeping the business afloat, you should have your modular, scalable plan-ahead team at your side to support your iterative planning cycle throughout the crisis—no matter how overwhelming the issues seem to become (Exhibit 5).

Exhibit 5

An agile plan-ahead team can offer quick responses to rapidly changing circumstances, using five frames.



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Under high levels of uncertainty, you need to operate at high speeds. You will need to cycle through the playbook regularly. Bias toward speed rather than perfection; and the sooner you start, the better. Accept that the first pass won't be 100 percent right but that you are going to get better answers after each iteration. Scenarios will be refined and refreshed, and more information will surface as time unfolds. Some things will drop out; others will be accelerated. Evolve your way to a more sophisticated answer.

When an escalating set of issues triggered by the next wave of the COVID-19 crisis hits you, your plan-ahead team will be what keeps your sights above the fray and what helps you win the race against time. *To get ahead of the next stage of the crisis, launch your plan-ahead team now.*

Safeguarding our lives and our livelihoods: The imperative of our time

We must solve for the virus and the economy. It starts with battling the virus.

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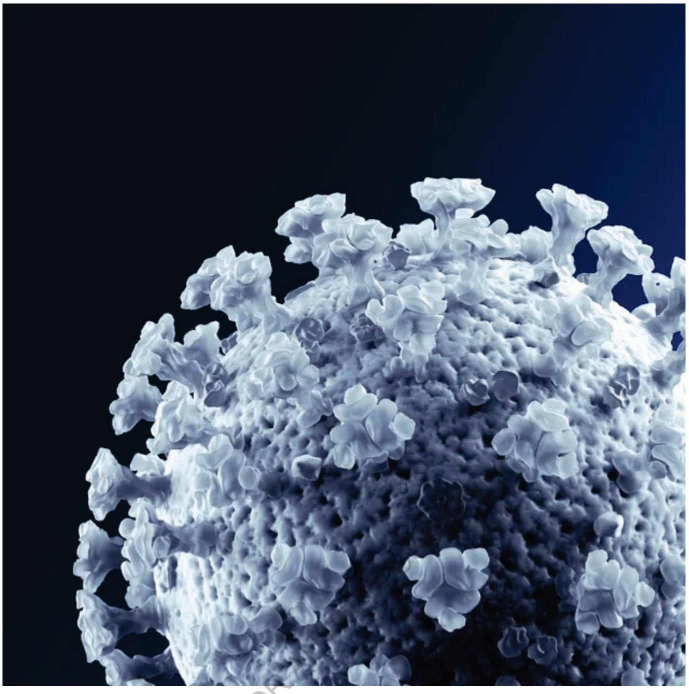
Everything has changed. Just a few weeks ago, all of us were living our usual busy lives. Now, things normally taken for granted—an evening with friends, the daily commute, a plane flight home—are no longer possible. Daily reports of increasing infections and deaths across the world raise our anxiety and, in cases of personal loss, plunge us into grief. There is uncertainty about tomorrow; about the health and safety of our families, friends, and loved ones; and about our ability to live the lives we love.



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Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

In addition to the immediate concern about the very real impact on human lives, there is fear about the severe economic downturn that may result from a prolonged battle with the novel coronavirus. Businesses are being shuttered and people are losing their jobs. We think and hope there is a different option from the ones posed in a recent *Wall Street Journal* editorial that suggests that we may soon face a dilemma, a terrible choice to either severely damage our livelihoods through extended lockdowns, or to sacrifice the lives of thousands, if not millions, to a fast-spreading virus. We disagree. Nobody wants to have to make this choice and we need to do everything possible to find solutions.

Why is this the imperative of our time? From multiple sources and our own analysis, the shock to our lives and livelihoods from the virus-suppression efforts could be the biggest in nearly a century. In Europe and in the United States, the required "lockdowns" of the population and other efforts to control the virus are likely to lead to the largest quarterly decline in economic activity since 1933. We have never in modern history suggested that people not work, that entire countries stay at home, and that we all keep a safe distance from one another. This is not about GDP or the economy: it is about our lives and livelihoods.

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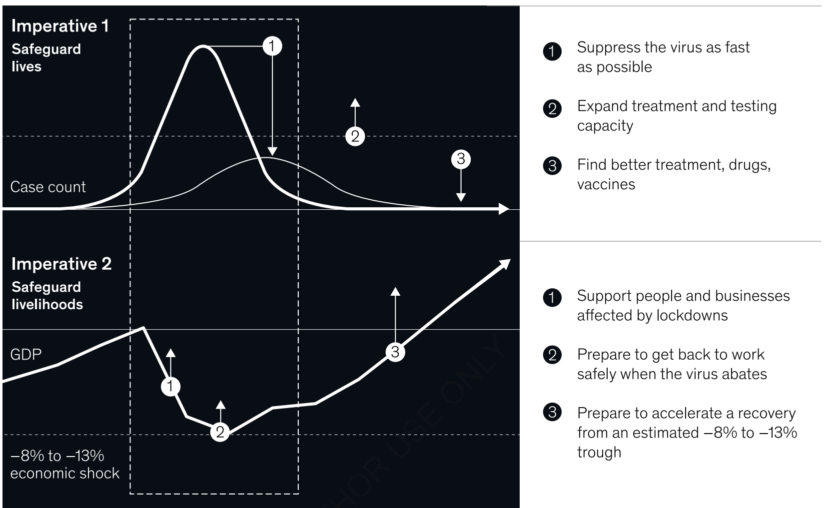
We see enormous energy invested in suppressing the virus, while many urge even faster and more rigorous measures. We also see enormous energy go into stabilizing the economy through public-policy responses. However, to avoid permanent damage to our livelihoods, we need to find ways to "timebox" this event: we must think about how to suppress the virus and shorten the duration of the economic shock (Exhibit 1). And we must do both now!

Exhibit 1

The imperative of our time



Source: McKinsey analysis in partnership with Oxford Economics

McKinsey & Company

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To solve for both the virus and the economy, we need to establish behaviors that stem the spread of the virus, and work towards a situation in which most people can return to work, to family duties, and to social lives.

To date, the only proven way of containing the virus, once community transmission is widespread, is by enforcing significant lockdowns; disciplined physical distancing; testing; and contact tracing. China, Japan, Singapore and South Korea have shown that these measures can stop the virus from spreading and enable economic activity to resume, at least to some extent. Everyone is closely following the developments in Italy and many other nations to find out whether the control measures there are sufficient to slow the growth of new infections and fatalities. Our common goal must be to implement the best possible response to stop this crisis.

At the same time, global and local leaders are also considering the economic impact of such measures. What will happen if many businesses stop operating or have to significantly reduce their activity? For how long can we do that? How deep an economic shock can we sustain without causing human suffering that our societies are unable or unwilling to bear?

In the following sections, we offer ways to think about these pressing issues. (Please also see "Beyond coronavirus: The path to the next normal," by our colleagues Kevin Sneader and Shubham Singhal, which tries to imagine what the future might look like.)

Dealing with the uncertainty related to COVID-19

- *The spread of COVID-19.* How many new infections will we have? Is the mortality rate falling? Will the spread of the virus show any seasonality? Will a new strain of the virus evolve?
- *The public-health response in each country, state, municipality.* Will there be lockdowns? Will it still be possible to go to work? Will factories be allowed to operate? Do we need to submit to an official quarantine center upon arrival, or can we self-quarantine?
- *The impact on the economy and our livelihoods.* Will companies suffer and go bankrupt? Can the supply of essential goods and services be maintained? Will we have a job? How long will this last?
- *The consequences for our lives.* Will we be able to avoid infection? Are our loved ones safe? Can we still train for the sporting event we have been preparing for? Can we earn university degrees, now that many schools are closed and exams canceled?

These and a million more questions are racing through our minds, adding stress to the already challenging reality of living in the time of the coronavirus.

Two things are reasonably certain: If we do not stop the virus, many people will die. If our attempts to stop the pandemic severely damage our economies, it is hard to envision how there will not be even more suffering ahead.

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The impact of lockdowns on consumption and economic activity

We are learning what happens during a lockdown of the kind implemented in China, Italy, and increasingly across Europe and the United States: economic activity drops more sharply than any of us have experienced. People do not shop, other than for essentials; people do not travel; people do not buy cars.

We estimate that 40 to 50 percent of discretionary consumer spending might not occur. In every recession, people will cut back on purchases that can easily be postponed (such as cars and appliances), and increase precautionary saving in anticipation of a worsening crisis. What makes the coronavirus pandemic different is that people will also eliminate spending for restaurants, travel, and other services that usually fall but do not drop to zero.

A 40 to 50 percent drop in discretionary spending translates to a roughly 10 percent reduction in GDP—without considering the second- and third-order effects. That's not only unprecedented in modern history, it has been historically almost unimaginable—until now.

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Already, we have some factual evidence for an economic shock on this scale, such as the COVID-19-related economic downturn in China, and early indications in US "high-frequency data" such as credit-card spending.

The longer a lockdown is in place, the worse the impact on our lives will get. To visualize what this means for people in lockdown areas, imagine cab drivers whose customers are not allowed to go onto the streets; professional chefs whose restaurants have been forced to close; and grounded flight attendants, their planes parked at the airports—for months. With 25 percent of US households living from paycheck to paycheck, and 40 percent of Americans unable to cover an unexpected expense of $400 without borrowing, the impact of extended lockdowns for many, many people will be nothing short of catastrophic.

The answer cannot be that we accept that the pandemic will overwhelm our healthcare system, and thousands, if not millions, will die. But can the answer be that we cause potentially even greater human suffering by permanently damaging our economy?

Bounding the uncertainty around this crisis

The worst and most typical reactions for humans when confronted with high uncertainty are to freeze, or to jump to a simple answer, such as “this problem will go away as quickly as it came, it is just like the annual flu.” COVID-19 is particularly challenging in this regard because the majority of those infected will feel only minor symptoms, or none at all. It is an invisible but pernicious enemy. We must try to bound the uncertainty with reason and think about solutions within a limited number of scenarios that could evolve.

Next we describe the impact of COVID-19 on the world’s economy along two dimensions which will primarily drive the outcomes of the crisis for all of us:

- The economic impact of the *Virus Spread*: the characteristics of the virus and its disease, such as transmission modes, rates, and mortality rates; *and Public-Health Response*, such as lockdowns, travel bans, physical distancing, comprehensive testing, contact tracing, health care provision capacity, the introduction of vaccines and better treatment methods
- The economic impact of the *Knock-on Effects* of the public-health responses, such as rising unemployment, shuttered businesses, corporate failures, credit defaults, falling asset prices, market volatility, and financial system vulnerabilities; *and Public-Policy Responses* to mitigate these knock-on effects, such as policies to prevent widespread bankruptcies, support incomes for furloughed workers, and protect the financial system and the viability of the most affected sectors.

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In terms of *Virus Spread and Public-Health Response*, we currently see three “archetypes” of interventions and outcomes:

1. A strong public-health response succeeds in controlling the spread in each country within two to three months, and physical distancing can be phased out quickly (as seen in China, Taiwan, Korea, and Singapore).
2. Public-health response succeeds at first, but physical distancing has to continue (regionally) for several additional months to prevent viral recurrence.

3. Public-health response fails to control the spread of the virus for an extended period of time, perhaps until vaccines are available, or herd immunity is achieved.

In terms of *Knock-on Effects and Public-Policy Response*, we anticipate three potential levels of effectiveness:

1. *Ineffective:* self-reinforcing recession dynamics kick in; widespread bankruptcies and credit defaults; potential banking crisis
2. *Partially effective:* policy responses offset economic damage to some degree; a banking crisis is avoided; but high unemployment and business closures mute the recovery
3. *Highly effective:* strong policy response prevents structural damage to the economy; a strong rebound after the virus is controlled returns the economy to pre-crisis levels and momentum, as justified by the economy's fundamentals.

If we combine these three archetypes of viral spread and three degrees of effectiveness of economic policy, we see nine scenarios for the next year or more (Exhibit 2).

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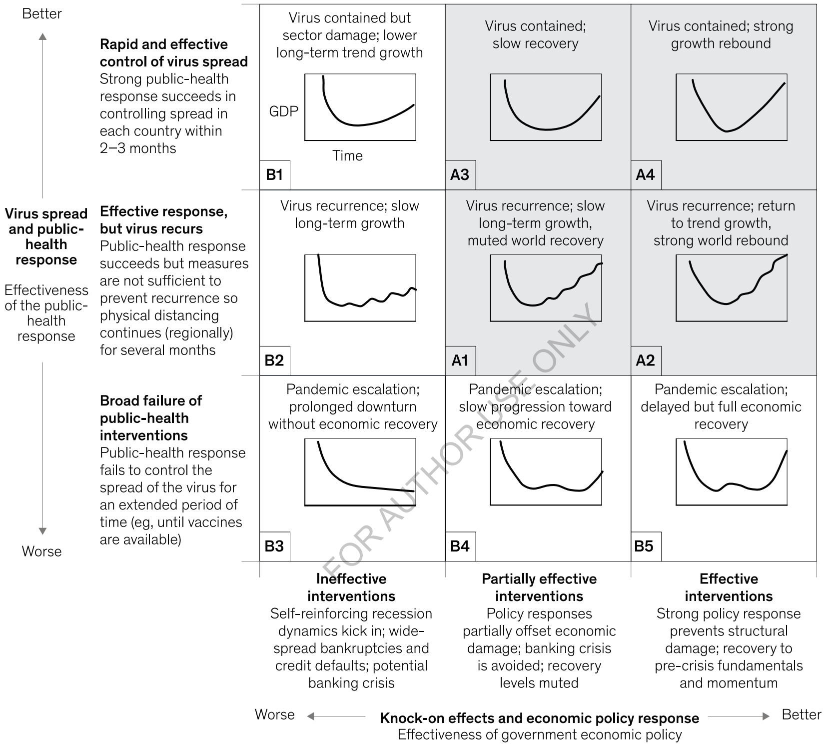
Exhibit 2

Scenarios for the economic impact of the COVID-19 crisis

GDP impact of COVID-19 spread, public-health response, and economic policies



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We believe that many currently expect one of the shaded scenarios, A1–A4, to materialize. In each of these, the COVID-19 spread is eventually controlled, and catastrophic structural economic damage is avoided. These scenarios describe a global average, while scenarios will inevitably vary by country and region. But all four of these scenarios lead to V- or U-shaped recoveries.

Other, more extreme scenarios can also be conceived, and some of them are already being discussed (B1–B5). One cannot exclude the possibility of a "black swan of black swans," with structural damage to the economy, caused by a year-long spread of the virus until a vaccine is widely available, combined with lack of policy response to prevent widescale bankruptcies, unemployment, and a financial crisis. This would result in a prolonged L- or W-shaped economic trajectory. With the number of new cases expanding exponentially in many countries in Europe and in the United States, we cannot exclude these more extreme scenarios for now.

However, as we still have little information about the probability of more extreme scenarios, we focus on the four that are more tangible for now. Within the next week, we will add breadth and depth to this view, working closely with Oxford Economics to develop several macroeconomic scenarios for each country, and for the world.

Making it real: How this could unfold

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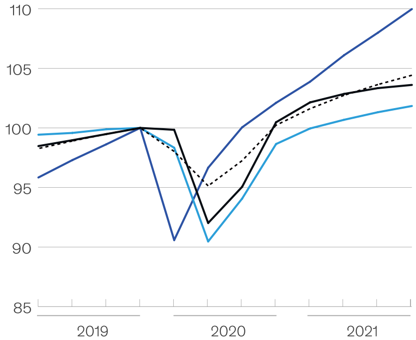
With a little bit of luck, China will undergo a sharp but brief slowdown and relatively quickly rebound to pre-crisis levels of activity. While GDP is expected to drop sharply in Q2 2020, some signs of normal life are returning in Beijing, Shanghai, and most major cities outside Hubei. In this scenario, China's annual GDP growth for 2020 would end up roughly flat, wiping out the growth of 6 percent we expected just three months ago. Nevertheless, by 2021, China's economy would be on the way to regaining its pre-crisis trajectory, if not adversely affected by developments in the rest of the world.

In this scenario, the virus in Europe and the United States would be controlled effectively with between two to three months of economic shutdown. Monetary and fiscal policy would mitigate some of the economic damage with some delays in transmission, so that a strong rebound could begin after the virus was contained at the end of Q2 2020. This would place Europe and the United States in scenario A3 (Exhibit 3).

Exhibit 3

Scenario A3: Virus contained

Real GDP growth: COVID-19 crisis, index (2019 Q4 = 100), local currency units



	Real GDP drop 2019 Q4 to 2020 Q2, % change	2020 GDP growth, % change	Return to pre-crisis level
China[1]	–3.3	–0.4	2020 Q3
US	–8.0	–2.4	2020 Q4
World	–4.9	–1.5	2020 Q4
Eurozone	–9.5	–4.4	2021 Q1

[1]Seasonally adjusted.
Source: McKinsey analysis in partnership with Oxford Economics

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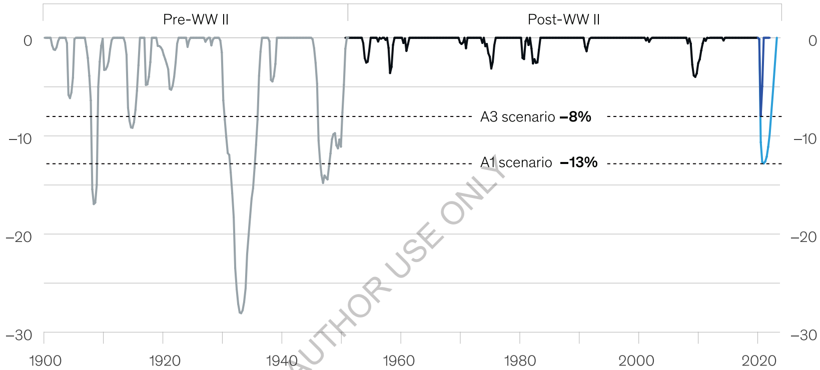
Even in this optimistic scenario, however, all countries would experience sharp GDP declines in Q2, most of which would be unprecedented. Consumer spending in most advanced economies accounts for roughly two-thirds of the economy, and about half of that is consumer discretionary spending. Real-time data suggests that spending on durable goods including automobiles in areas affected by shutdowns could fall as much as 50 to 70 percent; spending on airline flights and transportation could fall by about 70 percent; and spending on services such as restaurants could decline in affected cities by 50 to 90 percent. Overall, as mentioned earlier, consumer discretionary spending could abruptly fall by as much as 50 percent in areas subject to shutdowns.

While increased government spending would help offset some of the economic impact, it is unlikely to offset rapidly enough nor in full. We estimate that the US could see a decline in GDP at an annualized pace of 25 to 30 percent in Q2 2020; major economies in the eurozone are expected to turn in similar numbers when all is said and done. To put this in perspective, the largest quarterly decline in GDP in the 2008–09 financial crisis occurred at an annualized pace of 8.4 percent in Q4 2008. The pace of decline would far outstrip any recession since the Second World War (Exhibit 4).

Exhibit 4

COVID-19 US impact could exceed anything since the end of WWII

US real GDP, %, total drawdown from previous peak



Source: Historical Statistics of the United States Vol 3, Bureau of Economic Analysis; McKinsey analysis, in partnership with Oxford Economics

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A darker picture of the future

Of course, it is entirely possible that countries are not very effective in controlling the virus, or in mitigating the economic damage that results from efforts to control the virus spread. In this case, economic outcomes in 2020 and beyond would be even more severe.

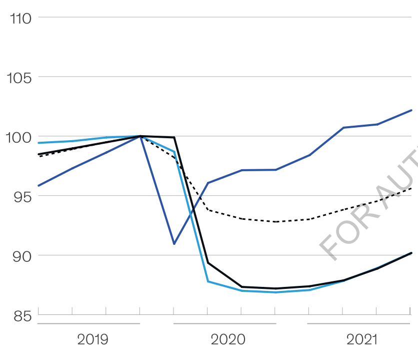
In this more pessimistic scenario, China would recover more slowly and would perhaps need to clamp down on regional recurrences of the virus. It would also be hurt by falling exports to the rest of the world. Its economy could face a potentially unprecedented contraction.

The United States and Europe could also face more dire outcomes in this scenario. They could fail to contain the virus within one quarter and be forced to implement some form of physical distancing and quarantines throughout the summer. This could end up producing a decline in GDP at an annualized pace of 35 to 40 percent in Q2, with major economies in Europe registering similar performance. Economic policy would fail to prevent a huge spike in unemployment and business closures, creating a far slower recovery even after the virus is contained. In this darker scenario, it could take more than two years before GDP recovers to its pre-virus level, placing both Europe and the United States in scenario A1 (Exhibit 5).

Exhibit 5

Scenario A1: Muted recovery

Real GDP growth: COVID-19 crisis, index (2019 Q4 = 100), local currency units



	Real GDP drop 2019 Q4 to 2020 Q2, % change	2020 GDP growth, % change	Return to pre-crisis level
China[1]	–3.9	–2.7	2021 Q2
US	–10.6	–8.4	2023 Q1
World	–6.2	–4.7	2022 Q3
Eurozone	–12.2	–9.7	2023 Q3

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[1]Seasonally adjusted.
Source: McKinsey analysis in partnership with Oxford Economics

The economic impact in these scenarios would be unprecedented for most people living today in advanced economies. Developing countries that have faced currency crises have some experience in events of this order of magnitude.

We are not writing to predict that this will happen but rather issuing a call to action: to take the measures needed to stop the spread of this virus <u>and</u> the damage to the economy as quickly as humanly possible. As we write this, countries in Europe and the United States have not yet taken the strong public-policy responses needed to effectively contain the virus. If we do not act to contain the virus quickly, then the scale of economic destruction that comes with extended lockdowns would become more likely, with severe consequences for our livelihoods.

Safeguarding our lives and our livelihoods

To solve the conundrum of how to save lives without destroying our livelihoods, we must find ways to make lockdowns effective, such that they break the trajectory of the virus in as short a time as possible. The effectiveness of lockdowns will be measured in their ability to control the spread of COVID-19.

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East Asian nations have shown this can be done through enforcing stringent lockdowns, surveillance, and monitoring of people's movements. As we write this, similar actions in most of Europe and the United States have so far been narrower, less vigorous, and not as effective. To be sure, these steps are challenging to enact in the West. But to break the momentum of the virus, we must act decisively.

The world's answer to breaking the conundrum will need to be robust, no matter whether we fully control the spread of the virus and prevent recurrence (ahead of vaccines or treatment innovations), or whether we cannot fully contain the virus and need to rely on continuing interventions for some time. In both cases we must find ways to protect lives and livelihoods.

We propose to move much faster in establishing comprehensive and clear *Behavioral Protocols* to allow authorities to safely release some parts of the blanket lockdown measures that choke our livelihoods today. These can only work if we also find *Acceptable Enforcement Mechanisms* for these protocols so that we do not run the risk of placing socially unacceptable demands on people.

Behavioral Protocols

These protocols are guidelines on how to operate businesses and provide government services under pandemic conditions. Some of these protocols are already in use. Could they be more widely adopted?

- Courageous healthcare professionals work in hospitals where the virus is rampant; they have strict rules regarding all aspects of their tasks, movements, and behaviors to keep them and their patients safe. Could your supermarket operate safely with these kinds of rules in place?
- In high-tech factories in China today, every person must have passed a COVID-19 test. Everybody. How would you feel about entering a plane today, if you knew that every passenger, crew member, and maintenance worker in contact with the plane had tested negative for the virus?
- Some restaurants have already shifted entirely to home delivery, changing their business model and protocols to adapt to the virus. Could you operate your own service business safely by adopting new protocols?

These protocols cannot be static. Today, lockdowns are often implemented uniformly for everybody, everywhere, regardless of specific infection risks. Imagine a world in which, based on a deep understanding of infectious risks, tailored sets of protocols with different levels of rigor could be implemented for every city, every quarter, and suburban neighborhood.

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Such dynamic protocols are technically possible. Modern technologies and data analytics can help track and predict infection threat levels to vulnerable population segments and areas; protocols and public-health interventions can be dynamically adjusted to provide protection when and where needed.

With such protocols, lockdown measures could be eased faster, for more people, in more places, while still maintaining the effectiveness of public-health interventions to control the virus. Much greater availability of personal protective equipment and test kits is also essential, of course.

Acceptable Enforcement Mechanisms

This is the harder part. How do we get everybody to accept the consequences of creating and implementing such behavioral protocols? The areas of sensitivity are many, including our personal freedoms, right to privacy, and fairness in access to services. There are no uniform answers to these issues. The level of sensitivity in each of these areas differs by country, and there also are huge differences in what is socially acceptable. In each country, people will have to work together to find ways to enforce behavioral protocols that fit their specific situation and circumstances. But make no mistake, the starting point will not be pre-COVID-19 social and societal norms—it will be the blanket lockdowns now in place across many countries.

In Hong Kong, the government has extended COVID-19 testing to all arriving passengers. It will allow asymptomatic travelers with the disease to self-quarantine at home. But because of the high risk of further transmission, Hong Kong requires these people to wear electronic wristbands to "geo-fence" them in their home. Compliance is enforced with the threat of long prison terms for violations.

We will need to develop and enforce protocols that allow us, as quickly as possible, to release some of the most stringent measures in appropriate places. And for that to happen, each government will need to find effective, yet socially acceptable ways of enforcing these measures and new protocols.

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We need a plan to achieve both imperatives—Now!

We will keep updating our scenarios, and we hope that in coming weeks we will have a better sense for which scenario the world is likely to follow. However, a few things are already clear:

- This could be the most abrupt shock to the global economy in modern history.
- There is a real risk for our lives and our livelihoods to suffer permanent and possibly irreversible damage from this crisis.
- While we must take actions to control the spread of the virus and save lives vigorously, we must also take action to protect our livelihoods.
- Behavioral protocols and dynamic interventions could help us release lockdowns earlier, get most people back to work, and get everybody's lives back on track.

As Angela Merkel said last week in an appeal to Germany, and others have echoed, our ability to come through this crisis will primarily depend on the behavior of each of us. The initial and immediate lockdowns are necessary to break the spread of the virus and save lives. We believe that with the right protocols in place, and people following these protocols, the lockdown constraints can be gradually released sooner rather than later.

The question is: Can the world work fast enough on these protocols, and can we get societal acceptance to enforce them? If so, we should be able to control the virus, soften the inevitable economic crisis to sustainable levels, and safeguard our lives and livelihoods.

That is the imperative of our time.

1. The situation is evolving rapidly. We will update all of our estimates in this article as needed.

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Private equity and the new reality of coronavirus

Sponsors and their portfolio companies need to adjust quickly to the COVID-19 outbreak. Here's the new playbook.

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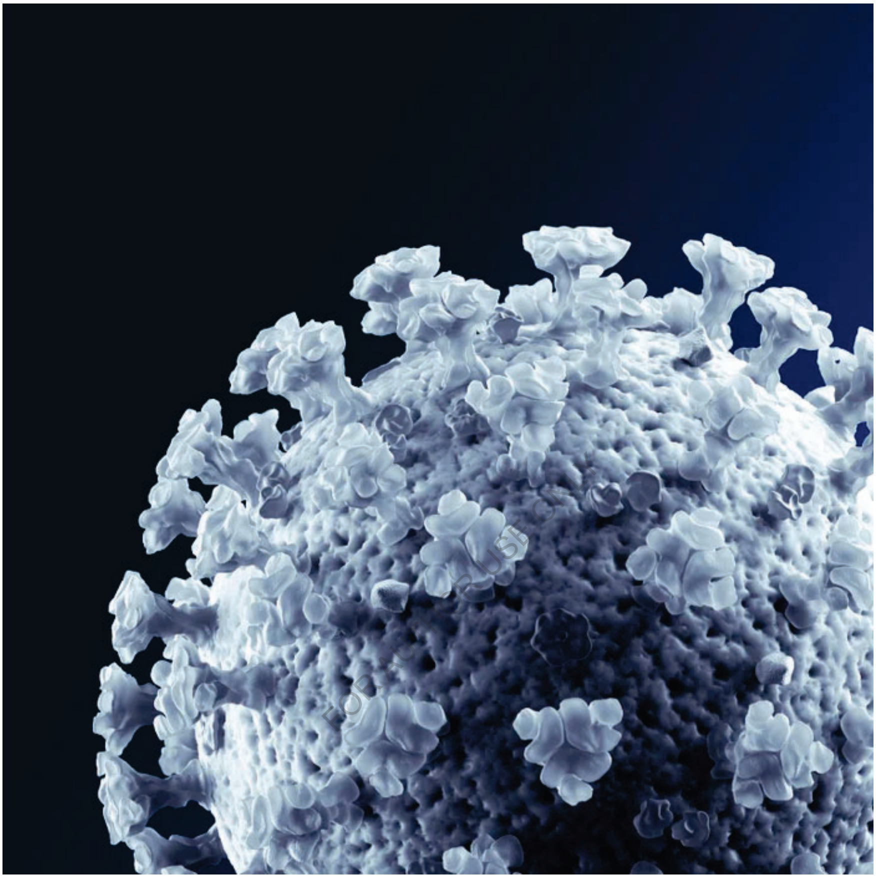
COVID-19 is an enormous global humanitarian challenge. Millions of health professionals are battling the disease, caused by the coronavirus (SARS-CoV-2), and putting their own lives at risk. Governments and industries around the world are working together to understand and address the challenge, support victims and their families and communities, and search for treatments and a vaccine.



Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

The economic damage is becoming palpable. Every business, large and small, is coming to grips with the unfolding crisis (see McKinsey's global perspective on the implications for business). Private equity (PE) firms and their portfolio companies come into the crisis riding a decade-long wave of growing transaction volumes, valuations, and fundraising. That position of strength may prove a bulwark in the months ahead, especially for firms that have exercised prudence recently. But there are also fault lines in private markets: deal leverage recently reached a new high, and multiples paid in recent months reached a multiyear high.

Every industry needs to respond to the crisis—including PE. This article provides an outline of the emerging playbooks for both PE firms and their portfolio companies.

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Firm actions and priorities

For many experienced investors, a crisis is not uncharted territory. But the COVID-19 outbreak is fundamentally unique in its disruption of core working processes. Every sponsor needs to make five kinds of adjustments; some leading firms are already taking several of these steps.

Take care of employees

PE firms need to make sure that colleagues can prioritize their own and their families' health, energy, and stress levels, in line with guidelines from the relevant public-health organizations. Many firms are already investing heavily in the blocking-and-tackling needed to expand remote technology and back-office infrastructure (for example, by adding VPN access and extending help-desk hours). We have seen others planning to enhance virtual training (to come back from the crisis with a better-skilled team) and adding benefits such as telehealth services.

Many of the tools, even if they have been in use for a while, will be unfamiliar to colleagues. Firms need to provide appropriate training for all employees to get comfortable with this new operating model and to make sure they can do their jobs remotely.

Firm leaders need to role-model the emerging best practices and ensure their presence (through videoconferences or more frequent informal calls) to maintain both organizational connectedness and ongoing critical activities.

Ensure continuity of critical processes

PE firms need to keep crucial machinery running; they should continue to assess the investment pipeline, conduct investment-committee discussions, and manage all other essential processes through videoconferencing. Similarly, they can continue regularly interacting with portfolio-company leaders through videoconferencing and shift to conducting board and review meetings virtually.

Firms might consider increasing the frequency of interactions, thus reducing lead time on agreed actions. This would allow maximum flexibility and agility for responding to fast-emerging challenges and making quick, risk-mitigating decisions (such as halting an exit).

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Prioritize the portfolio

Sponsors are looking for clarity on the areas in which portfolio companies urgently need support and, when appropriate, course correction. Of course, the industry sector in which a portfolio company operates will be a strong determinant of how it will be affected. Some portfolio companies in healthcare or retail are part of the frontline response or provide critical products and services; ensuring that their supply chains are operating at peak performance is essential. Others (such as travel and hospitality companies) are experiencing immediate and unthinkable drops in consumer demand. Since most sponsors have limited resources to share with their owned companies (such as liquidity, operating executives to provide leadership and execution support, and critical relationships with other organizations), they will need to decide where best to allocate time and resources.

A handy way to prioritize is to consider six indicators of disproportionate risk or impact (Exhibit 1). These aren't exhaustive, and they may change as the crisis unfolds. But these are the six that sponsors are currently using successfully. These six dimensions can quickly identify portfolio companies that require more support. For example, some sponsors whose portfolio companies are dependent on international supply chains have rapidly identified a need to develop regional alternatives for critical parts to maintain operations.

Exhibit 1

Six indicators can prioritize support to portfolio companies.

Checklist of questions

Risks to employees' and customers' health, safety, and productivity

- ☐ Does the portfolio company have policies and procedures to minimize risk of infection? Is it in compliance?
- ☐ Are there confirmed or suspected COVID-19 cases among employees?
- ☐ Are there barriers to successful remote working? Potential to help customers or others?

Financial/ liquidity risk or customers seeking financing

- ☐ Is leverage (eg, near-term debt repayments, high-interest payments, tight covenants) high?
- ☐ Are counter-parties exerting pressure to extend accounts-receivable terms? Do customers have liquidity constraints?
- ☐ Have there recently been any abnormally high expenses?

Geographic considerations

- ☐ Are operations, customers, or suppliers based in today's riskiest areas? What about tomorrow's?

Short-term revenue and delivery risks

- ☐ Is revenue dependent on travel, foot traffic, events, and so on?
- ☐ Is revenue affected by social distancing or disease prevalence?
- ☐ Is the supply chain (in particular, raw materials) susceptible to disruption?

Longer-term risks and opportunities

- ☐ Will shifts in government policy present risks? Opportunities?
- ☐ Will changes in patterns of global trade, travel, and logistics offer opportunities? Risks?
- ☐ Will customer preferences change permanently?

Less tangible risks and opportunities

- ☐ Is the company or its business model susceptible to reputational or cultural risk?
- ☐ Does the company have sufficient redundancy in its critical functions? Can it provide capacity to others?

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While some portfolio companies require support to address risks, others may be experiencing countercyclical support. Some might be able to make incredible differences to society—say, through supply-chain improvements. And some may have opportunities to restructure their balance sheets in fluctuating financial markets. For example, some manufacturing companies have found ways to shift production toward critical necessities or medical products that are in short supply, while some retailers are finding innovative ways to meet unprecedented consumer demand in an orderly manner. For example, a field-services company is retraining its maintenance workers to handle break/fix calls to keep critical retailing infrastructure up and running.

Finally, sponsors can use this prioritization exercise to bolster the confidence of their management teams, reassuring them that support will be provided where necessary.

Assess investment strategy, asset allocation, and financing

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The current financial-market displacement and equity valuations have undoubtedly created potential investments for sponsors with dry powder. It is difficult to determine which of these will be actionable, not least because obtaining debt finance for buyouts could be challenging. In some cases, sponsors may move ahead, even with limited information. But many sponsors are preparing for a broader range of investments. These can include debt or other rescue financing for companies suffering the brunt of the crisis and other situations that are outside the norm for control-equity investors. Either strategy will require an agile investment process in order to move quickly when potential investments arise.

One final note on investment strategy: COVID-19 has proved again that black swans exist. Investors would do well to consider a wider range of disruptive scenarios when considering new investments.

Support your limited partners and consider your stakeholders

Limited partners crave insights from their investment managers during crises. Some sponsors are supplementing market updates with communication on additional topics relevant to their board and public stakeholders, reinforcing the value and credibility of in-place risk-management and preparedness practices.

Now is also the time to consider investment and portfolio actions in the context of the unfolding humanitarian crisis. At a time when public expectations of business's role in society are shifting rapidly, firms should consider doubling down on their commitments to environmental, social, and governance (ESG)-related investing and evaluate their actions through a lens of social citizenship, taking a long view as they plot their course.

Portfolio-company actions and priorities

Many portfolio companies are engaging in some or all of five priorities: workforce protection and productivity, managing financial and liquidity risk, stabilizing operations, engaging with customers, and preparing for recovery and growth. Workforce protection is a must for every company; the others will vary by sector (medical companies and hospitals may focus their resources on supply chain and operations; travel and leisure companies, as well as oil and gas companies, on liquidity risk; tech companies on supply chain; and critical-goods retailers on customers and growth).

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These five priorities are typically coordinated by a central team (Exhibit 2).

Exhibit 2

A coronavirus playbook is emerging for the portfolio company.

Portfolio-company COVID-19 response playbook[1]

< 01 — 06 Next >

A Establish central executive/team to coordinate

Issue map and management	Portfolio of actions	Leadership and alignment	Risk assessment	Local guidelines
Provide single source of truth for issue resolution; tap surge resources where needed	Develop trigger-based portfolio of actions across all work streams	Align leaders and sponsors on scenarios; conduct "table-top" exercises; delegate authority for agile decision making	Identify and review business-continuity risks and single points of failure; develop backup plans for critical functions	Understand local government guidelines; ensure compliance as situation evolves

[1]Based on discussions with risk/health professionals and >200 companies across sectors and on insights from public and private corporations that successfully navigated the 2008–09 recession. Not exhaustive or applicable for every portfolio company; requires tailoring for specific circumstances.

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In the following sections, we outline how portfolio companies are approaching some of these priorities.

Set up a 'cash war room' to manage financial and liquidity risk

Companies in sectors with especially tight liquidity or hugely reduced customer demand may benefit from standing up a dedicated "cash war room." This team typically focuses on three tasks:

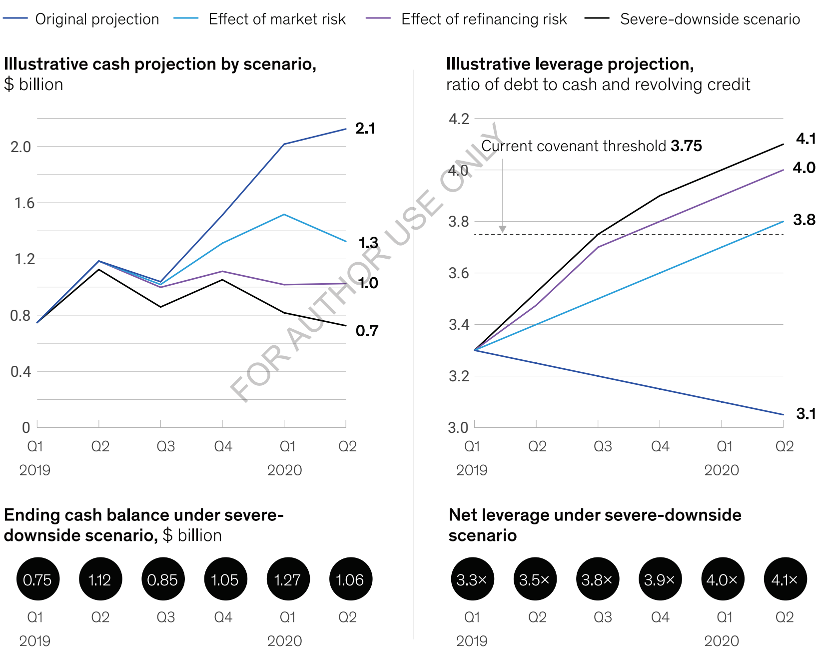
- *Rapid assessment of risk and potential cash savings.* This assessment, based on internal data and some publicly available sources, includes modeling cash flow to view balances under different scenarios (Exhibit 3).
- *Identification of cash levers.* This step includes a review of the balance sheet and proposing cash-generation levers for major asset and liability categories. Many portfolio companies are exploring ways to restructure or refinance while debt is available and

comparatively cheap. Simultaneously, a working-capital diagnostic can highlight potential short-term cash releases.

- *Collaboration with business leaders and outside experts.* This step allows companies to address urgent issues related to liquidity and crisis management.

Exhibit 3

Portfolio companies must stress-test their financials against a variety of scenarios.



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The war room can work entirely remotely yet in constant cooperation with the portfolio company's CFO, treasurer, and executive team. A dashboard of balance-sheet and cash-flow diagnostics, shared virtually over any confidential platform, can help maintain oversight and keep focus on the most important levers.

Stabilize operations

Portfolio companies should move to assess operational risk rapidly and, when necessary, stabilize their operations. This will vary widely by sector. For example, many manufacturing companies are moving swiftly to create visibility into their supply chains, even in advance of potential issues, given the rapid shifts in customer demand. This can include analyzing available inventory (some is often hidden along the chain), comparing it with demand forecasts (which can be refined through direct customer communications and external market insights), and identifying alternative supply sources for critical parts. For example, some portfolio companies may look to source parts from vendors in regions with slower demand to supply more active factories. Manufacturers might also consider how to optimize production, distribution, and logistics. New production methods, vendors, and routes may be necessary to avoid supply disruptions.

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For service-oriented businesses, capacity planning and demand management are important levers to consider to maintain effective operations. For example, for one communications-services business, maintaining call-center capacity was the most urgent operations concern.

It's also important to consider risks to critical counterparties, such as suppliers and customers. Portfolio companies may need to work closely with and even support counterparties, especially small- and medium-size businesses, to maintain stability. Several public companies have been noteworthy leaders in this regard.

Prepare for recovery and growth

After taking initial actions to recover and stabilize, portfolio companies can prepare for growth. In the last downturn, many portfolio companies had success by investing at greater rates than their competitors. In the United Kingdom, for example, one prominent study found that PE-backed portfolio companies cut investment by five to six percentage points fewer than their public-company peers did (in other words, they invested more), contributing to an average six to eight percentage points faster growth than their underlying markets.

Commercially, portfolio companies could consider tailoring product or service offerings to help customers weather the downturn. An equipment business, say, could offer leases to lower customers' up-front investment costs (these may be especially germane in businesses in which leasing economics enhance the lifetime value of customers, irrespective of the macroclimate). Businesses might also reconsider contract structures and identify ways to increase customer "stickiness." For example, a rental and services business is offering near-term commercial concessions in exchange for increasing the minimum duration of the contract and tightening break requirements.

Portfolio companies should also prepare for M&A. McKinsey research shows that public companies that outperformed coming out of the last recession divested underperforming businesses faster than others did and made acquisitions earlier in the recovery phase. Portfolio companies can utilize a similar strategy by planning and executing a through-cycle strategy for M&A and divestitures and by building a pipeline of potential strategic targets.

Finally, as strategy and goals evolve, companies will need to reset budgets and management incentives for the new environment.

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The scale of human catastrophe from COVID-19 is yet to be seen. The economic damage is likewise uncertain. Given the range of potential outcomes, sponsors are right to move quickly and decisively on new-playbook initiatives, internally and with their portfolio companies, to help weather this storm and position themselves for the eventual recovery.

Leadership in a crisis: Responding to the coronavirus outbreak and future challenges

The coronavirus pandemic has placed extraordinary demands on leaders in business and beyond. The humanitarian toll taken by COVID-19 creates fear among employees and other stakeholders. The massive scale of the outbreak and its sheer unpredictability make it challenging for executives to respond. Indeed, the outbreak has the hallmarks of a "landscape scale" crisis: an unexpected event or sequence of events of enormous scale and overwhelming speed, resulting in a high degree of uncertainty that gives rise to disorientation, a feeling of lost control, and strong emotional disturbance.

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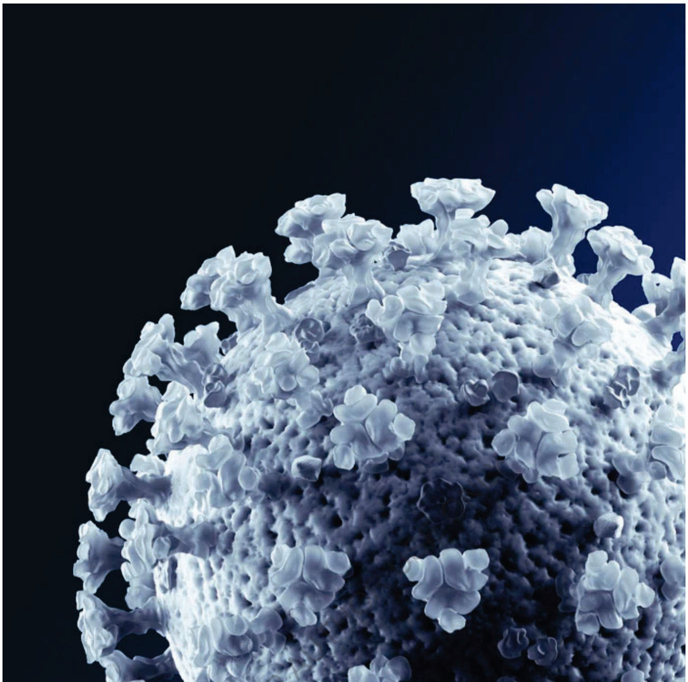

Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

Explore the collection

Recognizing that a company faces a crisis is the first thing leaders must do. It is a difficult step, especially during the onset of crises that do not arrive suddenly but grow out of familiar circumstances that mask their nature. Examples of such crises include the SARS outbreak of 2002–03 and now the coronavirus pandemic. Seeing a slow-developing crisis for what it might become requires leaders to overcome the normalcy bias, which can cause them to underestimate both the possibility of a crisis and the impact that it could have.

Once leaders recognize a crisis as such, they can begin to mount a response. But they cannot respond as they would in a routine emergency, by following plans that had been drawn up in advance. During a crisis, which is ruled by unfamiliarity and uncertainty, effective responses are largely improvised. They might span a wide range of actions: not just temporary moves (for example, instituting work-from-home policies) but also adjustments to ongoing business practices (such as the adoption of new tools to aid collaboration), which can be beneficial to maintain even after the crisis has passed.

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What leaders need during a crisis is not a predefined response plan but behaviors and mindsets that will prevent them from overreacting to yesterday's developments and help them look ahead. In this article, we explore five such behaviors and accompanying mindsets that can help leaders navigate the coronavirus pandemic and future crises.

What leaders need during a crisis is not a predefined response plan but behaviors and mindsets that will prevent them from overreacting to yesterday's developments and help them to look ahead.

Organizing to respond to crises: The network of teams

During a crisis, leaders must relinquish the belief that a top-down response will engender stability. In routine emergencies, the typical company can rely on its command-and-control structure to manage operations well by carrying out a scripted response. But in crises characterized by uncertainty, leaders face problems that are unfamiliar and poorly understood. A small group of executives at an organization's highest level cannot collect information or make decisions quickly enough to respond effectively. Leaders can better mobilize their organizations by setting clear priorities for the response and empowering others to discover and implement solutions that serve those priorities.

To promote rapid problem solving and execution under high-stress, chaotic conditions, leaders can organize a network of teams. Although the network of teams is a widely known construct, it is worth highlighting because relatively few companies have experience in implementing one. A network of teams consists of a highly adaptable assembly of groups, which are united by a common purpose and work together in much the same way that the individuals on a single team collaborate (exhibit).

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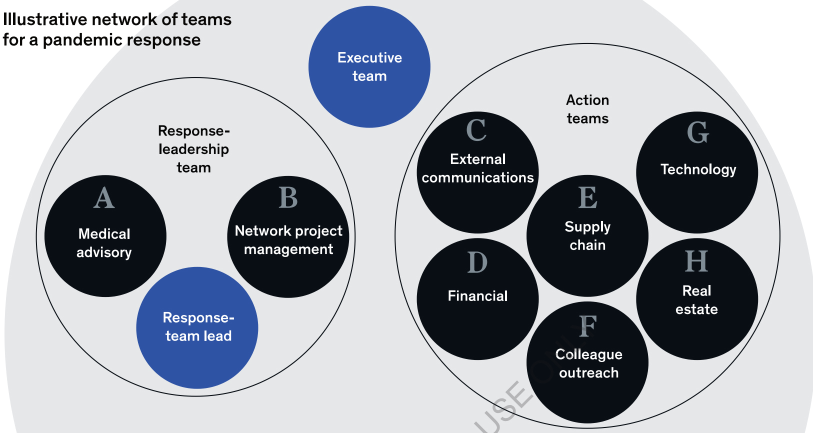
Exhibit

During a crisis, a network of teams carries out responses outside of normal operations, as well as adjustments to routine business activities.



A Medical advisory
- Overall guidelines and policies
- Guides for frontline managers

B Network project management
- Scenarios
- "Issue map"
- Operational cadence

C External communications
- Regulatory alignment (eg, dispensations)
- 3rd-party communications (eg, to partners)

D Financial
- Financial stress testing

E Supply chain
- Disruption and restart support (eg, loans)
- Exposure across tiers
- Inventory management

F Colleague outreach
- Communication across employee channels
- 2-way feedback (eg, ombudsperson, survey, email, call)

G Technology
- Work-from-home execution and infrastructure
- Support for special employee segments (eg, those who cannot work from home)

H Real estate
- Building management
- Factory management

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Some parts of the network pursue actions that take place outside regular business operations. Other parts identify the crisis's implications for routine business activities and make adjustments, such as helping employees adapt to new working norms. In many cases, the network of teams will include an integrated nerve center covering four domains: workforce protection, supply-chain stabilization, customer engagement, and financial stress testing (for more, see "Responding to coronavirus: The minimum viable nerve center").

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Regardless of their functional scope, effective networks of teams display several qualities. They are multidisciplinary: experience shows that crises present a degree of complexity that makes it necessary to engage experts from different fields. They are designed to act. Merely soliciting experts' ideas is not enough; experts must gather information, devise solutions, put them into practice, and refine them as they go. And they are adaptable, reorganizing, expanding, or contracting as teams learn more about the crisis and as conditions change.

Leaders should foster collaboration and transparency across the network of teams. One way they do this is by distributing authority and sharing information: in other words, demonstrating how the teams themselves should operate. In crisis situations, a leader's instinct might be to consolidate decision-making authority and control information, providing it on a strictly need-to-know basis. Doing the opposite will encourage teams to follow suit.

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Another crucial part of the leader's role, especially in the emotional, tense environment that characterizes a crisis, is promoting psychological safety so people can openly discuss ideas, questions, and concerns without fear of repercussions. This allows the network of teams to make sense of the situation, and how to handle it, through healthy debate.

Elevating leaders during a crisis: The value of 'deliberate calm' and 'bounded optimism'

Just as an organization's senior executives must be prepared to temporarily shift some responsibilities from their command-and-control hierarchy to a network of teams, they must also empower others to direct many aspects of the organization's crisis response. This involves granting them the authority to make and implement decisions without having to gain approval. One important function of senior executives is to quickly establish an architecture for decision making, so that accountability is clear and decisions are made by appropriate people at different levels.

Senior leaders must also make sure that they empower the right people to make crisis-response decisions across the network of teams. Since decision makers will probably make some mistakes, they must be able to learn quickly and make corrections without overreacting or paralyzing the organization. At the start of a crisis, senior leaders will have to appoint decision makers to direct the crisis response. But as the crisis evolves, new crisis-response leaders will naturally emerge in a network-of-teams construct, and those crisis-response leaders won't always be senior executives.

In routine emergencies, experience is perhaps the most valuable quality that leaders bring. But in novel, landscape-scale crises, character is of the utmost importance. Crisis-response leaders must be able to unify teams behind a single purpose and frame questions for them to investigate. The best will display several qualities. One is "deliberate calm," the ability to detach from a fraught situation and think clearly about how one will navigate it. Deliberate calm is most often found in well-grounded individuals who possess humility but not helplessness.

Another important quality is "bounded optimism," or confidence combined with realism. Early in a crisis, if leaders display excessive confidence in spite of obviously difficult conditions, they can lose credibility. It is more effective for leaders to project confidence that the organization will find a way through its tough situation but also show that they recognize the crisis's uncertainty and have begun to grapple with it by collecting more information. When the crisis has passed, then optimism will be more beneficial (and can be far less bounded).

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Making decisions amid uncertainty: Pause to assess and anticipate, then act

Waiting for a full set of facts to emerge before determining what to do is another common mistake that leaders make during crises. Because a crisis involves many unknowns and surprises, facts may not become clear within the necessary decision-making time frame. But leaders should not resort to using their intuition alone. Leaders can better cope with uncertainty and the feeling of *jamais vu* (déjà vu's opposite) by continually collecting information as the crisis unfolds and observing how well their responses work.

In practice, this means frequently pausing from crisis management, assessing the situation from multiple vantage points, anticipating what may happen next, and then acting. The pause-assess-anticipate-act cycle should be ongoing, for it helps leaders maintain a state of deliberate calm and avoid overreacting to new information as it comes in. While some moments during the crisis will call for immediate action, with no time to assess or anticipate, leaders will eventually find occasions to stop, reflect, and think ahead before making further moves.

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Two cognitive behaviors can aid leaders as they assess and anticipate. One, called updating, involves revising ideas based on new information teams collect and knowledge they develop. The second, doubting, helps leaders consider ongoing and potential actions critically and decide whether they need to be modified, adopted, or discarded. Updating and doubting help leaders mediate their dueling impulses to conceive solutions based on what they've done previously and to make up new solutions without drawing on past lessons. Instead, leaders bring their experiences to bear while accepting new insights as they emerge.

Once leaders decide what to do, they must act with resolve. Visible decisiveness not only builds the organization's confidence in leaders; it also motivates the network of teams to sustain its search for solutions to the challenges that the organization faces.

Demonstrating empathy: Deal with the human tragedy as a first priority

In a landscape-scale crisis, people's minds turn first to their own survival and other basic needs. Will I be sickened or hurt? Will my family? What happens then? Who will care for us? Leaders shouldn't assign communications or legal staff to address these questions. A crisis is when it is most important for leaders to uphold a vital aspect of their role: making a positive difference in people's lives.

Doing this requires leaders to acknowledge the personal and professional challenges that employees and their loved ones experience during a crisis. By mid-March 2020, COVID-19 had visited tragedy on countless people by claiming thousands of lives. More than 100,000 cases had been confirmed; many more were being projected. The pandemic had also triggered powerful second-order effects. Governments instituted travel bans and quarantine requirements, which are important for safeguarding public health but can also keep people from aiding relatives and friends or seeking comfort in community groups or places of worship. School closures in many jurisdictions put strain on working parents. Since each crisis will affect people in particular ways, leaders should pay careful attention to how people are struggling and take corresponding measures to support them.

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Lastly, it is vital that leaders not only demonstrate empathy but open themselves to empathy from others and remain attentive to their own well-being. As stress, fatigue, and uncertainty build up during a crisis, leaders might find that their abilities to process information, to remain levelheaded, and to exercise good judgment diminish. They will stand a better chance of countering functional declines if they encourage colleagues to express concern—and heed the warnings they are given. Investing time in their well-being will enable leaders to sustain their effectiveness over the weeks and months that a crisis can entail.

A crisis is when it is most important for leaders to uphold a vital aspect of their role: making a positive difference in people's lives. Doing this requires leaders to acknowledge the personal and professional challenges that employees and their loved ones experience during a crisis.

Communicating effectively: Maintain transparency and provide frequent updates

Crisis communications from leaders often hit the wrong notes. Time and again, we see leaders taking an overconfident, upbeat tone in the early stages of a crisis—and raising stakeholders' suspicions about what leaders know and how well they are handling the crisis. Authority figures are also prone to suspend announcements for long stretches while they wait for more facts to emerge and decisions to be made.

Neither approach is reassuring. As Amy Edmondson recently wrote, "Transparency is 'job one' for leaders in a crisis. Be clear what you know, what you don't know, and what you are doing to learn more." Thoughtful, frequent communication shows that leaders are following the situation and adjusting their responses as they learn more. This helps them reassure stakeholders that they are confronting the crisis. Leaders should take special care to see that each audience's concerns, questions, and interests are addressed. Having members of the crisis-response team speak firsthand about what they are doing can be particularly effective.

Communications shouldn't stop once the crisis has passed. Offering an optimistic, realistic outlook can have a powerful effect on employees and other stakeholders, inspiring them to support the company's recovery.

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The coronavirus pandemic is testing the leaders of companies and organizations in every sector around the world. Its consequences could last for longer and present greater difficulties than anyone anticipates. The prolonged uncertainty is all the more reason for leaders to embrace the practices described in this article. Those who do will help establish or reinforce behaviors and values that can support their organizations and communities during this crisis, however long it continues, and prepare them well for the next large-scale challenge.

Responding to coronavirus: The minimum viable nerve center

Amid the coronavirus pandemic, companies need a crisis response coordinated by top management that gives experts and managers the autonomy to implement creative, pragmatic solutions.

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The COVID-19 outbreak, caused by the coronavirus (SARS-CoV-2), is a deep humanitarian crisis that has also gravely affected the global economy. It is posing difficult—even unprecedented—challenges for business leaders. They are finding that the fast-moving situation is impervious to familiar remedial actions. By the time a response is mounted, the situation has changed, and the scale, speed, and impact of issues have unexpectedly intensified. Leaders everywhere have experienced some form of such disruption, though the magnitude of the present crisis is trying the lessons of human experience. The struggle to avoid ineffective, reactive approaches has consequently been all the more difficult.

Together with many leading companies, we have developed a better approach—a flexible structure for guiding the work—called the integrated nerve center. In an unfamiliar crisis, such as the COVID-19 outbreak, the nerve center concentrates crucial leadership skills and organizational capabilities and gives leaders the best chance of getting ahead of events rather than reacting to them.

The integrated nerve center is not a formulaic panacea. It is, rather, an efficient means of coordinating an organization's active response to a major crisis. It is endowed with enterprise-wide authority and enables leaders and experts to test approaches quickly, preserve and deepen the most effective solutions, and move on ahead of the changing environment. In hundreds of discussions conducted in the past few weeks, we have looked at the efforts of many companies now in the process of building COVID-19 nerve centers. We feel that the insights of this common experience are of wide and pressing importance.

In an unfamiliar crisis, the nerve center concentrates crucial leadership skills and organizational capabilities and gives leaders the best chance of getting ahead of events rather than reacting to them.

Discover, decide, design, deliver: Lessons from past crises

Common crisis-management failures arise according to the demands of the crisis, which can be understood in a fourfold manner. The first task of crisis management is to discover the current situation and form an accurate view of how it might evolve, deriving implications for the organization. From discovery, leaders must move on to decide on and design the necessary immediate and strategic actions, speedily establishing a pragmatic, flexible operating model. This model is ideally based on adequate stress testing of contextualized hypotheses and scenarios. It should also adhere to company and societal values. Finally, companies must deliver the solutions in a disciplined and efficient way, with enough built-in flexibility to accommodate late pivotal changes. In real crises, things go awry in each of these four categories:

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- *Inadequate discovery.* This is a failure to invest in an accurate, full determination of the depth, extent, and velocity of the crisis. Companies typically reflect an optimist bias in initial assessments, for example, and then in subsequent reassessments as well. Eventually the false hopes embodied in these inaccurate assessments become obviously insupportable, at which point, however, the crisis has worsened, and much valuable time and resources have been wasted.
- *Poor decision making.* Most poorly handled crises are defined by poor decision making. Bad decisions can result from many causes, such as acting on incomplete information (action bias). In our experience, reluctance to act until "all the facts are in" is a more common fallacy. The tendency for decision makers to analogize a new and unfamiliar situation to past experience (pattern recognition) is another serious pitfall. Groupthink and political pressure commonly lead decision makers astray. Reputations—and sometimes, compensatory incentives—are often at stake in large, expensive projects. Consequently, undue pressure can be exerted to push through an unforeseen problem whose resolution is disregarded or seen as insufficiently important to revise timelines and budgets. Relatively minor arising technical issues can, by this dynamic, become major problems and even lead to catastrophic failures.
- *Constrained solution design.* Many crises have one or more technical causes—the problem in itself—that must be addressed with tailored solutions. These solutions must be either newly invented or imported to a new domain. Responding organizations must not allow themselves to be constrained by poor or inadequate solution designs. The immediate technical solution for diagnosing COVID-19—the starting point for treatment solutions—is the effective test. A type of test known as polymerase-chain-reaction (PCR) testing, developed in China, Europe, and South Korea for the disease, has become the standard for effective testing and is now being produced at scale around the world. The test was first produced in Germany in January 2020, not long after COVID-19 appeared in China. Yet in the United States, the presence of an ineffective test delayed the adoption of the effective one for a crucial early period in the spread of the virus.

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- *Delivery failure.* For anyone with actual experience in handling a crisis, execution failure is a constant risk. Small contingent (random) failures can cause larger failures of the most well-thought-out plans. Faulty solutions can command undue loyalty from managers suffering from "operations addiction": instead of recognizing the root problem, responsible parties look for patches to preserve the flawed response. Chaotic conditions will necessarily cause disruptions, but the presence of accountable leaders with good judgment and the freedom to act and improvise as needed can minimize execution delays and failures.

Responding organizations must not allow themselves to be constrained by poor or inadequate solution designs.

The COVID-19-response structure

The nerve center is designed to resolve these four challenges under the heavy pressures of a major crisis. Certainly, companies and institutions are facing such a crisis with the COVID-19 outbreak, which has triggered travel restrictions, border closings, supply-chain disruptions, and work stoppages across the globe. The exhibit shows one example of a COVID-19-response structure.

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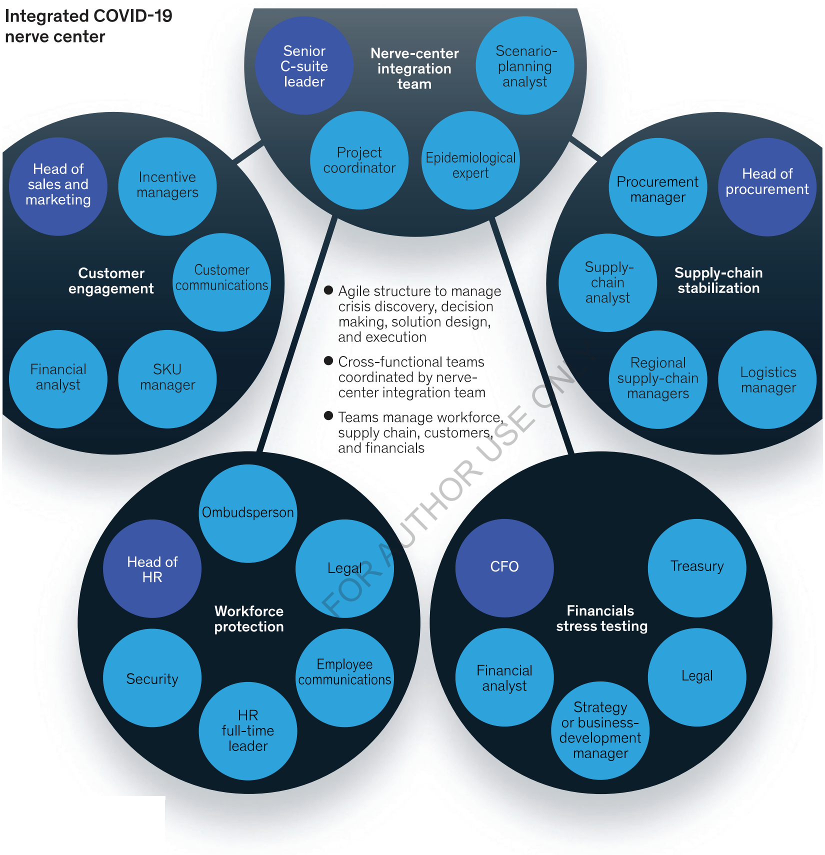
Exhibit

The integrated COVID-19 nerve center is based on five cross-functional teams.



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In this example, the nerve-center structure is organized around five teams, each responsible for a number of work streams. It is designed as an agile structure, coordinated through an integration team, but there is enough autonomy of action granted to constituent team leaders to work through bottlenecks and keep the response moving.

Nerve-center integration team

The nerve-center integration team is the coordinating head of the larger nerve-center structure. Its purpose is to set the overall tone of the COVID-19-response work, acting as a single source of truth, in real time, for all information and actions related to the outbreak and response. It must maintain close two-way communication with all teams. It is headed by a senior C-suite leader and includes an epidemiological expert, a project coordinator, and a scenario-planning analyst. The organization should empower this team to command whatever resources it deems are necessary to integrate closely and accomplish the work of the other four teams. The team's responsibilities can be summarized as follows:

- acting as the single source of truth for issue resolution
- ensuring that sufficient resources are deployed where and when needed
- coordinating the portfolio of remedial actions across the work streams of all teams, based on scenarios and triggers
- aligning team leaders on scenarios, with the help of roundtables and other exercises as needed

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Workforce protection

For most organizations, business as usual cannot be expected to reign during the COVID-19 outbreak. Organizations need to develop a plan to support employees that is consistent with conservative health and safety guidelines. The plan must be flexible enough to accommodate policy changes as needed through the outbreak. It is useful for companies to compare their efforts in this domain with the actions that other organizations of similar size are taking, to determine the right policies and levels of support for their people.

The most helpful workforce-protection models provide clear, simple language to local managers on how to deal with COVID-19 that is consistent with the guidelines provided by WHO, national health organizations (such as the US Centers for Disease Control and Prevention), and local health agencies. The model should provide managers with a degree of autonomy sufficient to allow them to deal with any quickly evolving situation. Free two-way communication is also important so that managers can monitor adherence to policies as they evolve and employees can safely express their reservations about personal safety, as well as any other concerns.

The recommended workforce-protection team includes the head of HR (team leader); the HR full-time leader; representatives from security, legal, and employee communications; and the ombudsperson. The workforce-protection team is charged with the following work streams:

- developing brief policy papers, issue-escalation criteria and call trees, and actions (including preventative actions), as needed
- managing multichannel communications, including confidential feedback and reporting channels
- aligning policies and incentives for third-party and real-estate contractors
- establishing or maintaining communications platforms to enable employees to work from home (necessary infrastructure includes a virtual private network, telephony, and broadband readiness), including, as appropriate, deployment of collaborative software tools to enable video and audio conferencing, screen sharing, "whiteboarding," polling, chat, and other interactive capabilities
- helping manage productivity, using such means as staggered work times; respecting social-distancing norms; and instituting health checks
- developing "issue maps" and clear ownership and deadlines for issue resolution
- engaging with local, state, and national political leaders and health officials

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Supply-chain stabilization

Companies need to define the extent and likely duration of their supply-chain (including tier-one, -two, and -three suppliers) exposure to areas that are experiencing community transmission and their inventory levels. Most companies are now primarily focused on immediate stabilization, given that, in China (where few new COVID-19 cases are being reported), most plants are now restarting. In addition to supporting supplier restarts, companies should explore bridging strategies, including supply rationing, prebooking logistics capacity (shipping, rail, and airfreight), using after-sales stock, and gaining higher-priority status from suppliers. Companies should plan to manage supply for products that may be subject to unusual spikes in demand as they come back on line. In some cases, longer-term stabilization strategies may be necessary. Here, companies will have to use updated demand planning, optimize their networks further, and identify new suppliers. These approaches may be generally warranted to ensure enduring supply-chain resilience against risks beyond COVID-19, once the crisis is over.

The supply-chain-stabilization team will include the head of procurement (team leader), the procurement manager, a supply-chain analyst, the regional supply-chain managers, and the logistics manager. This team will manage four work streams:

- ensuring risk transparency across tier-one, -two, and -three suppliers; supporting supplier restarts; managing orders; and ensuring the qualifications of new suppliers
- managing ports, prebooking logistics capacity, and optimizing routes
- identifying critical parts, rationing parts as needed, and optimizing locations
- developing scenario-based sales and operations planning for SKU-level demand and managing the planning for production and sourcing

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Customer engagement

Companies that truly navigate through disruptions often succeed because they invest in their core customer segments and anticipate those segments' needs and actions. In China today, for example, while consumer demand is down, it has not disappeared—far from it. People have dramatically shifted toward online shopping and ordering for all types of goods, including for food and produce delivery. Companies should invest more in online channels as part of their push for multichannel distribution. The investment should include ensuring the quality and delivery of goods sold online. Keep in mind, too, that changing customer preferences may not return to preoutbreak norms.

The customer-engagement team will include the head of sales and marketing (team leader), a financial analyst, and managers for customer communications, customer incentives, and SKUs. The customer-engagement team will manage three work streams:

- communicating to B2B customers (through a dedicated site) and developing scenario-based risk communications
- intervening as needed across the customer journey to prevent leakage, training customer-facing employees, and monitoring customer-service execution
- developing customer communications about COVID-19 situations and practices, as well as fact-based reports on COVID-19-related issues

Financials stress testing

Companies need to develop business scenarios tailored to their own contexts. Experts using analytics can define the values for the critical variables that will affect revenue and cost. Companies should model their financials (cash flow, profit and loss, and balance sheet) in each scenario and identify triggers that might significantly impair liquidity. For each trigger in each scenario, companies should define moves to stabilize the organization. Such moves could include optimizing accounts payable and receivable, cost-reduction measures, and divestment or M&A actions.

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The financials-stress-testing team will include the CFO (team leader), the leader of strategy or business development, the leader of treasury, a representative from legal, and one or more financial analysts. The team will manage two work streams:

- developing relevant scenarios based on the latest epidemiological and economic outlooks
- assembling relevant financials data according to different scenarios, especially working-capital requirements

Getting started quickly: The minimal viable nerve center

A common pitfall in nerve-center design is needless complexity. A good way of avoiding this is to aim at a minimal viable nerve center. Companies taking this approach quickly assemble the bare essentials needed to get operations up and running. The core nerve-center group, which might include all the team heads, will shape the structure, as needed, as the crisis evolves. Experience points to four essential elements that should be put in place right away.

Nerve-center organization

The teams need to be staffed quickly, with individual roles, responsibilities, and accountabilities made clear. Flexibility will be an important principle, since roles will change over time, sometimes quite rapidly. Also important is that nerve-center leaders be authorized to make timely decisions, sometimes without the opportunity to syndicate with other leaders.

Operating cadence

Meetings should be limited to those in which vital deliberations are conducted and actions decided on. They should, however, be frequent enough to foster collaboration. Ensure that meetings address essential topics and elicit the best thinking for the relevant work streams. The responsible members for each work stream should have the opportunity to seek input from the coordinating leaders. Solutions should be tested and decisions made to commit to effective methods and set aside ineffective ones. Select meeting attendees with care: Meetings of only senior leaders tend to encourage purely upward reporting rather than constructive debate and real problem solving. Meetings with too many frontline managers and individual contributors can become overly focused on tactical issues rather than the central problems. The difficulty of a high-quality operating cadence lies in maintaining a basic underlying structure and then allowing flexibility so that the organization can pivot when it needs to.

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Issue identification

The nerve center will first identify the critical issues present in each work stream, with the expectation that these will evolve over time. Issues should be described in an issue map for risks and threats. In their totality, these maps will represent the core problem statement for the crisis situation and allow the group to articulate and address the challenges clearly and relatively quickly. The mapping can be divided between immediate, addressable risks and unforeseen, arising threats. Risk maps can be longer and more comprehensive; threat maps, however, can address the biggest issues—those that could drive significant disruption as the crisis continues.

Some known COVID-19 risks, such as those posed to traveling employees, could be readily addressed with policies (such as travel restrictions). Unforeseen threats that could arise as the crisis continues can be anticipated in “premortem” workshops. Nerve-center teams therein work out possible responses—ones to take if, for example, a sudden gap should open in the supply chain because of policies imposed beyond the company’s control.

Once companies establish a good understanding of the critical issues across all work streams, they will find it helpful to run financial calculations (balance sheet, cash flow, and profit and loss) on issues and responses. This will project scenarios for particular issues, allowing companies to form views on issue likelihood, timing, and magnitude.

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Response plan

Leaders can find it extremely difficult to craft sensible goals during a crisis. Many trade-offs usually have to be made between ideal outcomes and the many real constraints the organization faces. Once more realistic goals reflecting the trade-offs are arrived at, they can be assigned a few milestones and key performance indicators (KPIs) so that progress toward them can be tracked in simple ways.

Additional elements

A few other elements can become helpful as the nerve center evolves. For the COVID-19 crisis, these could include common operating pictures, giving a single view on the current status of the response; KPI dashboards, to confirm whether or not hoped-for outcomes are being achieved; and listening posts, which are early-warning indicators that can point out forthcoming changes in the trajectory of a crisis.

The cultural challenge

The hard truth about effective business leadership is that leaders operate within powerful cultural and social contexts. The largest organizations, with hundreds of thousands of employees, might appear, in normal business conditions, to operate according to a command-and-control structure. The reality is more complex. While large organizations use many top-down, pyramid-like structures and processes, these work only when outcomes are predictable. On the other hand, routinized ways of working impede the creativity and flexibility that organizations need to respond at speed amid a crisis.

The exhibit of the integrated-nerve-center structure we have offered is not meant as a precise instruction manual. It is a general outline in need of contextual tailoring from organization to organization. The form described is most applicable to large corporations with global supply chains. For financial institutions, the structure would give little prominence to supply-chain stabilization and much more weight to financials stress testing. The structure is, however, adaptable for any large organization and can be effectively deployed in any crisis. From a business standpoint, the COVID-19 outbreak is a particular kind of crisis, quite different from those affecting a single large, multinational company. Rather, it is more like the financial crisis of 2008 to 2009, in that it presents as a shock to the greater part of all global economic activity: all the more reason that organizations need to concentrate leadership and capabilities in a fast-acting, integrated nerve center.

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With senior-leadership support and participation, the nerve-center structure can provide the organizational parameters that companies need to navigate through the disruptions caused by the COVID-19 outbreak. The approach works because it enables a coordinated response led by top management while also giving experts and managers the autonomy they need to implement creative, pragmatic solutions.

Private equity and the new reality of coronavirus

Sponsors and their portfolio companies need to adjust quickly to the COVID-19 outbreak. Here's the new playbook.

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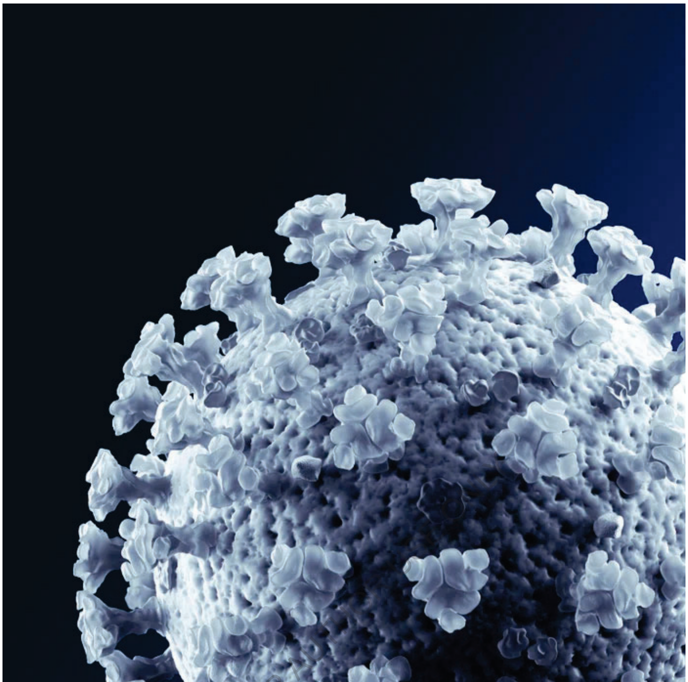
COVID-19 is an enormous global humanitarian challenge. Millions of health professionals are battling the disease, caused by the coronavirus (SARS-CoV-2), and putting their own lives at risk. Governments and industries around the world are working together to understand and address the challenge, support victims and their families and communities, and search for treatments and a vaccine.



Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

Explore the collection

The economic damage is becoming palpable. Every business, large and small, is coming to grips with the unfolding crisis (see McKinsey's global perspective on the implications for business). Private equity (PE) firms and their portfolio companies come into the crisis riding a decade-long wave of growing transaction volumes, valuations, and fundraising. That position of strength may prove a bulwark in the months ahead, especially for firms that have exercised prudence recently. But there are also fault lines in private markets: deal leverage recently reached a new high, and multiples paid in recent months reached a multiyear high.

Every industry needs to respond to the crisis—including PE. This article provides an outline of the emerging playbooks for both PE firms and their portfolio companies.

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Firm actions and priorities

For many experienced investors, a crisis is not uncharted territory. But the COVID-19 outbreak is fundamentally unique in its disruption of core working processes. Every sponsor needs to make five kinds of adjustments; some leading firms are already taking several of these steps.

Take care of employees

PE firms need to make sure that colleagues can prioritize their own and their families' health, energy, and stress levels, in line with guidelines from the relevant public-health organizations. Many firms are already investing heavily in the blocking-and-tackling needed to expand remote technology and back-office infrastructure (for example, by adding VPN access and extending help-desk hours). We have seen others planning to enhance virtual training (to come back from the crisis with a better-skilled team) and adding benefits such as telehealth services.

Many of the tools, even if they have been in use for a while, will be unfamiliar to colleagues. Firms need to provide appropriate training for all employees to get comfortable with this new operating model and to make sure they can do their jobs remotely.

Firm leaders need to role-model the emerging best practices and ensure their presence (through videoconferences or more frequent informal calls) to maintain both organizational connectedness and ongoing critical activities.

Ensure continuity of critical processes

PE firms need to keep crucial machinery running; they should continue to assess the investment pipeline, conduct investment-committee discussions, and manage all other essential processes through videoconferencing. Similarly, they can continue regularly interacting with portfolio-company leaders through videoconferencing and shift to conducting board and review meetings virtually.

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Firms might consider increasing the frequency of interactions, thus reducing lead time on agreed actions. This would allow maximum flexibility and agility for responding to fast-emerging challenges and making quick, risk-mitigating decisions (such as halting an exit).

Prioritize the portfolio

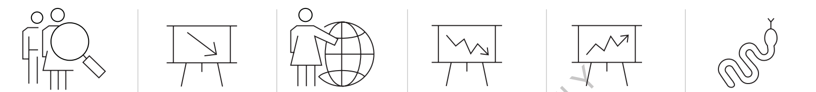
Sponsors are looking for clarity on the areas in which portfolio companies urgently need support and, when appropriate, course correction. Of course, the industry sector in which a portfolio company operates will be a strong determinant of how it will be affected. Some portfolio companies in healthcare or retail are part of the frontline response or provide critical products and services; ensuring that their supply chains are operating at peak performance is essential. Others (such as travel and hospitality companies) are experiencing immediate and unthinkable drops in consumer demand. Since most sponsors have limited resources to share with their owned companies (such as liquidity, operating executives to provide leadership and execution support, and critical relationships with other organizations), they will need to decide where best to allocate time and resources.

A handy way to prioritize is to consider six indicators of disproportionate risk or impact (Exhibit 1). These aren't exhaustive, and they may change as the crisis unfolds. But these are the six that sponsors are currently using successfully. These six dimensions can quickly identify portfolio companies that require more support. For example, some sponsors whose portfolio companies are dependent on international supply chains have rapidly identified a need to develop regional alternatives for critical parts to maintain operations.

Exhibit 1

Six indicators can prioritize support to portfolio companies.

Checklist of questions



Risks to employees' and customers' health, safety, and productivity	**Financial/ liquidity risk or customers seeking financing**	**Geographic considerations**	**Short-term revenue and delivery risks**	**Longer-term risks and opportunities**	**Less tangible risks and opportunities**
☐ Does the portfolio company have policies and procedures to minimize risk of infection? Is it in compliance? ☐ Are there confirmed or suspected COVID-19 cases among employees? ☐ Are there barriers to successful remote working? Potential to help customers or others?	☐ Is leverage (eg, near-term debt repayments, high-interest payments, tight covenants) high? ☐ Are counter-parties exerting pressure to extend accounts-receivable terms? Do customers have liquidity constraints? ☐ Have there recently been any abnormally high expenses?	☐ Are operations, customers, or suppliers based in today's riskiest areas? What about tomorrow's?	☐ Is revenue dependent on travel, foot traffic, events, and so on? ☐ Is revenue affected by social distancing or disease prevalence? ☐ Is the supply chain (in particular, raw materials) susceptible to disruption?	☐ Will shifts in government policy present risks? Opportunities? ☐ Will changes in patterns of global trade, travel, and logistics offer opportunities? Risks? ☐ Will customer preferences change permanently?	☐ Is the company or its business model susceptible to reputational or cultural risk? ☐ Does the company have sufficient redundancy in its critical functions? Can it provide capacity to others?

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While some portfolio companies require support to address risks, others may be experiencing countercyclical support. Some might be able to make incredible differences to society—say, through supply-chain improvements. And some may have opportunities to restructure their balance sheets in fluctuating financial markets. For example, some manufacturing companies have found ways to shift production toward critical necessities or medical products that are in short supply, while some retailers are finding innovative ways to meet unprecedented consumer demand in an orderly manner. For example, a field-services company is retraining its maintenance workers to handle break/fix calls to keep critical retailing infrastructure up and running.

Finally, sponsors can use this prioritization exercise to bolster the confidence of their management teams, reassuring them that support will be provided where necessary.

Assess investment strategy, asset allocation, and financing

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The current financial-market displacement and equity valuations have undoubtedly created potential investments for sponsors with dry powder. It is difficult to determine which of these will be actionable, not least because obtaining debt finance for buyouts could be challenging. In some cases, sponsors may move ahead, even with limited information. But many sponsors are preparing for a broader range of investments. These can include debt or other rescue financing for companies suffering the brunt of the crisis and other situations that are outside the norm for control-equity investors. Either strategy will require an agile investment process in order to move quickly when potential investments arise.

One final note on investment strategy: COVID-19 has proved again that black swans exist. Investors would do well to consider a wider range of disruptive scenarios when considering new investments.

Support your limited partners and consider your stakeholders

Limited partners crave insights from their investment managers during crises. Some sponsors are supplementing market updates with communication on additional topics relevant to their board and public stakeholders, reinforcing the value and credibility of in-place risk-management and preparedness practices.

Now is also the time to consider investment and portfolio actions in the context of the unfolding humanitarian crisis. At a time when public expectations of business's role in society are shifting rapidly, firms should consider doubling down on their commitments to environmental, social, and governance (ESG)-related investing and evaluate their actions through a lens of social citizenship, taking a long view as they plot their course.

Portfolio-company actions and priorities

Many portfolio companies are engaging in some or all of five priorities: workforce protection and productivity, managing financial and liquidity risk, stabilizing operations, engaging with customers, and preparing for recovery and growth. Workforce protection is a must for every company; the others will vary by sector (medical companies and hospitals may focus their resources on supply chain and operations; travel and leisure companies, as well as oil and gas companies, on liquidity risk; tech companies on supply chain; and critical-goods retailers on customers and growth).

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These five priorities are typically coordinated by a central team (Exhibit 2).

Exhibit 2

A coronavirus playbook is emerging for the portfolio company.

Portfolio-company COVID-19 response playbook[1]

< Prev 01 — 06 Next

A Establish central executive/team to coordinate

Issue map and management	Portfolio of actions	Leadership and alignment	Risk assessment	Local guidelines
Provide single source of truth for issue resolution; tap surge resources where needed	Develop trigger-based portfolio of actions across all work streams	Align leaders and sponsors on scenarios; conduct "table-top" exercises; delegate authority for agile decision making	Identify and review business-continuity risks and single points of failure; develop backup plans for critical functions	Understand local government guidelines; ensure compliance as situation evolves

[1]Based on discussions with risk/health professionals and >200 companies across sectors and on insights from public and private corporations that succes navigated the 2008–09 recession. Not exhaustive or applicable for every portfolio company; requires tailoring for specific circumstances.

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In the following sections, we outline how portfolio companies are approaching some of these priorities.

Set up a 'cash war room' to manage financial and liquidity risk

Companies in sectors with especially tight liquidity or hugely reduced customer demand may benefit from standing up a dedicated "cash war room." This team typically focuses on three tasks:

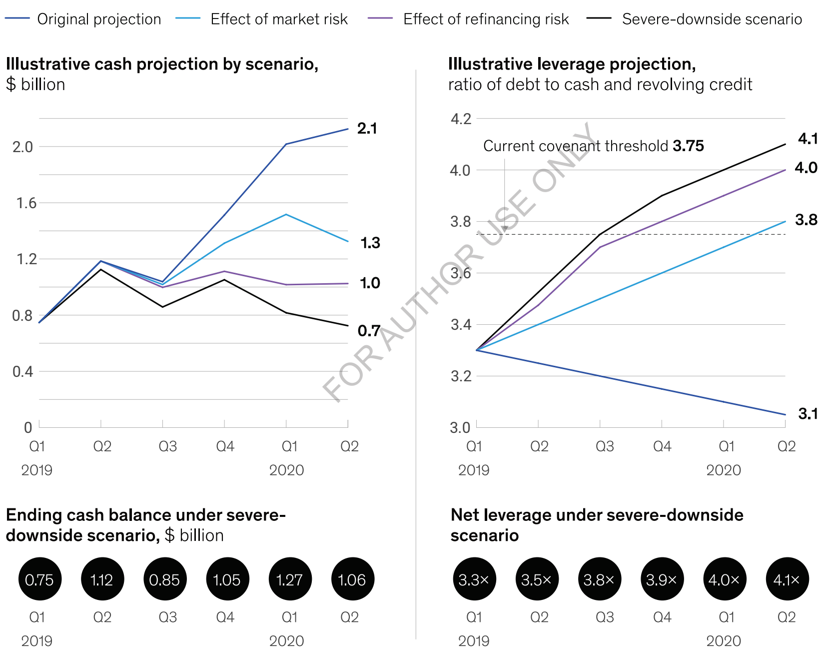
- *Rapid assessment of risk and potential cash savings.* This assessment, based on internal data and some publicly available sources, includes modeling cash flow to view balances under different scenarios (Exhibit 3).
- *Identification of cash levers.* This step includes a review of the balance sheet and proposing cash-generation levers for major asset and liability categories. Many portfolio companies are exploring ways to restructure or refinance while debt is available and

comparatively cheap. Simultaneously, a working-capital diagnostic can highlight potential short-term cash releases.

- *Collaboration with business leaders and outside experts.* This step allows companies to address urgent issues related to liquidity and crisis management.

Exhibit 3

Portfolio companies must stress-test their financials against a variety of scenarios.



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The war room can work entirely remotely yet in constant cooperation with the portfolio company's CFO, treasurer, and executive team. A dashboard of balance-sheet and cash-flow diagnostics, shared virtually over any confidential platform, can help maintain oversight and keep focus on the most important levers.

Stabilize operations

Portfolio companies should move to assess operational risk rapidly and, when necessary, stabilize their operations. This will vary widely by sector. For example, many manufacturing companies are moving swiftly to create visibility into their supply chains, even in advance of potential issues, given the rapid shifts in customer demand. This can include analyzing available inventory (some is often hidden along the chain), comparing it with demand forecasts (which can be refined through direct customer communications and external market insights), and identifying alternative supply sources for critical parts. For example, some portfolio companies may look to source parts from vendors in regions with slower demand to supply more active factories. Manufacturers might also consider how to optimize production, distribution, and logistics. New production methods, vendors, and routes may be necessary to avoid supply disruptions.

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For service-oriented businesses, capacity planning and demand management are important levers to consider to maintain effective operations. For example, for one communications-services business, maintaining call-center capacity was the most urgent operations concern.

It's also important to consider risks to critical counterparties, such as suppliers and customers. Portfolio companies may need to work closely with and even support counterparties, especially small- and medium-size businesses, to maintain stability. Several public companies have been noteworthy leaders in this regard.

Prepare for recovery and growth

After taking initial actions to recover and stabilize, portfolio companies can prepare for growth. In the last downturn, many portfolio companies had success by investing at greater rates than their competitors. In the United Kingdom, for example, one prominent study found that PE-backed portfolio companies cut investment by five to six percentage points fewer than their public-company peers did (in other words, they invested more), contributing to an average six to eight percentage points faster growth than their underlying markets.

Commercially, portfolio companies could consider tailoring product or service offerings to help customers weather the downturn. An equipment business, say, could offer leases to lower customers' up-front investment costs (these may be especially germane in businesses in which leasing economics enhance the lifetime value of customers, irrespective of the macroclimate). Businesses might also reconsider contract structures and identify ways to increase customer "stickiness." For example, a rental and services business is offering near-term commercial concessions in exchange for increasing the minimum duration of the contract and tightening break requirements.

Portfolio companies should also prepare for M&A. McKinsey research shows that public companies that outperformed coming out of the last recession divested underperforming businesses faster than others did and made acquisitions earlier in the recovery phase. Portfolio companies can utilize a similar strategy by planning and executing a through-cycle strategy for M&A and divestitures and by building a pipeline of potential strategic targets.

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Finally, as strategy and goals evolve, companies will need to reset budgets and management incentives for the new environment.

The scale of human catastrophe from COVID-19 is yet to be seen. The economic damage is likewise uncertain. Given the range of potential outcomes, sponsors are right to move quickly and decisively on new-playbook initiatives, internally and with their portfolio companies, to help weather this storm and position themselves for the eventual recovery.

Safeguarding our lives and our livelihoods: The imperative of our time

We must solve for the virus and the economy. It starts with battling the virus.

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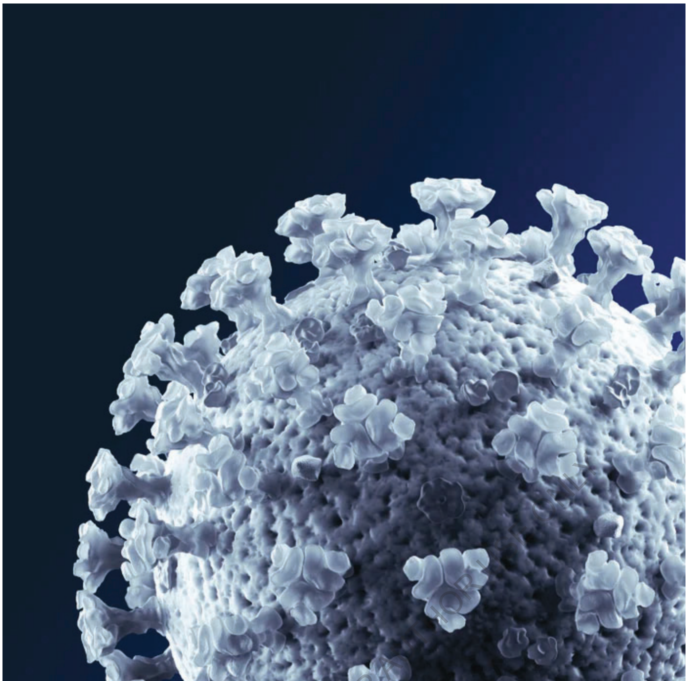
Everything has changed. Just a few weeks ago, all of us were living our usual busy lives. Now, things normally taken for granted—an evening with friends, the daily commute, a plane flight home—are no longer possible. Daily reports of increasing infections and deaths across the world raise our anxiety and, in cases of personal loss, plunge us into grief. There is uncertainty about tomorrow; about the health and safety of our families, friends, and loved ones; and about our ability to live the lives we love.



Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

In addition to the immediate concern about the very real impact on human lives, there is fear about the severe economic downturn that may result from a prolonged battle with the novel coronavirus. Businesses are being shuttered and people are losing their jobs. We think and hope there is a different option from the ones posed in a recent *Wall Street Journal* editorial that suggests that we may soon face a dilemma, a terrible choice to either severely damage our livelihoods through extended lockdowns, or to sacrifice the lives of thousands, if not millions, to a fast-spreading virus. We disagree. Nobody wants to have to make this choice and we need to do everything possible to find solutions.

Why is this the imperative of our time? From multiple sources and our own analysis, the shock to our lives and livelihoods from the virus-suppression efforts could be the biggest in nearly a century. In Europe and in the United States, the required "lockdowns" of the population and other efforts to control the virus are likely to lead to the largest quarterly decline in economic activity since 1933. We have never in modern history suggested that people not work, that entire countries stay at home, and that we all keep a safe distance from one another. This is not about GDP or the economy: it is about our lives and livelihoods.

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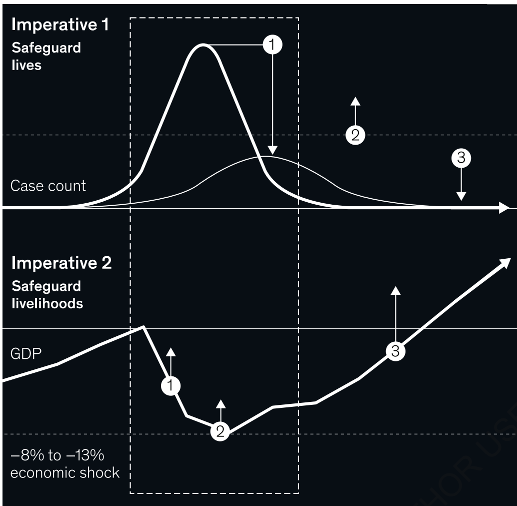
We see enormous energy invested in suppressing the virus, while many urge even faster and more rigorous measures. We also see enormous energy go into stabilizing the economy through public-policy responses. However, to avoid permanent damage to our livelihoods, we need to find ways to "timebox" this event: we must think about how to suppress the virus and shorten the duration of the economic shock (Exhibit 1). And we must do both now!

Exhibit 1

The imperative of our time



1. Suppress the virus as fast as possible
2. Expand treatment and testing capacity
3. Find better treatment, drugs, vaccines

1. Support people and businesses affected by lockdowns
2. Prepare to get back to work safely when the virus abates
3. Prepare to accelerate a recovery from an estimated –8% to –13% trough

Source: McKinsey analysis in partnership with Oxford Economics

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To solve for both the virus and the economy, we need to establish behaviors that stem the spread of the virus, and work towards a situation in which most people can return to work, to family duties, and to social lives.

To date, the only proven way of containing the virus, once community transmission is widespread, is by enforcing significant lockdowns; disciplined physical distancing; testing; and contact tracing. China, Japan, Singapore and South Korea have shown that these measures can stop the virus from spreading and enable economic activity to resume, at least to some extent. Everyone is closely following the developments in Italy and many other nations to find out whether the control measures there are sufficient to slow the growth of new infections and fatalities. Our common goal must be to implement the best possible response to stop this crisis.

At the same time, global and local leaders are also considering the economic impact of such measures. What will happen if many businesses stop operating or have to significantly reduce their activity? For how long can we do that? How deep an economic shock can we sustain without causing human suffering that our societies are unable or unwilling to bear?

In the following sections, we offer ways to think about these pressing issues. (Please also see "Beyond coronavirus: The path to the next normal," by our colleagues Kevin Sneader and Shubham Singhal, which tries to imagine what the future might look like.)

Dealing with the uncertainty related to COVID-19

- *The spread of COVID-19.* How many new infections will we have? Is the mortality rate falling? Will the spread of the virus show any seasonality? Will a new strain of the virus evolve?
- *The public-health response in each country, state, municipality.* Will there be lockdowns? Will it still be possible to go to work? Will factories be allowed to operate? Do we need to submit to an official quarantine center upon arrival, or can we self-quarantine?
- *The impact on the economy and our livelihoods.* Will companies suffer and go bankrupt? Can the supply of essential goods and services be maintained? Will we have a job? How long will this last?
- *The consequences for our lives.* Will we be able to avoid infection? Are our loved ones safe? Can we still train for the sporting event we have been preparing for? Can we earn university degrees, now that many schools are closed and exams canceled?

These and a million more questions are racing through our minds, adding stress to the already challenging reality of living in the time of the coronavirus.

Two things are reasonably certain: If we do not stop the virus, many people will die. If our attempts to stop the pandemic severely damage our economies, it is hard to envision how there will not be even more suffering ahead.

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The impact of lockdowns on consumption and economic activity

We are learning what happens during a lockdown of the kind implemented in China, Italy, and increasingly across Europe and the United States: economic activity drops more sharply than any of us have experienced. People do not shop, other than for essentials; people do not travel; people do not buy cars.

We estimate that 40 to 50 percent of discretionary consumer spending might not occur. In every recession, people will cut back on purchases that can easily be postponed (such as cars and appliances), and increase precautionary saving in anticipation of a worsening crisis. What makes the coronavirus pandemic different is that people will also eliminate spending for restaurants, travel, and other services that usually fall but do not drop to zero.

A 40 to 50 percent drop in discretionary spending translates to a roughly 10 percent reduction in GDP—without considering the second- and third-order effects. That's not only unprecedented in modern history, it has been historically almost unimaginable—until now.

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Already, we have some factual evidence for an economic shock on this scale, such as the COVID-19-related economic downturn in China, and early indications in US "high-frequency data" such as credit-card spending.

The longer a lockdown is in place, the worse the impact on our lives will get. To visualize what this means for people in lockdown areas, imagine cab drivers whose customers are not allowed to go onto the streets; professional chefs whose restaurants have been forced to close; and grounded flight attendants, their planes parked at the airports—for months. With 25 percent of US households living from paycheck to paycheck, and 40 percent of Americans unable to cover an unexpected expense of $400 without borrowing, the impact of extended lockdowns for many, many people will be nothing short of catastrophic.

The answer cannot be that we accept that the pandemic will overwhelm our healthcare system, and thousands, if not millions, will die. But can the answer be that we cause potentially even greater human suffering by permanently damaging our economy?

Bounding the uncertainty around this crisis

The worst and most typical reactions for humans when confronted with high uncertainty are to freeze, or to jump to a simple answer, such as "this problem will go away as quickly as it came, it is just like the annual flu." COVID-19 is particularly challenging in this regard because the majority of those infected will feel only minor symptoms, or none at all. It is an invisible but pernicious enemy. We must try to bound the uncertainty with reason and think about solutions within a limited number of scenarios that could evolve.

Next we describe the impact of COVID-19 on the world's economy along two dimensions which will primarily drive the outcomes of the crisis for all of us:

- The economic impact of the *Virus Spread*: the characteristics of the virus and its disease, such as transmission modes, rates, and mortality rates; *and Public-Health Response*, such as lockdowns, travel bans, physical distancing, comprehensive testing, contact tracing, health care provision capacity, the introduction of vaccines and better treatment methods
- The economic impact of the *Knock-on Effects* of the public-health responses, such as rising unemployment, shuttered businesses, corporate failures, credit defaults, falling asset prices, market volatility, and financial system vulnerabilities; *and Public-Policy Responses* to mitigate these knock-on effects, such as policies to prevent widespread bankruptcies, support incomes for furloughed workers, and protect the financial system and the viability of the most affected sectors.

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In terms of *Virus Spread and Public-Health Response*, we currently see three "archetypes" of interventions and outcomes:

1. A strong public-health response succeeds in controlling the spread in each country within two to three months, and physical distancing can be phased out quickly (as seen in China, Taiwan, Korea, and Singapore).
2. Public-health response succeeds at first, but physical distancing has to continue (regionally) for several additional months to prevent viral recurrence.

3. Public-health response fails to control the spread of the virus for an extended period of time, perhaps until vaccines are available, or herd immunity is achieved.

In terms of *Knock-on Effects and Public-Policy Response*, we anticipate three potential levels of effectiveness:

1. *Ineffective:* self-reinforcing recession dynamics kick in; widespread bankruptcies and credit defaults; potential banking crisis
2. *Partially effective:* policy responses offset economic damage to some degree; a banking crisis is avoided; but high unemployment and business closures mute the recovery
3. *Highly effective:* strong policy response prevents structural damage to the economy; a strong rebound after the virus is controlled returns the economy to pre-crisis levels and momentum, as justified by the economy's fundamentals.

If we combine these three archetypes of viral spread and three degrees of effectiveness of economic policy, we see nine scenarios for the next year or more (Exhibit 2).

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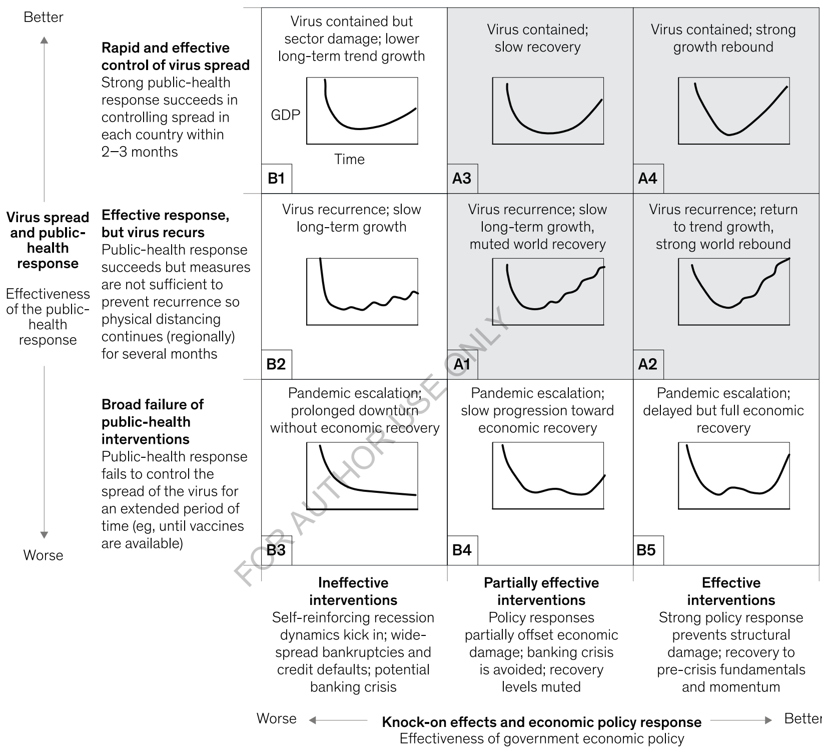
Exhibit 2

Scenarios for the economic impact of the COVID-19 crisis

GDP impact of COVID-19 spread, public-health response, and economic policies



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We believe that many currently expect one of the shaded scenarios, A1–A4, to materialize. In each of these, the COVID-19 spread is eventually controlled, and catastrophic structural economic damage is avoided. These scenarios describe a global average, while scenarios will inevitably vary by country and region. But all four of these scenarios lead to V- or U-shaped recoveries.

Other, more extreme scenarios can also be conceived, and some of them are already being discussed (B1–B5). One cannot exclude the possibility of a "black swan of black swans," with structural damage to the economy, caused by a year-long spread of the virus until a vaccine is widely available, combined with lack of policy response to prevent widescale bankruptcies, unemployment, and a financial crisis. This would result in a prolonged L- or W-shaped economic trajectory. With the number of new cases expanding exponentially in many countries in Europe and in the United States, we cannot exclude these more extreme scenarios for now.

However, as we still have little information about the probability of more extreme scenarios, we focus on the four that are more tangible for now. Within the next week, we will add breadth and depth to this view, working closely with Oxford Economics to develop several macroeconomic scenarios for each country, and for the world.

Making it real: How this could unfold

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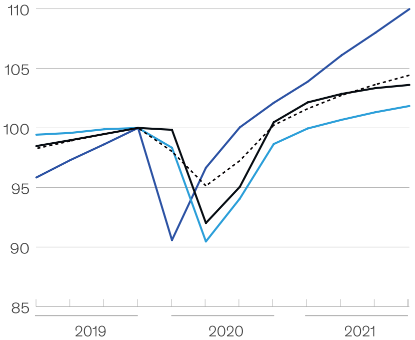
With a little bit of luck, China will undergo a sharp but brief slowdown and relatively quickly rebound to pre-crisis levels of activity. While GDP is expected to drop sharply in Q2 2020, some signs of normal life are returning in Beijing, Shanghai, and most major cities outside Hubei. In this scenario, China's annual GDP growth for 2020 would end up roughly flat, wiping out the growth of 6 percent we expected just three months ago. Nevertheless, by 2021, China's economy would be on the way to regaining its pre-crisis trajectory, if not adversely affected by developments in the rest of the world.

In this scenario, the virus in Europe and the United States would be controlled effectively with between two to three months of economic shutdown. Monetary and fiscal policy would mitigate some of the economic damage with some delays in transmission, so that a strong rebound could begin after the virus was contained at the end of Q2 2020. This would place Europe and the United States in scenario A3 (Exhibit 3).

Exhibit 3

Scenario A3: Virus contained

Real GDP growth: COVID-19 crisis, index (2019 Q4 = 100), local currency units



	Real GDP drop 2019 Q4 to 2020 Q2, % change	2020 GDP growth, % change	Return to pre-crisis level
China[1]	–3.3	–0.4	2020 Q3
US	–8.0	–2.4	2020 Q4
World	–4.9	–1.5	2020 Q4
Eurozone	–9.5	–4.4	2021 Q1

[1]Seasonally adjusted.
Source: McKinsey analysis in partnership with Oxford Economics

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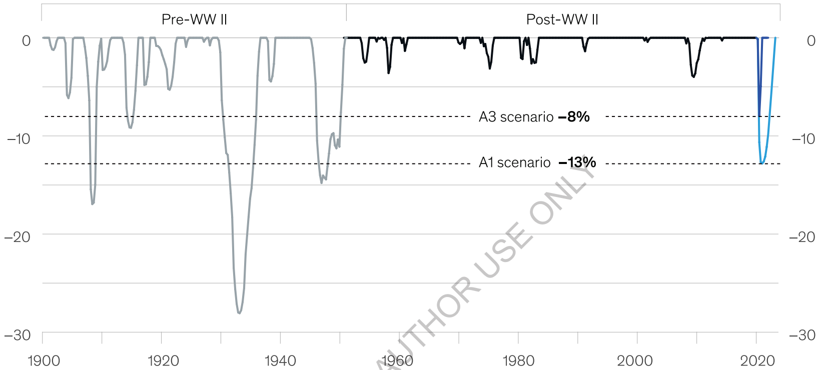
Even in this optimistic scenario, however, all countries would experience sharp GDP declines in Q2, most of which would be unprecedented. Consumer spending in most advanced economies accounts for roughly two-thirds of the economy, and about half of that is consumer discretionary spending. Real-time data suggests that spending on durable goods including automobiles in areas affected by shutdowns could fall as much as 50 to 70 percent; spending on airline flights and transportation could fall by about 70 percent; and spending on services such as restaurants could decline in affected cities by 50 to 90 percent. Overall, as mentioned earlier, consumer discretionary spending could abruptly fall by as much as 50 percent in areas subject to shutdowns.

While increased government spending would help offset some of the economic impact, it is unlikely to offset rapidly enough nor in full. We estimate that the US could see a decline in GDP at an annualized pace of 25 to 30 percent in Q2 2020; major economies in the eurozone are expected to turn in similar numbers when all is said and done. To put this in perspective, the largest quarterly decline in GDP in the 2008–09 financial crisis occurred at an annualized pace of 8.4 percent in Q4 2008. The pace of decline would far outstrip any recession since the Second World War (Exhibit 4).

Exhibit 4

COVID-19 US impact could exceed anything since the end of WWII

US real GDP, %, total drawdown from previous peak



Source: Historical Statistics of the United States Vol 3, Bureau of Economic Analysis; McKinsey analysis, in partnership with Oxford Economics

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A darker picture of the future

Of course, it is entirely possible that countries are not very effective in controlling the virus, or in mitigating the economic damage that results from efforts to control the virus spread. In this case, economic outcomes in 2020 and beyond would be even more severe.

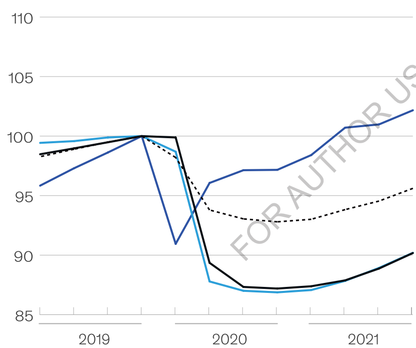
In this more pessimistic scenario, China would recover more slowly and would perhaps need to clamp down on regional recurrences of the virus. It would also be hurt by falling exports to the rest of the world. Its economy could face a potentially unprecedented contraction.

The United States and Europe could also face more dire outcomes in this scenario. They could fail to contain the virus within one quarter and be forced to implement some form of physical distancing and quarantines throughout the summer. This could end up producing a decline in GDP at an annualized pace of 35 to 40 percent in Q2, with major economies in Europe registering similar performance. Economic policy would fail to prevent a huge spike in unemployment and business closures, creating a far slower recovery even after the virus is contained. In this darker scenario, it could take more than two years before GDP recovers to its pre-virus level, placing both Europe and the United States in scenario A1 (Exhibit 5).

Exhibit 5

Scenario A1: Muted recovery

Real GDP growth: COVID-19 crisis, index (2019 Q4 = 100), local currency units



	Real GDP drop 2019 Q4 to 2020 Q2, % change	2020 GDP growth, % change	Return to pre-crisis level
China[1]	–3.9	–2.7	2021 Q2
US	–10.6	–8.4	2023 Q1
World	–6.2	–4.7	2022 Q3
Eurozone	–12.2	–9.7	2023 Q3

[1]Seasonally adjusted.
Source: McKinsey analysis in partnership with Oxford Economics

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The economic impact in these scenarios would be unprecedented for most people living today in advanced economies. Developing countries that have faced currency crises have some experience in events of this order of magnitude.

We are not writing to predict that this will happen but rather issuing a call to action: to take the measures needed to stop the spread of this virus and the damage to the economy as quickly as humanly possible. As we write this, countries in Europe and the United States have not yet taken the strong public-policy responses needed to effectively contain the virus. If we do not act to contain the virus quickly, then the scale of economic destruction that comes with extended lockdowns would become more likely, with severe consequences for our livelihoods.

Safeguarding our lives and our livelihoods

To solve the conundrum of how to save lives without destroying our livelihoods, we must find ways to make lockdowns effective, such that they break the trajectory of the virus in as short a time as possible. The effectiveness of lockdowns will be measured in their ability to control the spread of COVID-19.

East Asian nations have shown this can be done through enforcing stringent lockdowns, surveillance, and monitoring of people's movements. As we write this, similar actions in most of Europe and the United States have so far been narrower, less vigorous, and not as effective. To be sure, these steps are challenging to enact in the West. But to break the momentum of the virus, we must act decisively.

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The world's answer to breaking the conundrum will need to be robust, no matter whether we fully control the spread of the virus and prevent recurrence (ahead of vaccines or treatment innovations), or whether we cannot fully contain the virus and need to rely on continuing interventions for some time. In both cases we must find ways to protect lives and livelihoods.

We propose to move much faster in establishing comprehensive and clear *Behavioral Protocols* to allow authorities to safely release some parts of the blanket lockdown measures that choke our livelihoods today. These can only work if we also find *Acceptable Enforcement Mechanisms* for these protocols so that we do not run the risk of placing socially unacceptable demands on people.

Behavioral Protocols

These protocols are guidelines on how to operate businesses and provide government services under pandemic conditions. Some of these protocols are already in use. Could they be more widely adopted?

- Courageous healthcare professionals work in hospitals where the virus is rampant; they have strict rules regarding all aspects of their tasks, movements, and behaviors to keep them and their patients safe. Could your supermarket operate safely with these kinds of rules in place?
- In high-tech factories in China today, every person must have passed a COVID-19 test. Everybody. How would you feel about entering a plane today, if you knew that every passenger, crew member, and maintenance worker in contact with the plane had tested negative for the virus?
- Some restaurants have already shifted entirely to home delivery, changing their business model and protocols to adapt to the virus. Could you operate your own service business safely by adopting new protocols?

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These protocols cannot be static. Today, lockdowns are often implemented uniformly for everybody, everywhere, regardless of specific infection risks. Imagine a world in which, based on a deep understanding of infectious risks, tailored sets of protocols with different levels of rigor could be implemented for every city, every quarter, and suburban neighborhood.

Such dynamic protocols are technically possible. Modern technologies and data analytics can help track and predict infection threat levels to vulnerable population segments and areas; protocols and public-health interventions can be dynamically adjusted to provide protection when and where needed.

With such protocols, lockdown measures could be eased faster, for more people, in more places, while still maintaining the effectiveness of public-health interventions to control the virus. Much greater availability of personal protective equipment and test kits is also essential, of course.

Acceptable Enforcement Mechanisms

This is the harder part. How do we get everybody to accept the consequences of creating and implementing such behavioral protocols? The areas of sensitivity are many, including our personal freedoms, right to privacy, and fairness in access to services. There are no uniform answers to these issues. The level of sensitivity in each of these areas differs by country, and there also are huge differences in what is socially acceptable. In each country, people will have to work together to find ways to enforce behavioral protocols that fit their specific situation and circumstances. But make no mistake, the starting point will not be pre-COVID-19 social and societal norms—it will be the blanket lockdowns now in place across many countries.

In Hong Kong, the government has extended COVID-19 testing to all arriving passengers. It will allow asymptomatic travelers with the disease to self-quarantine at home. But because of the high risk of further transmission, Hong Kong requires these people to wear electronic wristbands to "geo-fence" them in their home. Compliance is enforced with the threat of long prison terms for violations.

We will need to develop and enforce protocols that allow us, as quickly as possible, to release some of the most stringent measures in appropriate places. And for that to happen, each government will need to find effective, yet socially acceptable ways of enforcing these measures and new protocols.

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We need a plan to achieve both imperatives—Now!

We will keep updating our scenarios, and we hope that in coming weeks we will have a better sense for which scenario the world is likely to follow. However, a few things are already clear:

- This could be the most abrupt shock to the global economy in modern history.
- There is a real risk for our lives and our livelihoods to suffer permanent and possibly irreversible damage from this crisis.
- While we must take actions to control the spread of the virus and save lives vigorously, we must also take action to protect our livelihoods.
- Behavioral protocols and dynamic interventions could help us release lockdowns earlier, get most people back to work, and get everybody's lives back on track.

As Angela Merkel said last week in an appeal to Germany, and others have echoed, our ability to come through this crisis will primarily depend on the behavior of each of us. The initial and immediate lockdowns are necessary to break the spread of the virus and save lives. We believe that with the right protocols in place, and people following these protocols, the lockdown constraints can be gradually released sooner rather than later.

The question is: Can the world work fast enough on these protocols, and can we get societal acceptance to enforce them? If so, we should be able to control the virus, soften the inevitable economic crisis to sustainable levels, and safeguard our lives and livelihoods.

That is the imperative of our time.

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Beyond coronavirus: The path to the next normal

The coronavirus is not only a health crisis of immense proportion—it's also an imminent restructuring of the global economic order. Here's how leaders can begin navigating to what's next.

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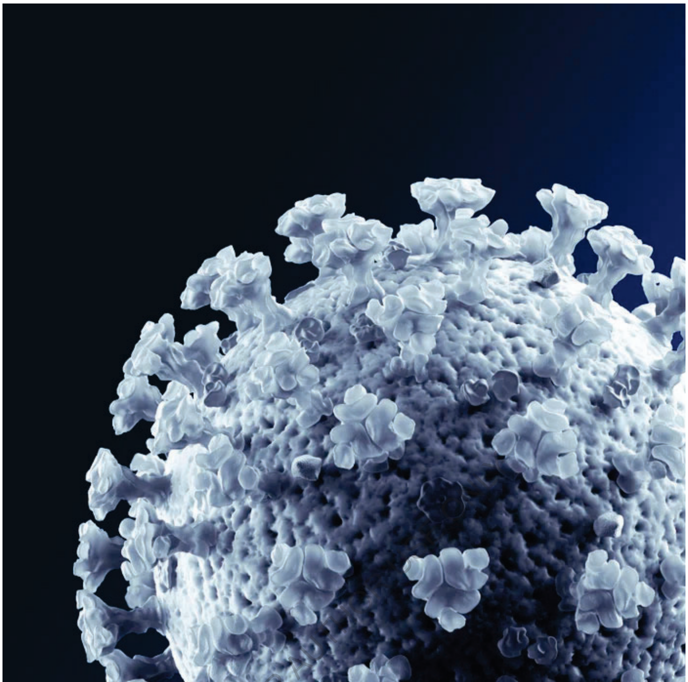
"For some organizations, near-term survival is the only agenda item. Others are peering through the fog of uncertainty, thinking about how to position themselves once the crisis has passed and things return to normal. The question is, 'What will normal look like?' While no one can say how long the crisis will last, what we find on the other side will not look like the normal of recent years."

These words were written 11 years ago, amid the last global financial crisis, by one of our former managing partners, Ian Davis. They ring true today but if anything, understate the reality the world is currently facing.



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Insights on how organizations can respond, and what happens next

It is increasingly clear our era will be defined by a fundamental schism: the period before COVID-19 and the new normal that will emerge in the post-viral era: the "next normal." In this unprecedented new reality, we will witness a dramatic restructuring of the economic and social order in which business and society have traditionally operated. And in the near future, we will see the beginning of discussion and debate about what the next normal could entail and how sharply its contours will diverge from those that previously shaped our lives.

Here, we attempt to answer the question being posed by leaders across the public, private, and social sectors: What will it take to navigate this crisis, now that our traditional metrics and assumptions have been rendered irrelevant? More simply put, it's our turn to answer a question that many of us once asked of our grandparents: What did you do during the war?

Our answer is a call to act across five stages, leading from the crisis of today to the next normal that will emerge after the battle against coronavirus has been won: Resolve, Resilience, Return, Reimagination, and Reform.

The duration of each stage will vary based on geographic and industry context, and institutions may find themselves operating in more than one stage simultaneously. Today, a group of colleagues published "Safeguarding our lives and our livelihoods: The imperative of our time," which emphasizes the urgency of solving now for the virus and the economy, and thereby precedes our focus here on reimagining the future, post-pandemic.

Collectively, these five stages represent the imperative of our time: the battle against COVID-19 is one that leaders today must win if we are to find an economically and socially viable path to the next normal.

Resolve

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In almost all countries, crisis-response efforts are in full motion. A large array of public-health interventions has been deployed. Healthcare systems are—explicitly—on a war footing to increase their capacity of beds, supplies, and trained workers. Efforts are under way to alleviate shortages of much-needed medical supplies. Business-continuity and employee-safety plans have been escalated, with remote work established as the default operating mode. Many are dealing with acute slowdowns in their operations, while some seek to accelerate to meet demand in critical areas spanning food, household supplies, and paper goods. Educational institutions are moving online to provide ongoing learning opportunities as physical classrooms shut down. This is the stage on which leaders are currently focused. Please see "Coronavirus: Leading through the crisis" for more.

And yet, a toxic combination of inaction and paralysis remains, stymying choices that must be made: lockdown or not; isolation or quarantine; shut down the factory now or wait for an order from above. That is why we have called this first stage Resolve: the need to determine the scale, pace, and depth of action required at the state and business levels. As one CEO told us: "I know what to do. I just need to decide whether those who need to act share my resolve to do so."

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Resilience

The pandemic has metastasized into a burgeoning crisis for the economy and financial system. The acute pullback in economic activity, necessary to protect public health, is simultaneously jeopardizing the economic well-being of citizens and institutions. The rapid succession of liquidity and solvency challenges hitting multiple industries is proving resistant to the efforts of central banks and governments to keep the financial system functioning. A health crisis is turning into a financial crisis as uncertainty about the size, duration, and shape of the decline in GDP and employment undermines what remains of business confidence.

The shock to our livelihoods from the economic impact of virus-suppression efforts could be the biggest in nearly a century.

A McKinsey Global Institute analysis, based on multiple sources, indicates that the shock to our livelihoods from the economic impact of virus-suppression efforts could be the biggest in nearly a century. In Europe and the United States, this is likely to lead to a decline in economic activity in a single quarter that proves far greater than the loss of income experienced during the Great Depression.

In the face of these challenges, resilience is a vital necessity. Near-term issues of cash management for liquidity and solvency are clearly paramount. But soon afterward, businesses will need to act on broader resilience plans as the shock begins to upturn established industry structures, resetting competitive positions forever. Much of the population will experience uncertainty and personal financial stress. Public-, private-, and social-sector leaders will need to make difficult "through cycle" decisions that balance economic and social sustainability, given that social cohesion is already under severe pressure from populism and other challenges that existed pre-coronavirus.

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Return

Returning businesses to operational health after a severe shutdown is extremely challenging, as China is finding even as it slowly returns to work. Most industries will need to reactivate their entire supply chain, even as the differential scale and timing of the impact of coronavirus mean that global supply chains face disruption in multiple geographies. The weakest point in the chain will determine the success or otherwise of a return to rehiring, training, and attaining previous levels of workforce productivity. Leaders must therefore reassess their entire business system and plan for contingent actions in order to return their business to effective production at pace and at scale.

Government leaders may face an acutely painful "Sophie's choice": mitigating the resurgent risk to lives versus the risk to the population's health that could follow another sharp economic pullback.

Compounding the challenge, winter will bring renewed crisis for many countries. Without a vaccine or effective prophylactic treatment, a rapid return to a rising spread of the virus is a genuine threat. In such a situation, government leaders may face an acutely painful "Sophie's choice": mitigating the resurgent risk to lives versus the risk to the population's health that could follow another sharp economic pullback. Return may therefore require using the hoped-for—but by no means certain—temporary virus “cease-fire” over the Northern Hemisphere’s summer months to expand testing and surveillance capabilities, health-system capacity, and vaccine and treatment development to deal with a second surge. See “Bubbles pop, downturns stop” for more.

Reimagination

A shock of this scale will create a discontinuous shift in the preferences and expectations of individuals as citizens, as employees, and as consumers. These shifts and their impact on how we live, how we work, and how we use technology will emerge more clearly over the coming weeks and months. Institutions that reinvent themselves to make the most of better insight and foresight, as preferences evolve, will disproportionally succeed. Clearly, the online world of contactless commerce could be bolstered in ways that reshape consumer behavior forever. But other effects could prove even more significant as the pursuit of efficiency gives way to the requirement of resilience—the end of supply-chain globalization, for example, if production and sourcing move closer to the end user.

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The crisis will reveal not just vulnerabilities but opportunities to improve the performance of businesses. Leaders will need to reconsider which costs are truly fixed versus variable, as the shutting down of huge swaths of production sheds light on what is ultimately required versus nice to have. Decisions about how far to flex operations without loss of efficiency will likewise be informed by the experience of closing down much of global production. Opportunities to push the envelope of technology adoption will be accelerated by rapid learning about what it takes to drive productivity when labor is unavailable. The result: a stronger sense of what makes business more resilient to shocks, more productive, and better able to deliver to customers.

How are you responding to coronavirus along the dimensions described in this article? We will curate and share back your responses.

Reform

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The world now has a much sharper definition of what constitutes a black-swan event. This shock will likely give way to a desire to restrict some factors that helped make the coronavirus a global challenge, rather than a local issue to be managed. Governments are likely to feel emboldened and supported by their citizens to take a more active role in shaping economic activity. Business leaders need to anticipate popularly supported changes to policies and regulations as society seeks to avoid, mitigate, and preempt a future health crisis of the kind we are experiencing today.

In most economies, a healthcare system little changed since its creation post–World War II will need to determine how to meet such a rapid surge in patient volume, managing seamlessly across in-person and virtual care. Public-health approaches, in an interconnected and highly mobile world, must rethink the speed and global coordination with which they need to react. Policies on critical healthcare infrastructure, strategic reserves of key supplies, and contingency production facilities for critical medical equipment will all need to be addressed. Managers of the financial system and the economy, having learned from the economically induced failures of the last global financial crisis, must now contend with strengthening the system to withstand acute and global exogenous shocks, such as this pandemic's impact. Educational institutions will need to consider modernizing to integrate classroom and distance learning. The list goes on.

The aftermath of the pandemic will also provide an opportunity to learn from a plethora of social innovations and experiments, ranging from working from home to large-scale surveillance. With this will come an understanding of which innovations, if adopted permanently, might provide substantial uplift to economic and social welfare—and which would ultimately inhibit the broader betterment of society, even if helpful in halting or limiting the spread of the virus.

As we consider the scale of change that the coronavirus has engendered—and will continue to engender in the weeks and months ahead—we feel compelled to reflect not just on a health crisis of immense proportion but also on an imminent restructuring of the global economic order. How exactly this crisis evolves remains to be seen. But the five stages described here offer leaders a clear path to begin navigating to the next normal—a normal that looks unlike any in the years preceding the coronavirus, the pandemic that changed everything.

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How to restart national economies during the coronavirus crisis

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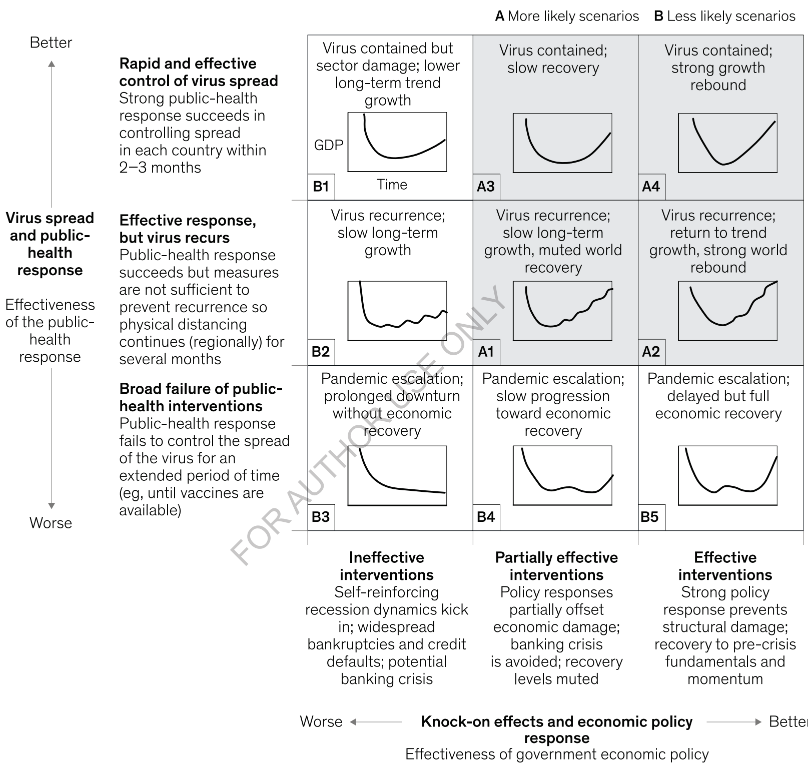
Around the world, life as we know it has changed drastically. Global leaders and millions of citizens are facing the challenge of a lifetime. The COVID-19 pandemic is threatening not only healthcare systems, but also the livelihoods of citizens and the stability of economies.

As our colleagues wrote in "Safeguarding our lives and our livelihoods: The imperative of our time," the shock to our lives *and* livelihoods from the virus-suppression efforts could be the biggest of the past 100 years. If we do not stop the virus, many people will die. If attempts to stop the pandemic cause severe damage to social and economic networks, people will experience large-scale suffering in the medium and long term. The world must act on both of these fronts—suppressing the virus and mitigating the negative impact on citizens' livelihoods—at the same time. The progress we make on those fronts will determine the shape of the economic recovery (Exhibit 1).

Exhibit 1

The economic impact of the COVID-19 crisis encompasses a range of scenarios.

Scenarios for GDP impact of COVID-19 spread, public-health response, and economic policies



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So far, most governments, businesses, and citizens have rightly focused on saving lives. We have seen a range of responses, from drastic (the complete lockdown of the Wuhan region in China) to more gradual (restrictions on public gatherings and the promotion of physical distancing in some European countries and North America). Other countries such as South Korea have followed a third path. Based on massive testing and contact tracing, this approach has allowed them to control the spread of the virus without imposing widespread restrictions on public movement, at least so far. In Latin America, some countries reacted quickly and ordered weeks of complete lockdown while case numbers were still relatively low, with the goal of flattening the curve and reducing the speed of transmission.

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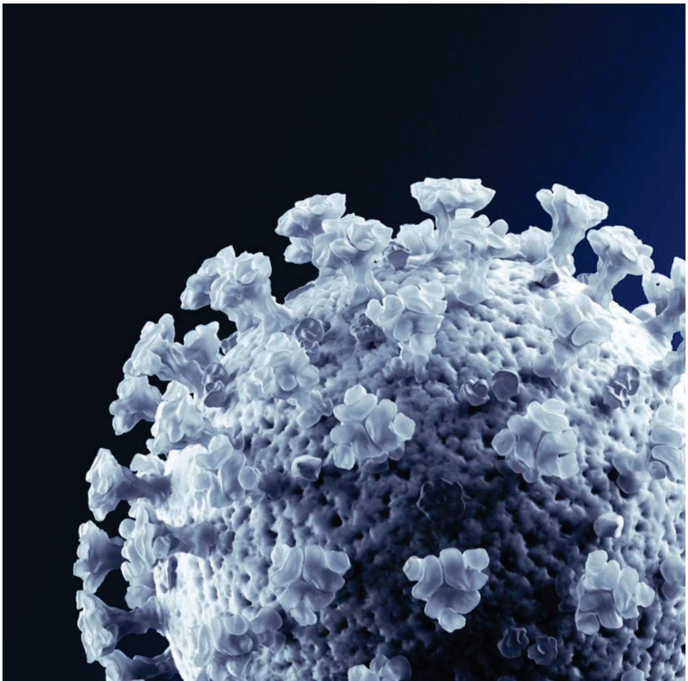

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Insights on how organizations can respond, and what happens next

Countries are also coming to grips with the second imperative: saving livelihoods. Many countries have responded with unprecedented levels of both fiscal and monetary stimulus to blunt the economic impact of the crisis. For example, the United States recently passed a $2 trillion stimulus package.

Yet tremendous uncertainty remains about what to do next, on both fronts. Most national health systems, particularly in some emerging markets, are insufficiently prepared for the task at hand. Countries thus face daunting questions: Should the quarantine continue? If so, for how long? Should it be a blanket quarantine for all regions and age groups? Many countries have large, informal economies, crowded living conditions, or high levels of household debt. Some have all three. How should they proceed?

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The second imperative—saving livelihoods—is just as perplexing. Should all economic sectors receive the same treatment? How do we restart the economy in some geographies without resurgence of the virus? What systems need to be in place to restart safely?

In this article, we propose two frameworks for restarting an economy. The first is designed to help governments, the private sector, and nonprofits think through *when* to open their economies, and the second outlines an approach for *how* to do so.

Many countries are still in the depths of crisis, with hundreds of deaths every day. But others seem to be flattening the curve. Given what's at stake, it's not too soon to begin thinking about what it will take to restart the economy. In the words of perhaps the greatest wartime leader in history, "This is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning." Governments worldwide should recognize the hard work still to come and adequately prepare for the next phases of the crisis.

Prioritizing both lives and livelihoods: When to release constraints?

The threat of COVID-19 to lives and livelihoods will fully resolve only when enough people are immune to the disease to blunt transmission, either from a vaccine or direct exposure. Until then, governments that want to restart their economies must have public-health systems that are strong enough to detect and respond to cases. Leaders should recognize that regions may differ significantly in their readiness to restart their economies.

The first and most obvious factor in determining readiness is the number of new cases in a given area. Regions with significant ongoing transmission should expect that restarting economic activity will only lead to more transmission. Case numbers and, more importantly, hospitalizations need to be low enough for a health system to manage individually rather than through mass measures.

A second factor in thinking about this is the strength of the systems in place for detecting, managing, and preventing new cases. Elements of these systems include the following:

- adequate medical capacity, especially of intensive care units (ICUs), for those with severe disease
- ability to perform a diagnostic test for COVID-19 with a fast turnaround time
- systems for effectively identifying and isolating cases and contacts, including digital tools for real-time sharing of critical data (however, different systems will be appropriate for different countries and contexts)
- adequate medical resources, including trained doctors, beds, and personal protective equipment
- public education informed by the best scientific evidence available

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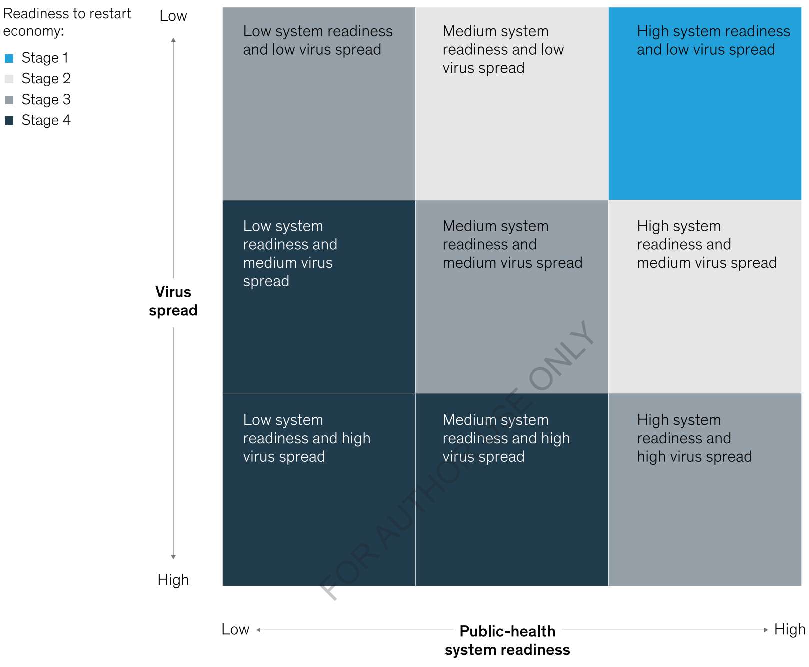
These elements can be combined to provide a measure of strength for public-health systems. If we combine a system's level of strength with an assessment of the intensity of virus transmission, we can evaluate any region's readiness to restart activity (Exhibit 2). These two dimensions determine four stages of readiness to reopen the economy, with Stage 4 the least ready and Stage 1 the most. One broad observation on countries' varying stages of readiness: many emerging markets are especially concerned with the question of how to add ICU capacity.

Exhibit 2

The local response matrix can help governments understand the COVID-19 outbreak in regions more precisely.



Response leaders can plot subnational regions (states, counties, cities, hospital-influenced zones, and so on) on this matrix to evaluate when each can restart some measure of economic activity. Regions with strong public-health systems and few or no cases, where tracking and isolation of transmission chains are still feasible, might behave differently than regions with weaker public-health systems that are further along on the epidemic curve. In many emerging-

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market countries, including several in Latin America, many elements are important but the main obstacle is ICU capacity. Achieving the necessary capacity requires highly coordinated efforts and a detailed management system.

Positions on the matrix will not be static; regions will move upward as case numbers fall and better control mechanisms are established, and to the right as public-health systems strengthen.

The matrix does not offer absolute guidelines but may be a useful tool to aid decision making. Governments can update the matrix every day, using real-time data. A robust management-information system can help countries use their own data to tailor their response to local realities.

In time, other scientific breakthroughs could also transform this dynamic—an effective vaccine, an accurate antibody test, significant new treatments for COVID-19—assuming they are available at scale and deployed widely. This article does not factor in this impact.

Exhibit 3 illustrates the path that a large city, region, or other geography might take toward economic readiness.

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Exhibit 3

Governments must slow the spread of the virus before opening up parts of the economy.

An illustration of how a city might move through four stages

Readiness to restart economy:

- Stage 1
- Stage 2
- Stage 3
- Stage 4

Journey to the next normal

A to B

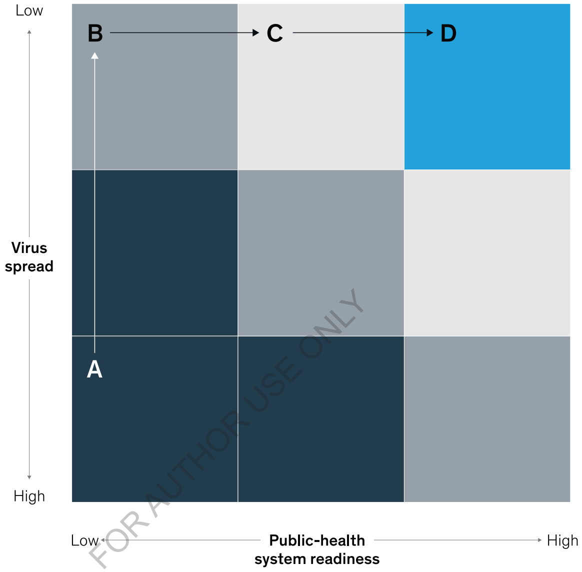
- Mandatory lockdown measures in Stage 4 slow the virus spread, placing the city in a position to start reopening its economy through Stage 3 measures

B to C

- As the economy reopens, the capacity of the healthcare system is significantly expanded, thus allowing a move to Stage 2 measures
- City may return to Stage 3 or 4 if virus spread soars after reopening

C to D

- The city would reach its next normal, wherein its healthcare capacity has expanded sufficiently, the virus spread is moderate, and the city deploys Stage 1 measures



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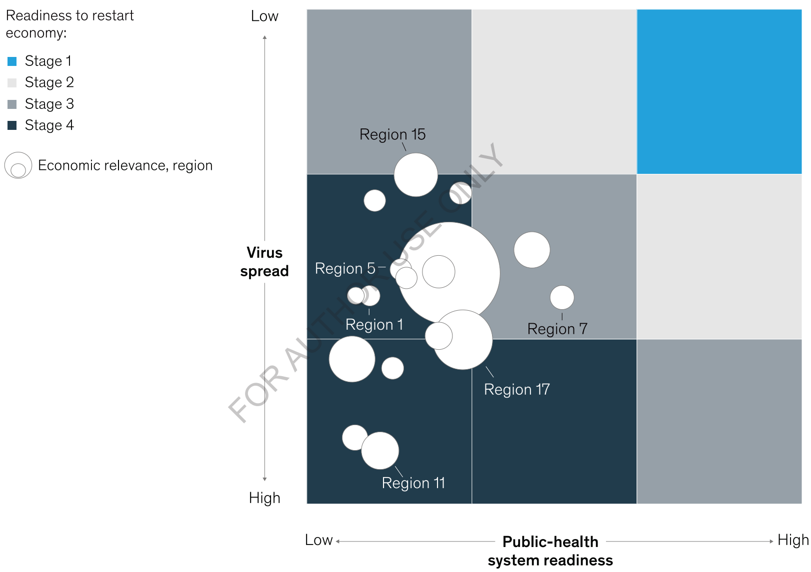
Countries may also have to choose adequate metrics to measure virus spread. The optimal metric would be the rate of transmission, but this demands a large testing capacity that may not be available to some countries. Alternative metrics might include the case growth rate and the cumulative total of cases.

Exhibit 4 shows how one country might look on the matrix. In this example, many regions need to maintain strong measures until the speed of the transmission slows. Other regions do not need to undergo the same restrictions and could potentially resume some of their economic activity. When coupled with an understanding of each region's relative economic importance, as we describe below, this information enables leaders to quickly identify places where more jobs are at stake—which in turn may help leaders prioritize efforts on building healthcare capacity.

Exhibit 4

Officials must track the public-health response by region.

An illustrative snapshot of one country's regions, three weeks into the crisis



In summary, regions can be categorized into four stages of readiness to reopen parts of the economy (Exhibit 5). For each stage, leaders can define the level of intensity of actions to be taken, allowing them to adjust policies and specific actions. Furthermore, the local-response matrix allows for coordination of policies among regions and avoids conflicting solutions that could exacerbate the transmission. It could also offer citizens and businesses an idea of what to expect, which in turn can facilitate economic actions on a mass scale with fewer hiccups.

Exhibit 5

At each stage, governments can implement policies that open parts of the economy: an illustration.

		Readiness to restart economy			
		Stage 1	**Stage 2**	**Stage 3**	**Stage 4**
Population	**Higher risk**	Restrictions to transit in specified zones, times, and days of the week	Stay at home or at designated location	Stay at home or at designated location	Stay at home or at designated location
	Others	No restrictions, but remote work is recommended	No restrictions but remote work is highly recommended	Restrictions to transit in specified zones, times, and days of the week	Required to stay home in mandatory isolation
Economic sectors	**Essential**	All sectors are allowed to operate, and key supply chains operate on a market basis	Government begins to prepare the management of key supply chains in partnership with the private sector	Government partially manages essential supply chains in partnership with the private sector	Government ensures the management of essential supply chains in partnership with the private sector
	Others	All sectors are allowed to operate	Most sectors are allowed to operate but they need to comply with specific social distancing and health protocols	Only a few sectors are allowed to operate and they need to comply with specific social distancing and health protocols	Only those that can operate on an online basis are allowed
Transport		No restrictions to intraregional mobility; interregional mobility is allowed but only between regions in Stage 1	Some restrictions to intraregional mobility, no interregional mobility allowed	High restrictions to intraregional mobility, no interregional mobility allowed	Intraregional mobility is limited to exceptional cases, no interregional mobility allowed
Assembly		Events of up to 200 people are allowed in public and private spaces	Events of up to 50 people are allowed in public and private spaces	Events of up to 10 people are allowed in public and private spaces	Events are limited to household members and caregivers if required in private spaces

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Restarting the local economy: A nuanced approach

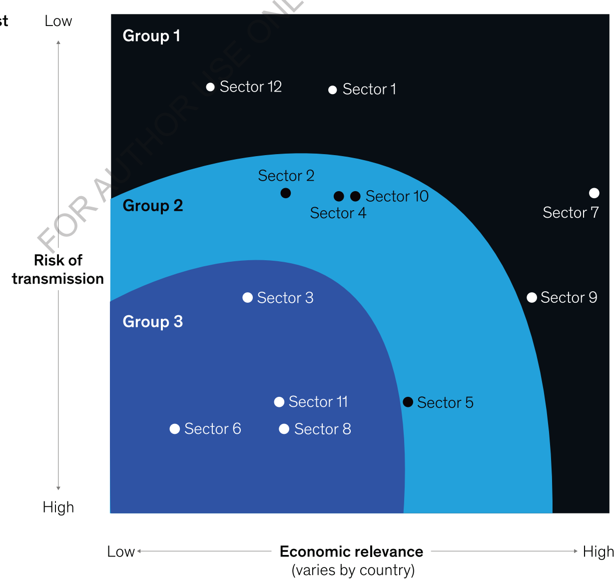
With an understanding of each region's economic structure, governments can quickly identify places where the economy can be restarted. To do that well, governments can assess both the risk of transmission and the relative economic importance of each sector. For instance, authorities might define importance using metrics such as total employment, vulnerable jobs, or contribution to the economy (Exhibit 6).

Exhibit 6

Governments can prioritize sectors based on their economic relevance.

An illustration of how countries might prioritize sectors

Essential sectors that must be open at all times:
- Healthcare
- Public transportation
- Utilities
- Information and communications
- Agriculture
- Financial and insurance
- Public administration and defense
- Manufacturing



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This analysis might require further elaboration for subsectors and individual jobs. A characterization at this level of detail could minimize the loss of jobs that entail only a low risk of transmission.

Some strategic sectors of the economy will need to operate even in lockdowns, including healthcare, defense and security, and procurement of strategic goods and services such as food, medicine, energy, water, gas, and communications. Remaining sectors can be gradually reopened regionally, as the public-health crisis abates. One group could start operating as a region's readiness moves from Stage 4 to Stage 3. A second group could start operating once the region is in Stage 2, when the risk of transmission is relatively under control. Others could open later, once the speed of transmission has been minimized or clear protocols have been created to account for the activity's higher risk of transmission.

When sectors start to go back to work, leaders must institute health and behavioral protocols to lower the potential for further transmission. In almost every sector, businesses will need protocols to maintain physical distancing and prevent a resurgence of new cases: remote work, hygiene- and health-oriented guidelines, frequent monitoring of people's temperatures for early detection of new cases, reporting of relevant information to the health authorities, and enforcement measures to guarantee compliance. Indeed, the adoption of these protocols and others can heavily influence a sector's position on the matrix. Jobs can be redefined in ways that make them safer to restart.

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Additionally, each sector and subsector may need to implement specific requirements and procedures to guarantee the health of workers and the rest of the community. Public-health leaders and industry associations could work together to design protocols for each subsector in the days before the quarantine is lifted. They could also collaborate to provide resources that educate citizens and workers on how to apply those protocols.

Technology will play an important role in "licensing" people to return to work, but each country will have to consider privacy issues in introducing such systems.

Exhibit 7 illustrates general and sector-specific protocols to restart operations. These recommendations are based on McKinsey research and the experiences of several Asian countries—such as China, Japan, Singapore, and South Korea—that have begun to use them.

Exhibit 7

Protocols for safety and health are essential in every sector.

Illustrative measures

Cross-cutting measures[1]

Remote working	• Encourage remote work for the next 3–6 months • Create remote-work policies that offer employees productivity incentives
Physical distancing	• Ensure a minimum distance of 1.5 meters between two people[1] • Define regulation to establish maximum capacity in closed places • Suspend any in-person events that congregates more than 25 people
Temperature and control	• Monitor people's temperature in all buildings and shops daily • Request employee quarantine when the slightest COVID-19 symptom shows up
Health and hygiene	• Establish daily disinfection procedures • Promote mandatory health and hygiene protocols for employees (eg, washing hands, wearing masks and gloves)
Reporting	• Report to relevant health authorities of any case with COVID-19 symptoms • Report the chain of contagion to relevant health authorities
Enforcement	• Perform random checks across sectors to ensure compliance • Impose fines in cases of noncompliance

Sector-specific protocols: Retail[1]

- Implement communication and marketing campaigns to encourage e-commerce
- Implement tax exemptions to e-commerce
- Alternate remote work with face-to-face work as much as possible, especially for administrative staff
- Restrict maximum capacity of stores on per square meter basis
- Ensure that all large meetings are held online
- Set differentiated work shifts (eg, days, nights, weekends, holidays) for administrative staff
- Set differentiated check-in, food, and check-out times
- Create a carpooling scheme for employees in order to prevent them from moving by public transport
- Extend opening times or commercial establishments
- Set specific hours to serve high-risk population

[1] All of these protocols should be clearly defined by local authorities based on their context and needs.

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Countries need to introduce an additional level of granularity to their efforts to protect lives and livelihoods. Our approach requires continual strengthening of the healthcare system through such factors as capacity for widespread testing, increased capacity of local ICUs, and the ability to monitor and quarantine chains of transmission. Technology will play an important role in “licensing” people to return to work, but each country will have to consider privacy issues in introducing such systems. The local-response matrix should be refreshed frequently to guard against a rise in transmission. Resurgence is a real risk and will inevitably occur in many locations.

Countries are naturally anxious to restart their economies. So are citizens. But countries that deliberately shape the next normal, rather than moving to the next stage haphazardly, will have greater success in saving both lives and livelihoods.

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Lives and livelihoods: Assessing the near-term impact of COVID-19 on US workers

As the United States takes action to contain COVID-19 transmissions and "flatten the curve," physical distancing measures are the first line of defense—and they have profoundly altered the rhythms of everyday life. Countless neighborhood businesses have been shuttered, trips to the grocery store have to be carefully planned, and many parents are working remotely from home with their kids in the background.

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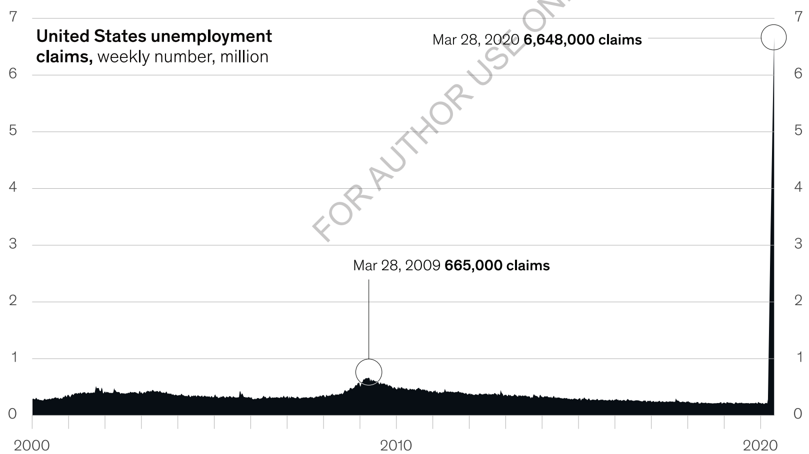
As of March 30, three-quarters of Americans were living under state or local stay-at-home mandates or advisories—and the economic fallout has been swift and dramatic. Discretionary spending has taken a hit, consumer confidence has been shaken, and small businesses are struggling. While there is great uncertainty about the depth and duration of this downturn, recent McKinsey research outlined multiple scenarios that vary depending on the spread of the virus and the public-health response as well as the effectiveness of policy in mitigating economic damage. These factors will determine whether the downturn follows a U-shape with a prolonged trough, or a V-shape with a strong upward rebound. In most scenarios, the depth of the recession appears likely to exceed that of any experienced in the United States since World War II.

American workers are already feeling the pain. Initial unemployment claims for the week ending March 21 soared to 3,307,000, nearly 15 times higher than the 211,000 claims filed just two weeks before and shattering the previous high of 692,000, reached in 1982. Just a week later, the number for the week ending March 28 more than doubled again, to 6,648,000 (Exhibit 1). Our own analysis finds that the first phase of the battle to contain COVID-19 could leave 42 million to 54 million net jobs vulnerable to reductions in hours or pay, temporary furloughs, or permanent layoffs. Many Americans are simply unable to go to work for an uncertain period of time. (However, this is not a forecast of the unemployment rate; see the sidebar for more on methodology.)

Exhibit 1

Weekly initial unemployment claims in the United States reached an all-time high of 6.6 million for the week of March 21–28.



Source: Unemployment Insurance Weekly Claims, US Department of Labor

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Looking beneath the aggregate number, where will the impact be felt? This article builds on the McKinsey Global Institute's (MGI) 2019 research on the US labor market and aims to identify the people and places most vulnerable to the first-wave effects of the pandemic. Our analysis finds that lockdowns disproportionally affect low-income workers. People who were living paycheck to paycheck do not have the financial cushion to absorb a shock of this magnitude. They need immediate assistance to pay the rent, keep the lights on, and put food on the table. In addition, many of the lowest-paid Americans who *are* still working may be risking exposure to the virus as they perform vital services in the economy.

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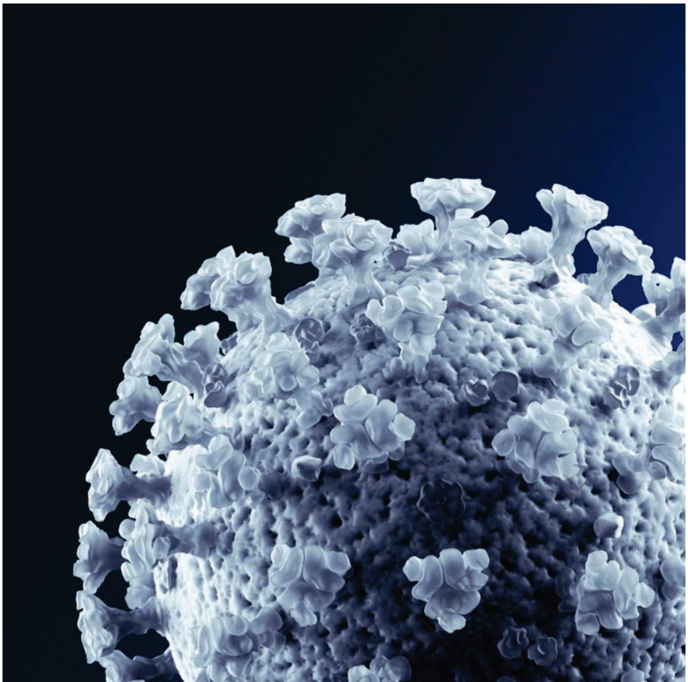

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Insights on how organizations can respond, and what happens next

Up to one-third of US jobs are vulnerable

To estimate the employment impact of the initial shutdown phase, we analyzed the vulnerability of more than 800 occupations based on whether or not they are typically deemed "essential" and whether they require close proximity to others. We then analyzed the sector-level effects of changes in demand related to physical distancing, such as the shift from restaurants to groceries, or from brick-and-mortar retail to e-commerce.

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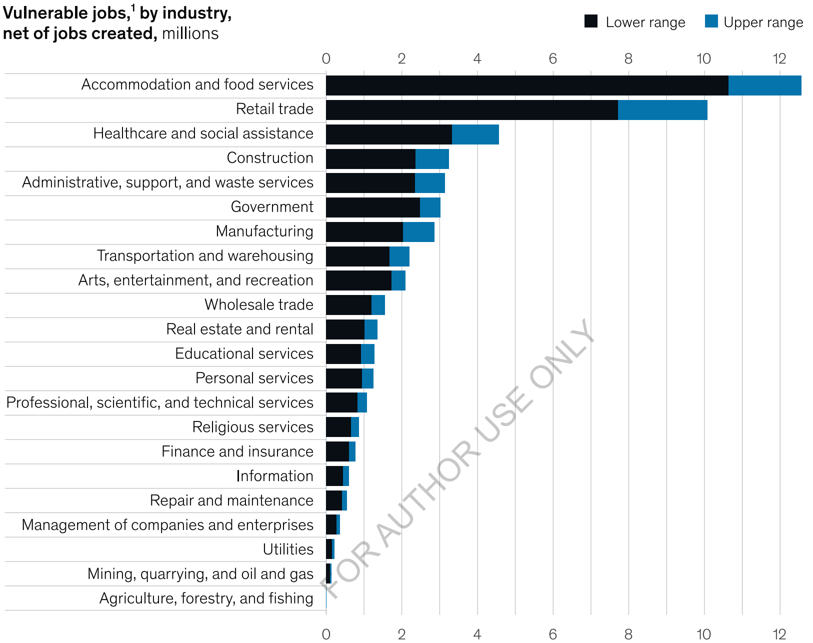
The findings are sobering. A nationwide shutdown could leave 44 million to 57 million jobs vulnerable to inactivity that could lead to reduced income, furloughs, or even layoffs, potentially affecting up to one-third of the entire US workforce (Exhibit 2). To be clear, that number does not translate into an unemployment rate above 30 percent, however. A small portion is offset as some industries facing surging demand, such as groceries, pharmacies, and delivery services, hire two million to three million workers. In addition, "vulnerable jobs" covers a range of outcomes. When nonessential employers shutter their businesses during stay-at-home mandates, some are continuing to pay furloughed employees; others are not. Many businesses will reopen and rehire, but others may not be able to stay afloat. Some workers have already been let go permanently. Many businesses that are staying open are cutting back hours in response to falling demand or redeploying workers to other tasks. It is impossible to gauge how many of these losses will be permanent. But millions of people are suddenly scrambling to pay their bills in the immediate term.

Exhibit 2

Forty-four million to 57 million jobs are vulnerable in the short term, offset slightly by two to three million new jobs.



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[1] "Vulnerable" jobs are subject to furloughs, layoffs, or being rendered unproductive (for example, workers kept on payroll but not working) during periods of high physical distancing.
Source: LaborCube; McKinsey Global Institute analysis

Some parts of the economy are particularly hard hit. Just two service industries—accommodation and food services, plus retail—account for 42 percent of vulnerable jobs. Although many restaurants are using takeout and delivery, they may need fewer people to do so, and some will struggle to pay rent in the coming months. Stores deemed "nonessential" have been closed in much of the country. Travel has also ground to a halt, canceling many flights and emptying out hotels and tourist attractions. By contrast, losses could be much more contained in primary sectors such as utilities, agriculture, and mining. White-collar industries like professional services, finance, insurance, information, and management account for only 5 percent of cuts in this first wave of impact.

The knock-on effects of the shutdown that may be felt later in the year are beyond the scope of our analysis. But consumer spending drives some 70 percent of GDP growth in the US economy, and a plunge in consumption could have cascading effects. If self-reinforcing recessionary dynamics take hold, further job losses may be in store. Much is riding on how quickly the virus can be contained, when lockdowns can be safely lifted, and the extent to which policymakers can help the individuals and businesses cope.

Which occupations are at risk, and where are they located?

Among the estimated 13.4 million jobs that could be affected in the restaurant industry, 3.6 million involve food preparation and serving (a category that includes fast food). Another 2.6 million restaurant servers and 1.3 million restaurant cooks are vulnerable (Exhibit 3). Almost 11 million jobs in customer service and sales could be affected, including 3.9 million retail salespeople and 3.3 million cashiers. The majority of these occupations employ people on a less than full-time basis. In some cases, people who were juggling multiple part-time jobs may retain some income; others could see their hours cut back. In all cases, their finances would take a hit.

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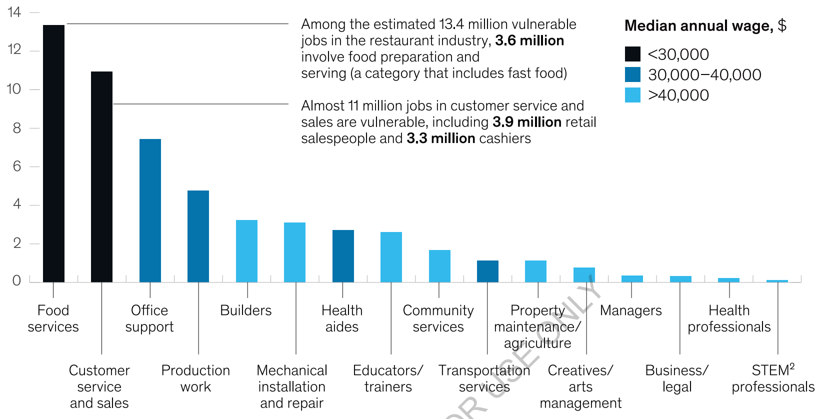
Exhibit 3

Forty-six percent of vulnerable jobs are in food service, customer service, and sales.

Vulnerable jobs,[1] by occupation, millions



[1]"Vulnerable" jobs are subject to furloughs, layoffs, or being rendered unproductive (for example, workers kept on payroll but not working) during periods of high physical distancing.
[2]Science, technology, engineering, and mathematics.
Source: LaborCube; McKinsey Global Institute analysis

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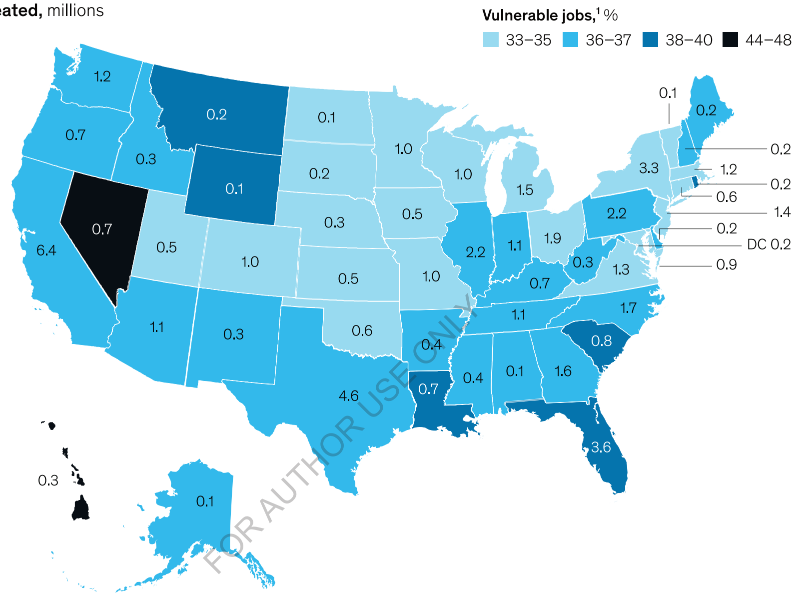
Looking at the impact across geographies, tourism-reliant states like Nevada, Hawaii, Montana, Florida, Wyoming, South Carolina, and Louisiana are likely to be the hardest hit in percentage terms (Exhibit 4). In Clark County (Las Vegas), more than half of jobs are vulnerable. The Strip has gone dark, sidelining the workers employed by its casino hotels, restaurants, bars, and shows. In the two-week period ending March 28, almost 164,000 Nevadans filed initial unemployment claims—roughly 11 percent of the state's employed workforce.

Exhibit 4

The impact could be biggest in states with large tourism industries and more muted in agricultural and knowledge-economy states.

Vulnerable jobs,[1] net of jobs created, millions



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[1]"Vulnerable" jobs are subject to furloughs, layoffs, or being rendered unproductive (for example, workers kept on payroll but not working) during periods of high physical distancing.
Source: LaborCube; McKinsey Global Institute analysis

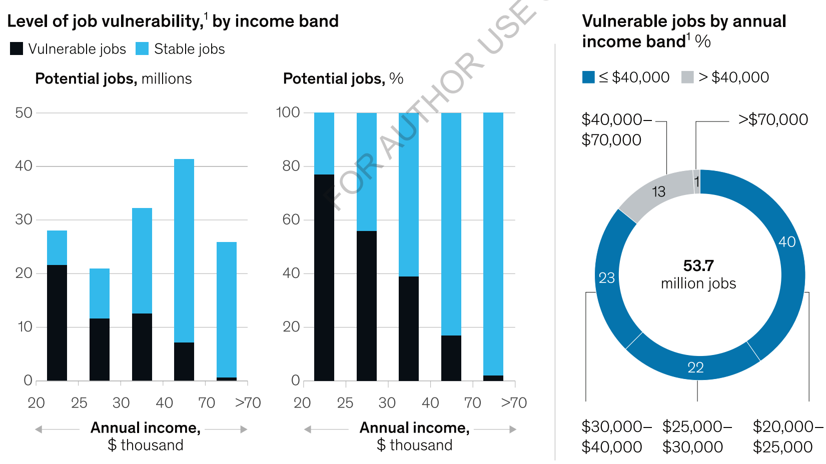
California has far and away the highest total number of affected jobs given its size of workforce. Some 6.4 million of the state's workers may be vulnerable, including 1.7 million in Los Angeles County alone. Piling onto losses in the service sector, L.A.'s entertainment industry has also put production on hold. New York and Texas each stand to lose more than 3 million jobs, at least temporarily. In New York City, the current epicenter of the crisis, the impact could exceed 1.5 million jobs.

Low-income workers and small businesses are the most vulnerable

The workers bearing the brunt of the initial shock are the very people least equipped to weather it. Up to 86 percent of the initial impact affects jobs that were paying less than $40,000 per year (Exhibit 5). Almost all (98 percent) of the affected jobs paid less than the national living wage of $68,808 for a family of four. Even before the pandemic, some 40 percent of Americans reported that they could not cover an unexpected $400 expense without borrowing or selling assets. Finances were already precarious for many of the people who are now without work.

Exhibit 5

Eighty-six percent of vulnerable jobs paid less than $40,000 a year.



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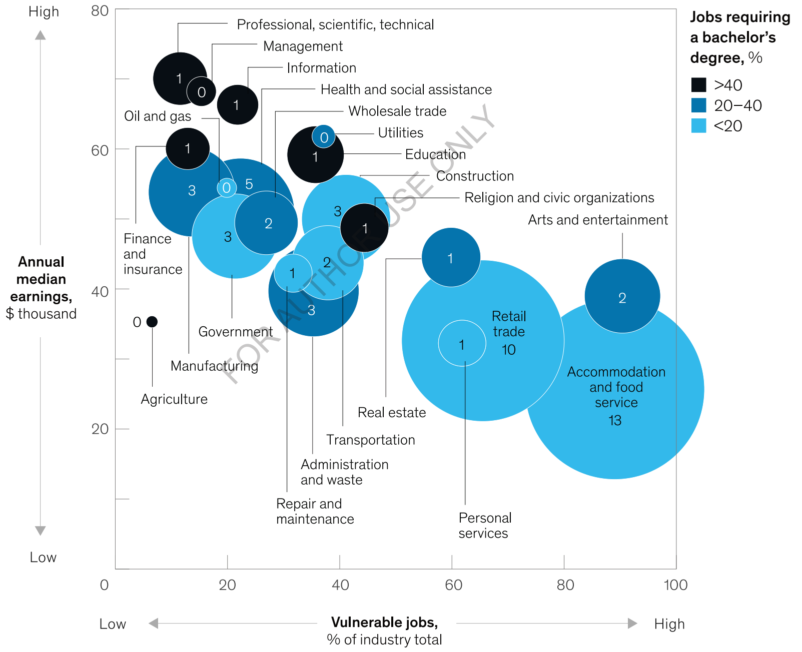
Note: Data may not sum to 100, because of rounding.
[1] "Vulnerable" jobs are subject to furloughs, layoffs, or being rendered unproductive (for example, workers kept on payroll but not working) during periods of high physical distancing.
Source: LaborCube; McKinsey Global Institute analysis

Looking across industries, those experiencing the biggest negative impact typically pay low wages and employ workforces with low educational attainment (Exhibit 6). Previous research from MGI found that these jobs have disproportionate concentrations of African-Americans, Hispanics, and people with a high-school education or less.

Exhibit 6

Industries with the lowest wages and the lowest educational attainment are being hit hardest.

Vulnerable jobs,[1] by industry, earnings, and education, millions of people (circle size)



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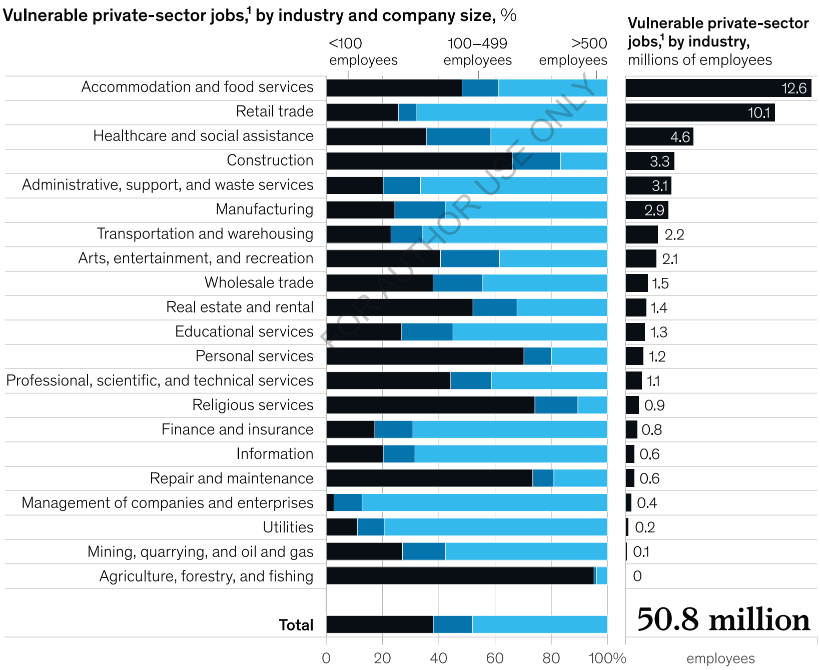
[1] "Vulnerable" jobs are subject to furloughs, layoffs, or being rendered unproductive (eg, kept on payroll but not working) during periods of high physical distancing.

More than half of the vulnerable jobs in the private sector were in firms with fewer than 500 employees—and almost 40 percent from businesses with fewer than 100 people (Exhibit 7). Small businesses have less of a capital cushion to continue paying furloughed employees, and they may have fewer opportunities to redeploy workers to other functions. In addition, 16 million self-employed workers are not captured in our analysis due to lack of available data. But many of them are either unable to do business as usual or facing a sudden drop in demand.

Exhibit 7

More than a third of vulnerable private-sector jobs are in small firms with fewer than 100 workers.



[1]"Vulnerable" jobs are subject to furloughs, layoffs, or being rendered unproductive (eg, workers kept on payroll but not working) during periods of high social distancing.
Source: BLS Occupational Employment Statistics, US Bureau of Labor Statistics; LaborCube; Moody's Analytics; McKinsey Global Institute analysis

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At the same time, America has work that urgently needs to be done

While physical distancing and shutdowns are freezing some businesses, others are seeing spikes in demand. Some of the nation's largest retailers are hiring tens of thousands of workers to meet demand for groceries and other necessities. Grocery stores, pharmacies, convenience stores, and pizza chains are all ramping up hiring. Hospitals and health providers are putting medical students immediately to work, and healthcare professionals who are retired or out of the workforce are streaming back.

We estimate that up to 3 million workers could find short-term employment as community health workers, warehouse staff, delivery drivers, and other critical roles. This number can be augmented if the private sector finds additional ways to keep workers productive. Even when large-scale repurposing is not possible, business can creatively redeploy staff who would otherwise be idle (shifting waiters into delivery-driver roles, for example) or offer voluntary reductions in hours to avoid layoffs. They can also partner with or participate in job platforms to help furloughed or laid-off workers immediately connect with temporary opportunities in other parts of the economy where demand is spiking.

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The nation has an acute need for medical supplies and protective equipment to fight the pandemic, presenting an opportunity for manufacturers to repurpose factories to keep workers employed. Some are shifting production to turn out hand sanitizer; others are making protective masks, gowns, and scrubs. Multiple companies specializing in advanced manufacturing are gearing up to produce ventilators. This requires public–private coordination to ensure that technical standards are being followed and supplies get to the regions and facilities with the greatest need.

Many white-collar professionals are able to work from home during shutdowns. But in addition to the healthcare workers and first responders on the front lines of the pandemic, many blue-collar workers have to be physically present to do their work. They are stocking grocery shelves, cleaning hospitals, caring for the elderly, filling prescriptions, making and delivering food, delivering mail and packages, staffing warehouses and production lines, driving trucks, and collecting trash. These roles are often taken for granted in good times, but it is now apparent just how much society depends on them. The workers who are keeping these essential services going are doing so at the risk of exposing themselves to the virus—and they deserve equitable pay, sick leave, and adequate safety protections.

Vulnerable workers need a lifeline

The public and private sectors will need to respond decisively to help families meet their basic needs, create liquidity for businesses, and mitigate the potential long-term damage to the US economy. The $2.2 trillion federal CARES Act passed in late March is a good start, but it will need to be operationalized quickly to get cash payments into the hands of individuals in need. Getting Small Business Administration loans to struggling small enterprises can help them bounce back, preventing millions of temporary layoffs from becoming permanent.

When the emphasis eventually shifts from fighting the virus to reopening the economy, many of the jobs on pause today will come back. But others will not. Companies that have laid off workers may wait to see how the recovery takes hold before rehiring. Past crises have led to structural shifts in the economy and new ways of working; this one could do the same. Some trends already under way, such as the shift to independent work and the gig economy, or adoption of automation and artificial intelligence, may accelerate as companies seek to make their operations more resilient to future pandemics.

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Now the "future of work" may have arrived even sooner than anyone anticipated. The need to create better opportunities for all Americans once seemed like a long-term project, but the crisis puts that imperative into the present tense. The United States has been through many challenges in the past, from wars and the Great Depression to the influenza pandemic of 1918—and it has always emerged stronger. The current crisis may similarly turn out to be a moment in history that forces us to build a more inclusive and resilient future.

Applying past leadership lessons to the coronavirus pandemic

Three seasoned leaders describe what they learned from managing through past crises.

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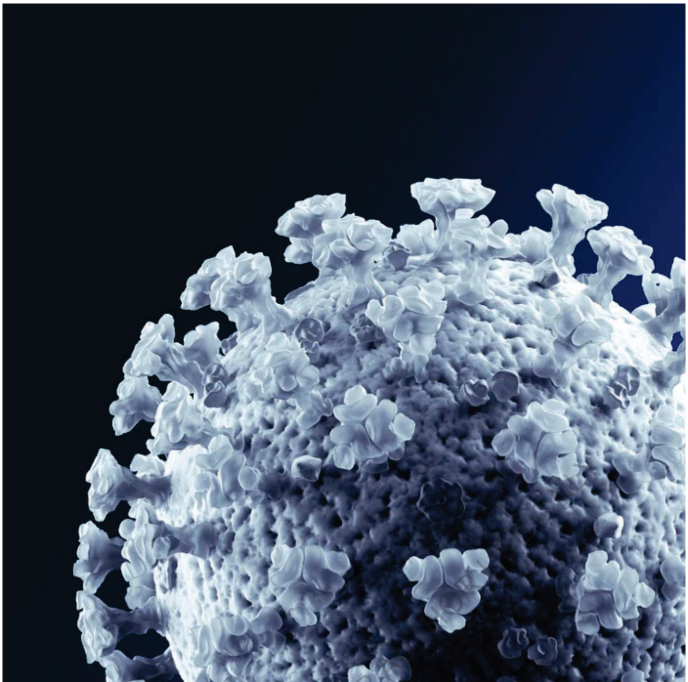
Savvy managers understand the fundamentals of crisis management, at least on the theoretical level. Their careers rise and fall on an individual's ability to rally their teams, project deliberate calm and empathy, take decisive action, and communicate effectively. The most fortunate among them have not had to face a crisis like the coronavirus pandemic now rampaging through the global community to devastating effect.

But there are managers out there whose stories and experiences of leadership in moments of disruption and upheaval can be instructive. To learn more, we spoke with three senior advisers to McKinsey with just such experience. Hugo Bague was group executive of organizational resources at Rio Tinto during the Ebola crisis in 2015–16. Jeff Cava was chief human-resources officer (CHRO) at Nike during two major economic crises, executive vice president, administration, at Wendy's in 2003, during the SARS outbreak, and CHRO for Starwood Hotels and Resorts during the financial and swine-flu crises of 2009. And Manley Hopkinson served as an officer in the Royal Navy during the first Gulf War, set a record skiing to the magnetic north pole, and has sat on the board of directors at Atlas Consortium, Hewlett Packard Defence UK, and Ark Data Centres. We spoke with them individually but present their comments here in a virtual roundtable format.



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Insights on how organizations can respond, and what happens next

McKinsey: During a crisis, top-down leadership doesn't always engender stability. What's your experience at balancing central control with delegating responsibility locally?

Manley Hopkinson: It is vital that a leader resist centralizing control. The temptation in a time of crisis is for leaders to put themselves at the center of all activity. It's an understandable desire to ensure all is well, even though precisely the opposite is needed.

To decentralize and create a network of teams requires absolute clarity on intent and priority. A leader cannot empower a team if there is any uncertainty in direction or priority. And even while prioritizing short term and making priorities crystal clear, leaders still need to keep the long-term direction and purpose in mind. On my race to the north pole, in our team of three, one person focused on the near and tactical, ensuring that we crossed each crevasse safely. A second person took the lead role and focused on the far horizon, making sure we did not go around in circles. The "leader" is not in front, making all the immediate decisions. They are following, navigating a course to the future.

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Now, for example, I advise a number of organizations whose work is critical to the functioning of the United Kingdom's national infrastructure. For them, the safety of their people is paramount, but subservient to the integrity of the nation's ability to operate. This clarity of purpose, intent, and priority, long term and immediate, allows teams and individuals to be fully empowered. It enables teams of teams to make the right decisions, and it enables decisions to be made where the information lies. That is key.

Hugo Bague: Not every decision should be made by the central office headquarters. Local teams are often the best positioned to judge the situation on the ground—and their decisions should not be second-guessed. For example, in 2015, we had 4,000 employees in Guinea during the Ebola crisis. The mortality rate was high, so naturally we had to decide if we should send home all the expatriate employees—knowing that they would then lose all credibility and never be able to go back? We delegated that to the team. We said, "You are the best to make that assessment, because we can't judge the health risk on the ground for you as expats." And the team decided that the expats themselves would stay, but their families went home. After six months, we established a rotation so that expats could go visit their families even while maintaining skilled leadership on the ground.

Corporate couldn't have made that call. They would probably have brought everybody home. But let's be careful with words: autonomy doesn't mean in isolation. We said clearly, whether you stay in Guinea or not is your call. But we want to have a discussion with you to ensure that you've looked at it at every angle. And in the end, no employees contracted Ebola.

McKinsey: That kind of collaboration takes work. What kinds of teams can do it?

Hugo Bague: A team with defined roles and responsibilities can do it, but decision making must be even more clear and concise in a crisis than in other situations. There also needs to be accountability, so that even when there are different people and different departments giving input, at the end of the day, there is a single decision maker. That needs to be clear. And the whole leadership team should maintain discipline in speaking as one around a decision. There can't be any internal criticism or questions around decisions, because in a crisis the organization is fragile.

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There also needs to be accountability, so that even when there are different people and different departments giving input, at the end of the day, there is a single decision maker.

Jeff Cava: If there is a thin veneer of cooperation and collaboration, it will be immediately exposed. If, on the other hand, there are genuine, honest relationships among senior leaders, you're going to have a much better functioning crisis team. If there are weaknesses, if there are cracks in the team functioning, it will fray quickly in times of stress. It sounds obvious, but many leaders don't understand that when people are under extreme pressure, they revert to interpersonal styles that tend toward preservation over collaboration. If your team dynamics aren't in a decent shape, crises will amplify the dysfunction.

At Wendy's during the SARS crisis, we made decisions informed by people on the front lines. The way we were structured helped us. Our organization was structured in a way that allowed for the efficient communication of information from the stores up the chain to the C-suite. We had store managers who were all connected to district managers who were connected to division managers who in turn were connected to the head of operations. We had a good communication network and we received great input. In the C-suite in larger corporations, we tend to focus on strategy, big ideas, in the abstract. But in these situations, we needed tactical decisions, and needed them quickly. We needed to address the issues in a way that makes sense in the environment of the store.

Manley Hopkinson: A coherent culture creates the environment that allows teams to work independently and with each other. A common understanding and common language of the tools of leadership and collaboration are vital. For example, when the whole organization uses a consistent tool for delegation, then delegation is consistently effective. It comes back to clarity again.

McKinsey: Leaders want to come across as grounded and reassuring. But there's a fine line between reassuring and saying something that's overly optimistic. How does that play out in real-life communications?

Manley Hopkinson: I love the expression "deliberate calm," recognizing the work of Albert Mehrabian on the emotional context of communication. As he quantified it, communication is 55 percent visual, 38 percent tone, and only 7 percent what you say. It takes a great deal of consciousness from leaders in the midst of crisis and upheaval to maintain a balance that is neither too negative nor overly optimistic. They need to recognize that they are always on stage but accept that they, too, are still human and can make mistakes. In a time of crisis, we need leaders to raise their levels of consciousness and be acutely aware of how they are being perceived.

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It takes a great deal of consciousness from leaders in the midst of crisis and upheaval to maintain a balance that is neither too negative nor overly optimistic.

Jeff Cava: At different times, we've had to make pretty sizable reductions in force. During the 2008 financial crisis, we reduced our nonproperty head count at Starwood by a substantial amount. After we did the first round, everyone wanted to say, "That's it, no more, you can all go back to your jobs—everything is great." I, along with others, strongly urged against that, and we didn't make that commitment. Because we didn't know what was going to happen. And indeed the economic situation did worsen before we finally stabilized and began recovering. People depend upon our statements as leaders and often plan important decisions based on the information we give them. To make a commitment of that importance and then not follow through destroys the trust that we strive to create with our associates.

It comes down to the old adage: honesty is the best policy. Ask yourself, “Is my statement absolutely true? If I’m required to do something to make it true, can I do it?” We couldn’t promise uninterrupted employment, because we didn’t know what was going to happen in the economy. This was an unprecedented economic disaster. The desire was to give people relief and confidence. But you can’t give them false relief and false confidence. That’s hard for a compassionate leadership team, but you have to push yourself.

Hugo Bague: In times of crisis and uncertainty, you need leadership to show stability. There are many things you don’t know, but you can still bring stability by structure. We had daily calls and daily communications at a fixed time with all the employees through mobile phone—and we did that daily for 18 months. Bringing structure into the lives of people, you take things under your control. That helps with the mental health and stability of employees, which one should not underestimate in a time of crisis. People have questions around their families, their jobs, and many topics, so any stability you can provide is quite important.

Jeff Cava: At Starwood, I believe we were well positioned to communicate using all modalities. This was an internal capability we had built up over time—quick group videoconferences, real-time video clips that we could send throughout the world, well-crafted talking points and FAQs, local in-person group meetings with our CEO. We integrated communications in the internal machinations of the business. We didn’t just call when we needed to communicate; our communications experts were part of the ongoing business operations and leadership team.

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We had practiced crisis communications regularly throughout the year. We would bring representatives from the organization to participate in a simulated crisis and work together to resolve it in real time. That allowed us to do two things: pressure test our ability to communicate and the content of our messaging. But more important, it let us pressure test the personal and interpersonal relationships among the crisis-management teams before we were in crisis.

McKinsey: Companies want to protect their customers and their employees but also be fair to investors and shareholders. How do you balance those objectives?

Jeff Cava: Concern for employees and the communities within which companies do business doesn’t need to be in conflict with concern for ensuring a going commercial enterprise. Boards in particular are concerned with both. Obviously, they have a financial duty to their shareholders and as importantly have a genuine concern for how their and the company’s reputation are perceived. At the end of a crisis, management and the board will be judged by how well they balance this relationship. Successful solutions look for actions that can combine the best interests of both.

Concern for employees and the communities within which companies do business doesn't need to be in conflict with concern for ensuring a going commercial enterprise.

At both Wendy's or Starwood, the goal was to preserve the workforce. Both industries have high staff turnover. Employees often work hourly and have a lot of financial pressure. We needed to preserve our connection with them so they would continue to feel connected to the company. Hourly workers can migrate quickly. If you don't create a genuine relationship between them and the business, they will lose and you will lose in the long term. I think boards need to keep that as a central theme in their considerations.

McKinsey: Can you say more about how boards of directors balance concern for the humanitarian side of the crisis with their responsibilities to shareholders?

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Jeff Cava: Sometimes they can do both. But sometimes people get their goals and motives confused. A corporate board is very concerned with protecting its reputation. It wants a sensible business solution, operating in a constructive economic reality. But at the same time, it wants to be seen as altruistic to the general public.

As a leader, you have to be able to meet both objectives. You have to be able to present that you're not just concerned about your profits and balance sheet but also that you're concerned because it serves the greater good of those 200,000 employees. Because you'll need them—and you're also concerned about the investment you've made in these people and that they've made in the company. This is going to serve your economic interests and well as their personal interests. This is the way the whole communication process and problem-solving process needs to be structured.

CEOs don't need to be bleeding hearts. On the other hand, they also shouldn't be so mercenary so they forget they're part of a system—of people, customers, and economic outcomes. They need to approach the problem that way. Net–net for us, whether Wendy's or Starwood, a really important goal, as I said earlier, was to preserve the workforce. We needed to preserve them so they could preserve us, whether at hotels or restaurants. If you don't create stickiness between your associates and the business, they will lose and you will lose over the long term. I think the board needs to understand that.

Manley Hopkinson: Leadership based on understanding and not control—trusting that people know what to do—allows companies to turn a crisis around into an opportunity to shake things up. It allows them to challenge existing ways of doing things, to develop your people and let them take more responsibility. There's an opportunity to nurture a greater sense of empowerment and ensure the leader's thinking continues to include people's needs and growth.

Leaders in a crisis tend to stop what they consider to be peripheral activities to focus on survival. I've seen leaders who immediately stopped any leadership or personal development at exactly the point when their people were under most stress and most pressure, when their performance would be even more important. That is a fundamentally flawed way of thinking. People development and team building are not peripheral activities. They are key. It is in a time of crisis that you need to ask more of people. You need their commitment and energy, both to tackle the crisis and to continue a journey of growth when it's over. I have always been pleasantly surprised how people react and grow in crisis if they feel valued and empowered and if we can ensure, as leaders, that our actions reinforce that reality.

This article represents edited comments from phone and video interviews moderated by Gila Tolub, a partner in McKinsey's Tel Aviv office.

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How China's consumer companies managed through the COVID-19 crisis: A virtual roundtable

During a virtual roundtable, China-based executives discuss their experience managing operations at leading consumer companies during the coronavirus crisis.

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On March 19, China reported no new locally transmitted cases of COVID-19 for the first day since the outbreak of the virus in the Hubei province capital of Wuhan. Extraordinary containment measures limiting the movement of millions, coupled with rapid medical response, appear to have proved effective in preventing new infections.

As a result, China's economy is resuming activity after a near total shutdown. Factories are restarting production, offices are reopening, and consumers are tentatively venturing outdoors and returning to stores. As China lifts its lockdown, Europe and North America are entering their own period of uncertainty, with governments closing borders, issuing self-containment advisories, and banning public gatherings.

In this unprecedented period of transition, McKinsey's Greater China Consumer and Retail Practice conducted a virtual roundtable discussion with China-based executives at leading consumer-facing companies about their experience managing operations under lockdown. They spoke with Jan Craps, Chief Executive Officer & Co-Chair at Budweiser Brewing Company APAC; Motonobu Miyake, CEO of Lawson (China) Holdings; Jean-Michel Moutin, Asia COO at LVMH Perfumes and Cosmetics; Feng Hua Song, Vice President of Erdos Group and GM of Erdos 1436 Brand; Belinda Wong, Chairman and CEO of Starbucks China; and Dr. Wenzhong Zhang, Chairman of Wumart and Founder of Dmall.

They offer perspectives on the chief difficulties they faced, the measures that proved most successful in mitigating the human and business impacts of the virus, and how their operational emphasis shifted through the epidemic.

They agreed that creating, communicating, and delivering new business plans in an uncertain environment was among the most difficult challenges they have ever faced. Acting fast to provide protective gear and sanitizer, additional insurance, and other health-related benefits, emerged as the most effective strategic response, as this was crucial for maintaining morale.

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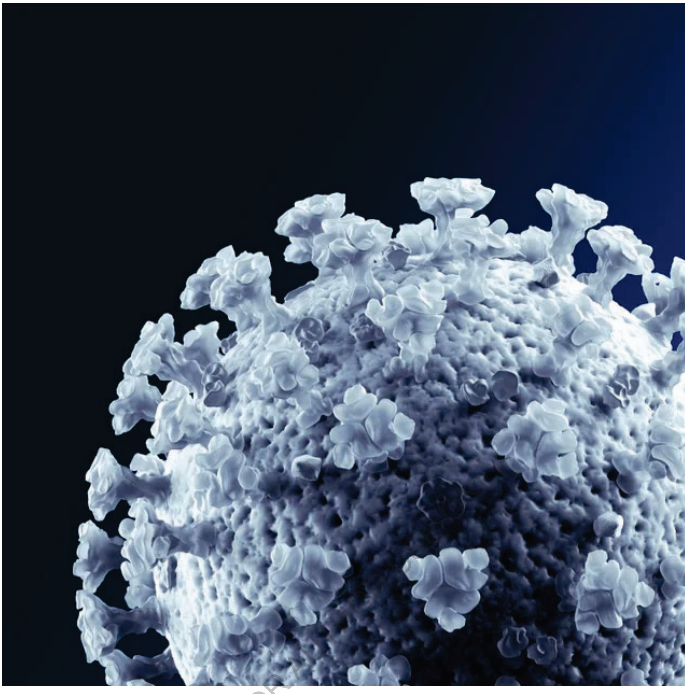

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Insights on how organizations can respond, and what happens next

FOR

As the crisis deepened, digital communication with employees, both of safety measures and operational changes, and messages of support to customers, became vital in keeping strategic responses on track. With stores closed, businesses doubled-down on digital initiatives, including contextualized WeChat campaigns, online-to-offline and omnichannel sales, community commerce, and pure e-commerce. When stores reopened, contactless in-store ordering systems helped customers and employees feel safe.

The respondents also said planning to immediately reopen offline stores was critical to maintaining company spirit during the crisis. Many also suggested the experience has brought their companies closer together, while accelerating transitions to digital as they bring operations back to normal.

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Below is a collection of reflections about their experience working under lockdown conditions, collated in the hope that executives in other markets can better adjust to similarly testing circumstances.

McKinsey: What was the most difficult challenge you faced during the COVID-19 outbreak?

Motonobu Miyake: The biggest challenge was maintaining operations while keeping employees safe when it was unclear whether customers were infected. We hand-carried medical goggles and protective clothing from Japan as it was difficult to source these and other in-store consumables like disinfectant, masks, and non-contact temperature checking devices. Store opening conditions were also tough to coordinate as they differed by region, and according to rules imposed by the buildings in which they are housed, both of which changed frequently. We made sure staff were aware that if they acted to comply with local regulations without consulting supervisors, they would not be penalized, and that clear and open communication about their situation was paramount. It was also a challenge to keep headquarter operations running as a result of restrictions on office working.

Belinda Wong: There was no playbook. The situation was evolving rapidly amid huge uncertainty, so we had to decide how to lead. We pivoted from opening stores—in normal business a new Starbucks store opens roughly every 15 hours in China—to proactively closing most of our 4,300 stores, and taking measures to protect our 58,000 partners (employees). That meant unwinding everything I had learned over 30 years in retail. I had to completely reset my thinking, concentrating on protecting the safety of Starbucks partners and customers.

Jean-Michel Moutin: The speed and severity of the crisis required daily immediate action either for the safety of our people, or for the continuity of our business. Fast decision making was required in a multi-brand and progressively multi-market environment, as well as crisis management for a type of crisis that was not specifically on our radar.

Jan Craps: Nightlife venue and restaurant closures cut off our usual points of contact with consumers, so the challenge was to shift resources to in-home occasions via e-commerce and omnichannel; online to offline, and community commerce. This involved realigning cross-category promotions, and launching new in-home consumer experiences like weekly DJ livestreams, and e-gaming events, while digital influencers conduct online sales. We also customized marketing around home delivery, and linked this with our loyalty program to drive repeat purchases through the lockdown period. For social commerce, we piloted having select consumers and employees act as brand representatives and group-buying coordinators for different compounds and residential developments. Putting all this together in double-quick time under lockdown conditions was hugely challenging for all involved.

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McKinsey: In hindsight, what were the most impactful actions you took at the onset of the outbreak?

Belinda Wong: We were among the first major brands to proactively close most of our stores, to protect our partners, customers, and society, though this quickly shifted to reactive closures. At the peak of the crisis, 80 percent of our stores were closed. For stores that remained open, protecting our partners and ensuring they felt safe drove our early decisions. Apart from securing supplies of masks and sanitizing agents, we drew up elevated store operation standards, establishing a “safety station” at entrances to check customers’ temperatures, and ensure they wear masks before entering. All partners are required to undergo daily temperature checks, and wear masks at all times, while washing their hands and sanitizing surfaces at regular intervals. We also introduced the “Contactless Starbucks Experience”—

digital ordering via mobile that minimizes human contact, and reduces the time customers have to stay in store. Some stores continued to offer limited lobby service, with reduced seats to maintain a safe distance between individual customers.

Dr. Wenzhong Zhang: We convened our leadership every morning and evening to review procedures and progress, and published nine versions of guidelines to counter virus transmission with the result that among our 100,000 staff there have been zero infections so far. Our team traveled to South Korea to purchase facial masks, which enabled us to have the first batch delivered to Beijing on January 29, and ensure the capital did not run out of stock, despite sales of 18 million units in the first month of the outbreak. At the onset of the crisis, we supplied up to 90 percent of the masks sold in Beijing, in the process helping minimize virus transmission in the city. We also tripled supplies of fresh vegetables and meat to Beijing to make sure the city did not run out, and donated food and other supplies to hospitals and communities in Wuhan.

Jan Craps: Leveraging our global procurement network to source protective gear and masks for all our 26,000 employees. We launched digital employee health tracking and support, complemented by hygiene and health training, and measures to disinfect breweries and offices. We offered cashflow support to our wholesalers, and provided retailers with tool kits including masks, gloves, and sanitizers so they could reopen. We also defined seven-day, 30-day, and 100-day action plans, starting with a war room focused on employee welfare and social responsibility, including donations of protective gear. The 30-day plan aimed to reshape the business and resume operations, while the 100-day plan seeks to grow the China business post-crisis. Big data allowed us to differentiate the speed and level of our investment by channel and region, while monitoring progress on a city-by-city basis.

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Jean-Michel Moutin: Protecting the safety of our staff was paramount. We defined safety measures, and in less than 10 days put in place a full supply chain to source and dispatch hundreds of thousands of masks to our staff all over Asia, in the field and at the office. That required an unprecedented degree of coordination between human resources and logistics staff. We then acted to preserve the business by focusing on e-commerce while managing a supporting supply chain, and organizing new ways for our office staff to work from home.

Feng Hua Song: Responding quickly and maintaining a strong relationship with customers and staff. We rapidly distributed masks to employees, and 500 VIP customers, along with a goodwill message. This might seem like a small gesture, but it helped instill confidence in our organizational stability, and was deeply appreciated by customers. Fast and effective communication was essential, so we prioritized sending a letter to all our staff emphasizing that the company would be there to support them. Once we had dealt with the fundamentals, we formed a dedicated team to accelerate development of our online business, as we knew offline would be hit hard. We used WeChat to ensure our customers and staff, which was larger than usual because of Chinese New Year sales, were kept up to date. Later, we successfully launched a Valentine's Day WeChat campaign with the "love is the cure" slogan that helped drive online sales of new apparel lines.

On January 26, Erdos also restarted our cashmere coat factory, purchased materials from around the country, and converted production to manufacture protective masks and clothing. We also instituted professional disinfection and sterilization procedures that helped bring the epidemic under control in Inner Mongolia. On the same day, the Chairman of the Board of Directors of the Group personally called the President of Mitsui Corporation in Japan, drawing on a partnership built up over several years, and asked for help with the purchase of professional protective materials from around the world. From February 5, materials worth over 20 million RMB flowed into the country and onto the front lines of the fight against the epidemic. On February 9, we donated 8 million RMB to the Song Qingling Foundation to establish the "Erdos Warmth Fund" to care for and support frontline medical staff and their families.

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McKinsey: Is there any major difference in your actions and focus in the first two-three weeks of the outbreak compared with more recently as things have started to stabilize/recover?

Jean-Michel Moutin: Our first weeks focused on immediate decision making to preserve employees' safety, and the continuity of our retail business and supply chain. Now, we are working on managing the recovery in China, with progressive reopening of our retail network, and preparing for the rebound. We are also analyzing the medium-term consequences of a worldwide outbreak, with an economic and financial crisis following in its wake. This will likely be combined with accelerated changes in our Chinese consumers' habits, like moving even faster than expected to digital and e-commerce, while reducing their travel abroad for at least a few months. Focusing on crisis management does not mean that you have to give up long-term perspective and strategic capability building, especially in a market as important as China. Finally, in the last week, we have leveraged our China supply chain to secure orders for 40 million surgical masks, with the intention of distributing these to the French national health service.

Belinda Wong: Early on, we committed to paying partners even when our stores were closed, stepped up insurance benefits in the event that partners or their family members contracted the virus, and launched a Partner Assistance Program (PAP) to give counseling to partners and their families, with costs borne by the company. As the situation evolved, we shifted focus to reopening, which was critical not just for the business but also for company spirit. We started planning to reopen while store closures were still growing, prioritizing our partners to ensure they were safe and confident in their working environment. Now, over 90 percent of our stores have reopened.

Dr. Wenzhong Zhang: In the early days of the crisis, we concentrated on meeting demand for fresh and staple foods, as well as protective gear. There was enormous demand for home delivery, and contactless pickup. We set up about 3,000 online-to-offline community pickup stations, which covered more than half the 4,000 communities in Beijing. These played a significant role in keeping the city supplied as it was going under quarantine, and attracted strong mobile orders in the first 10 days. We expect this model to continue growing strongly even now that the virus situation has come under control.

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Motonobu Miyake: In early January, we did not yet feel a sense of crisis, and it was only on January 20 that travel to Wuhan was restricted. After the city was blockaded, we web-conferenced a leadership meeting involving Chinese management who had experienced the Severe Acute Respiratory Syndrome (SARS) epidemic. They drafted advice on what the likely government regulatory response would be, and we delivered this across the regions, while adjusting opening procedures to keep employees safe. We also procured extra store consumables—particularly masks and cup noodles. As the crisis evolved, the government or host building instructed us to close stores to prevent new infections. We then reviewed our manufacturing processes and made volume adjustments based on the principle of safety first; we were concerned that factories facing staff shortages, and under pressure to meet emergency orders, might take shortcuts on hygiene, and so reduced our orders in line. We also looked into emergency financing in case we had funding difficulties. Right now, store supplies of consumables are almost back to normal, with relatively few shortages, and we aim to normalize headquarters and store operations. Our biggest task is to rescue the franchisee stores who have suffered economic distress.

Feng Hua Song: The biggest difference is in the mentality of the organization, which shifted from being unsettled to one of confidence after our response became clear, and people came to terms with ex-office work routines. Once the situation was under control, we shifted to strategic planning; looking at ordering remotely for the next season. We also began to work on revised three-year plans that included much more aggressive omnichannel targets, transforming our supply chain to be more agile, and other strategic moves to grow the business.

Jan Craps: In the first few weeks, our focus was employee safety and preparing to resume commercial and supply chain operations. More recently, we have returned to growth mode; developing new consumer trends, and accelerating existing trends like premiumization and digital trade.

McKinsey: If you had one piece of advice for companies around the world battling COVID-19 under lockdown conditions, what would it be?

Jean-Michel Moutin: Dare and care. Dare to take quick decisions through a crisis management team properly empowered to preserve business continuity. Care about your team, always putting people first in terms of health and financial security both on the frontline and in the back office to guarantee service continuity. It is important to make sure your teams feel supported by management. A combination of managerial courage, teamwork, and strong resilience is required. As Nelson Mandela said: "May your choices reflect your hopes, not your fears."

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Dr. Wenzhong Zhang: We believe the coronavirus crisis has brought forward the timeline for adoption of omnichannel grocery services, such as remote ordering and pickup, by at least one year. Keeping track of how online ordering preferences change under lockdown is also essential; customers sought to vary their diet across a balance of ready meals and home cooking, and there were significant shifts among top-selling brands.

Motonobu Miyake: Assuming a prolonged lockdown, the first step is to keep employees safe, and prepare for reopening. A company cannot survive if it is closed forever, and there is tremendous value in empowering staff with the message that their work is essential to life returning to normal. Those in a position to do so should offer support to medical institutions.

Jan Craps: Empower regional teams to deliver within guardrails based on best practice and non-negotiables like safety, quality, and business protection. Give more flexibility and autonomy to frontline teams to react rapidly, given the situation can be very different city-by-city and channel-by-channel. Crisis-hit consumers are shifting towards more home cooking and looking for innovative forms of in-home entertainment, while demonstrating increased preparedness to trade up, opening opportunity for agile businesses to meet evolving consumer demands.

Feng Hua Song: Though in physical lockdown, it is important not to panic, and focus on organizing a response. In the digital age, a strong organization should always be connected, and we have realized that many roles do not require face-to-face interactions. The leadership group must act calmly to maintain the confidence of employees, as this is key to holding the company together. If all goes well, a more tightly knit organization will emerge from the crisis.

Belinda Wong: I remembered how Howard Schultz (Starbucks founder and chairman emeritus) used to say that not every decision is an economic one. That has stuck with me, and in the current crisis, it helped me understand what I needed to do. I fell back on the fundamental principle—what is the right thing to do for our partners, customers, and the country? In times of extreme ambiguity, our values can provide much-needed clarity and guidance.

The views and opinions expressed in this article reflect the thoughts and opinions of the individual interviewees and are not those of McKinsey & Company.

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Tackling COVID-19 in Africa

The COVID-19 pandemic is primarily a health crisis and a human tragedy, but it also has far-reaching economic ramifications. In Africa, it is already disrupting millions of people's livelihoods, with disproportionate impact on poor households and small and informal businesses—and the pace of this disruption is likely to accelerate in the weeks ahead. No country or community is exempt; in oil-exporting countries, COVID-related challenges are compounded by the collapse of the oil price.

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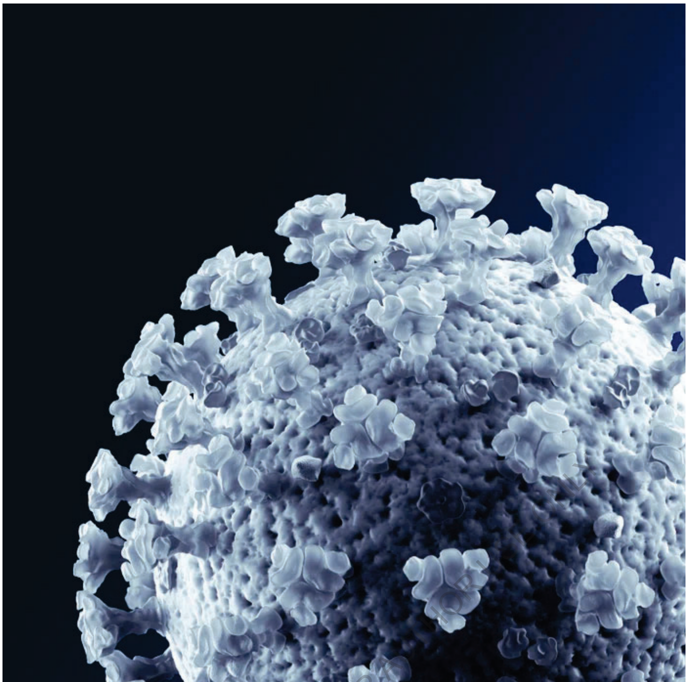

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Coronavirus

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Across the continent, leaders in the public, private, and development sectors are already taking decisive action—both to save lives and to protect households, businesses, and national economies from the fallout of the pandemic. But several leaders have told us that they need a clearer picture of the potential economic impact of the crisis. At the same time, many African countries are still in the early stages of organizing their responses into focused, prioritized efforts that make the most of the limited time and resources available.

To address these needs and help inform the response of leaders across the continent, this paper presents:

- *An initial analysis of COVID-19's economic impact, which finds that Africa's GDP growth in 2020 could be cut by three to eight percentage points.* We find that the pandemic and the oil-price shock are likely to tip Africa into an economic contraction in 2020, in the absence of major fiscal stimulus.
- *A framework for near-term action by governments, the private sector, and development institutions to mitigate this impact.* These actions are drawn from a global scan of economic interventions already being implemented or considered, plus our recent discussions with public- and private-sector leaders across Africa.

Our message is clear. Governments, the private sector, and development institutions need to double down on their already proven resolve—and significantly expand existing efforts to safeguard economies and livelihoods across Africa.

In many countries, there is an opportunity to take bolder, more creative steps to secure supply chains of essential products, contain the health crisis, maintain the stability of financial systems, help businesses survive the crisis, and support households' economic welfare. They also need to consider an extensive stimulus package to reverse the economic damage of the crisis.

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Governments, the private sector, and development institutions need to double down on their already proven resolve—and expand existing efforts to safeguard economies and livelihoods across Africa.

This paper is the first in a series of rapid analyses by McKinsey, intended to provide decision makers with data and tools to strengthen their response to the COVID-19 crisis in Africa. In subsequent papers we will extend our focus beyond the immediate need for *resolve* to four other imperatives highlighted in our global analysis of how institutions can address the crisis—namely, *resilience, return, reimagination,* and *reform*.

COVID-19 will greatly reduce Africa's GDP growth in 2020

As of March 31, more than 720,000 cases of COVID-19 had been recorded worldwide, with nearly 40,000 deaths. The number of cases, and deaths, has been growing exponentially. Compared to other regions, the number of recorded cases in Africa is still relatively small, totaling about 5,300 cases across 47 African countries as of March 31 (Exhibit 1). Even though the rate of transmission in Africa to date appears to be slower than that in Europe, the pandemic could take a heavy toll across the continent if containment measures do not prove effective.

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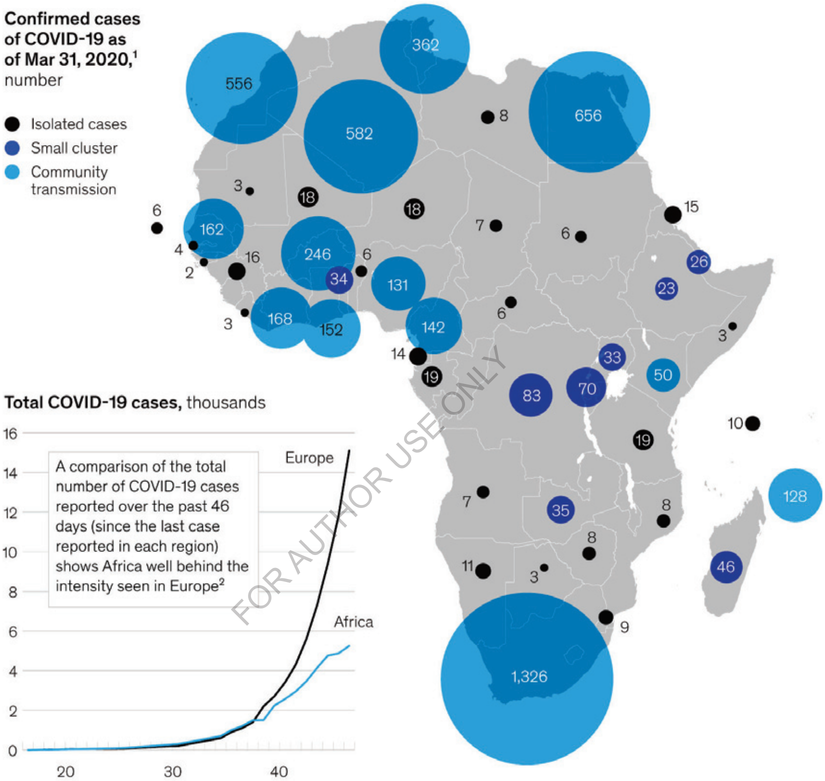
Exhibit 1

The number of confirmed COVID-19 cases in Africa is growing rapidly.



[1]At Mar 31, 9:00 a.m. GMT, >5,300 confirmed COVID-19 cases, >170 deaths across 47 African countries. We defined <20 cases as isolated, 20–100 cases as small clusters, and >100 as community transmission. Small clusters can include cases that are locally transmitted as well as imported.
[2]The numbers in Africa may be lower due to limited testing in the continent compared to Europe.
Source: Johns Hopkins University global dashboard; press search; WHO situation reports

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Against the backdrop of this worrying public-health situation, African countries will have to address three major economic challenges in the coming weeks and months:

- *The impact of the global pandemic on African economies.* This includes disruption in global supply chains exposed to inputs from Asia, Europe, and the Middle East, as well as lower demand in global markets for a wide range of African exports. Moreover, Africa is likely to experience delayed or reduced foreign direct investment (FDI) as partners from other continents redirect capital locally.
- *The economic impact of the spread of the virus within Africa,* and of the measures that governments are taking to stem the pandemic. Travel bans and lockdowns are not only limiting the movement of people across borders and within countries, but also disrupting ways of working for many individuals, businesses, and government agencies.
- *The collapse of the oil price,* driven by geopolitics as well as reduced demand in light of the pandemic. In the month of March 2020, oil prices fell by approximately 50 percent. For net oil-exporting countries, this will result in increased liquidity issues, lost tax revenues, and currency pressure. (We should note, however, that lower oil prices will potentially have a positive economic impact for oil-importing countries and consumers.)

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For Africa's economies, the implications of these challenges are far-reaching. A slowdown in overall economic growth is already being felt, and this is acute in hard-hit sectors such as tourism. Many businesses, particularly SMEs, are under significant cost pressure and face potential closure and bankruptcy. That is likely to lead to widespread job losses. At the same time, the pandemic will impact productivity across many sectors. Closures of schools and universities could create longer-term human capital issues for African economies—and could disproportionately affect girls, many of whom may not return to school. Not least, the crisis is likely to reduce household expenditure and consumption significantly.

The knock-on effects for the African public sector could be severe, in terms of reduced tax revenues and limitations on access to hard currency. African governments will face rising deficits and increased pressure on currencies. In the absence of significant fiscal stimulus packages, the combined impact of these economic, fiscal, and monetary challenges could greatly reduce Africa's GDP growth in 2020.

Four scenarios of economic impact: Africa's GDP growth reduced by three to eight percentage points

To gauge the possible extent of this impact, we modeled four scenarios for how differing rates of COVID-19 transmission—both globally and within Africa—would affect Africa's economic growth. Even in the most optimistic scenario, we project that Africa's GDP growth would be cut to just 0.4 percent in 2020—and this scenario is looking less and less likely by the day. In all other scenarios, we project that Africa will experience an economic contraction in 2020, with its GDP growth rate falling by between five and eight percentage points (Exhibits 2 and 3).

The four scenarios are as follows:

- *Scenario 1: Contained global and Africa outbreak.* In this least-worst case, Africa's average GDP growth in 2020 would be cut from 3.9 percent (the forecast prior to the crisis) to 0.4 percent. This scenario assumes that Asia experiences a continued recovery from the pandemic, and a gradual economic restart. In Africa, we assume that most countries experience isolated cases or small cluster outbreaks—but with carefully managed restrictions and a strong response, there is no widespread outbreak.

- *Scenario 2: Resurgent global outbreak, Africa contained.* Under this scenario, Africa's average GDP growth in 2020 would be cut by about five percentage points, resulting in a negative growth rate of −1.4 percent. Here we assume that Europe and the United States continue to face significant outbreaks, while Asian countries face a surge of re-infection as they attempt to restart economic activity. In Africa, we assume that most countries experience small cluster outbreaks that are carefully managed.

- *Scenario 3: Contained global outbreak, Africa widespread.* In this scenario, Africa's average GDP growth in 2020 would be cut by about six percentage points, resulting in a negative growth rate of −2.1 percent. This assumes that significant outbreaks occur in most major African economies, leading to a substantial economic downturn. Globally, we assume that Asia experiences a continued recovery and a gradual economic restart, while large-scale quarantines and disruptions continue in Europe and the United States.

- *Scenario 4: Resurgent global outbreak, Africa widespread.* In this case, Africa's average GDP growth in 2020 would be cut by about eight percentage points, resulting in a negative growth rate of −3.9 percent. Globally, we assume that Europe and the United States continue to face significant outbreaks as China and East Asian countries face a surge of re-infection. In addition, significant outbreaks occur in most major African economies, leading to a serious economic downturn.

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Exhibit 2

We defined four scenarios for Africa, considering both the health and economic impact of the COVID-19 crisis.

The four scenarios by global and domestic transmission rate (current as of Mar 31, 2020)

Global transmission: Resurgent ↑ / Contained ↓

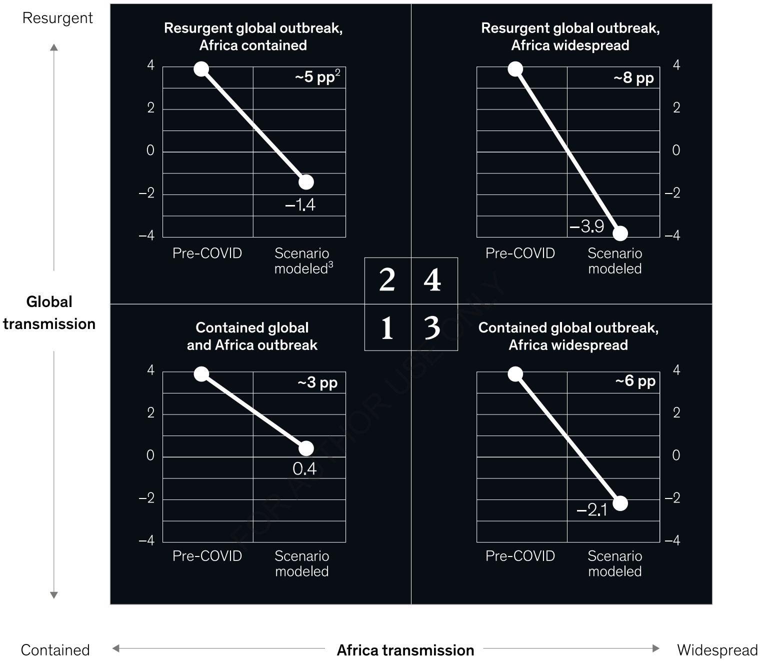
	Africa transmission: Contained	Africa transmission: Widespread
Resurgent	**2 — Resurgent global outbreak, Africa contained** ● **Global situation** US and Europe require significant quarantine measures for much of the year; Asia faces a resurgence of infection leading to a double-dip slowdown ● **Africa situation** Most countries experience isolated cases or small cluster outbreaks, but with carefully managed restrictions, there is no widespread outbreak, and most economic impacts are driven through global knock-on effects on trade and travel	**4 — Resurgent global outbreak, Africa widespread** ● **Global situation** US and Europe require significant quarantine measures for much of the year; Asia faces a resurgence of infection leading to a double-dip slowdown ● **Africa situation** Significant outbreaks occur in most major African economies, leading to a significant economic downturn through reduced consumption, as well as global knock-on effects on trade and travel
Contained	**1 — Contained global and Africa outbreak** ● **Global situation** Continued recovery in Asia; Europe and US face a sharp downturn but are able to control the epidemic and release most quarantine measures by early Q3 ● **Africa situation** Most countries experience isolated cases or small cluster outbreaks, but with carefully managed restrictions, there is no widespread outbreak, and most economic impacts are driven through global knock-on effects on trade and travel	**3 — Contained global outbreak, Africa widespread** ● **Global situation** Continued recovery in Asia; Europe and US face a sharp downturn but are able to control the epidemic and release most quarantine measures by early Q3 ● **Africa situation** Significant outbreaks occur in most major African economies, leading to a significant economic downturn through reduced consumption, as well as global knock-on effects on trade and travel

Contained ← **Africa transmission** → Widespread

Exhibit 3

Africa's GDP growth could decline by between three and eight percentage points, depending on the scenario.

2020 GDP[1] and projections according to the four COVID-19 transmission scenarios



[1]Baseline GDP growth for 2020: 3.9% growth. African Development Bank estimate, other analyst estimates range between 3.2% (eg, United Nations Economic Commission for Africa) to 3.8% (eg, Oxford Economics Research).
[2]Percentage-point change.
[3]Disclaimer: model as of Mar 31, 2020; assumes no fiscal-stimulus packages from governments or monetary impacts of currency and credit ratings.
Source: African Statistical Yearbook, African Development Bank; McKinsey analysis

These scenarios do not take into account the potential effects of any fiscal stimulus packages that may be announced by African governments; these should improve the economic outlook. However, we should also note that the scenarios do not take into account currency devaluations, inflationary pressure, or recent credit ratings from Moody's and similar bodies—which could worsen the outlook. There is no room for complacency. (For a full explanation of the methodology underlying our analysis, see the note at the end of this paper.)

Depending on the scenario, Africa's economies could experience a loss of between $90 billion and $200 billion in 2020. Each of the three economic challenges outlined above is likely to cause large-scale disruption. The pandemic's spread within Africa could account for just over half of this loss, driven by reduced household and business spending and travel bans. The global pandemic could account for about one-third of the total loss, driven by supply-chain disruptions, a fall-off in demand for Africa's non-oil exports, and delay or cancellation of investments from Africa's FDI partners. Finally, oil-price effects could account for about 15 percent of the losses.

Differing impact on major African economies

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While the pandemic's economic impact—alongside the oil-price shock—will be serious right across the continent, it will be felt differently in different countries. For example, our analysis suggests that the following impacts would occur in Nigeria, South Africa, and Kenya:

- *Nigeria.* Across all scenarios, Nigeria is facing a likely economic contraction. In the least worst-case scenario (contained outbreak), Nigeria's GDP growth could decline from 2.5 percent to −3.4 percent in 2020—in other words, a decline of nearly six percentage points. That would represent a reduction in GDP of approximately $20 billion, with more than two-thirds of the direct impact coming from oil-price effects, given Nigeria's status as a major oil exporter. In scenarios in which the outbreak is not contained, Nigeria's GDP growth rate could fall to −8.8 percent, representing a reduction in GDP of some $40 billion. The biggest driver of this loss would be a reduction in consumer spending in food and beverages, clothing, and transport.
- *South Africa.* Across all scenarios, South Africa is facing a likely economic contraction. Under the contained-outbreak scenario, GDP growth could decline from 0.8 percent to −2.1 percent. This would represent a reduction in GDP of some $10 billion, with about 40 percent of that stemming from supply-chain import disruptions, which will impact manufacturing, metals and mining in particular. There will also be major impact on

tourism and consumption. However, as South Africa is an oil importer, this impact will be cushioned by lower oil prices. In scenarios in which the outbreak is not contained, South Africa's GDP growth could fall to −8.3 percent, representing a loss to GDP of some $35 billion. This impact would be driven by disruptions in household and business spending on transport, food and beverages, and entertainment, as well as prolonged pressure on exports. South Africa's recent sovereign-credit downgrade is likely to exacerbate this outlook.

- *Kenya.* In two out of four scenarios, Kenya is facing a likely economic contraction. Under the contained-outbreak scenario, GDP growth could decline from 5.2 percent (after accounting for the 2020 locust invasion) to 1.9 percent—representing a reduction in GDP of $3 billion. The biggest impacts in terms of loss to GDP are reductions in household and business spending (about 50 percent), disruption to supply chain for key inputs in machinery and chemicals (about 30 percent), and tourism (about 20 percent). In scenarios in which the outbreak is not contained, Kenya's GDP growth rate could fall to −5 percent, representing a loss to GDP of $10 billion. As in Nigeria, disruption of consumer spend would be the biggest driver of this loss.

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Near-term steps for governments, business, and development institutions

Leaders in the public, private, and development sectors have been quick to act—both to limit the spread of the pandemic and to safeguard economies and livelihoods in Africa. Several African countries have already acted to inject liquidity into their economies, reduce interest rates, help businesses survive the crisis, and support households' economic welfare—in many cases with the active involvement and support of the private sector.

At the same time, African and international development institutions have announced multi-billion-dollar packages and facilities to alleviate the economic and social impact of the pandemic in Africa and other developing regions. Meanwhile, philanthropic institutions and business leaders have announced major support both for countries' efforts to contain the pandemic, and for solidarity initiatives to protect households from the economic fallout of the crisis.

>$90 billion potential loss to Africa's GDP

Nonetheless, many African countries are still in the early stages of organizing their responses into focused, prioritized efforts that make the most of the limited time and resources available. The private sector and development institutions also have opportunities to target their efforts more effectively and coordinate them more closely with those of government. Citizens also have a key role to play in helping to slow the spread of the disease ("flatten the curve").

If leaders across sectors translate their already proven resolve into more targeted, collaborative action in the coming weeks, we believe they can make significant progress in mitigating the economic impact of the pandemic—and safeguarding economies and livelihoods. To help them do so, we suggest an organizing framework for action.

An action framework for African governments

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The COVID-19 crisis is stretching the capacity of governments across the world, but African governments face greater challenges than most. In particular, they must grapple with the following:

- *Limited fiscal capacity.* The ratio of public revenues to GDP in African countries averages just 19 percent, compared to 30 percent in Brazil and 37 percent in the United Kingdom—while debt servicing already absorbs 22 percent of revenues in Africa. That gives African governments limited scope for stimulus packages compared to their peers in other regions. Such packages will need to be carefully targeted, and supported by development partners and philanthropic organizations.
- *Highly informal economies with many small and micro businesses.* Small and medium enterprises create 80 percent of the continent's employment, compared to 50 percent in the European Union and 60 percent in the United States. African small businesses have limited ability for their staff to work from home, compounded by issues such as power outages and high costs of data. During this crisis, governments will need to extend support to small and medium enterprises, given their role in the economy and the

difficulties they face. Additionally, the informal sector is estimated to make up 55 percent of the economy in sub-Saharan Africa, so efforts at economic revitalization will need to extend to informal parts of the economy.

- *Young populations, widespread poverty.* Africa is the most rapidly urbanizing region in the world, with 50 to 70 percent of urban dwellers living in slums. This has huge implications for the effectiveness and implementation of quarantine methods in these poor sanitary conditions. Africa also has a young population—the median age is 19—and there are an estimated 80 million young people in vulnerable employment and a further 110 million who do not contribute to the economy. School closures will have severe impact on young Africans, with long-term consequences. Female students in particular are at risk: for many of them, a few months' absence from school could mean the end of their education.

- *Constrained health systems.* There are 0.25 doctors for every 1,000 people in Africa, compared to 1.6 in Latin America and 3 in member countries of the Organisation for Economic Cooperation and Development. There is also a low number of hospital beds—1.4 beds per 1,000 people versus 2 in Latin America and 4 in China. These factors, combined with limited testing and treatment capability, point to an urgent need to expand healthcare capacity.

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Given these constraints, African governments will need to be both targeted and creative in their response to the crisis. They will also need to foster intense and closely aligned collaboration with the private sector and development partners.

We suggest the following as an organizing framework for targeted action by governments. The framework is structured around five priorities (Exhibit 4):

1. *Set up national nerve centers.* Governments, with the close involvement of the private sector and other key stakeholders, need to take rapid action to set up or build out national nerve centers to coordinate and accelerate their response to the crisis. These nerve centers should bring together crucial leadership skills, organizational capabilities, and digital tools—giving leaders the best chance of getting ahead of events rather than reacting to them.

2. *Anticipate and manage the health crisis.* Governments will need to take even stronger measures to delay and reduce the peak of the epidemic—including more intensive social distancing through mobility restrictions and lockdowns as well as larger-scale surveillance to test and isolate identified cases. In parallel, governments must immediately prepare for a potentially rapid surge of cases, which will demand significant numbers of testing facilities, hospital beds, ventilators and other medical equipment, as well as additional health professionals. Given the limited existing resources in most African healthcare systems, bold and locally tailored measures will be required to create surge capacity and prevent mortality among the most vulnerable population.

3. *Secure food supply and essential services.* Governments need to secure food supply chains, particularly the supply of priority products—and ensure the appropriate pricing of these products. They will also need to ensure that access to essential services such as telecoms and utilities is maintained.

4. *Ensure support for most vulnerable populations.* This includes taking measures to protect jobs and to support affected communities, particularly the most vulnerable populations, through social safety-net mechanisms—including cash transfers.

5. *Anticipate and manage the impact on the economy.* Governments need to anticipate what the impact on their economy is likely to be through scenario analysis and offer a short-term stimulus package to maintain financial stability and help businesses survive the crisis—particularly those in strategic industries. Given the expected loss of tax revenue, governments will also to need to identify opportunities to urgently reduce non-essential spending. Additionally, governments will need to anticipate and prepare for what the post-crisis "next normal" will look like.

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Exhibit 4

African governments will need to be both targeted and creative in their response to the crisis.

Governments need to focus urgently on five priority areas

1 Set up a national nerve center
- Setup and operations
- Digital tracking and monitoring
- Proactive communication

2 Anticipate and manage the health crisis

Contain the epidemic
- Preventive measures
- Diagnostic, testing, and isolation

Prepare the healthcare ecosystem
- Infrastructure
- Drugs and medical equipment
- Workforce

3 Secure food supply chain and essential services

Secure the food supply
- Supply of priority products
- Pricing
- Tracking and monitoring

Maintain access to essential services
- Health and education
- Telecoms
- Utilities

4 Ensure support for vulnerable populations

Protect jobs
- Protecting jobs
- Retraining for crisis needs

Support most vulnerable populations
- Social safety-net mechanisms and distribution

5 Anticipate and manage the impact on the economy

Manage economy
- Scenario analysis
- Impact on economy and public finance

Short-term stimulus package
- Financial stability
- Help companies survive

Preparation for recovery
- Preparation for the "next normal"

While most African countries have already announced specific initiatives across all five areas, they will need to build on these early efforts with great boldness and commitment to collaboration.

Actions for the private sector

The first responsibility of private-sector firms is to ensure business continuity in the ongoing crisis. Based on our discussions with risk and health professionals in more than 200 companies across sectors, we suggest several critical steps for firms—starting with establishing their own central nerve centers. These nerve centers can coordinate company responses on four key dimensions, as follows:

- *Protect workforces.* The focus here is to guarantee continuation of employment in a safe working environment; adjust to shift or remote work with the required tools; and preserve the employees' health through safe working facilities and strict isolation of suspected cases.
- *Stabilize supply chains.* Companies need to guarantee business continuity through transparent supplier engagement, demand assessment, and adjustments of production and operations.
- *Engage customers.* Companies can hone their crisis communication and identify changes in key policies, ranging from guidelines to guarantee social distancing, to waivers of cancellation and rebooking fees.
- *Stress-test financials.* Companies need to develop and assess relevant epidemiological and economic impact scenarios to address and plan for working capital requirements. They will also need to identify areas for cost containment across the business.

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Beyond their own businesses, private-sector firms also have a critical role to play in supporting governments to tackle the pandemic and its economic fallout. This is especially true of large business and business associations, which will need to work hand-in-hand with governments to manage and mitigate the crisis.

Across the continent, there are many encouraging examples of business stepping up. An example is the Nigerian Private Sector Coalition Against COVID-19, formed by the Central Bank of Nigeria in partnership with private-sector and philanthropic organizations including the Aliko Dangote Foundation and Access Bank. The Coalition is mobilizing private-sector resources to support government's response to the crisis, and raising public awareness. South Africa's largest business association, Business Unity South Africa, is coordinating large-scale private-sector involvement in addressing both the health and economic aspects of the crisis.

Individual companies across sectors also have a critical role to play. Examples include beverage producers switching production lines to hand sanitizer; apparel manufacturers producing face masks and hospital robes; telecommunication companies adjusting their data offering; and banks adjusting tariffs. Many companies have also made monetary contributions to solidarity funds for the most vulnerable. More such commitment will be needed.

African governments will need to foster intense and closely aligned collaboration with the private sector and development partners.

Actions for development institutions

Development partners have already begun to step up to support African governments in their response to the crisis—including making major financial commitments. As just two examples, the African Development Bank has created a new $3 billion Fight Covid-19 Social Bond to alleviate the economic and social impact of the pandemic; while Jack Ma and the Alibaba Foundations have shipped over 1.5 million laboratory diagnostic test kits and over 100 tons of commodities for infection prevention and control to African countries, via Ethiopia.

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Development institutions are also examining their existing initiatives and funding to see how they can best support African countries, businesses, and households. Given the magnitude of the problem, however, they will need to build on these steps with bigger and bolder initiatives. Examples of the actions they could take include the following:

- *Repurpose existing 2020–21 funding towards COVID-19 response and recovery efforts.* Institutions need to find creative ways to rethink existing funding programs, introducing new flexibility to meet current needs.
- *Help governments make smart investments to address the crisis.* In repurposing their existing programs, development partners can incentivize and help governments to make smart investments—both to address the immediate needs of the pandemic response, and to shore up the resilience of healthcare and economic systems for the future. For example, they can help ensure that, as governments ramp up surge capacity for COVID-19 lab testing, this has a permanent impact in improving the availability of diagnostics for the population.

- *Help governments design effective fiscal and business stimulus packages.* Given the unprecedented nature of this crisis, high levels of joint thinking and sophisticated problem solving will be required to design and target effective stimulus packages. Development institutions can provide valuable thought partnership to finance ministries across Africa, as well as much-needed financial support.

- *Design new financial instruments to support businesses and countries.* These could include solutions spanning liquidity, re-insurance, conditional cash transfers, and more. A critical need will be to develop creative financial-support models for small and informal businesses, as well as for households. This will require real creativity and true partnership between development institutions and commercial financial institutions.

- *Support countries to rapidly expand their healthcare systems.* Development institutions can help boost access to critical healthcare supplies (such as testing kits and masks); the capacity of the healthcare system (including increasing the number of hospital beds); and the availability of healthcare professionals.

- *Help design and launch bold new pan-African or regional initiatives.* We set out several ideas for such initiatives—including an Africa Recovery Plan that encompasses an extensive stimulus package—in the final section of this paper.

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Bold action needed now

African governments, their partners in the private sector and development institutions are already responding decisively to the COVID-19 crisis. But we believe that most African countries need to expand those efforts considerably, increase the urgency of action, and identify big, bold solutions on both the health and economic fronts. Given the potentially devastating impact of the pandemic on health and livelihoods, nothing less will do.

African governments and development partners could explore several far-reaching solutions, including the following:

- *Africa Recovery Plan.* This would entail an extensive stimulus package or economic development plan, modelled on the Marshall Plan that provided aid to Europe following World War II.

- *Africa Solidarity Fund.* Businesses and individuals could contribute to a fund earmarked for immediate relief for the most vulnerable households and businesses.
- *Private-sector liquidity fund.* This could offer grants, loans, or debt for equity swaps to support businesses and limit job losses.
- *African procurement platform.* A common platform to procure medical supplies and equipment to combat the pandemic could provide an Africa-wide solution to challenges that each individual country is trying to address.
- *Africa Green Program.* A get-to-work program that plants billions of trees across the continent, using the currently out-of-work labor force, could provide employment and help solve global and local climate-change issues.

In designing bold solutions, we would encourage African governments and their private-sector and development partners to consider a series of critical questions:

- How big do broad fiscal stimulus packages need to be to have meaningful impact?
- What trade-offs do governments need to make to ensure their countries' future economic strength while adequately addressing the near-term crisis? For example, these might include making difficult strategic decisions around which companies or sectors to support.
- What conditions can and ought to be imposed on businesses in exchange for financial support? For example, what measures can be taken to ensure that support is used to pay salaries and maintain jobs? Additionally, should entire sectors be restructured and reformed as part of any intervention package?
- How do governments manage the trade-off between protecting the health of vulnerable populations and protecting the economy? When, and how, is the decision on returning to work going to be made?
- What are the best ways to provide targeted support to the most vulnerable populations, rather than offering broad-based support via tax, sector or cash transfer incentives?
- What would be the long-term human-capital implications of these measures, and how could we mitigate those? For example, school closures are necessary now but may negatively impact quality of education and drop-out rates.

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We will explore these and other questions in a series of perspectives in the coming weeks.

Note on methodology

The figures and outcomes reported represent a revenue approach to estimating the impact of COVID-19 on GDP growth rates in Africa, for 2020 only. We used African Development Bank (AfDB) projections as the baseline. It is worth noting that our model makes no conclusion about trajectories towards long-term recovery. The model incorporates the following assumptions and methodologies:

1. We recognize that there are a vast number of potential outcomes. Scenario-based modelling is provided as a guide across a range of non-exhaustive situations which may materialize. These numbers should not be used as a tool to support budgetary activities for governments or private sector actors.

2. The document assumes no economic stimulus from governments. Some African governments have already made commitments which could soften the full economic effect of the virus—for example through fiscal and monetary levers—which will not be reflected here. While we made some assumptions about reduced government spend on business, and reduced government revenues—from oil, in particular—both these elements are changing rapidly. As we continue to update our analysis each week, we will include an assessment of the stimulus gap that exists and indicate how much is being bridged through announced commitments.

3. We use AfDB's GDP growth estimates with 2018 prices fixed to determine real growth impacts and do not account for devaluations, inflationary pressure, or recent credit ratings from Moody's and similar bodies. These differ significantly by country. Future versions of the model will be more sensitive to these elements.

4. We modelled economic impacts for five countries—Angola, Kenya, Morocco, Nigeria, and South Africa—that represent approximately 50 percent of Africa's GDP. We then extrapolated the impact assessment for the rest of Africa, assuming a lower intensity of impact in other countries as they are less susceptible to some modelling factors such as impact on tourism and oil prices. Additional countries will be modelled in future, and this scaling factor will be adjusted accordingly.

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5. We translated revenue impacts to GDP through output-to-GDP multipliers that incorporate initial, direct, and indirect impacts to the economy.

6. Our modelling approach isolates the potential impact of COVID-19. The inputs that drive the model incorporate both publicly available and proprietary data sources, affording the best available perspective appropriate to the scenario. For example, we adopt different oil price outlooks (ranging from $25 to $35 per bbl) and make granular assumptions regarding changes in household consumption at country level—such as spending on food, utilities, transport, and retail at the product category level. These assumptions are based on input from McKinsey experts across the relevant functions and industries.

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Cautiously optimistic: Chinese consumer behavior post-COVID-19

Brands are preparing for a "new normal."

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Chinese consumers are gradually regaining their confidence as the COVID-19 crisis subsides, suggesting the majority will resume higher levels of spending in some categories over the coming months, according to McKinsey's latest survey of consumer attitudes. A significant minority, however, is less confident about the future, suggesting many consumer brands will need to work hard to get back to normal. Stronger appetite for online shopping, meanwhile, could persist as the crisis abates, albeit with variations across categories.

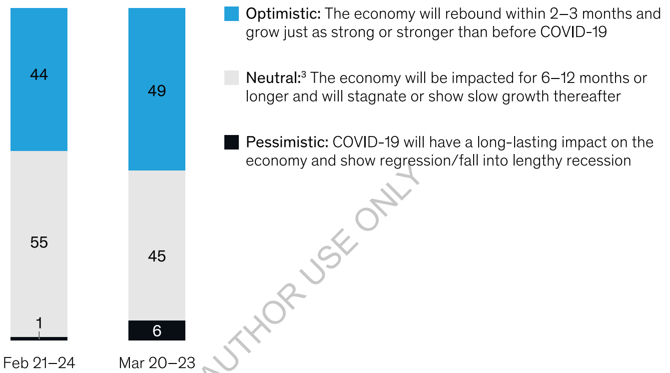
We interviewed around 2,500 Chinese consumers in two waves (the first between February 21 and 24 and again between March 20 and 23), enabling us to gauge consumer attitudes across eight product categories: alcohol, makeup, skincare, snacks, home cleaning, personal care, fresh food, and baby care. Still, the sentiments expressed should be viewed as directional rather than conclusive (partly because severely affected regions such as Hubei were difficult to survey) and should not be interpreted as an indication of wider economic trends.

COVID-19 shut down large parts of the economy in the early part of the year and continues to depress sentiment. However, if the recent decline in the number of daily cases persists, the slowdown in demand seen at the peak of the outbreak may start to dissipate. Around 50 percent of respondents to our March survey say they are optimistic that the economy may recover two to three months after the end of the outbreak (a five-percentage-point increase from the February snapshot). Respondents in higher-tier cities tend to be more positive, with around 55 percent saying they are optimistic, compared with around 40 percent in lower-tier cities.

Exhibit 1

Chinese consumers are slightly more optimistic about the economy.

Confidence in China's economic conditions post-COVID-19,[1] % of respondents[2]



[1]Q: How is your overall confidence level on economic conditions after the COVID-19 situation?
[2]n = 1,250, including Hubei province. Sampled and weighted to match China demographic characteristics.
[3]Includes consumers who are classified as "somewhat optimistic" and "somewhat pessimistic."
Source: M&S COVID-19 China Consumer Pulse Survey

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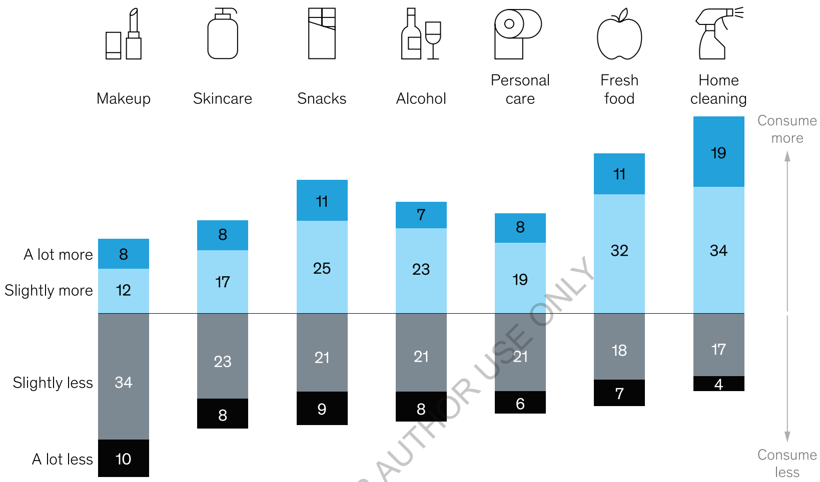
Still, in the latest survey we also see signs of increasing polarity. While more people are optimistic, higher numbers are pessimistic. This may reflect concern over the emergence of a global pandemic and its potential impact on the economy. Some 6 percent of respondents indicate they are pessimistic about economic recovery, compared with 1 percent in February. The divergence is also manifested in consumption attitudes, with a group of potentially higher-spending customers postcrisis offset by a smaller group of more frugal consumers, who say they may cut back.

Exhibit 2

During COVID-19, consumption of discretionary categories was more heavily affected.

How has the coronavirus situation impacted your family's overall consumption in the following categories?[1] % of respondents (n = 1,250)[2]



[1]Respondents who answered "Remained the same" or "Does not use" are not shown.
[2]Mar 20–23, 2020; n = 1,250, including Hubei province. Sampled and weighted to match China demographic characteristics.
Source: M&S COVID-19 China Consumer Pulse Survey

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Some categories suffered more, and persistent caution suggests brands will need to work harder

Most consumer brands faced headwinds during the crisis, amid widespread declines in demand, particularly in discretionary categories. The survey shows that around 30 percent of consumers used less skincare and purchased less alcohol, while more than half used less makeup. On the other hand, around 30 percent of wealthier respondents living in higher-tier cities consumed more skincare products during the crisis than before.

Asked how they expect their consumption to evolve following the crisis, the majority say they will revert to precrisis levels across most categories, with 60 to 70 percent expecting to resume normal consumption or consume slightly more, and another 10 percent saying they will consume a lot more, perhaps reflecting a degree of deferred demand. Still, between 20 and 30 percent of respondents suggest they will continue to be cautious, either consuming slightly less or, in a few cases, a lot less across consumer goods categories. Brands may wish to respond to these dynamics by stepping up marketing and promotional efforts. These may help them both in engaging with renewed demand and encouraging consumption where it is weak.

Brands reacted fast to a rise in digital engagement, shifting their focus to social, e-commerce, and O2O

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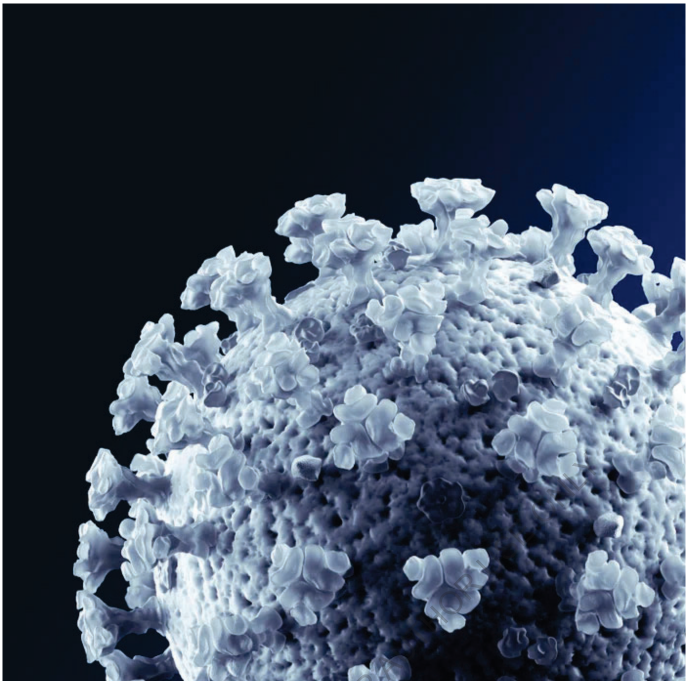
Given extensive quarantine measures, consumers did more online browsing and made more online purchases during the peak period of the outbreak. According to our survey, more than 70 percent of consumers spent the same amount of time or more time browsing skincare- and beauty-related content, with Key Opinion Leaders (KOLs) the most popular form of engagement. As a result, online generated a 15–30 percentage-point incremental share of purchases across a range of categories. To respond to, and encourage, these trends, many consumer goods companies ramped up investment in social, e-commerce, and O2O.



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Insights on how organizations can respond, and what happens next

Local brands tended to react fastest in the online space, reflecting digital capabilities that are often more mature than those of international brands. Many leveraged their established social commerce infrastructure and social platforms, and in particular live-streaming capabilities. Mass beauty brand Perfect Diary, for example, used its more than 10,000 WeChat groups for private-domain social engagement and commerce and quickly moved offline makeup experts online. Kans and One leaf (both Chicmax Group skincare brands) invested in private-domain social commerce, with around 4,000 beauty assistants launching WeChat moments and chat-group commerce.

As local brands stepped up marketing initiatives, some international brands took a more cautious approach, aiming to balance reaction speed and brand equity. However, there were several notable initiatives. Lancôme, for example, set up an official enterprise WeChat account for its offline beauty advisors to build direct connections with consumers. Drinks multinational AB InBev invested in marketing to boost demand for at-home consumption and e-commerce.

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Both Chinese and multinational brands responded effectively to the crisis, and in many cases showed they were prepared to plan for a "new normal." Given the diverse range of approaches, however, there was little sign of the emergence of a standard formula for consumer engagement during or after a crisis event. In addition, it's probably too early to identify implications for best practice in the months ahead.

A boost to online sales post-COVID-19, but there are nuances across categories

Following significant momentum in e-commerce over recent years, Chinese consumers are likely to be even more amenable to online shopping after the outbreak, especially for categories with strong online track records, such as skincare, makeup, and personal care. Brands in these categories may see the coming period as an opportunity to build on initiatives they tried out in the early part of the year.

Before the crisis, around 30 percent of skincare and makeup sales were made online, and online volumes grew by around 70 percent annually (CAGR) from 2016 to 2019. Accelerating penetration over the recent period suggests that the move toward digital and online may continue as normality returns. With that in mind, companies may wish to consider extending and formalizing recent initiatives (many of which were makeshift during the crisis), for example by increasing their presence on social engagement and in private-domain commerce. In addition, some of the themes created during the crisis, such as at-home sports training (offered by several sports apparel brands), may continue to be valuable. This would reflect many people's plans after the outbreak to keep themselves fit and healthy.

For proven online winners, there is a relatively clear way forward. However, in categories with lower baseline penetration, such as fresh food, the picture is less clear. A transition to online could accelerate, but the spike in demand seen at the peak of the outbreak is unlikely to be sustained, the survey suggests. In addition, companies still need to overcome structural barriers to online distribution that include easy access to offline alternatives, high supply-chain costs, and a lack of standardized products.

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Shifting attitudes suggest brands should respond

In addition to its effect on demand dynamics, the crisis impacted consumer attitudes to product safety, the environment, and healthy lifestyles. Already on an upward curve before the outbreak, more consumers say they want to ensure product safety after the crisis, with 66 percent agreeing or strongly agreeing that they will "spend more time" doing so. In addition, some 64 percent agree or agree strongly that they will consider products that are more environmentally friendly, and 70 percent say they will work to boost their physical immunity by exercising more and eating healthily. In the coming months, it makes sense for brands to explore these trends in their consumer engagement strategies.

Despite a broadly positive snapshot of Chinese consumer confidence, variability across geographies, products, and consumer groups suggests that brands cannot take a full recovery in demand for granted. Further, there is likely to be continuing uncertainty as the global situation evolves. The message for brands is to tailor their marketing and remain flexible as the COVID-19 crisis plays out.

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Adapting customer experience in the time of coronavirus

Care, creative thinking, and new tools can address customers' acute needs today and forge stronger ties in the post-COVID-19 era.

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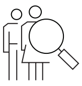
In a short period of time, COVID-19 has overwhelmed lives and livelihoods around the globe. For vulnerable individuals and the customer teams that serve them, it has also forced a rethinking of what customer care means. Suddenly, examinations of customer journeys and satisfaction metrics to inform what customers want have given way to an acute urgency to address what they need.

Particularly in times of crisis, a customer's interaction with a company can trigger an immediate and lingering effect on his or her sense of trust and loyalty. As millions are furloughed and retreat into isolation, a primary barometer of their customer experience will be how the businesses they frequent and depend upon deliver experiences and service that meets their new needs with empathy, care and concern. Now is also the time for customer experience (CX) leaders to position themselves at the forefront of the longer-term shifts in consumer behavior that result from this crisis. Keeping a real-time pulse on changing customer preferences and rapidly innovating to redesign journeys that matter to a very different context will be key.

Hand in hand with this perspective, four CX practices can frame short-term responses, build resilience, and prepare customer-forward companies for success in the days after coronavirus. They are: focusing on care and connection; meeting customers where they are today; reimagining CX for a post-COVID-19 world; and building capabilities for a fast-changing environment (Exhibit 1).

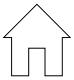
Exhibit 1

Four actions can address immediate customer needs and prepare for the future.



Focus on care and concern

- Reach out, but with support, not marketing
- Make a priority of employees and community
- Stay true to company purpose and values



Meet your customers where they are

- Innovate digital models to help customers weather the crisis safely from home
- Expand home delivery options
- Consider contactless operations

Reimagine the post-COVID-19 world

- Economic hard times will force cost cuts
- Migrate customers to digital channels to save money and boost satisfaction
- Brick and mortar stores may look very different post-crisis

Build agile capabilities for fluid times

- Tap social media, not surveys, for quick customer readings
- Solicit employees for ear-to-the-ground insights
- Save time with "test and scale" labs
- Pay attention to "failure modes" indicating that you've missed customer signals

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1. Focus on fundamentals: Care and connection

Now more than ever, people need extra information, guidance, and support to navigate a novel set of challenges, from keeping their families safe to helping their kids learn when schools are shut down. They want a resource they can trust, that can make them feel safe when everything seems uncertain, and that offers support when so much seems to be overwhelming. A baseline starting point: staying true to company values and purpose. Our research shows that 64 percent of customers choose to buy from socially responsible brands, a figure that has grown significantly in the past two years. The way organizations step up to play this role for their customers, their employees, and the broader community is likely to leave lasting memories in customers' minds.

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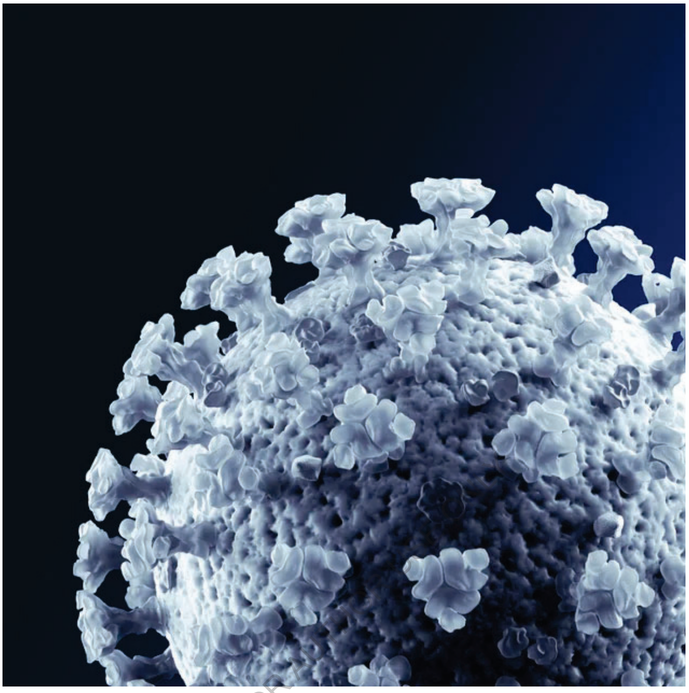

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Care for your customers

The first step in caring is to reach out—not in marketing or overt attempts to gain a competitive edge, but to offer genuine support. Many organizations have already stepped up to care for their customers. For instance, Ford's "Built to Lend a Hand" campaign outlines initiatives including payment relief and credit support. Budweiser redeployed $5 million usually spent on sports and entertainment marketing to the American Red Cross. When tens of thousands of college students needed to vacate their dormitories unexpectedly, a storage rental company offered 30 days of free self-storage. A credit-card company quickly recognized the pandemic's financial burden and waived one month of interest on credit cards. Government officials have encouraged others to do the same. These experiences are critical for customers in the short term, and the impact will build positive relationships that are bound to last long after the crisis has ended.

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Care for employees

In times of crisis, caring for customers starts with thinking first about employees. As any flight attendant would advise during the preflight safety briefing, it's important to put on your own oxygen mask before helping others. Our research shows that 60 percent of Americans are very or extremely concerned about their safety and the safety of their families, while 43 percent are very or extremely concerned about their job or income—and not being able to make ends meet.

Some companies have led with employees in mind during an unsettling period of uncertainty. In a video prepared for employees, Marriott CEO Arne Sorenson transparently shared statistics on the company's performance and outlook, announced pay cuts for himself and his executive team, and focused on a sense of hope in the future. Many companies have pledged to continue paying hourly workers at their regular rate, even if they need to remain at home due to illness, while others are still paying hourly workers despite store closures. For those still on the job, employers can provide new tools, training and support to enable employees to deliver superior customer experience in a new environment.

Care for the community

Today's industry leaders have demonstrated that genuine care should extend beyond the immediate customer base. Italian companies have donated hundreds of millions of dollars to local hospitals and the Civil Protection Agency to combat the virus spread. Many are stepping up to the plate to manufacture important supplies. Luxury-goods companies have refitted cosmetics and perfume production to help produce hand sanitizer. Remote conferencing services companies, who are benefiting from the shift to virtual meetings, have provided free videoconferencing for K–12 schools.

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2. Meet your customers where they are today

Customers' normal patterns of life have come to a halt. Simple activities like a trip to the grocery store or dining out with friends are now difficult, risky, or even prohibited. Overnight, demand patterns have shifted. Overall online penetration in China increased by 15–20 percent. In Italy, e-commerce sales for consumer products rose by 81 percent in a single week, creating significant supply-chain bottlenecks. Customers need digital, at-home, and low-touch options. Digital-led experiences will continue to grow in popularity once the coronavirus is quelled, and companies that act quickly and innovate in their delivery model to help consumers navigate the pandemic safely and effectively will establish a strong advantage.

Accelerate digital options

Digital delivery has become a necessity for most customers who are confined at home. Adoption has grown strongly, even among the most “digitally resistant” customers. For some companies, the rapid development of digital functionalities is key to ensuring continuity of services. China-based Ping An Bank rolled out new “Do It At Home” functionality and received more than eight million page views and nearly 12 million transactions within half a month. Players in service industries have also accelerated digital value-added services like advice and education. Over 44,000 viewers tuned in to Bank of China’s first three online shows, where leading investment managers shared market insights, discussed the impact of the virus, and gave advice.

Other companies are making select digital services free to help existing customers and broaden their reach to new audiences. Fitness companies are deploying this strategy through extended free trials for their online and app-based classes, where app downloads and new sign ups have grown between 80 percent and more than 250 percent in recent months. It’s likely that many customers who have converted to digital services will stick to them after the immediate health crisis is over: Companies who make this shift to digital and deliver superior experiences have an opportunity to increase adoption and maintain these customer relationships after the crisis.

The way organizations deal with their customers, their employees, and the broader community in a crisis is likely to leave lasting memories in customers’ minds.

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Bring your business to customers’ homes

Similarly, home delivery has gone from a convenience to a necessity: during this crisis, Italy has seen online grocery home-delivery users double between February and March. In China, Meituan, China’s premier food delivery service, reported quadrupled delivery orders in early 2020. Quick-service restaurants and aggregator apps are offering free delivery to capture share in this demand shift. Some fresh meal delivery start-ups have experienced a month-on-month demand boost of 25 percent and are experimenting with bulk versions of their offering. In the United States, home delivery options have expanded beyond food, as pharmacies offer extended free trials on their prescription delivery service, and car dealerships offer to pick up and drop off vehicles for repair and maintenance.

Make physical operations touch-free.

If part of the customer journey must exist in a physical channel, consider converting to contactless operations. The United States has seen a 20 percent increase in preference for contactless operations, with numerous industries adapting to this change. Meituan, which started as a food- and product-delivery service but evolved into a digital ecosystem player, was the first Chinese company to introduce contactless delivery in Wuhan. The service quickly became popular among all audiences, enabling Meituan to reach beyond its core millennial customer base—more than two thirds of new users are in their 40s and 50s. In the United States, Walgreens has rolled out a drive-through shopping experience. Customers order from a menu of available items such as household goods, medical supplies, and groceries. Store associates assemble and check out the order—all from the convenience of the drive-through window. Grocery chains have kept their physical stores open to shoppers but are adding touchless measures, including new installations of plexiglass “sneeze guards” at every cash register to protect customers and employees.

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3. Reimagine customer experience for a post-COVID-19 world

The COVID-19 crisis will end at some point. We expect changes in consumer preferences and business models to outlast the immediate crisis. This has begun to play out in China, where there has been a 55 percent increase in consumers intending to permanently shift to online grocery shopping, and an increase of three to six percentage points in overall e-commerce penetration in the aftermath of COVID-19. Some consumers will be trying digital and remote experiences for the first time. In China, the share of consumers over the age of 45 using e-commerce increased by 27 percent from January to February 2020, according to Chinese market-research firm QuestMobile. Once they are acclimated to new digital or remote models, we expect some consumers to switch permanently or increase their usage, accelerating behavior shifts that were already underway before the crisis.

Further, once the public-health crisis has subsided, economic impacts will persist. Leading companies will deliver on the customer experiences that are emerging as most important in the “next normal,” while finding ways to save and self-fund.

Find savings without sacrificing experience

In a downturn, cutting costs is inevitable. But that does not have to come at the expense of a good customer experience, which can create substantial value (Exhibit 2). Often, the best ways to improve experience and efficiency at the same time are to increase digital self-service and to make smarter operational trade-offs, grounded in what matters most to customers. In industries like banking, digital servicing and sales are less expensive than branch- and phone-based approaches. The problem for many banks is that too few customers reach that point because they find digital channels unfamiliar and intimidating. Migrating customers to digital channels is often a successful way to boost savings and satisfaction. Teams can adopt this customer-centric mindset in any cost-cutting exercise, including migrating customers to self-serve channels, radically simplifying a product portfolio, or optimizing service-level agreements.

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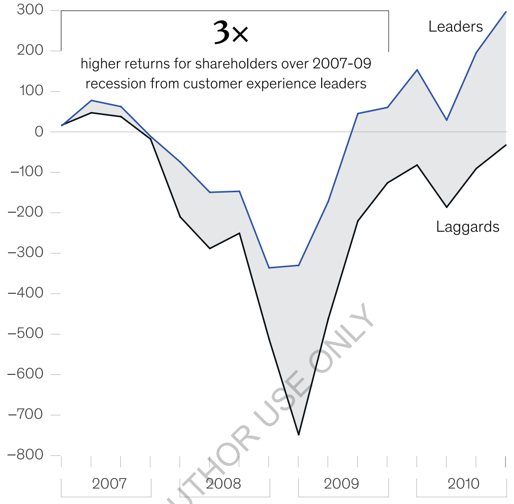
Exhibit 2

Focusing on customer experience is a winning strategy in recession.

Total returns to shareholders of customer experience leaders and laggards,[1] % by quarter



[1]Comparison of total returns to shareholders for publicly traded companies ranking in the top 10 or bottom 10 of Forrester's Customer Experience Performance Index in 2007–09.
Source: Forrester Customer Experience Performance Index (2007–09); press search

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Reimagine your brick-and-mortar strategy

So far, 60 US retailers—representing $370 billion in annual sales and over 50,000 physical retail locations—have closed temporarily. The market capitalization of physical retail space has fallen by more than 35 percent. When stores reopen, the world of brick and mortar may be fundamentally different. More and more customers will have grown comfortable with digital, remote, and low-touch options, even in rural and older populations.

We expect to see the shuttering of underperforming stores. Retailers and consumer goods companies should plan now to capture this lost volume. Use mobile, online and geospatial data to optimize networks and omnichannel sales. Examine dynamics across digital channels, owned outlet stores, and wholesale partners. Companies should also re-examine the role that physical locations will play. Omnichannel fulfillment options such as buy online, pickup in store will increase. Some locations may be converted to "dark stores" for fulfillment only.

Finally, some existing stores may shift toward experience hubs that offer services and encourage purchase across all channels. Consider Nike's store in New York's SoHo neighborhood. There customers, assisted by a personal coach, can try on shoes in various simulated sporting environments—including a basketball half-court, soccer trial field, and outdoor track—to determine their preferred product. As the forced isolation of coronavirus fades from view, this type of outlet may be a template that additional retailers will adopt.

4. Build capabilities for a fast-changing environment

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Maintaining a strong customer experience in crisis requires rapid research to understand changing dynamics and new pain points as well as agile innovation to address them. Customer leaders who master that approach will create value for consumers in high-priority areas and in an environment of increased competition.

Keep a real-time pulse on changing customer preferences

Traditional customer insights techniques, such as surveys, often have an 18- to 24-day lag between launch and results readout. At a time when conditions can change from hour to hour, that can be far too long to deliver useful perspective. Companies should look to quick and novel ways to keep a pulse on consumer sentiment. In Italy alone, Facebook has seen a 40 to 50 percent increase in usage since the crisis began. A surge in online usage now underway offers opportunity to tap into insights from social media to rapidly understand consumer sentiment and develop new ideas. One Chinese rental-car company established a team focused on monitoring social media to identify real-time trends. In Shenzhen, where employees were asked to avoid using public transit, it rolled out a "rent five days, get one free" offer that allowed people to expense a weekday carpool for work and keep the car on Saturdays to run personal errands safely.

Listen to employees

Frontline employees are a company's eyes and ears on the ground. Solicit and collect employee feedback: it will prove useful in gauging how customers are feeling and how daily interactions are changing. Sadly, this source of insights often goes largely overlooked—while 78 percent of frontline employees report that their leaders have made customer experience a top priority, nearly 60 percent say they believe that their ideas for improving that experience often go unheard. Tools and technology now exist to rapidly collect and aggregate real-time ideas and feedback from frontline employees. Investing in these can make a critical difference in the rapidly changing current environment.

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Adopt agile innovation

The sooner that companies can fulfill new consumer needs during this time, the better off both will be. This often means accelerating time to market for new customer experiences, rapidly prototyping and iterating, and releasing innovations in their "minimum viable" state, rather than waiting to perfect them. Building agility across functions to handle changing customer circumstances is necessary and will have long-lasting benefits. Typically, test-and-scale labs allow companies to build new experiences with 50 percent reduction in speed to market. In addition to agile approaches, companies should rapidly examine their innovation pipeline to set priorities for new customer experiences that line up with remote, digital, or home delivery trends; these will likely continue to accelerate and differentiate CX providers in the post-COVID-19 world.

Finally, customer leaders shouldn't take their eyes off of "failure modes" that can hurt if overlooked. When it comes to demonstrating care toward employees, make sure to double down on supporting employees—customers will notice and appreciate this as well. Don't assume that customers will automatically migrate to existing digital and remote platforms.

Rather, actively raise awareness and the internal capabilities needed to support adoption of these experiences. As for securing useful feedback, if the volume of customer insights and feedback from sources like social media and employees has not increased severalfold in an intense crisis environment, take it as a sign that you are missing critical insight needed to adapt experience.

Customer experience has taken on a new definition and dimension in the overwhelming challenge of COVID-19. Customer leaders who care and innovate during this crisis and anticipate how customers will change their habits will build stronger relationships that will endure well beyond the crisis's passing.

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Customer-care organizations: Moving from crisis management to recovery

The COVID-19 pandemic calls for a focus on six imperatives to rapidly adapt to this new environment.

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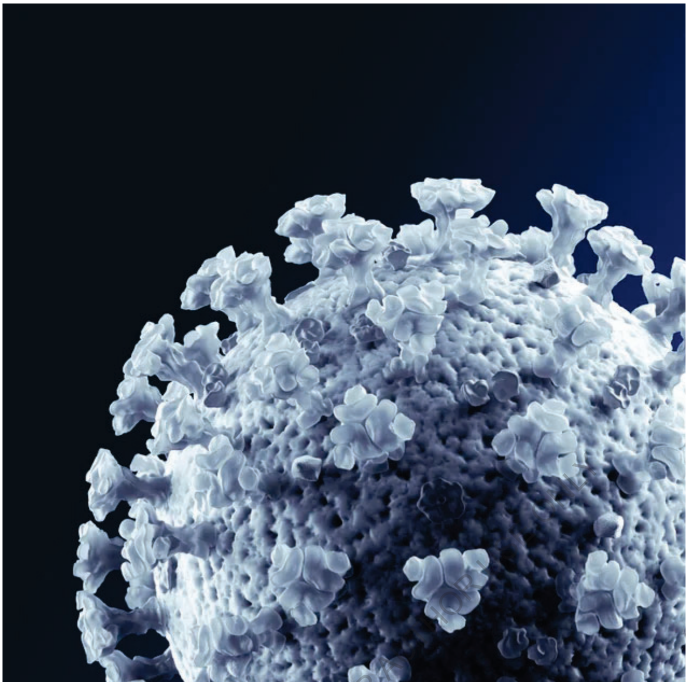
As the COVID-19 pandemic spreads around the world, companies across all sectors scrambled to stabilize operations and institute new guidelines to protect the health of their employees while maintaining service to their customers. Contact centers moved with unprecedented speed: within days, some companies had shifted thousands of workers to remote locations or enabled them to work from home. Others quickly experimented with staggered shifts. Through it all, contact centers sought to maintain connections with customers at a time when engagement was crucial.



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Coronavirus

Insights on how organizations can respond, and what happens next

Now, customer-care organizations are shifting their focus to meet the rapidly evolving needs of their employees and customers. At the top of the list is creating resilient, coordinated business-continuity plans to reflect the new reality. In the past, business-continuity plans tended to focus on technology resiliency, but in our new world, plans will need to prioritize operational resiliency—such as flexible working models, geographic redundancy at the city rather than country level, and virtualization of key processes, security protocols, and policies.

By focusing on building new capabilities and flexibility, companies can emerge from the pandemic with increased productivity and resilience.

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Six imperatives for customer-care organizations during a crisis

Our ongoing discussions with customer-care organizations have uncovered a variety of actions that have proved particularly effective in responding to the crisis. We have grouped those actions into six imperatives that span strategy, operations, technology, and culture. Many of these imperatives will be familiar to customer-care organizations; some might already be priorities, while others are more aspirational. However, the pandemic has elevated all of them to a position of critical importance in the near term.

Continue to shape customer expectations

As the crisis has unfolded, customer-care organizations have revisited and implemented practices and policies that help customers feel safe and cared for in times of need. Many companies sent out thoughtful, personal messages from leadership in the days and weeks after the onset of the pandemic. Maintaining this engagement in the channels where customers are looking for information is critical to sustaining the relationship and addressing the most common top-of-mind issues. In banking, for example, customers may be looking for reassurance that they will have continued access to their money so they can pay their bills. They will also need a clear understanding of financial protections and the options for making emergency payments.

Proactive communication can reduce customer contact volumes by resolving common triggers for contact before they arise. In parallel, agents must be kept updated on trends that might affect the landscape for customers. Customers may be on edge because of the disruption and uncertainty around their own situation, so companies are training agents to be more empathetic in their interactions with customers by using strategies such as in-the-moment coaching. In addition, when service representatives are unable to perform basic transactions because of systems outages or heavy call volumes, they need to provide an explanation, acknowledge the inconvenience, and refer customers to the proper self-service channels.

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Reinforce culture and connection with employees

During the next several months, workers will be juggling a host of personal and professional issues. Customer-care leaders are devoting extra time to understanding what agents are going through and providing additional flexibility and support. For example, they might offer later starts or earlier ends to shifts, longer breaks, or more virtual coaching sessions. To replace traditional management techniques that relied on workers being in the same space, customer-care leaders are implementing virtual meeting tools and communication channels. When an employee gets sick, managers should not only demonstrate genuine empathy but also make sure that the worker is aware of available support. For the workforce in general, leaders must communicate the measures they are taking to protect employees, such as additional sanitizing and paid sick leave.

Organizations with strong cultures often sustain those environments through in-person activities such as putting up posters, team events, and visits from senior management. Supervisors will need to translate all processes, tools, and support from brick-and-mortar locations to a remote environment to ensure that agents experience the same immersion in the organization's culture. To build community and maintain a cohesive workplace, organizations can create new avenues for social connectivity throughout the day. Methods such as virtual team huddles and meetings, team events, and intra- and interteam competitions offer a much-needed break from solitary work while boosting camaraderie. Organizations can also double down on building and maintaining community through remote competitions (such as quizzes and contests) and other engagement activities.

Establish and maintain a COVID-19 control room

As part of the initial response to the COVID-19 outbreak, many companies created crisis nerve centers—agile, coordinated bodies that bring together staff members with crucial organizational skills and capabilities. The nerve center monitors developments related to the COVID-19 pandemic, supports decision making, and coordinates the rapid response. Since the pandemic will continue to directly affect contact centers, companies should consider creating a control room within their customer-care organizations. This entity would address the impact of the crisis on the contact center and report up to the company's central nerve center.

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The customer-care control room should be guided by a cross-functional team including members from both front- and back-office functions. To facilitate clear decision making, two to three contact-center leaders should be designated as decision makers.

The control room's role can evolve as the situation changes in the months ahead. Daily developments often have a direct impact on customer demands and incoming calls, so the control room can track these trends to inform scenario modeling and capacity planning. And in the event of recurring waves of COVID-19 or other disruptive events, the control room can quickly scale to meet the challenge.

Scale an effective remote-working model

The days of a fully on-site or local workforce may be over. In response, many companies are preparing for a workforce made up of both remote and on-site employees. The maturity of a customer-care organization's remote-working initiative will shape its priorities in the near term.

Companies with the appropriate capabilities could focus on scaling quickly by ensuring that agents have the necessary tools and resources to handle calls from home while maintaining customer data confidentiality. Organizations should communicate clear policies and expectations to all employees during the expansion effort.

Many companies are preparing for a workforce made up of both remote and on-site employees.

Many organizations without remote-working capabilities have started to test infrastructure by introducing remote working for a percentage of in-house agents, such as those who handle non-voice channels. One IT help desk, for example, spent three days experimenting with remote work for 300 employees. Each day, about 20 percent of those 300 employees worked from home and reported back on the issues they faced, such as bad internet connectivity or disruptive children or pets. Once a remote-working capability is up and running, companies can then focus on optimizing norms across technology, security, and management to increase productivity and ensure employee engagement.

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Still, organizations will need to reassess many processes, such as onboarding for new employees. To keep new agents engaged, managers can break down training sessions into modules and incorporate interactive elements such as multiple surveys or quizzes. Some organizations are also reporting more frequently on applicable key performance indicators and using advanced analytics to improve quality control.

Aggressively expand the adoption of digital self-service approaches

The COVID-19 pandemic has increased not only overall customer volumes but also the number of new customers using digital channels. For example, online orders for food and other items are up 15 to 20 percent in some affected countries, leading to an increase in customer-service requests.

Companies have deployed a range of responses in an attempt to distribute demand. Some companies, particularly in the airline and consumer goods industries, have been advising customers of long wait times, offering callback options and optimal call times, and steering them to available digital channels. Customers have responded by shifting to self-service options that may have seemed too complicated in the past. In parallel, companies can quickly expand peer-to-peer community forums and rely on them to manage customer inquiries. Gig-economy workers and brand ambassadors on social media could be enlisted to create forums and online videos detailing how to complete basic self-service transaction.

Companies can also take a range of actions to manage the influx of recent digital adopters, including helping them adjust to digital service channels. For example, a company might create a series of new landing pages about its COVID-19 response along with clear FAQs on creating an online account and conducting self-service transactions.

When customer volumes spike in response to updated policies or developments on COVID-19, customer-care organizations can quickly tweak digital self-service offerings to accommodate new requests. Companies could identify a critical set of transactions, such as fraudulent charges or emergencies, that customer-service representatives will continue to perform. One international bank, for example, informed customers through its interactive voice response (IVR) system that its contact centers could not accommodate certain types of nonemergency calls. Organizations might also consider reallocating resources and upskilling their workforces to support high-volume digital channels such as chat and email.

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Ramp up workforce flexibility

Companies can take several actions to deal with spikes in demand and disruptions. To manage customer inquiries during the COVID-19 crisis, companies have adjusted shift structures—implementing everything from staggered shifts to a recalibrated mix of part- and full-time workers to direct hiring of additional work-at-home agents. As some physical locations have had to close, newly available service workers—such as knowledgeable branch tellers or store employees—can step into contact channels, particularly phone. These new agents can be brought up to speed quickly with e-training on simple call topics and non-voice channels. During downtime, customer-care organizations can create additional flexibility by upskilling employees on new queue or channel skills.

Customer-care organizations could also consider spreading their workforce across multiple sites, using empty offices or meeting spaces to support physical distancing. Countries that are home to large business processing outsourcing (BPO) companies are experiencing disruption and often lack the infrastructure to enable agents to work from home. Companies can work with their BPO partners to quickly ramp up their remote work capabilities—for example, by searching in low-infrastructure areas for suitable alternative workplaces, such as offshore captive centers, bank branches, hotels, and business centers. Even with these efforts, BPO companies may struggle to operate at full capacity, potentially creating long wait times for their clients' customers. Companies can prioritize certain categories of requests to help BPOs run at near their service-level agreements.

Leaders will embrace new ways of working

This fast-moving pandemic is forcing companies to adapt their operation strategies and problem-solving approaches to a new reality. Customer-care organizations that follow these six imperatives will be well on their way to increased resilience and flexibility. However, the most successful organizations will also embrace the following three approaches.

Enhanced business-continuity planning. The business solutions that help companies manage this pandemic may not be effective in other situations, such as natural disasters. In addition, companies should be prepared for scenarios including recurring or seasonal outbreaks of COVID-19 even after the pandemic abates. Business-continuity planning must become more frequent and more rigorous in response to the new normal. Customer behavior may continue to shift to digital channels, leading to increased e-commerce traffic and self-service even after stores reopen. The types of incoming calls will continue to change: while volumes may decrease, complexity will likely remain high as customers resolve simple issues on their own even as new types of requests arise. Strategies to enable remote work and increase flexibility should take technology and talent into account and incorporate resilient location plans.

Rapid iteration and experimentation. The leap in digital adoption across customer demographics and the sense of urgency around customer needs provide an opportunity to experiment. Instead of aiming for perfection, companies should implement a true test-and-learn mentality that enables them to develop and deploy changes quickly. Every organization is reaching out proactively in response to the pandemic, and customer tolerance for this communication has increased. Now is the time to ensure that channels of communication

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remain open. Companies should keep customers informed about ongoing efforts to improve support through remote services. This open dialogue can also enable customers to provide valuable feedback.

Targeted investments. Investments made during this crisis will have lasting impact. Customer preference for digital channels and quick response times was on the rise even before COVID-19, and this trend will likely accelerate when the situation settles. Leaders will invest in people, processes, and technology that facilitate better agent support, self-service, employee engagement, and automation of simple tasks. Enhanced technology solutions need to be flexible enough to support future innovations. For example, companies could consider investing in dynamic technologies that are easy to deploy, such as web forms, chatbots, and IVR updates. Larger initiatives, including telephony replatforming and complex process automation, may be deprioritized in the near term. But as long as investments allow for flexibility, they should help set the stage for future innovations and the rapid development of infrastructure within the organization.

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Customer-care organizations should also explore investments in data and analytics to support a range of applications. The COVID-19 crisis has demonstrated the difficulty of predicting call volumes during disruptions. With a better understanding of changing patterns in call types, companies could accelerate the reskilling of employees to quickly adapt to emerging customer needs. Analytics could also give managers insights into the productivity and service quality of a remote workforce by using speech or text analytics. Finally, companies could use data on customer behaviors to build a segmentation strategy for repeat callers, especially in centers experiencing significant increases in call volume.

If the six imperatives outlined here have become the new table stakes in customer care, the next-level strategy calls for organizations to manage business continuity, embrace experimentation, and make targeted investments. Organizations will need to adopt all of these tactics to build resilience in the contact center and manage the new reality.

Demonstrating corporate purpose in the time of coronavirus

Companies will define what they do in the crucible of COVID-19 response—or be defined by it. Here's how to frame the challenge.

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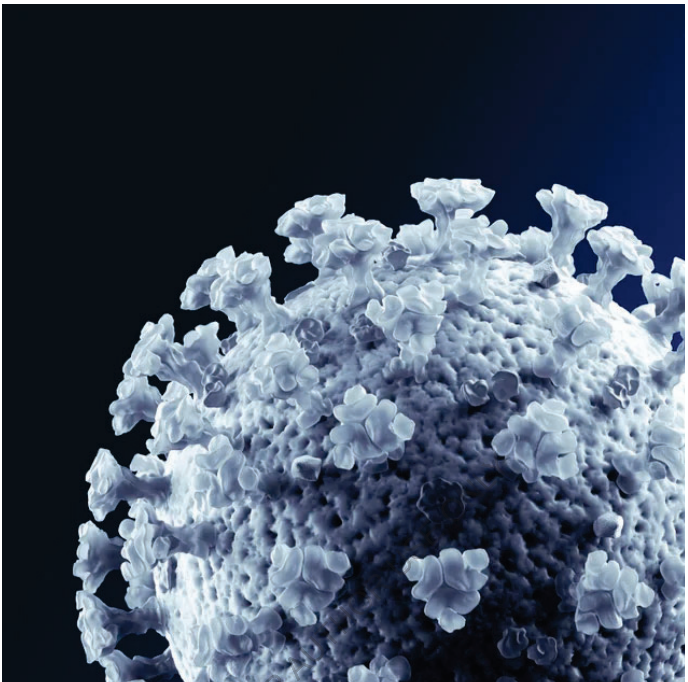
What should a company's purpose be when the purpose of so many, right now, is survival? For years, enlightened executives have sought the sweet spot between their responsibility to maximize profits on behalf of shareholders and their desire to find a purpose across environment, social, and governance (ESG) themes on behalf of a broad range of stakeholders, including customers, employees, and communities. Then COVID-19 came. As businesses large and small shut their doors, and millions retreat to enforced isolation, the magnitude of the coronavirus crisis confronts corporate leaders with the economic challenge of a lifetime. It also demands of them a moment of existential introspection: What defines their company's purpose—its core reason for being and its impact on the world?



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Coronavirus

Insights on how organizations can respond, and what happens next

In boardrooms real and virtual, frantic questions have the floor. How long will this last? How will we pay furloughed workers? What are our peers doing? What should we do first? Global corporations have never had as much power as they do right now to leverage their scale to benefit society in a time of global crisis. Executives have also never had a more intense spotlight trained on their behaviors and actions. In moments of crisis, the default expectation is that businesses will hunker down and focus on bottom-line fundamentals. Indeed, many CEOs feel constrained to making defensive moves to protect their businesses. But in this crisis, stakeholder needs are already so acute that the opportunity for businesses to make an indelible mark with human support, empathy, and purpose is greater than it has ever been.

Lessons from the past loom large. During what feels like a war, the words and images of wartime leaders echo in our consciousness as icons of resilience and human concern. In previous periods of economic shock, executives' actions, both good and bad, lodged in company histories and forged perceptions that have endured for years. Decisions made during this crisis will likewise shape a corporation's identity and tell a story that will leave traces long after COVID-19 has been quelled.

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In this crisis, executives will choose either to stay on the sidelines or to engage and, if engaging, either to lead or to follow. Those who have carefully honed a sense of company purpose will find a foundation and set of values that can guide critical and decisive action. For others, this moment can represent the first steps toward defining their corporate purpose in a deliberate way. Is this the moment when purposeful companies demonstrate how to use profits for good or that shows how everything a company does can be for good?

As boardrooms become war rooms, a handful of principles can help guide executives in shaping a critical course of action and building a powerful sense of identity and purpose that will long outlast the immediate crisis.

Understand how acute your stakeholders' needs are now

Examine exactly what is at stake for your employees, communities, customers, partners, and owners. All will have urgent, rapidly evolving needs that you should fully understand and prioritize. Some of these needs will be new and require creative thinking. Listen carefully to stakeholders that are well placed to inform you. Among grocers, for example, the needs of employees, customers, and service to broader society often stand front and center. Nonetheless, stories of some grocers gouging prices have surfaced as the crisis has intensified. Others, such as Canadian grocer Loblaws, moved quickly, as physical-distancing measures spread, to open stores early for elderly shoppers while also increasing compensation for frontline workers and pledging to keep prices at prepandemic levels.

Prepare for tension, too, as trade-offs arise among stakeholder groups, each with their own important needs. For example, increasing the pay of frontline workers might raise the prospect of cutting back on supplier bills. For retailers and delivery services, shutting down warehouses temporarily to keep workers safe might mean customers have to wait longer for deliveries.

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Bring your greatest strengths to bear

What strengths does your organization possess that you can apply to make the biggest difference for your stakeholders? A strong balance sheet might be the means to sustain workers through the crisis. A unique logistics network could be used to bring aid to people in need. A manufacturing facility could shift production to creating urgently needed medical supplies. Resist going it alone. Collaborate closely with your ecosystem of suppliers and customers—they might identify strengths you didn't even know you had.

Small businesses and large corporations alike are redeploying their capabilities to respond to this crisis: a wedding-dress boutique in New York responded to postponed orders by shifting to produce protective masks for healthcare workers, while French perfume makers have retooled to pump out hand sanitizer. Automobile and car-parts makers have turned to building ventilators. Past lessons can inform creative thinking: when rural Tanzania needed critical medical supplies in 2010, Coca-Cola used its extensive last-mile delivery system to reduce delivery times to five days, from 30. Stepping into the public sphere in the heat of a crisis can unleash unique synergies and creative solutions that will linger.

Collaborate closely with your ecosystem of suppliers and customers—they might identify strengths you didn't even know you had.

Test your decisions against your purpose

At a time of great uncertainty, "gut check" your decisions against your values as a leader and as an organization. Do your choices align with your identity? Everything you do now will be analyzed after the dust settles. Will your actions and identity be seen as consistent?

Communicate not only your decisions but also the rationale for them—and the trade-offs you considered—clearly. Can you explain decisions to skeptics? Will what you decided be a source of pride? In the financial-services industry, many bank executives report credit loss as their most acute concern, followed by liquidity and funding. But banks also have a long-standing social commitment to support households and businesses with credit. Banks that pull funds away during a crisis will be defining themselves for future interactions in the communities where they operate.

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Finally, if you have embraced initiatives in ESG areas, don't borrow from one to support another—don't risk appearing to "rob Peter to pay Paul." The temptation may be to scale back environmental programs to support acute social needs better in this crisis. But beware of seeming to abandon deeply held stakeholder causes; supporters will have long memories.

Involve your employees in the solution

Any crisis provides an opportunity to build a common sense of purpose with your employees, who will be looking for leadership and ways to engage themselves. It can also deliver the benefit of bringing a new generation of leaders to the fore. It may be tempting to withdraw into small, tight decision-making task forces to make key decisions as quickly as possible.

But purposeful leaders will want to share execution plans broadly with staff to solicit input and engage them on the challenges the organization faces—including the difficult trade-offs to be made.

Many employees and their families are suffering from isolation and loss of income, leaving them thinking about what is truly important. Crisis leaders' actions now can foster collective unity and a sense of belonging. When those decisions derive from the principles and purpose that an organization stands for it will make it easier to convey confidence in positive outcomes, even when decisions are painful ones.

There is also a benefit in drawing employees together to tackle problems in new ways. For example, forming cross-cutting teams to address problems can break the mold of years of siloed thinking. As Hurricane Katrina took its toll on the United States in 2005, Walmart stepped up to support disaster relief and asked some employees to deliver supplies in hard-to-reach areas. At the same time, the company guaranteed that all employees in disaster locations would keep their jobs at other locations during and after the disaster. When Hurricane Harvey landed in Houston in 2017, Texas Mutual Insurance took immediate steps to ensure the safety of its employees by shutting down its offices and providing supplies and company cars to affected staff. The company also supported its larger community, providing $10 million in grants to help policyholders rebuild.

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Lead from the front

Leading in a crisis is never easy, but hard times leave the most indelible imprints on a company's identity. Credibility is a both essential and fragile element of effective leadership. In a recent McKinsey survey of US workers, 82 percent of the more than 1,000 respondents affirmed the importance of corporate purpose, but only 42 percent reported that their company's stated purpose had much effect. This is a cautionary tale about the generic nature of most companies' statements on identity but also the identification of an opportunity to surprise and sway skeptical stakeholders. Authentic actions will demonstrate to employees a company's genuine commitment to social purpose.

Communicate early and frequently, even with incomplete information. Remember that, right now, suffering stakeholders seek empathy but are also looking to leaders to face facts bluntly, without sugarcoating them. Stay nimble as situations change, which they certainly will.

Adapt to changing conditions and new information rather than returning to a static playbook. Offer perspectives on today's crisis details, with a microscopic perspective to reassure stakeholders of competence. However, also take a telescopic view of what recovery may look like in the future. At some point, the COVID-19 crisis will pass. Households and companies alike will take stock of their losses and begin to rebuild. Acting in concert with the tenets of your organization's purpose will help balance these perspectives and demonstrate confidence in your company's ability to deliver a good outcome.

Executives are uniquely poised at this pivotal time to bring corporate power, guided by social purpose, to the aid of millions of dislodged and vulnerable lives. Done well, their actions in this crisis can bridge, in unprecedented ways, the divide between shareholders and stakeholders in the communities they serve—and leave a lasting, positive legacy on their corporate identity.

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The CFO's role in helping companies navigate the coronavirus crisis

Strong, steady leadership from the finance organization is critical for addressing immediate concerns about safety and survival, stabilizing the business in the near term, and positioning it for recovery.

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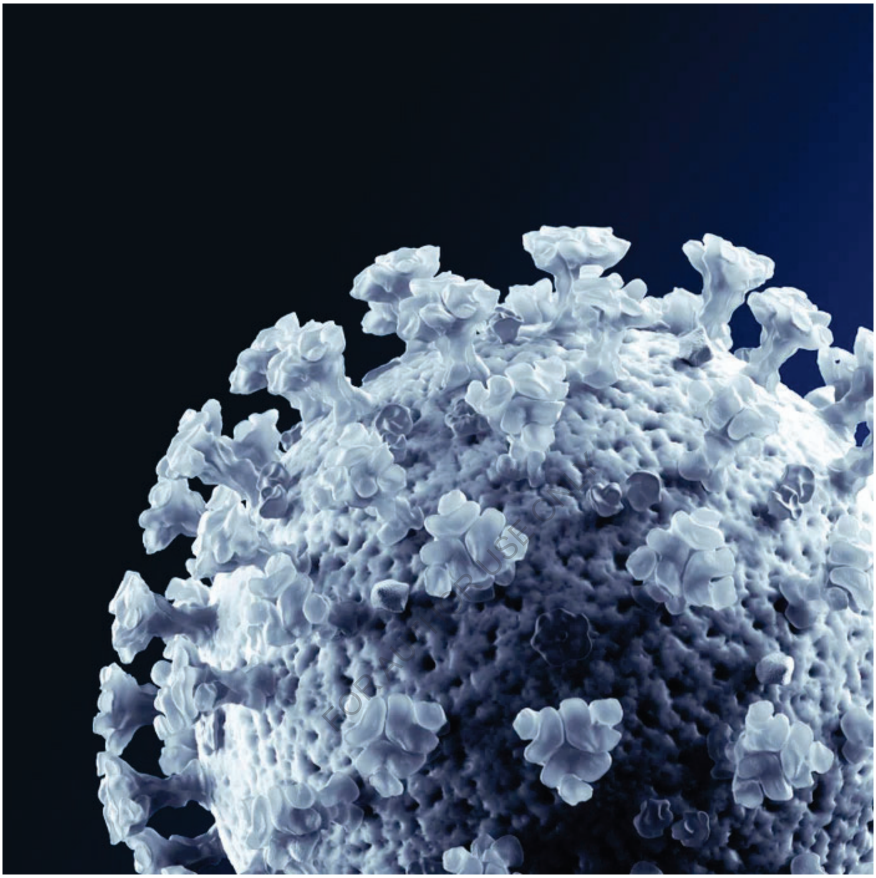
The spread of the novel coronavirus has created a worldwide humanitarian and economic crisis. The events we are living through are in many ways unprecedented, with large-scale quarantines, border closings, school closings, and physical distancing. Governments and communities have been jolted into action to "flatten the curve."



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Coronavirus

Insights on how organizations can respond, and what happens next

Organizations, too, have needed to accelerate their actions to protect employees, customers, suppliers, and financial results. The challenges are many and varied: with some companies losing up to 75 percent of their revenues in a single quarter, cash isn't just king—it's now critical for survival. While always important, digital connectivity is now fundamental to the continuity of business operations, as remote work becomes the norm across much of the globe. The need for frequent, transparent communication with colleagues and investors has only ramped up in importance as business conditions, epidemiological forecasts, and rules of conduct change daily, if not hourly.

Amid all this uncertainty, the CFO can play a strong, central role, alongside executive peers, in stabilizing the business and positioning it to thrive when conditions improve. The CFO is the leader, after all, who most directly contributes to a company's financial health and organizational resilience day to day. Our experience in helping clients through both internal and external crises offers lessons about the actions that CFOs should take in the wake of the pandemic to put their companies on a sound financial footing and help reduce some of the fear and uncertainty. We share those lessons in this article, outlining the critical steps CFOs and finance organizations can take across three horizons: immediate safety and survival, near-term stabilization of the business in anticipation of the next normal, and longer-term preparations for the company to make bold moves during recovery. Our guidance is based partly on empirical research McKinsey has conducted on companies that outperformed competitors coming out of previous crisis points and recessions.

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Resolve and resilience: Addressing the immediate crisis

Economically, the COVID-19 crisis is most immediately one of liquidity and resulting financial stress. As the coronavirus has spread, thousands of companies have had to close their doors temporarily. Their supply chains have been disrupted. Consumers can no longer make many discretionary purchases. The finance leader's top priority, then, has to be optimizing cash reserves, as the magnitude and duration of the crisis remain unclear. Specifically, the CFO should focus on assessing the company's liquidity, launching a centralized "cash war room," developing different scenarios based on potential paths of the virus's spread, and rolling out an internal and external communications plan.

Launch a cash war room

Most CFOs are already moving quickly to quantify their companies' cash on hand as well as any incremental capital they can access. Finance leaders will need to forecast cash collections associated with the latest sales projections. With many customers delaying payments, however, some companies may need to double down on collections to remain solvent. When working capital is no longer sufficient, CFOs should consider tapping lines of credit and other options while reviewing opportunities to raise capital, such as through divestitures or joint ventures. If necessary, they should also seek relief on debt covenants as early as possible to strengthen the balance sheet before doing so becomes a matter of survival. In such times of crisis, when a cash shortage is a distinct possibility and conditions are changing constantly, setting up a cash war room can help CFOs implement aggressive curbs on spending throughout the organization. Additionally, CFOs can use various tools or mechanisms—what some would call a "spend control tower"—to prioritize payments and impose clear reporting metrics that track liquidity in real time.

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Develop scenarios

Amid this period of heightened uncertainty, finance and strategy teams will need to rely on a range of scenarios rather than on individual time-horizon–based frameworks. The finance leader should develop a point of view about two or three integrated scenarios that encompass multiple eventualities—for instance, which paths might the pandemic take, and which geographies or industries are poised for faster recovery than others? The CFO should also articulate clear thresholds or trigger points that suggest what financial actions the company will take and when. The financial planning and analysis (FP&A) group is uniquely positioned to help in this regard, as it works closely with the business units and can help project the effects of the pandemic on various aspects of demand and supply. Rolling forecasts should incorporate both macroeconomic and company-specific data to identify major areas of EBITDA risk. The forecasts should also identify second-order impacts, such as geographical supply-chain disruption and employee dislocation, as well as likely sources of cash leakages and customer-liquidity projections.

Once all this is in place, the CFO should guide the creation of a framework that a small executive team can use to make business decisions (to rationalize projects, for example) and monitor conditions (for triggers that might cause various scenarios to unfold, for instance). The CFO will need to track in real time the effect that cash decisions are having on the company's ability to ride out the downturn and resume business operations once demand begins to bounce back.

Institute a communications plan

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The CFO must take a lead role in the financial and strategic aspects of crisis management. As mentioned previously, the company's primary finance focus during this period will be on implementing a "cash culture"—that is, preserving cash and deploying it dynamically. The CFO must communicate this priority throughout the organization and help establish incentives to reinforce it so that all departments and business units understand "why this matters now" and what their specific role is in helping optimize cash.

It is equally critical to communicate proactively with boards of directors and investors. The message to both should focus on the crisis's actual and projected effects on the company, the actions being taken to protect the business, the liquidity situation, and any changes to earlier earnings commitments. In addition, the CFO would be wise to increase the frequency of investor communications after the first few months of upheaval, particularly when new information is available. Such connections are essential for demonstrating that executives are taking fast and resolute action based on their best understanding of the situation.

Return: Stabilizing the business

Once concerns about cash preservation have been addressed, the CFO needs to ensure that the company is positioned to operate effectively in this next normal. The finance leader's critical tasks here will include making operational improvements to bolster productivity, reevaluating the investment portfolio, and investing in the finance function's capabilities.

Bolster productivity

Our research shows that, during the last economic crisis, a small subset of leading companies (we call them "resilients") pursued productivity improvements more often and more frequently than others, creating the capacity for growth during recovery. As a result, they outperformed competitors, doubling their generation of TRS over the subsequent decade. What's more, when compared with peers, the resilient companies reduced their operating costs by three times as much—and they made the moves to do so 12 to 24 months earlier than peers did.

The CFO and the finance organization can make several operational moves to support near-term performance improvements. For instance, to shore up revenues, the CFO can promote the development of new products and services that will assist customers who are experiencing financial difficulties, thereby promoting loyalty from valuable customer cohorts. The CFO can actively reallocate resources to businesses with strong existing revenue streams and optimize the company's use of alternative sales and delivery channels, such as e-commerce.

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With much of the world in lockdown and demand falling, it will be necessary for finance leaders to take decisive actions for reducing operating costs, but it will also be critical for CFOs to maintain some flexibility and to balance those reductions against the eventual need to scale operations back up as the economy recovers. In the meantime, the CFO and finance team can also bring some rigor to spending management by implementing rapid zero-based budgeting for all discretionary expenditures, such as indirect procurement.

Reevaluate investments and strengthen the balance sheet

CFOs should use this period of crisis as an opportunity to perform a deep diagnostic on the balance sheet—for instance, reviewing goodwill impairments; refinancing debt; reducing inventory, accounts-payable and accounts-receivable terms; and so on. This sort of balance-sheet cleanup can extend the company's financial flexibility while keeping everyone focused on key metrics at a chaotic time. Additionally, CFOs should guide peer executives in a review of major R&D, IT, and capital allocations and use the opportunity to optimize the company's investment portfolio. It is very likely that business units' initial projected returns on investments will have changed significantly as a result of the pandemic. Finance leaders will need to quickly shift human and financial resources to higher-yielding projects and the initiatives most valuable to the company's future.

Turbocharge the role of financial planning and analysis

Under crisis conditions, the FP&A team must accelerate its budgeting and forecasting work, providing continually updated business information that the CFO and the finance organization can then incorporate into an integrated forecast. The FP&A team should use collaborative tools to monitor and manage key performance indicators; in a crisis period, issues with data latency will not be acceptable. And the team's updates need to become a true rolling forecast, supported by a "decision cockpit"—a real-time dashboard business leaders can use to focus on the seven to ten key metrics that will guide the organization's operations through the coming months.

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Some finance organizations may lack executives with the skills necessary to elevate the FP&A team into such a role—those with analytics and business backgrounds may be in particularly short supply. To build up the finance bench, the CFO will need to scout for dynamic, proactive individuals; explicitly recognize their performance; and support their experiments with new tasks and new roles on the fly. Additionally, with the likely sudden and dramatic rates of unemployment in many sectors (such as hospitality and travel), finance organizations may be able to recruit top talent with some combination of the digital, finance, and business expertise required but that had previously been harder to find.

Reimagine and reform: Thriving in the next normal

Once the crisis abates, senior management will want to move forward. To enable the company's pursuit of bold strategic moves, the CFO and peer executives should convene a small group of talented executives whose mandate is to focus on strategic planning, with oversight and support from senior management and the board. The team will set the game plan for investments, portfolio shifts, and major productivity initiatives that will position the company to win after the pandemic.

There are five big moves that our research shows have the greatest impact on a company's ability to significantly outperform the market: dynamic resource reallocation, programmatic M&A, strong capital expenditure, productivity breakthroughs, and differentiation improvement. All are important, but in the current crisis, reallocating resources for future growth, realigning the portfolio through acquisitions and divestitures, and boosting productivity are the most critical.

Adopt a transformation mindset when reallocating resources

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Crises are often opportune times to restructure parts of the business that require transformation (and to take the related charges). This one is no different. The CFO and finance organization would be well served to adopt a transformation mindset when they are setting targets, managing performance, constructing budgets, or challenging their business on growth or expense actions. The finance team should launch a review of the portfolio, with a focus on achieving the full potential of each business unit. This is a time to shelve incremental thinking and seek out transformational plans that could boost revenues or reduce costs—not by 5 to 10 percent but by 30 to 40 percent.

Consider how M&A and divestitures could improve the portfolio

Roiled markets and plummeting valuations can create a ripe environment for M&A. CFOs should be a leading voice in determining how to use M&A as a tool to manage the crisis (through divestitures, for instance) and to reallocate capital toward high-priority needs (through product, geography, or supply-chain acquisitions, for instance). A programmatic approach to M&A—where companies pursue frequent small and medium-size acquisitions—may hold some promise during this disruptive period. Consider that during the last financial crisis, companies that maintained a programmatic approach to M&A outperformed through the downturn and maintained excess TRS through the recovery. In fact, the top-performing companies through the downturn (those with top-quartile TRS) had the highest average volume of annual transactions during that time period and returned roughly six times that of the bottom-quartile performers. Similarly, resilient companies divested assets 1.5 times more than their nonresilient peers.

Boost productivity through digitization

This is the first economic disruption that requires a large part of the global workforce to perform their duties remotely, making digital-collaboration tools necessary to keep the business functioning. But the finance team's use of digitization to help the company manage the crisis should not be considered a onetime event. Digital initiatives that once seemed out of reach—from automated closings to real-time forecasts—are now business critical. The CFO and finance team should take a leadership position in advocating for the use of digitization across the organization, long after the crisis has passed. The CFO and finance team can codify the solutions they have developed—the cash war room, rolling forecasts, and collaborative dashboards, for instance—and help scale them throughout the organization. This active, informed embrace of digitization will be invaluable for ensuring accurate reporting, informed decision making, and business continuity in any future crises.

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Meanwhile, much attention has been paid to the massive disruptions to global supply chains. These disruptions have changed business leaders' ROI calculus overnight—from being solely focused on efficiency to now accounting for resilience and stability. Consider how business-process-outsourcing centers worldwide are reeling from lockdowns and limited bandwidth in their own countries (India and the Philippines, for instance), and think about the degree to which many of the critical processes they support have been disrupted. CFOs will need to do the hard work of digitizing and automating core business processes to reduce their exposure to exogenous shocks and to create resilience.

In the coming days, weeks, and months, as employees are struggling with anxiety about their health, their future, and their loved ones, finance leaders must demonstrate empathy—but also bounded optimism that the organization and its people will find a way through the crisis.

The CFO can back up this view with clear actions and decisions. Regular communication is critical: the CFO must be forthcoming about the "knowns" and the "unknowns." This will help ease misgivings, decrease distraction, and keep people motivated. Also critical is empowering others in the finance organization to direct aspects of the crisis response while establishing a financial decision-making framework that will help executive peers make necessary trade-offs.

No one knows how long the pandemic will last, but in time, business and daily life will find a new equilibrium. CFOs are key to ensuring that their organizations not only survive the current crisis but thrive in the next normal.

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When investors call: How your business should talk about coronavirus

As the next earnings season approaches, CFOs and other senior leaders will need to focus on addressing immediate concerns associated with the pandemic while resetting expectations.

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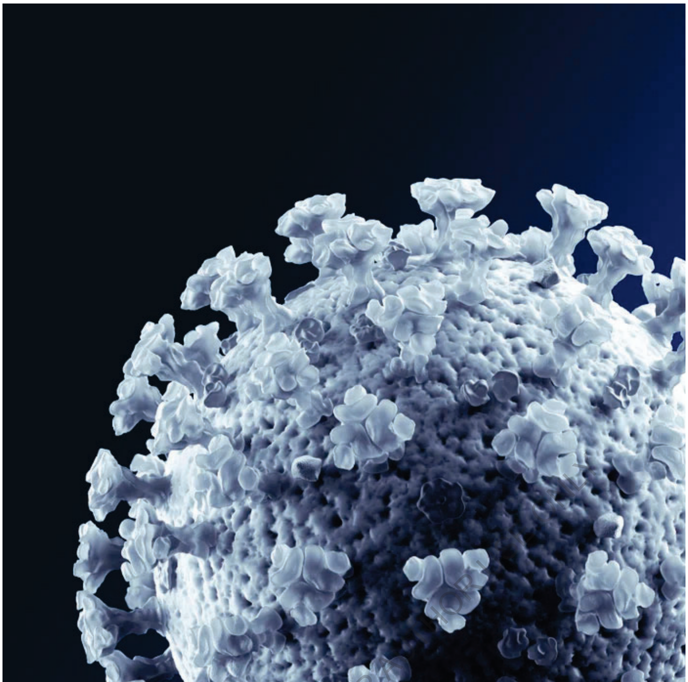
The rapid spread of the novel coronavirus has sent governments, markets, and communities worldwide on a fervid search for answers—how long, how many, how much? Investors, too, are seeking facts about, among other things, how the global pandemic is affecting business operations, what companies are doing to protect employees and suppliers, what companies' recovery plans entail, and whether companies have enough liquidity to withstand the pandemic. The markets are volatile, so companies' responses to these queries could carry considerable weight with critical intrinsic investors and materially affect companies' recovery plans and capitalization. To address investors' immediate concerns and reset their expectations, CFOs and other senior business leaders should be prepared to answer the following questions.



FOR

Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

What exactly is COVID-19 doing to your business?

Be prepared to give investors a clear and detailed accounting of all the ways the pandemic has affected business operations and financials. This is clearly not business as usual. Depending on the industry, the company may be experiencing severe supply-chain issues—think of the unexpected peak demand for medical supplies and the parts shortages because of factory closures. Or the company may be facing a deep decline in demand for products or services because of quarantining and shelter-in-place mandates, as we've seen in tourism and hospitality.

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To help investors put commercial and operational disruptions into context, CFOs should perform diagnostics on company demand and supply and give investors a preliminary outlook on each. It would be helpful to provide investors with a breakdown of revenue and EBITDA by region, with a comparison of numbers from these markets before, during, and after the virus. What earnings-recovery measures have been implemented in which regions? Are competitors taking similar or other actions? Sharing this information with investors can demonstrate that senior leaders are attempting to stay ahead of the curve and anticipating impacts from the coronavirus across all regions, even those that haven't been severely affected yet. CFOs should also prepare a few scenarios, from conservative to worst case, to suggest how the company expects business performance to unfold and how the company might respond under each circumstance.

What specific actions are you taking to protect the business?

It is important to acknowledge the ways in which the company is heeding and communicating the advice of leading healthcare organizations, such as the Centers for Disease Control and Prevention and WHO. It is also critical to clearly outline the direct steps the company is taking to keep employees, vendors, suppliers, and other key stakeholders safe and healthy in the wake of COVID-19, whether that involves providing health support to those affected, mandating that employees work from home, or monitoring the actions and safety of vendors, suppliers, and those who cannot work from home. It can be helpful to provide general time frames for when employees may return to work. Investors should also be reassured that the company has established a clear business-continuity plan, including contingencies for leadership succession should senior executives contract coronavirus (particularly those over age 60). Such plans will obviously look different depending on company and industry. Additionally, it would be helpful for investors to know that a central nerve center has been established to coordinate liquidity forecasting, strategy and operations, and the mobilization of recovery measures.

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Does the business have enough liquidity to survive?

Investors need a detailed description of the company's liquidity position, explaining how well the company could withstand a prolonged downturn as well as how decreased earnings could affect any refinancing plans or other major long-term decisions. The CFO should set the context properly—providing a sense of what the liquidity position is now and where it may be in three months, six months, and 12 months. If there are concerns, the finance leader should share them up front. Investors need to understand how the company plans to generate cash in this period of uncertainty. Depending on the industry, the CFO and finance team may need to weigh options to divest assets, delay capital expenditures, reduce working capital, or deploy cost-cutting programs. It is important to share those options and the timing of their implementation with investors, as well as the logic for why the company has decided to emphasize one course of action over another. Conversely, if the company has high levels of cash, investors should understand what the capital-allocation plan will be. Given the current market, CFOs should not be surprised if investors express their preference that excess cash be returned.

Critically, the CFO should describe in detail for investors the internal and external resources the company may access in this time of crisis, even if just as a precaution—for instance, government aid, credit lines and commitments from banks, potential sale of real estate or other assets, or expediting any established cost-cutting or restructuring programs. Conversely, if the company is fortunate and operating from a position of strength, it is helpful to share with investors any bold plans to seize opportunities that may appear during the crisis period. The CFO must convey the company's preparedness for a range of possible outcomes in these discussions; investors will be looking for signs of critical thinking.

Can you provide estimates?

If guidance assumptions have changed as a result of COVID-19, share that information—and describe the challenges in thorough detail.

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Report to investors any changes in the company's capital-allocation plans, particularly any changes in policies for dividends, capital expenditures, and M&A. It is not prudent to offer predictions for the rest of the financial year. In uncertain times like this one, promising a bottom-line number for next year's earnings can raise questions about how the company will get there. The "how"—or the actions you are taking—will be far more important to investors than the actual numbers.

If guidance assumptions have changed as a result of COVID-19, share that information—and describe the challenges with the same level of detail you would use during your company's Capital Markets Day, in which the nitty-gritty of strategy and business-development plans take center stage. Remember that it is better to be conservative in your messaging: it is always easier to deliver unexpectedly good news to investors than to ask them to revise high expectations downward. Plus, the options available now, as the pandemic evolves and before the full economic impact is felt, will likely be more palatable than those available later.

Particularly in times of crisis, it behooves CFOs and executive teams to show leadership and to be transparent with investors about all bad news and potential risks. It is critical to communicate quickly about tough decisions—for instance, cost reductions or facility closures—to ensure that investors, employees, and customers see leaders taking clear, resolute action to right the ship.

Supply-chain recovery in coronavirus times—plan for now and the future

Actions taken now to mitigate impacts on supply chains from coronavirus can also build resilience against future shocks.

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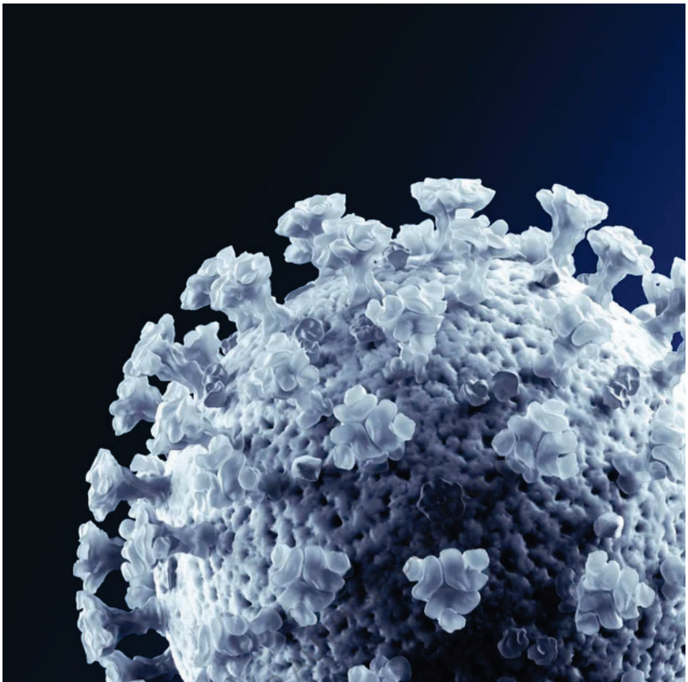
Even as the immediate toll on human health from the spread of coronavirus (SARS-CoV-2), which causes the COVID-19 disease, mounts, the economic effects of the crisis—and the livelihoods at stake—are coming into sharp focus. Businesses must respond on multiple fronts at once: at the same time that they work to protect their workers' safety, they must also safeguard their operational viability, now increasingly under strain from a historic supply-chain shock.



Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

Many businesses are able to mobilize rapidly and set up crisis-management mechanisms, ideally in the form of a nerve center. The typical focus is naturally short term. How can supply-chain leaders also prepare for the medium and long terms—and build the resilience that will see them through the other side?

What to do today

In the current landscape, we see that a complete short-term response means tackling six sets of issues that require quick action across the end-to-end supply chain (Exhibit 1). These actions should be taken in parallel with steps to support the workforce and comply with the latest policy requirements:

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1. *Create transparency* on multitier supply chains, establishing a list of critical components, determining the origin of supply, and identifying alternative sources.

2. *Estimate available inventory* along the value chain—including spare parts and after-sales stock—for use as a bridge to keep production running and enable delivery to customers.

3. *Assess realistic final-customer demand* and respond to (or, where possible, contain) shortage-buying behavior of customers.

4. *Optimize production and distribution capacity* to ensure employee safety, such as by supplying personal protective equipment (PPE) and engaging with communication teams to share infection-risk levels and work-from-home options. These steps will enable leaders to understand current and projected capacity levels in both workforce and materials.

5. *Identify and secure logistics capacity,* estimating capacity and accelerating, where possible, and being flexible on transportation mode, when required.

6. *Manage cash and net working capital* by running stress tests to understand where supply-chain issues will start to cause a financial impact.

Exhibit 1

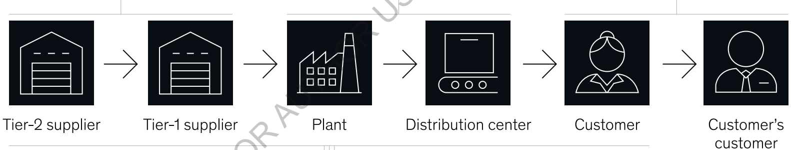
There are multiple immediate, end-to-end supply-chain actions to consider in response to COVID-19.

Supply-chain actions

Create transparency on multitier supply chain
- Determine critical components and determine origin of supply
- Assess interruption risk and identify likely tier-2 and onward risk
- Look to alternative sources if suppliers are in severely affected regions

Optimize production and distribution capacity
- Assess impact on operations and available resource capacity (mainly workforce)
- Ensure employee safety and clearly communicate with employees
- Conduct scenario planning and assess impact on operations, based on available capacity
- Optimize limited production, according to human-health impact, margin, and opportunity cost/ penalty

Assess realistic final-customer demand
- Work with sales and operations planning to get demand signal to determine required supply
- Leverage direct-to-consumer channels of communication
- Use market insights/external databases to estimate for customer's customers



Estimate available inventory
- Estimate inventory along the value chain, including spare parts/ remanufactured stock
- Use after-sales stock as bridge to keep production running

Identify and secure logistics capacity
- Estimate available logistics capacity
- Accelerate customs clearance
- Change mode of transport and prebook air/rail capacity, given current exposure
- Collaborate with all parties to leverage freight capacity jointly

Manage cash and net working capital
- Run supply-chain stress tests vs major suppliers' balance sheets to understand when supply issues will start to stress financial or liquidity issues

McKinsey & Company

In the following sections, we explore each of these six sets of issues.

Create transparency

Creating a transparent view of a multitier supply chain begins with determining the critical components for your operations. Working with operations and production teams to review your bills of materials (BOMs) and catalog components will identify the ones that are sourced from high-risk areas and lack ready substitutes. A risk index for each BOM commodity, based on uniqueness and location of suppliers, will help identify those parts at highest risk.

Once the critical components have been identified, companies can then assess the risk of interruption from tier-two and onward suppliers. This stage of planning should include asking direct questions of tier-one organizations about who and where their suppliers are and creating information-sharing agreements to determine any disruption being faced in tier-two and beyond organizations. Manufacturers should engage with all of their suppliers, across all tiers, to form a series of joint agreements to monitor lead times and inventory levels as an early-warning system for interruption and establish a recovery plan for critical suppliers by commodity.

In situations in which tier-one suppliers do not have visibility into their own supply chains or are not forthcoming with data on them, companies can form a hypothesis on this risk by triangulating from a range of information sources, including facility exposure by industry and parts category, shipment impacts, and export levels across countries and regions. Business-data providers have databases that can be purchased and used to perform this triangulation. Advanced-analytics approaches and network mapping can be used to cull useful information from these databases rapidly and highlight the most critical lower-tier suppliers.

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Combining these hypotheses with the knowledge of where components are traditionally sourced will create a supplier-risk assessment, which can shape discussions with tier-one suppliers. This can be supplemented with the described outside-in analysis, using various data sources, to identify possible tier-two and onward suppliers in affected regions.

For risks that could stop or significantly slow production lines—or significantly increase cost of operations—businesses can identify alternative suppliers, where possible, in terms of qualifications outside severely affected regions. Companies will need to recognize that differences in local policy (for example, changing travel restrictions and government guidance on distancing requirements) can have a major impact on the need for (and availability of) other options. If alternative suppliers are unavailable, businesses can work closely with affected tier-one organizations to address the risk collaboratively. Understanding the specific exposure across the multitier supply chain should allow for a faster restart after the crisis.

Estimate available inventory

Most businesses would be surprised by how much inventory sits in their value chains and should estimate how much of it, including spare parts and remanufactured stock, is available. Additionally, after-sales stock should be used as a bridge to keep production running (Exhibit 2).

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Exhibit 2

Built-in inventory in the supply chain will delay the full impact of halted production.

Expected stockout for companies in EU/US with suppliers in China, by industry, illustrative

Inventory, days of stock (including supply in transit)

	Automotive	Pharmaceuticals	Consumer	Retail (mass)	Retail (fashion)	High tech	Semiconductors
2nd-tier supplier	30–40 (China)	35–70 (China)	20–30 (China)	N/A	N/A	40–60 (China)	N/A
1st-tier supplier	7–17 (EU/US)	120–140 (EU/US)	60–90 (China)	60–90 (China)	15–35 (China)	55–70 (China)	70–110 (China)
Assembly/ packaging	2–12 (EU/US)	55–100 (EU/US)	10–17 (EU/US)	10–17 (EU/US)	15–29 (EU/US)	19–45 (China)	60–90 (Philippines)
RDCs[1]	N/A	80–90 (EU/US)	14 (EU/US)	15–17 (EU/US)	15–23 (EU/US)	N/A	N/A
Market buffer	0–30 (EU/US)	N/A	N/A	7 (EU/US)	21–28 (EU/US)	24–40 (EU/US)	20–30
Total inventory days[2]	40–70	230–320	60–90	70–100	70–110	40–100	130–200

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[1]Regional distribution centers.
[2]Figures for total inventory buffer and expected stockout are calculated assuming production stop at latest link based in China.

This exercise should be completed during the supply-chain-transparency exercise previously described. Estimating all inventory along the value chain aids capacity planning during a ramp-up period. Specific categories to consider include the following:

- *finished goods* held in warehouses and *blocked inventory* held for sales, quality control, and testing
- *spare-parts inventory* that could be repurposed for new-product production, bearing in mind the trade-off of reducing existing customer support versus maintaining new-product sales
- *parts with lower-grade ratings or quality issues,* which should be assessed to determine whether the rework effort would be justified to solve quality issues or whether remanufacture with used stock could address supply issues
- *parts in transit* should be evaluated to see what steps can be taken to accelerate their arrival—particularly those in customs or quarantine
- *supply currently with customers or dealers* should be considered to see if stock could be bought back or transparency could be created for cross-delivery

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Assess realistic final-customer demand

A crisis may increase or decrease demand for particular products, making the estimation of realistic final-customer demand harder and more important. Businesses should question whether demand signals they are receiving from their immediate customers, both short and medium term, are realistic and reflect underlying uncertainties in the forecast. The demand-planning team, using its industry experience and available analytical tools, should be able to find a reliable demand signal to determine necessary supply—the result of which should be discussed and agreed upon in the integrated sales- and operations-planning (S&OP) process.

Additionally, direct-to-consumer communication channels, market insights, and internal and external databases can provide invaluable information in assessing the current state of demand among your customers' customers. When data sources are limited, open communication with direct customers can fill in at least some gaps. With these factors in mind, forecasting demand requires a strict process to navigate uncertain and ever-evolving conditions successfully. To prepare for such instances effectively, organizations should take the following actions:

- Develop a demand-forecast strategy, which includes defining the granularity and time horizon for the forecast to make risk-informed decisions in the S&OP process.
- Use advanced statistical forecasting tools to generate a realistic forecast for base demand.
- Integrate market intelligence into product-specific demand-forecasting models.
- Ensure dynamic monitoring of forecasts in order to react quickly to inaccuracies.

With many end customers engaging in shortage buying to ensure that they can claim a higher fraction of whatever is in short supply, businesses can reasonably question whether the demand signals they are receiving from their immediate customers, both short and medium term, are realistic and reflect underlying uncertainties in the forecast. Making orders smaller and more frequent and adding flexibility to contract terms can improve outcomes both for suppliers and their customers by smoothing the peaks and valleys that raise cost and waste. A triaging process that prioritizes customers by strategic importance, margin, and revenue will also help in safeguarding the continuity of commercial relationships.

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Optimize production and distribution capacity

Armed with a demand forecast, the S&OP process should next optimize production and distribution capacity. Scenario analysis can be used to test different capacity and production scenarios to understand their financial and operational implications.

Optimizing production begins with ensuring employee safety. This includes sourcing and engaging with crisis-communication teams to communicate clearly with employees about infection-risk concerns and options for remote and home working.

The next step is to conduct scenario planning to project the financial and operational implications of a prolonged shutdown, assessing impact based on available capacity (including inventory already in the system). To plan on how to use available capacity, the S&OP process should determine which products offer the highest strategic value, considering the importance to health and human safety and the earnings potential, both today and during the future recovery. The analysis will draw on a cross-functional team that includes marketing and sales, operations, and strategy staff, including individuals who can tailor updated macroeconomic forecasts to the expected impact on the business. Where possible, a digital, end-to-end S&OP platform can better match production and supply-chain planning with the expected demand in a variety of circumstances.

Identify and secure logistics capacity

In a time of crisis, understanding current and future logistics capacity by mode—and their associated trade-offs—will be even more essential than usual, as will prioritizing logistics needs in required capacity and time sensitivity of product delivery. Consequently, even as companies look to ramp up production and make up time in their value chains, they should prebook logistics capacity to minimize exposure to potential cost increases. Collaborating with partners can be an effective strategy to gain priority and increase capacity on more favorable terms.

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To improve contingency planning under rapidly evolving circumstances, real-time visibility will depend not only on tracking the on-time status of freight in transit but also on monitoring broader changes, such as airport congestion and border closings. Maintaining a nimble approach to logistics management will be imperative in rapidly adapting to any situational or environmental changes.

Manage cash and net working capital

As the crisis takes its course, constrained supply chains, slow sales, and reduced margins will combine to add even more pressure on earnings and liquidity. Businesses have a habit of projecting optimism; now they will need a strong dose of realism so that they can free up cash. Companies will need all available internal forecasting capabilities to stress test their capital requirements on weekly and monthly bases.

As the finance function works on accounts payable and receivable, supply-chain leaders can focus on freeing up cash locked in other parts of the value chain. Reducing finished-goods inventory, with thoughtful, ambitious targets supported by strong governance, can contribute substantial savings. Likewise, improved logistics, such as through smarter fleet management, can allow companies to defer significant capital costs at no impact on customer service. Pressure testing each supplier's purchase order and minimizing or eliminating purchases of nonessential supplies can yield immediate cash infusions. Supply-chain leaders should analyze the root causes of suppliers' nonessential purchases, mitigating them through adherence to consumption-based stock and manufacturing models and through negotiations of supplier contracts to seek more favorable terms.

Building resilience for the future

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Cluster maps reveal alternative sourcing options for all the materials affected.

Cluster map, durable speaker suppliers, illustrative (n = 87 suppliers)

● Company — Common capabilities

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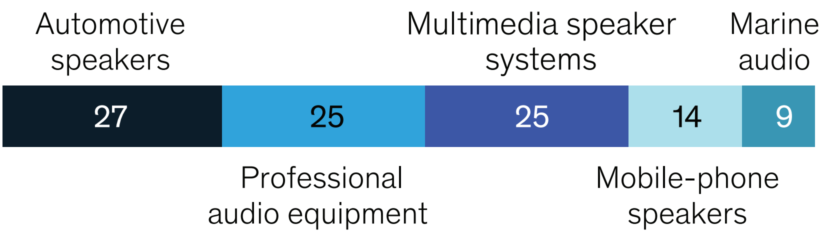
Cluster characteristics, %



Once the immediate risks to a supply chain have been identified, leaders must then design a resilient supply chain for the future. This begins with establishing a supply-chain-risk function tasked with assessing risk, continually updating risk-impact estimates and remediation strategies, and overseeing risk governance. Processes and tools created during the crisis-management period should be codified into formal documentation, and the nerve center should become a permanent fixture to monitor supply-chain vulnerabilities continuously and reliably. Over time, stronger supplier collaboration can likewise reinforce an entire supplier ecosystem for greater resilience.

During this process, digitizing supply-chain management improves the speed, accuracy, and flexibility of supply-risk management. By building and reinforcing a single source of truth, a digitized supply chain strengthens capabilities in anticipating risk, achieving greater visibility and coordination across the supply chain, and managing issues that arise from growing product complexity. For example, Exhibit 3 shows how a digitally enabled clustering of potential suppliers shows the capabilities they have in common. Estimating a medtech company's degree of connectiveness helped it expand its supplier base by 600 percent, while an industrial-tools maker identified request-for-qualifications-ready suppliers for highly complex parts that it had been previously unable to source.

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Finally, when coming out of the crisis, companies and governments should take a complete look at their supply-chain vulnerabilities and the shocks that could expose them much as the coronavirus has. Exhibit 4 describes the major sources of vulnerability. The detailed responses can reveal major opportunities—for example, using scenario analyses to review the structural resilience of critical logistics nodes, routes, and transportation modes can reveal weakness even when individual components, such as important airports or rail hubs, may appear resilient.

Exhibit 4

Supply-chain vulnerability occurs across five dimensions.

Drivers of potential vulnerability

Typical focus

Full-picture focus

Planning and supplier network

- How predictable is demand planning?
- How complex or concentrated is the supply network, and how resilient is it to disruption?
- How exposed is the network to tariffs and other trade disruptions?

Transportation and logistics

- How resilient is the physical-flow and logistics network?

Financial resiliency

- How much financial flexibility does the company have for increased supply-chain cost or sustained disruption?

Product complexity

- Are components in the products substitutable?
- How flexible is the design if components are no longer available?
- How vulnerable is the product to regulatory changes?

Organizational maturity

- How proactive vs reactive is the organization in identifying and mitigating supply-chain disruptions?

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Organizations should build financial models that size the impact of various shock scenarios and decide how much “insurance” to buy through the mitigation of specific gaps, such as by establishing dual supply sources or relocating production. The analytical underpinnings of this risk analysis are well understood in other domains, such as the financial sector—now is the time to apply them to supply chains.

Triaging the human issues facing companies and governments today and addressing them must be the number-one priority, especially for goods that are critical to maintain health and safety during the crisis. As the coronavirus pandemic subsides, the tasks will center on improving and strengthening supply-chain capabilities to prepare for the inevitable next shock. By acting intentionally today and over the next several months, companies and governments can emerge from this crisis better prepared for the next one.

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Supply chain risk management is back

The world is getting riskier—and the most advanced supply-chain leaders are getting smarter about risk. Is your supply chain risk-ready?

Today's complex and long supply chains are almost inevitably subject to disruption. But the stakes seem to have risen, whether due to intensifying trade disputes and political upheavals (of which Brexit is only one example), or to high-cost natural disasters plaguing more of the world.

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As a result, we hear more global companies questioning how to assess and manage these risks and prepare their supply chains accordingly. Which precautionary measures make sense, and how much do they differ by industry? We conducted research by interviewing supply-chain managers across Europe to understand how they assess risks, what they do to prepare, and how they respond to disruptions.

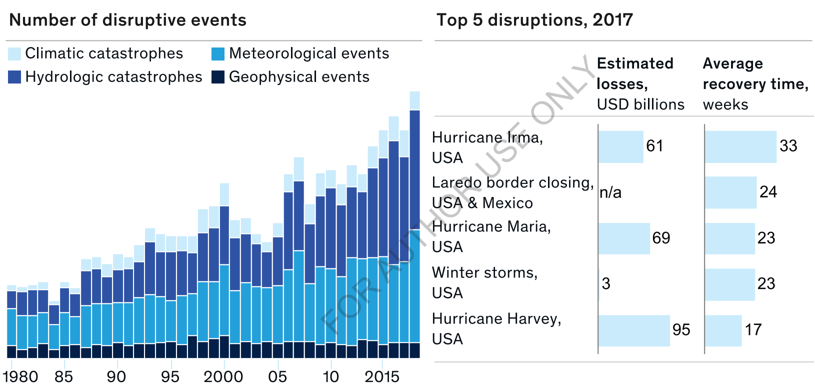
Risks on the rise

Natural disasters are particularly dramatic illustrations of the difficulties facing supply-chain managers. Even in a comparatively benign year, such as 2019, global losses due to earthquakes, floods, fires and the like reached $150 billion. But dramatic spikes are happening more often, with nearly $350 billion in losses recorded in 2017 (marked by Hurricanes Irma in the continental US and Maria in Puerto Rico) and in 2011 (Thai floods and the Fukushima earthquake-tsunami).

These high costs, in combination with long recovery times, have triggered many companies to reassess their supply-chain strategies and footprints to make them more resilient to any kind of disruption (Exhibit 1).

Exhibit 1

Noneconomic shocks are increasing in frequency and in impact on supply-chain cost and performance.



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Source: McKinsey Agile Operations

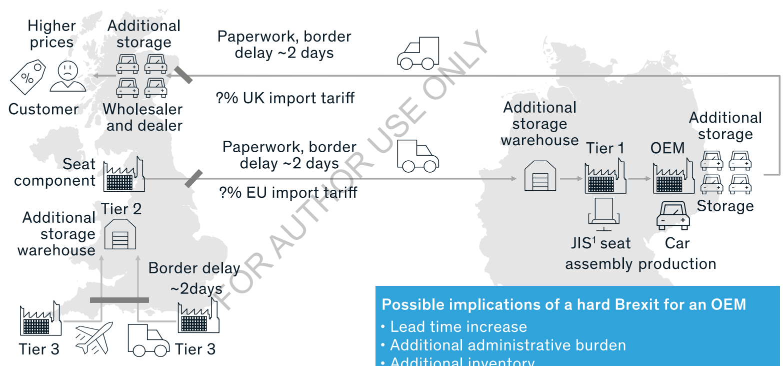
Geopolitical uncertainty has further accelerated the need for thoughtful, regular review of supply chains. Over the past two years, new tariffs have been imposed with scant notice, raising input costs by 15 percent or more almost overnight. Unsurprisingly, in the quarterly Economic Conditions Snapshot survey by McKinsey, "changes in trade policy" spent most of 2019 as the single greatest threat respondents perceived to economic growth, both globally and for their home economy.

Accounting for 54 percent of imports and 49 percent of exports, the EU is the most important trade partner for the UK. Brexit discussions are especially relevant for companies with complex international trade flows. The impact of longer lead times due to border delays, additional administrative burdens, and inventory buildups may multiply, as the automotive example below shows (Exhibit 2). The end customer will not only have to pay for an increase in tariffs, but also for additional costs accumulated throughout the supply chain (such as for stock-holding costs).

Exhibit 2

Brexit may cause major disruptions to trade flows between the UK and EU.

Example: Sale of a car produced in Germany to a UK customer



Possible implications of a hard Brexit for an OEM
- Lead time increase
- Additional administrative burden
- Additional inventory
- Import tariffs for components and vehicles
- Higher end-customer price

1 Just in sequence

How companies are preparing for Brexit and trade disputes

We noticed a difference in the measures that companies are taking to prepare for the potential impact of Brexit in comparison to the evolving US–China trade negotiations. In short, Brexit is seen as a less-fundamental risk compared to proposed trade regulations. For many companies, the UK market is simply not large enough to dedicate significant resources to prepare for Brexit. They believe that the consequences of Brexit will be short-lived operational issues that will ease within a few weeks or months. These businesses are focusing on short-term measures such as setting up alternative transport routes and preparing for new customs requirements.

Other companies are simply ready to accept the risk of longer lead times due to customs, stating that they "don't care; customers will simply have to wait longer and pay a bit more; it affects the entire industry." Companies with time-critical lead requirements (as with certain medical products) will try to limit the impact on final consumers by building up inventory and securing local supply. Most of them also report that they are launching cost-cutting projects to mitigate increases to end-customer prices.

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We also hear that the long, unpredictable Brexit process has had one unexpected advantage: by now, everyone either is well-prepared or has consciously decided to take a wait-and-see approach.

We can see clear differences in the supply-chain impact of Brexit and other trade regulations by industry.

- **Pharma companies** operate in a highly regulated environment, so a hard Brexit—in which Britain and the EU do not secure a trade agreement—would cause major disruptions. They must secure multiple weeks' supply for critical drugs and need to stock up accordingly. Many pharma companies have already transferred EU market authorizations, such as the retesting and accrediting of products, to EU entities, anticipating the post-Brexit risk.
- For the **fast-moving consumer goods** industry, border delays of several days could cause major damage, especially for fresh and perishable products. Almost 30 percent of food imported to the UK currently comes from the EU. A large consumer player has established customs-accredited warehouses to manage Brexit-lengthened lead times, while a retailer has opened new distribution centers in the EU and return centers in the UK to decrease duties on returned products. More generally, many consumer-goods

companies feel the need to shorten their reaction times: “We need to become more agile to react faster. Currently, our supply chain is a large tanker rather than a speedboat,” said one industry representative.

- Players in the **discrete manufacturing** industry—characterized by just-in-time production systems, such as in automotive—are reviewing various measures to minimize the potential impact of production delays. Many are assessing different transport routes and reviewing logistics contracts, or have decided to build up stock and extend warehouse capacity. Some automotive manufacturers are even considering changing their manufacturing setup, such as relocating production facilities from the UK to mainland Europe or establishing complete knock-down (CKD) plants in the UK to minimize possible tax burdens.

For most of our respondents, the supply-chain impact of the US–China trade disputes—and the related introduction of new tariffs—is seen as a more profound and systematic threat than Brexit. In reassessing their supply-chain structures, some companies have decided to localize their footprints or even to relocate their production facilities. Others are moving parts of their manufacturing capacity from China to Southeast Asian countries to limit tariff exposure.

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Some of the effects could turn out to be positive, at least in the longer run. A supply-chain manager told us that the tariffs are perceived as a “chance [...] to shake up [the] supply chain and increase agility.” As in their response to Brexit, automotive companies are evaluating CKD plants to overcome the risk of high import tariffs. But the majority of companies are still in the analysis phase, waiting for more clarity before making any major investment decisions (Exhibit 3).

Exhibit 3

Companies with high exposure focus on short-term measures to prepare for Brexit, while US-China tariffs are causing a fundamental review of supply-chain footprints.

	Brexit	US/China trade tariffs
Predictability and impact of risk	• Brexit scenario still open, impact is not clear • Uncertain, long decision-making process • Even with a no-deal Brexit, a new normal will settle in after a few chaotic months, with slightly longer lead times	• Systematic approach to revitalize the US supply chain • Long-term moves with high impact • Stringent implementation plan in place
High exposure to risk	• No-deal "hard" Brexit is the planning focus • **Emphasis on short-term measures** — Build up inventory — Reconfigure transport, phase out UK as POE1 — Build distribution or return centers — Prepare for customs/admin requirements — Postpone long-term investment decisions	• The majority of companies are still in wait-and-see mode • **Systematically review supply-chain setup** • Localize supplier footprint • Relocate production facilities
Low exposure to risk	• **Accept risks and shift consequences to supplier side** — Incorporate conditional clauses into contracts to secure supply prices — Continually call for tender to get competitive pricing offers • **Accept risks and shift consequences to end-customer side** — Increase product prices — Increase lead times — Accept risk of supply shortage	

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1 Port of Entry

How advanced companies manage supply-chain risk

The degree of professionalization of supply-chain risk management varies widely. Many companies still follow a more-reactive approach in responding to supply-chain disruptions. That said, almost all of the companies that we surveyed diversify their operations and implement multi-sourcing strategies wherever feasible and economically justifiable. Working closely together with their suppliers and performing regular supplier audits is part of their general business practice. On an ongoing basis, they monitor the most relevant risks—such as regulatory changes or changing customer demand.

But relatively few invest much time and money in automating any of these activities. When hit by sudden supply-chain disruptions, they build temporary task forces to manage the issue on an ad hoc basis. In some cases, precious time is lost due to insufficient preparedness.

More advanced companies have permanent supply-chain risk-management teams and processes in place. The leading automotive OEMs, chemicals, and electronics companies with very complex global supply chains generally belong to this group. The information cascade between the supply-chain risk-management team and other functions such as marketing, IT, and legal is well-established, with clearly defined interfaces. In the case of disruptions, these teams exchange information on the fly and react quickly.

Furthermore, these companies continuously monitor trends and events that might cause disruptions in the global supply chain. They work to increase transparency throughout even multitier supply chains, with leaders in supply-chain risk management setting up databases of suppliers across tiers, including each supplier's location, performance, and audit results. And they use external software and data sources to receive push notifications about the latest incidents, together with the possible implications on their supply footprints.

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By developing and assessing scenarios with different probabilities for pre-identified risks, the most advanced organizations can make high-level impact calculations that enable better prioritization. Accordingly, prioritization is based not only on financial factors, but also on business-specific factors such as regulatory and strategic considerations and the company's specific risk appetite. Supply-chain risk leaders develop a set of reactive and proactive response strategies, and foster general risk awareness among their employees, by creating an openness to address potential shortages and failures.

Creating supply-chain resilience

In light of increasing business complexity and growing overall uncertainty, establishing a systematic supply-chain risk-management approach becomes more and more relevant. Many companies relying mostly on reactive measures today want to improve their supply-chain risk management capabilities—and say they are willing to invest more time and resources to do so. Multiweek supply-chain disruptions causing significant financial burden have triggered a revival of risk management in operations. Advanced companies aim to prepare for new risks, including cyberattacks, or environmental challenges, such as decarbonization of the overall production footprint.

Increasing supply-chain resilience is a leading theme for many globally operating companies with complex operations. Based on our experience, we suggest a four-step process that can be tailored to a company's needs based on its individual starting position. Less-advanced companies will typically start by concentrating on establishing an end-to-end process first; their more-advanced counterparts may instead focus more attention on advancing steps 3 and 4.

1. Identify the most relevant events and risks threatening to disrupt the company's supply-chain operations.
2. Define possible outcome scenarios and assess their high-level impact. Depending on the level of exposure and magnitude of the impact, the company prioritizes risks for targeted attention.
3. Develop response strategies for prioritized risks. It is essential to create an unbiased process to decide where to invest and how to prepare. A systematic calculation of business cases is the foundation for these investment decisions. The trade-off between investing in prevention versus taking the risk of being hit when unprepared—resulting in severe disruptions and losses—needs to be quantified. Different dimensions important to the company need to be incorporated to create a meaningful business case, otherwise it is difficult to get the required funding for risk management.
4. Finally, supply-chain risk management needs to be incorporated into regular decision-making and planning processes. Embedding risk-management capabilities as a regular ingredient of business decisions in operations is the first step towards creating a true risk culture and a resilient company.

A systematic classification of risks, and development of a related response strategy, is essential to improve supply-chain resilience strategically—while keeping required investment to a minimum. A simple framework can help by classifying risks on two axes: the vertical

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estimates to what extent a risk can be anticipated, while the horizontal quantifies the risk's expected impact (Exhibit 4).

- **"Manageable surprises"** are difficult to anticipate but manageable in terms of impact.
- **"Black swans"** are hard to anticipate and severe in terms of impact.
- **"Brewing storms"** can be anticipated and will have a high impact once they materialize.
- **"Business challenges"** are typically low-impact risks that can be both anticipated and managed quite easily.

Exhibit 4

A simple classification of supply-chain risks helps in defining response strategies.

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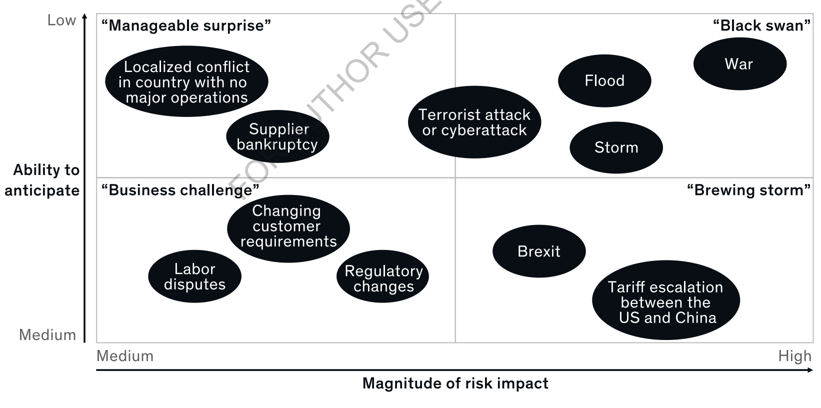

For each of the quadrants, a specific set of response strategies can be developed. A reactive risk-management approach should be taken for risks that are difficult to predict, and a more proactive approach for those with higher predictability (Exhibit 5).

- **Low-impact risks** that are **hard to anticipate**, such as the bankruptcy of an individual supplier or a localized conflict in a country without major operations, can be accepted or avoided to a certain extent by diversifying operations. Systematically implementing a dual-sourcing strategy, through nominating new suppliers or negotiating a second source of supply from the same supplier, help mitigate this risk category.
- **High-impact risks** that are **hard to anticipate**, including natural disasters, terrorist attacks, or cyberattacks, can be managed by building strong crisis-management capabilities and resilience throughout the system. A supply-chain risk-management team can introduce a systemic risk-monitoring process which can be enhanced by regular scenario-planning exercises. Through keeping healthy reserves for parts with long recovery times, companies can prevent some supply-chain disruptions. Another way to mitigate risks which are difficult to anticipate is transferring risk to other parties: taking out insurance and introducing risk-related contract language are possible answers.
- **Low-impact risks** that are relatively **easy to anticipate**, such as labor disputes, regulatory changes, or changes in customer preferences (for minimal plastic usage or increased product sustainability, for example) can be managed proactively by increasing the robustness of the supply-chain system. The most important single measure, though, is solid training of the workforce to handle everyday risks. Encouraging employees to voice concerns about possible defects and disruptions helps create a general risk awareness as a first step to managing disruptions. IT systems and tools can then help to continuously monitor disruptive trends and events.
- **High-impact risks** that are relatively **easy to anticipate**, including Brexit, US–China trade regulations, or decarbonization targets, need the most attention. A systematic review of the supply-chain setup may be advisable. Possible response strategies include redefining the sourcing strategy by, say, raising the share of local suppliers, or revisiting the manufacturing footprint by moving some manufacturing operations out of certain areas. Establishing CKD operations in countries with high import taxes on finished products can be another option. The review of the inventory build-up strategy helps optimize service levels by increasing safety-stock levels for critical components which cannot be sourced from alternative locations. In some cases, preparing for changes in demand can be an appropriate answer.

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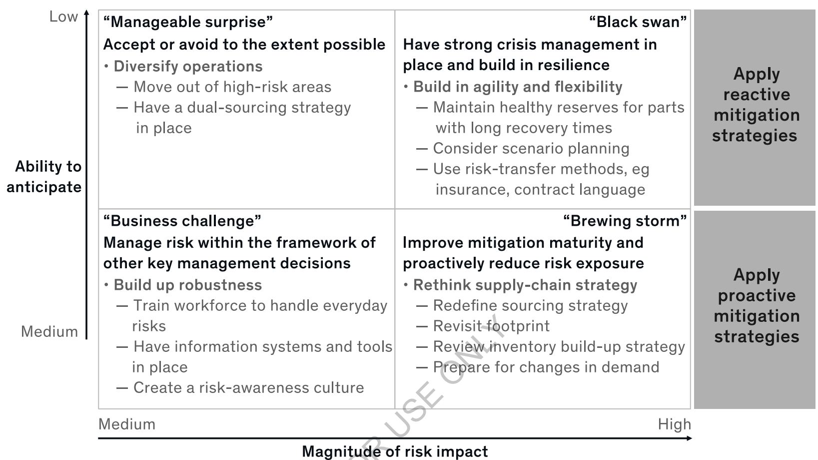
Exhibit 5

Each category of risk implies multiple responses.



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In an increasingly volatile world, companies are putting supply-chain risk management back on the agenda. They are not only confronted by permanently changing customer requirements and increasing geopolitical risk, but also risks related to the environmental concerns such as decarbonization, decreasing plastic usage, and overall product sustainability—all of which increase stress on existing supply chains. Ignoring these shifts could result in severe penalties, whether enforced by government or the market. Cybersecurity risks are gaining ever-more-disruptive potential. Incidents are occurring more and more often, with attacks against businesses almost doubling in five years, raising the total impact of these kinds of risks. A proactive approach, combined with a vibrant risk-management culture, will be a game changer for companies, helping them avoid and manage future disruptions in their supply chains.

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Cybersecurity tactics for the coronavirus pandemic

The pandemic has made it harder for companies to maintain security and business continuity. But new tactics can help cybersecurity leaders to safeguard their organizations.

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The COVID-19 pandemic has presented chief information security officers (CISOs) and their teams with two immediate priorities. One is securing work-from-home arrangements on an unprecedented scale now that organizations have told employees to stop traveling and gathering, and government officials in many places have advised or ordered their people to stay home as much as possible. The other is maintaining the confidentiality, integrity, and availability of consumer-facing network traffic as volumes spike—partly as a result of the additional time people are spending at home.

Recent discussions with cybersecurity leaders suggest that certain actions are especially helpful to fulfill these two priorities. In this article, we set out the technology modifications, employee-engagement approaches, and process changes that cybersecurity leaders have found effective.

Securing work-from-home arrangements at scale

The rapid, widespread adoption of work-from-home tools has put considerable strain on security teams, which must safeguard these tools without making it hard or impossible for employees to work. Conversations with CISOs in Asia, Europe, and North America about how they are securing these new work-at-home arrangements highlight the changes these executives are making in three areas: technology, people, and processes.

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Technology: Make sure required controls are in place

As companies roll out the technologies that enable employees to work from home and maintain business continuity, cybersecurity teams can take these actions to mitigate cybersecurity risks:

- *Accelerate patching for critical systems.* Shortening patch cycles for systems, such as virtual private networks (VPNs), end-point protection, and cloud interfaces, that are essential for remote working will help companies eliminate vulnerabilities soon after their discovery. Patches that protect remote infrastructure deserve particular attention.
- *Scale up multifactor authentication.* Employees working remotely should be required to use multifactor authentication (MFA) to access networks and critical applications. Scaling up MFA can be challenging: the protection it will add calls for a surge in short-term capacity. Several practices make the rollout of MFA more manageable. One is to prioritize users who have elevated privileges (such as domain and sys admins, and application developers) and work with critical systems (for instance, money transfers).

Targeting those users in pilot rollouts of modest scale will allow cybersecurity teams to learn from the experience and use that knowledge to shape more extensive implementation plans. Cybersecurity teams can also benefit from using MFA technologies, such as the application gateways offered by several cloud providers, that are already integrated with existing processes.

- *Install compensating controls for facility-based applications migrated to remote access.* Some applications, such as bank-teller interfaces and cell-center wikis, are available only to users working onsite at their organizations' facilities. To make such facility-based applications available to remote workers, companies must protect those apps with special controls. For example, companies might require employees to activate VPNs and use MFA to reach what would otherwise be facility-based assets while permitting them to use MFA alone when accessing other parts of the corporate environment.
- *Account for shadow IT.* At many companies, employees use so-called shadow IT systems, which they set up and administer without formal approval or support from the IT department. Extended work-from-home operations will expose such systems because business processes that depend on shadow IT in the office will break down once employees find themselves unable to access those resources. IT and security teams should be prepared to transition, support, and protect business-critical shadow assets. They should also keep an eye out for new shadow-IT systems that employees use or create to ease working from home, to compensate for in-office capabilities they can't access, or to get around obstacles.
- *Quicken device virtualization.* Cloud-based virtualized desktop solutions can make it easier for staff to work from home because many of them can be implemented more quickly than on-premises solutions. Bear in mind that the new solutions will need strong authentication protocols—for example, a complex password, combined with a second authentication factor.

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People: Help employees understand the risks

Even with stronger technology controls, employees working from home must still exercise good judgment to maintain information security. The added stress many people feel can make them more prone to social-engineering attacks. Some employees may notice that their behavior isn't monitored as it is in the office and therefore choose to engage in practices that open them to other threats, such as visiting malicious websites that office networks block. Building a "human firewall" will help ensure that employees who work from home do their part to keep the enterprise secure.

- *Communicate creatively.* A high volume of crisis-related communications can easily drown out warnings of cybersecurity risks. Security teams will need to use a mix of approaches to get their messages across. These might include setting up two-way communication channels that let users post and review questions, report incidents in real time, and share best practices; posting announcements to pop-up or universal-lock screens; and encouraging the innovative use of existing communication tools that compensate for the loss of informal interactions in hallways, break rooms, and other office settings.

- *Focus on what to do rather than what not to do.* Telling employees not to use tools (such as consumer web services) they believe they need to do their jobs is counterproductive. Instead, security teams must explain the benefits, such as security and productivity, of using approved messaging, file-transfer, and document-management tools to do their jobs. To further encourage safe behavior, security teams can promote the use of approved devices—for example, by providing stipends to purchase approved hardware and software.

- *Increase awareness of social engineering.* COVID-19–themed phishing, vishing (voice phishing), and smishing (text phishing) campaigns have surged. Security teams must prepare employees to avoid being tricked. These teams should not only notify users that attackers will exploit their fear, stress, and uncertainty but also consider shifting to crisis-specific testing themes for phishing, vishing, and smishing campaigns.

- *Identify and monitor high-risk user groups.* Some users, such as those working with personally identifiable information or other confidential data, pose more risk than others. High-risk users should be identified and monitored for behavior (such as unusual bandwidth patterns or bulk downloads of enterprise data) that can indicate security breaches.

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Processes: Promote resilience

Few business processes are designed to support extensive work from home, so most lack the right embedded controls. For example, an employee who has never done high-risk remote work and hasn't set up a VPN might find it impossible to do so because of the in-person VPN-initiation requirements. In such cases, complementary security-control processes can mitigate risks. Such security processes include these:

- *Supporting secure remote-working tools.* Security and IT help desks should add capacity while exceptionally large numbers of employees are installing and setting up basic security tools, such as VPNs and MFA. It might be practical to deploy security-team members temporarily at call centers to provide added frontline support.
- *Testing and adjusting IR and BC/DR capabilities.* Even with increased traffic, validating remote communications and collaboration tools allows companies to support incident-response (IR) and business-continuity (BC)/disaster-recovery (DR) plans. But companies might have to adjust their plans to cover scenarios relevant to the current crisis. To find weak points in your plans, conduct a short IR or BC/DR tabletop exercise with no one in the office.
- *Securing physical documents.* In the office, employees often have ready access to digital document-sharing mechanisms, as well as shredders and secure disposal bins for printed materials. At home, where employees might lack the same resources, sensitive information can end up in the trash. Set norms for the retention and destruction of physical copies, even if that means waiting until the organization resumes business as usual.
- *Expand monitoring.* Widening the scope of organization-wide monitoring activities, particularly for data and end points, is important for two reasons. First, cyberattacks have proliferated. Second, basic boundary-protection mechanisms, such as proxies, web gateways, or network intrusion-detection systems (IDS) or intrusion-prevention systems (IPS), won't secure users working from home, off the enterprise network, and not connected to a VPN. Depending on the security stack, organizations that do not require the use of a VPN or require it only to access a limited set of resources may go largely unprotected. To expand monitoring, security teams should update security-information-and-event-management (SIEM) systems with new rule sets and

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discovered hashes for novel malware. They should also increase staffing in the security operations center (SOC) to help compensate for the loss of network-based security capabilities, such as end-point protections of noncompany assets. If network-based security capabilities are found to be degraded, teams should expand their IR and BC/DR plans accordingly.

- *Clarify incident-response protocols.* When cybersecurity incidents take place, SOC teams must know how to report them. Cybersecurity leaders should build redundancy options into response protocols so that responses don't stall if decision makers can't be reached or normal escalation pathways are interrupted because people are working from home.
- *Confirm the security of third parties.* Nearly every organization uses contractors and off-site vendors, and most integrate IT systems and share data with both contract and noncontract third parties, such as tax or law-enforcement authorities. When organizations assess which controls must be extended to employees to secure new work-from-home protocols, they should do the same for third-party users and connections, who are likely to be managing similar shifts in their operations and security protocols. For example, ask providers whether they have conducted any remote IR or BC/DR tabletop drills and, if they have, ask them to share the results. Should any third parties fail to demonstrate adequate security controls and procedures, consider limiting or even suspending their connectivity until they remediate their weaknesses.
- *Sustain good procurement practices.* Fast-track procurement intended to close key security gaps related to work-from-home arrangements should follow standard due-diligence processes. The need for certain security and IT tools may seem urgent, but poor vendor selection or hasty deployment could do more harm than good.

Even with stronger technology controls, employees working from home must still exercise good judgment to maintain information security.

Supporting high levels of consumer-facing network traffic

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Levels of online activity that challenge the confidentiality, integrity, and availability (CIA) of network traffic are accelerating. Whether your organization provides connectivity, serves consumers, or supports transactions, securing the CIA of network activity should be a top priority for any executive team that wants to protect consumers from cyberbreaches during this period of heightened vulnerability. Much as organizations are stepping up internal protections for enterprise networks, security teams in organizations that manage consumer-facing networks and the associated technologies will need to scale up their technological capabilities and amend processes quickly.

Technology: Ensure sufficient capacity

Companies that make it possible for employees to work from home must enable higher online network-traffic and transaction volumes by putting in place technical building blocks such as a web-application firewall, secure-sockets-layer (SSL) certification, network monitoring, antidistributed denial of service, and fraud analytics. As web-facing traffic grows, organizations should take additional actions to minimize cyberrisks:

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- *Enhance web-facing threat-intelligence monitoring.* To anticipate threats and take preventive measures, security teams must understand how heightened consumer traffic changes the threat environment for web-facing enterprise activities. For example, to find out if attackers are becoming more interested in an organization's web-facing technologies, organizations can conduct increased passive domain-name scans to test for new malicious signatures tailored to the enterprise domain or for the number of adversarial scans targeting the enterprise network, among other threats.
- *Improve capacity management.* Overextended web-facing technologies are harder to monitor and more susceptible to attacks. Security teams can monitor the performance of applications to identify suspected malware or low-value security agents or even recommend the removal of features (such as noncritical functions or graphics on customer portals) that hog network capacity.

Processes: Integrate and standardize security activities

Customers, employees, and vendors all play some part in maintaining the confidentiality, integrity, and availability of web-facing networks. Several steps can help organizations to ensure that the activities of these stakeholders are consistent and well integrated:

- *Integrate fraud-prevention capabilities with the SOC.* Organizations that support the execution of financial transactions should consider integrating their existing fraud analytics with SOC workflows to accelerate the inspection and remediation of fraudulent transactions.
- *Account for increased costs.* Many SOC tools and managed-security-service providers base charges for monitoring on usage—for example, the volume of log records analyzed. As usage increases with expanded network traffic, organizations with usage-based fee arrangements will need to account for any corresponding increase in costs.
- *Help consumers solve CIA problems themselves.* For media providers, enabling customers to access content without interruption is essential, but increased usage levels can jeopardize availability. Companies may wish to offer guides to show users how to mitigate access problems, particularly during periods of peak use.

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Securing remote-working arrangements and sustaining the CIA of customer-facing networks are essential to ensure the continuity of operations during this disruptive time. The actions we describe in this article, while not comprehensive, have helped many organizations to overcome the security difficulties they face and maintain their standing with customers and other stakeholders.

The CIO's moment: Leadership through the first wave of the coronavirus crisis

It's already clear that CIOs during the coronavirus outbreak are playing a central role in navigating the crisis, even as companies grapple with the implications.

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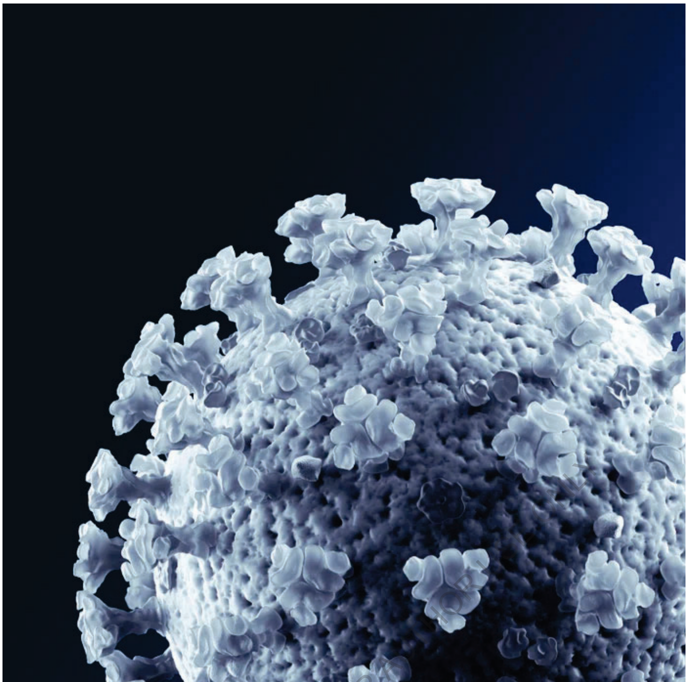
"All eyes are on me. And I'm trying to deal with exploding online loads, people working remotely, new cyberthreats. Every day it's something new."

That quote from a banking chief information officer (CIO) reflects some of the urgency and pressure tech leaders are feeling. CIOs are facing the greatest challenge of their careers. We are seeing infrastructure breakdowns, denial-of-service attacks, and sites going down because of traffic load. Even as companies grapple with the implications of the COVID-19 pandemic, it is already clear that CIOs are playing a central role in navigating the crisis.



Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

The COVID-19 pandemic is first and foremost a human tragedy, and technology is on the front lines of this crisis. Many of the changes reshaping how we work and live—from employees working remotely to consumers shifting their shopping online—rely on technology. And because technology ties so much of every company together, CIOs have a unique view into what's really going on and how to manage it.

COVID-19 is a global phenomenon, and companies from Asia to Europe to the Americas are at different stages of how they are reacting to the crisis. We see the crisis playing out broadly across three waves: Wave 1, ensuring stability and business continuity while containing the crisis; Wave 2, institutionalizing new ways of working; and Wave 3, using learning from the crisis to prioritize tech transformation for resilience.

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The focus of this article is on how CIOs can navigate the first wave and begin shifting from reacting to the crisis to starting to get ahead of it. We believe that CIOs who successfully guide their companies through the first wave can not only stabilize core business operations but also emerge with a reputation for effective leadership.

In the past months, we've spoken with more than 100 CIOs at global companies. Based on these conversations and our experience helping businesses through previous economic crises, CIOs should focus their energies in the next 60 to 90 days on the following ten actions:

Focus on what matters now

1. Take care of your people. The CIO's first order of business is to take care of her employees. It's important to acknowledge that people are focused on caring for loved ones, managing their kids who are no longer in school, stocking up on necessities, and trying to stay healthy, all while trying to do their jobs. This requires empathy and flexibility from CIOs.

CIOs are moving to provide flexible work arrangements—working remotely, in flexible shifts, and preparing for absences. One CIO recognized that employees working from home will be affected by school closures and quickly designed a backup support model for each essential individual. One global company has committed to paying employees who contract COVID-19 so they can take the time to get healthy without worrying over lost pay.

For those people who still need to come into work, CIOs have a responsibility to make the work environment safe. One company, for example, has created six work zones. People cannot cross from one zone into another. If someone gets sick in one zone, they can isolate it from the other zones quickly. At one European financial organization, leadership has organized shifts so that key leaders are not in the same room and has identified backups for executives and key managers.

That focus on people also extends to working with contingent workers and vendors, many of whom work on site. Another banking CIO contacted all vendors to ask where each individual had been physically during the previous two weeks, what they had been doing, and what their plans were for the following week. This helped him understand who was truly needed on the premises and who wasn't, to reduce exposure for his own people.

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A CIO's success in helping their people through this crisis is likely to have a significant effect on employee loyalty and retention in the future.

2. Communicate confidently, consistently, and reliably. Uncertainty breeds fear and confusion. CIOs have to combat this reality by developing a crisis-communication program based on being transparent with both the C-suite and employees about what the current situation is and the steps being taken to address issues. Setting up regular briefings create a certain routine, which builds trust and confidence. Any delays to major deployments need to be planned for and communicated.

The "how" can be as important as the "what." One CIO, for example, is texting the entire company with regular updates because he believes it matters more that the communication is human rather than coming from more "official" corporate channels.

Listening and learning are also crucial. Given how fast the situation is moving, the CIO needs to be the chief "learner" in these situations to help the rest of the group to keep getting better and better as things change. Just pushing out tech won't work. CIOs need to prioritize reaching out to different stakeholders to understand their needs and the pressures they're managing in order to provide the right solutions. In addition, CIOs should consider lightly surveying remote workers to understand what is and isn't working to help refine capabilities and support levels.

3. Get beyond the tech to make work-from-home work. The sudden shift to employees working from home—one European institution saw its remote workforce increase by 15 times literally overnight—has created a host of issues, from inadequate videoconferencing capabilities to poor internet connectivity at employees' homes. CIOs need to move quickly to advise the CEO and direct the company on how best to work remotely before every department goes off and picks its own collaboration tools. Many CIOs are already buying additional licenses and upgrading network to increase access. CIOs can address ISP capacity in employees' homes by distributing 4G/5G modems or reimbursing upgraded internet plans.

In the end, however, tech is just an enabler. New ways of working require a culture change. CIOs can help to drive the cultural change by sharing best practices and providing effective learning sessions. They can drive testing and learning from different approaches and communicating them back to the business. Crisis management is a cross-functional game and the CIO is perfectly placed to facilitate the new way of working.

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4. Drive adoption of new ways of working. As employees shift their work behaviors, many of them are confronting what can seem like a dizzying array of tools with little experience of how to use them effectively. As one CIO confessed, "ensuring adoption of new tools and protocols has been the most frustrating part of the process so far."

New behaviors typically take about 30 days to take hold, so CIOs need to promote them assertively over the next month. As a rule of thumb, we've found that getting a tool adopted requires twice the investment of having it developed in the first place. So while it's necessary to provide clear guidance on tools and routines (for instance, downloading necessary apps or using multifactor authentication), it's crucial to invest in behavioral-nudging techniques, advanced training seminars, and certification to ensure that tools aren't just adopted but that they actually help people do their work.

Role modeling is also an important way to influence behavior, such as communicating through collaboration tools, holding meetings on Zoom, Skype, or Webex, and asking every participant to turn on video. One CEO of a large pharma company has required everyone on video conference calls to "turn on" their cameras.

5. Be proactive on security. Threat actors are already stepping up cyberattacks to exploit confusion and uncertainty. We've seen attackers launch email-phishing campaigns posing as corporate help-desk teams asking workers to validate credentials using text (also known as "smishing"). In addition, remote working creates additional risks: employees may try to bypass security controls to get their job done remotely, unprecedented virtual-private-network (VPN) usage complicates security monitoring, and remote working may weaken deterrents against inside threats.

In response, CIOs, working closely with their chief information-security officers, must focus on security operations, especially de-risking the opening of remote access to sensitive data or to software-development environments, and implementing multifactor authentication to enable work from home. In addition, companies need to focus employees on both safe remote-working protocols and threat-identification and escalation procedures.

Security plans (for example, disaster recovery, vendor succession, technology risk backup), should be tested immediately. If those plans don't exist, they should be created and tested. CIOs should muster resources to help with monitoring (for example, network availability, new strains of malware, endpoint data access) to shorten risk-response times.

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Stabilize core systems and operations

6. Stabilize critical infrastructure, systems, and processes. Massive shifts in employee work and customer-behavior patterns are putting unprecedented strains on each institution's infrastructure. Internet service providers in heavily affected areas are experiencing degradation of service due to overloads from remote workers. There are also much longer than normal lead times for infrastructure components (such as, servers, storage, parts, networking gear) given the disruptions to Asian supply chains.

In the fever to act quickly, it's easy to get caught in a "whack a mole" situation—reacting to the latest issue. CIOs should take a step back and develop a clear perspective about which systems and applications are most critical to stabilize, and then prioritize that work. That includes scenario planning to help prepare for issues lying ahead, such as building up a supply of needed parts and hardware (for example, PCs, iPhones) and a distribution process for getting them where they need to go. Besides addressing key issues (such as, rapidly scaling up infrastructure capacity, network bandwidth, VPN access), CIOs should be thinking through second and third order effects.

They should also identify and test for a range of scenarios, including extreme use cases. One CIO did a holistic infrastructure and network test to determine how their company would operate under different levels of capacity needs. Another did a preemptive one-day stress test to remotely monitor and manage all core systems in case no personnel could come to work. Developing use cases will help to scope this work, for instance, how much network capacity to upgrade and how many licenses to secure. Another CIO determined that bandwidth constraints were so severe that all communications must be via audio rather than videoconferencing.

Finally, CIOs also need to partner with their colleagues in other critical business functions to evaluate system needs and prepare for changes and support requirements. As the organization goes virtual, for example, CIOs can stress test the payroll process under various scenarios to ensure employees are paid.

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7. Enable the shift in business processes. Stress on the system has come from spikes in a number of specific channels: call center, help desk, websites, and consumer-facing apps. In one McKinsey survey of Chinese consumers from three weeks ago, online penetration has increased significantly (+15 to 20 percentage points), in particular for categories with higher purchasing frequency. In Italy, e-commerce went up from the last week of February by 81 percent.

CIOs should upgrade capacity to handle more traffic loads on consumer-facing websites and apps, roll out self-service tools and interactive-voice-response capabilities for customer-support needs. They can also increase dedicated lines to manage COVID-19-related calls, extend systems to enable customer-service employees to work remotely, and ensure sufficient coverage in user help desk to cover increase in ticket volume. CIOs should also organize and group queries received by their help desk and call centers to find patterns and see if additional actions are needed.

Start anticipating what's next

8. Stay the course on key priorities. In this high-stress situation, the natural instinct is to think about what programs to cut and revert back to old ways of working. It's important, of course, to reevaluate priorities, shift resources, and track progress closely. But it's also crucial to see that this current crisis is a major turning point and a competitive situation. We know from past crises, in fact, that companies that take a slash-and-hold approach fare worse than those that both prune and thoughtfully invest.

CIOs need to take a through-cycle view and stay committed to broader transformation goals they've been leading such as programs on data, cloud, and agile. Cloud migration provides the flexibility to manage the current spikes and changing employee and customer needs rapidly and cost effectively. The goal for CIOs is to emerge from this not having just "managed" the crisis but being stronger because of it.

For this reason, it's important for CIOs to keep a steady hand on initiatives and programs that can help the business become tech forward.

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It's important to reevaluate priorities, shift resources, and track progress. Companies that take a slash-and-hold approach fare worse than those that both prune and thoughtfully invest.

9. Stay focused on customers. Amid the frantic activity to ensure business continuity, it's easy to lose track of customers. Customer behavior is shifting radically during this time, and in many situations, to digital channels. There will likely be a residual stickiness of these learned behaviors, as with the explosion of Chinese e-commerce following the severe acute respiratory syndrome, or SARS, epidemic.

At the same time, there is reason to believe that there will be pent-up demand when the worst of the crisis is past. A recent McKinsey survey of Chinese consumers revealed that they are optimistic about overall economic recovery post-COVID-19, and more than 80 percent of them expected to purchase at the same levels or more as before the outbreak. And they're much more likely to continue to spend through digital channels.

CIOs should accelerate investments that create competitive distance for their companies. One fintech CIO who focuses on online payments took this opportunity to aggressively test and market the company's product, recognizing that it was "now or never" to get the product to succeed at scale. CIOs need to support business leaders to design new business models with the help of technology and make it happen quickly; for instance, grocery stores will need to enable online order and home delivery to support affected populations.

10. Understand implications of the 'new normal.' While the economic consequences of COVID-19 are still far from clear, we believe that the end of the crisis will not mean a return to business as usual. The business impact of COVID-19 will inevitably require CIOs to cut costs, particularly in the short term. That includes, for example, evaluating fixed capacity that's not being used and deprioritizing initiatives. As CIOs work to mitigate downturn impact from this outbreak, they should also start to identify ways to drive productivity.

More important, CIOs will need to understand what that shift means and what the new tech-enabled operating model can look like. Some CIOs have started thinking about these new ways of working to lock in new behaviors, such as eliminating attachments for internal emails and only using Slack for communications. Some also see the opportunity to build improved routines around work intake and demand management to ensure the ability to pivot toward only the most essential and valuable work in a time of crisis or reduced capacity. CIOs have the opportunity to become leaders of innovation, rather than merely effective managers of the downside.

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How companies react to the new employee and customer needs will likely shape their competitiveness in the years to come.

We know that in many places things are likely to get worse before they get better, and there are still many unknowns. However, we also believe that for those CIOs who can manage and lead effectively, this can become their moment to shine.

A blueprint for remote working: Lessons from China

As home to some of the world's largest firms, China offers lessons for those that are just now starting to embrace the shift to remote working.

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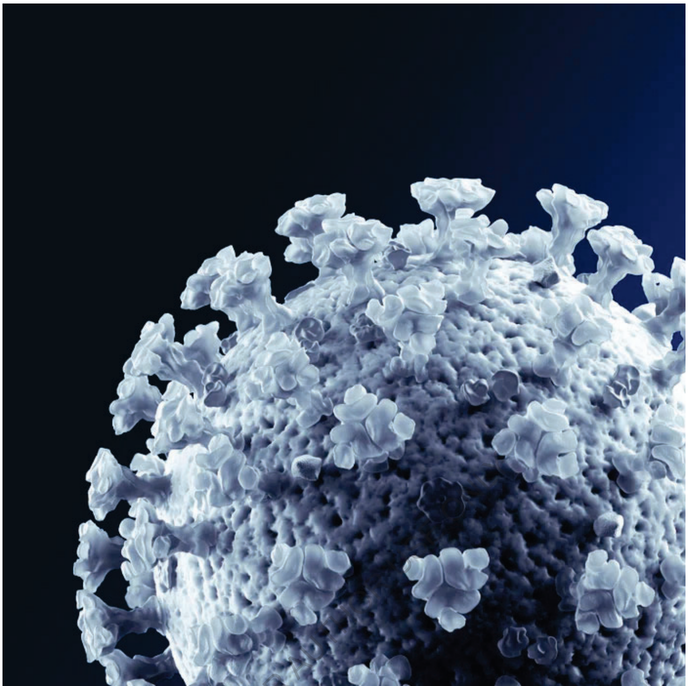
From Alibaba to Ping An and Google to Ford, companies around the globe are telling staff to work from home in a bid to stem the spread of COVID-19.



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Such remote working at scale is unprecedented and will leave a lasting impression on the way people live and work for many years to come. China, which felt the first impact of the pandemic, was an early mover in this space. As home to some of the world's largest firms, it offers lessons for those that are just now starting to embrace the shift.

Working from home skyrocketed in China in the wake of the COVID-19 crisis as companies told their employees to stay home. Around 200 million people were working remotely by the end of the Chinese New Year holiday. While this arrangement has some benefits, such as avoiding long commutes, many employees and companies found it challenging. One employee at an internet company quipped his work day changed from '996' to '007,' meaning from nine to nine, 6 days a week, to all the time. On the personal front, employees found it difficult to manage kids' home-schooling via video conference while coordinating with remote colleagues. At a company level, many felt that productivity rapidly tailed off if not managed properly.

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This article brings together our experience helping clients navigate remote working, in-house analysis, and insights from conversations with executives in China as they responded to the situation and addressed the challenges.

Done right, remote working can boost productivity and morale; done badly, it can breed inefficiency, damage work relationships, and demotivate employees. Here are eight learnings from China that may be applicable around the world, depending on the circumstances:

1. Designing an effective structure

Teams or whole business units working remotely can quickly result in confusion and a lack of clarity. Being isolated leads to uncertainty about who to talk to on specific issues and how and when to approach them, leading to hold-ups and delays.

That's why establishing a structure and architecture for decision making and effective communication is key. Here, smaller cross-functional teams can be helpful, each with a clear mission and reporting line, where directions and tasks are easy to implement. This also simplifies onboarding new hires, who can integrate faster in a tight-knit group, at a time when the broad sweep of the organization isn't visible or easy to feel. With fewer in each team, there is more time to get to know each other and build the trust that would grow more organically in the office.

At Ping An Insurance, workers are typically grouped in project teams of, at most, 30 members, while larger business units are divided up to help them stay agile.

Strong company-wide foundations underpin this, such as having a common purpose and unified goals. Providing clarity on what decisions to escalate and which ones can be tackled at team level helps drive progress.

To mitigate the effects of closed retail stores, one leading fashion company set up a strategy control room and redeployed staff into four cross-functional squads to support its front-line. It designed standard ways for live broadcasting and established internal best practices to encourage front-line staff to use new retail tools to drive sales remotely.

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The lesson: Setting up small, cross-functional teams with clear objectives and a common purpose keeps everyone on the same strategic course.

2. Leading from afar

Managing people is one of the most difficult elements of remote working, not least because everyone will respond differently to the cultural shift and challenges of the home-working environment.

Leaders need to energize the whole company by setting a clear direction and communicating it effectively. Offering a strong vision and a realistic outlook can have a powerful effect on motivation across the organization. It's essential to foster an outcome-driven culture that empowers and holds teams accountable for getting things done, while encouraging open, honest, and productive communication.

Empowering your team in this way pays dividends. WeSure, part of leading internet company Tencent, assembled a COVID-19 response team at the start of the year to offer insurance coverage, free of charge, to front-line medical workers. Alan Lau, CEO of WeSure, credited his team, saying they had worked nonstop, many from remote locations while on leave during the Chinese New Year break, demonstrating how responsive they were to the vision.

For managers, the challenge is to lead, inspire, and direct their team in their daily course of work, while being physically remote. Upping the levels of interaction can also work well here.

One chief information officer, responding to a McKinsey survey, said he's texting the entire company with regular updates because it's a more human way of communicating than via the official corporate channels.

When working within distributed teams, e-commerce giant Alibaba increases the frequency of its one-to-one communications with employees to a weekly basis and, in some teams, members submit a weekly report for their colleagues, complete with plans for the week ahead. Alibaba's productivity app DingTalk (Ding Ding) has features built in to facilitate this by allowing managers to send voice-to-text messages to their teams, and to check in on progress.

The lesson: Determining how you communicate is just as important as what's being said, and it needs to be done confidently, consistently, and reliably.

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3.Instilling a caring culture

As companies transition to the new normal, it's important to acknowledge that some employees may be facing other pressures at home, including caring for their children when schools are shut, leading to feelings of isolation and insecurity. Business leaders need to respect and address these additional needs.

Empathy is a crucial tool here, offering a way to connect, promote inclusiveness, and create a sense of community in a void of physical interaction. Increasing social interactions within the team, particularly through one-on-one catchups, guards against feelings of isolation and demoralization and creates space for people to speak up and share their thoughts. By creating a sense of psychological safety for their colleagues, being inclusive in decision making, and offering perspective in challenging moments, managers can stay closer to what is going on, surface issues, and help their teams solve problems effectively.

A similar approach is important when dealing with customers and clients, providing valuable stability and enabling them to navigate unknown waters with confidence. For example, one global bank asked their relationship managers to connect with small-business customers via WeChat and video-calls to understand their situation and help them weather the crisis. To do so effectively at scale, the managers are supported through dedicated product programs, online articles, scripts for communicating with clients, and internal trainings.

Inclusion is the ultimate show of empathy. Creating outlets for sharing best practices, success stories, challenges, and water-cooler chat is vital to creating a human connection. Giving employees space to pursue personal or social endeavors, providing a clear span of control, and assigning meaningful tasks can also spur motivation.

The lesson: Connecting on a personal level and instilling empathy within the culture is doubly important when working remotely.

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4. Finding a new routine

Moving to remote working risks disrupting the office-based flows and rhythms and it can be easy to hit the wrong note or miss important virtual meetings due to packed schedules. Spend time with your team addressing the nuts and bolts of how you will work together. Cover the daily rhythm, individual constraints, and specific norms you will commit to and anticipate what might go wrong and how you will mitigate it.

How companies plan and review their workflows needs to change to reflect this. The challenges of the new working pattern and of not being in one room together can be overcome by creating a digitally facilitated cadence of meetings. One leading insurance company adopted agile practices across its teams, with a daily and weekly ritual of check-ins, sprint planning, and review sessions.

As Alibaba embraced remote working, it also made sure its meetings were more tightly run. One person is assigned to track time and manage the outcomes. Team members can rate a meeting's usefulness using a five-star system that offers immediate feedback and positive ways forward.

To address the challenge of launching a digital business with a large remote team, one company created a new workflow for product requirements that clearly outlined use of digital tools, roles, and responsibilities as requirements moved from ideation to validation to delivery stages. Reiteration of decision-making structures like this isn't always necessary when people can communicate directly, but their absence can be keenly felt when remote working kicks in.

The lesson: Establishing robust working norms, workflows, and lines of authority is critical, but all too easy to skimp on.

5. Supercharging ways of communicating

Poor communication is one of the key reasons remote offices are not productive.

How staff interact needs to be completely rethought using a full arsenal of channels and tools (Exhibit 1). Getting it right is tricky and requires experimentation.

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Exhibit 1

Communication channels are crucial for remote working

Channel	Best for…
1:1 Call / VC	• Individual catch-ups and building relationships • Discussing sensitive and difficult topics
Video conference	• Problem solving and co-creation using shared screen or whiteboard • Weekly planning and review sessions • Decision meetings • Workshops and trainings • Team talks and retrospectives
Chat	• Process syndication • Urgent questions and seeking guidance • Keeping up to date in real-time • Social team talk
Video captures & voice notes	• Showcasing and explaining work • Guidance to the team from managers with limited time • Debriefs after meetings that some may have missed
eMail	• Updates and status to large groups of people • Formal communication inside and outside the company

Communication considerations

Time to create vs time to process information

Synchronous vs Asynchronous

1:1, 1:N, or N:N

Structured vs stream

Formal vs chatty

Urgent vs important

Visual vs spoken vs written vs non-verbal clues

Source: McKinsey & Company analysis

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Choosing the right channel matters. Video conferences are great for discussing complicated topics in real-time and for creating a sense of community, but they require team-wide coordination and focus. Channel (chat) based collaboration software is great for quick synchronization or easily answered questions, while email can be used to record outcomes and communicate more formally. Backlog management tools can be used to keep on top of tasks and process.

From McKinsey's remote work with clients, we know how effective video conferences can be, if a few simple rules are followed. Firstly, you need a clear agenda and moderator to keep the discussion on track. Having the camera turned on throughout the meeting is essential to build relationships and pick up nonverbal cues. In case the home office is not presentable on camera, most VC software offer virtual or blurred backgrounds. For joint problem solving, it is particularly useful to use screenshare or virtual whiteboards to co-edit documents.

Many teams find it useful to create channels for real-time communication (Exhibit 2)—for example on DingTalk, WeChat, Microsoft Teams or Slack—with a simple rule to jump on a video conference if a complex topic requires face-to-face interaction. However, continuously switching between messages, tasks, and projects is a productivity killer and team members need to understand how quickly they're expected to respond: is it urgent or can it wait? Turning off notifications and really focusing on one thing at a time can sometimes be the best way to get work done.

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Exhibit 2

Technology: using digital tools effectively

	Best for	Example tools
Content creation	• Joint document creation • Live co-editing • Joint white-boarding • Central knowledge space	• Office 365 • Google Docs (G Suite) • Confluence • Miro
Video conferencing	• Problem solving and co-creation using shared screen or whiteboard • Weekly planning and review sessions • Decision meetings • Workshops and trainings	• Zoom • Tencent Conference • Ding Talk • Webex • Microsoft Teams
Document sharing	• Sharing files and documents • Structured repository of information • Version control management • Access across organizations	• Box • Sharepoint • Dropbox Business • Baidu Cloud Disk
Channel-based communication	• Process syndication • Urgent questions and seeking guidance • Keeping up to date in real-time • Social team talk • Stream-based repository of knowledge	• Ding Talk • WeChat Business • Slack • Microsoft Teams • Basecamp • Hipchat • Google Hangouts
Task management	• Keeping track of and assigning tasks • Backlog prioritization • Performance management • Project management • Checklists • Single source of status	• Trello • Jira • Asana • Smartsheet • Microsoft Planner • Basecamp
Polling	• Interactive presentations • Retrospectives and team learnings • Interactive Q&A • Engagement • Polls	• Kahoot • Ideaboardz • Slido • Poll everywhere • Mentimeter

Many tools can be integrated with each other through single sign-on and content sync
Choosing the right tools for the company requires close collaboration between Business, IT & Security
Rolling them out effectively is a change management effort – from training to adapting ways of working

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The lesson: Choosing the right channel is critical to getting it right. If you pull your employees from topic to topic, you'll interrupt their workflow and drive down productivity.

6. Harnessing the power of technology

Effective remote working starts with the basics—including a fast, stable, and secure internet connection, as well as setting up an ergonomic home office environment. Expanding VPN (virtual private network) access and bandwidth is one of the first steps many CIOs took to enable their employees to access systems remotely. Remote working is also empowered by a suite of SaaS (Software as a Service) technology tools that allow teams to effectively co-create, communicate, share documents, and manage processes.

A single, digitally accessible source of information—be it a performance dashboard, sprint backlog, or business plan—keeps everybody aligned.

Many Chinese companies have rapidly adopted local productivity solutions such as Alibaba's DingTalk or WeChat Work to communicate and deliver weekly meetings, training, and lectures. For example, as COVID-19 spread, monthly active users of DingTalk jumped by 66 percent to more than 125 million. Many multinational firms accelerated roll-out of productivity solutions they were already using elsewhere, like Slack, Microsoft Teams, or Zoom. Effective use of these tools required a change management effort including training teams on how to use them and defining new ways of working. Defining new ways of working with digital tools by collating best practices from various teams in the company can help to speed up adoption. At McKinsey, we created an internal portal on great remote working that brought together learnings from across the firm, from how to run collaborative problem-solving sessions to effective decision meetings with clients while on VC.

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In addition, many companies created special applications to allow their front-line teams to remain effective during remote work. For example, one big-four bank created a special WeChat mini-program to enable their relationship managers to interact with customers and generate leads. They then used bank-approved programs to engage with customers, and access bank systems from their laptops.

Trip.com, China's largest online travel agency, has long enabled its contact-center staff to work from home, which paid off in the recent crisis as it was able to deliver a high quality of service during widespread travel disruptions.

The lesson: Using technology can be vital in keeping everyone on track, but it's important to get the basics right.

7. Taking security seriously

Security concerns add a layer of complexity to the technological side of remote working and can have serious consequences, in particular when employees are not aware of safe practices or switch to unauthorized tools to get their work done.

Adopting a strong yet practical approach is not easy. Doing it right requires giving employees the tools they need to be productive while managing data confidentiality and access.

Leading players such as Ping An have addressed the security issue head-on through a set of mechanisms: establishing a confidentiality culture, mandating awareness training, and limiting data access to a need-to-know basis. For example, sensitive information such as customer data can be displayed with watermarks so that any leaks are traceable. Alibaba uses its own software Alilang to manage network and device security.

The lesson: Make it easy for employees to comply with security requirements while investing in strong safeguards.

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8. Adopting a 'test and learn' mentality

The final lesson: Being ready to recognize what isn't working and changing it fast.

Leadership teams that continuously learn, actively identify best practices, and rapidly set up mechanisms to share ideas across the organization tend to be most successful in the long run. R&D teams at one leading high-tech manufacturer created a productivity target for remote work by estimating their productivity each week relative to onsite work and identifying levers to improve it. Within four weeks, they had progressed from 50 percent to 88 percent of their baseline.

As China's workforce begins to return to offices, these lessons from some of its leading companies help to illustrate how—with the right structure, culture, processes, and technology—working remotely can boost productivity and morale. Employees who spend less time travelling or commuting and have a better work-life balance are likely to be happier, more motivated, and ready to mobilize in extreme situations.

Embracing remote working allows companies to define a new normal that drives productivity and employee satisfaction into the future. Alibaba launched TaoBao, by now the world's biggest e-commerce website, while staff were working remotely on quarantine during the 2003 SARS outbreak. For Trip.com, a remote working experiment in 2014 established the foundations for great customer service and flexible working culture. Hence, bringing together all the elements can enable a new way of working that will make your company fit for the future—whatever that may hold.

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Returning to resilience: The impact of COVID-19 on mental health and substance use

As governments race to contain COVID-19, it is important to know the actions society can take to mitigate the behavioral health impact of the pandemic and economic crisis.

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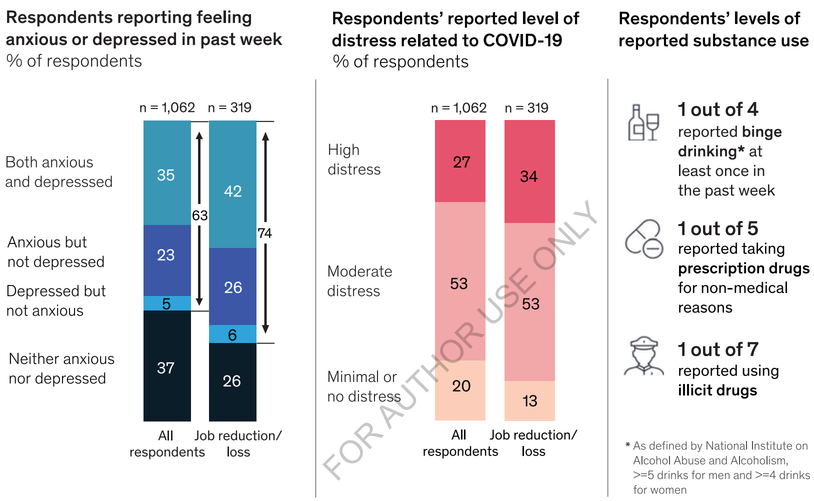
The COVID-19 pandemic is a threat to our population, not only for its risk to human life and ensuing economic distress, but also for its invisible emotional strain. Recent days have seen the sharpest economic pullback in modern history and a record-breaking spike in unemployment. It is inevitable that the global pandemic, compounded by financial crisis, will have a material impact on the behavioral health of society. Following the global financial crisis in 2007–08, for example, many countries saw higher rates of depression, anxiety, and alcohol and drug use. In 2008, the Great Recession ushered in a 13 percent increase in suicides attributable to unemployment with over 46,000 lives lost due to unemployment and income inequality in that year alone.

Beyond the negative impact of a traditional economic downturn, COVID-19 presents additional challenges—fear from the virus itself, collective grief, prolonged physical distancing and associated social isolation—that will compound the impact on our collective psyche.

As noted by the McKinsey Global Institute in Safeguarding Lives and Livelihoods, "Daily reports of increasing infections and deaths across the world raise our anxiety and, in cases of personal loss, plug us into grief. There is uncertainty about tomorrow; about the health and safety of our families, friends and loved ones; and about our ability to live the lives we love." A McKinsey national consumer survey from March 27–29, illustrates this widespread distress, exacerbated even further among those whose jobs have been adversely affected by COVID-19 (Exhibit 1). This confluence of factors poses an unprecedented threat to the current and future health of our society.

Exhibit 1

Reported signs of distress related to COVID-19 in the United States



QFEEL1. Over the past week have you felt anxious?
QFEEL2. Over the past week have you felt depressed?
QFEEL2a. Please indicate your level of distress related to the Coronavirus/COVID-19 pandemic (10-point scale from least distressed to most distressed. "High" is 8–10, "Moderate" is 4–7, and "Low" is 1–3).
QEMP5. Since the Coronavirus/COVID-19 began impacting the US, has the number of hours you have worked increased, decreased, or stayed the same?

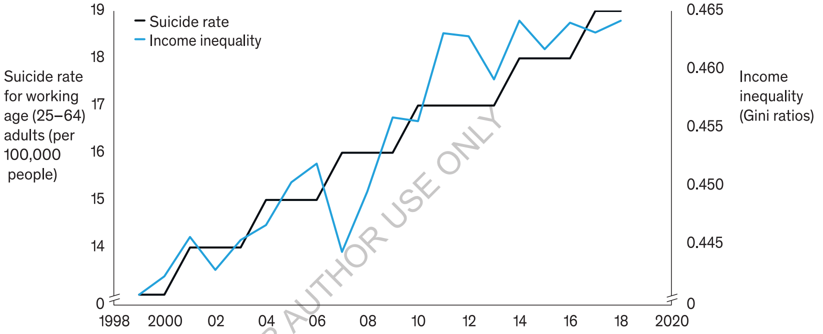
Source: McKinsey COVID-19 Consumer Survey, 3/29/2020

Theodore Roosevelt once said, "The more you know about the past, the better prepared you are for the future." By examining the behavioral health impact of the Great Recession and other large-scale disasters, we can mitigate the negative impact to society from further economic loss and human suffering. Extensive research has documented the association of recessions, mass layoffs, and prolonged periods of unemployment with an increase in income inequality and devastating impact on health and life expectancy in the United States. An examination of these data show income inequality maps closely to the rate of suicides among working age adults (Exhibit 2). These effects may deepen through the course of the COVID-19 pandemic.

Exhibit 2

Association between income inequality and suicide rate in the United States

Suicide rate for working age adults vs income inequality



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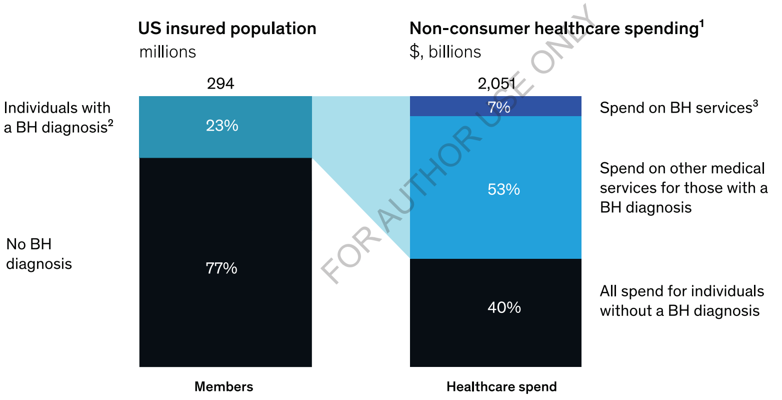
Source: CDC WISQARS, 2020; U.S. Census Bureau, Current Population Survey, 1968 to 2019 Annual Social and Economic Supplements (CPS ASEC)

Not only do mental and substance use disorders stem from economic hardship, they also are known drivers of lower productivity, increased healthcare costs, and higher mortality. The World Health Organization has noted that depression and anxiety have an estimated cost to the global economy of $1 trillion per year in lost productivity. A likely surge of people experiencing acute behavioral health problems—both those with new symptoms and those with existing conditions—has potential to further strain the healthcare system and add cost to an already unprecedented economic downturn.

To better understand behavioral health as a cost driver, McKinsey conducted an analysis of national insurance claims data and found that 60 percent of overall medical expenditures are driven by the 23 percent of members who have mental or substance use disorders (Exhibit 3). This disproportionate spend is driven largely by increased medical costs. For example, the cost to treat the diabetes of a patient with depression is, on average, almost $20,000 higher than for a patient without depression, due to factors such as medical complications, reduced access to preventive care, and challenges with illness self-management.

Exhibit 3

Presence of behavioral health (BH) diagnosis and corresponding healthcare spend in the United States



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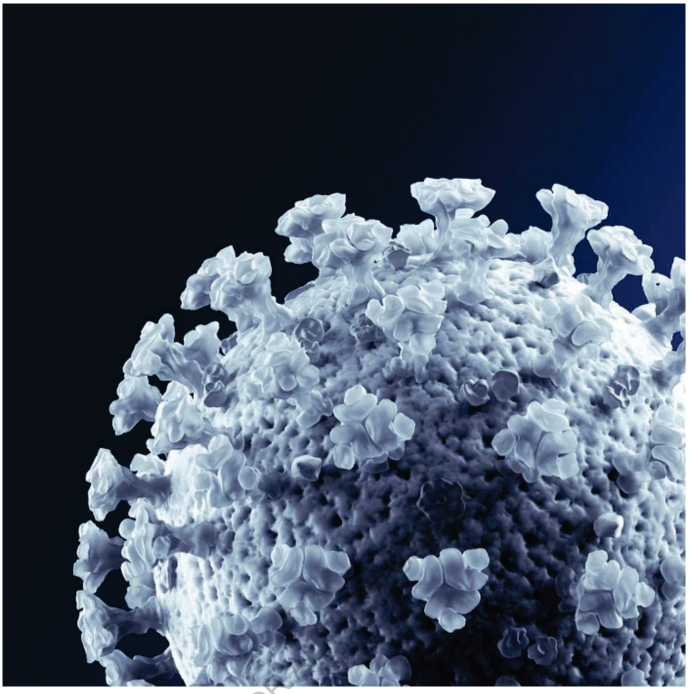
[1] Payer-paid amount measures on medical and pharmacy claims (excludes copays, deductibles, or out-of-pocket payments).
[2] One or more medical claims with a primary or secondary diagnosis of any behavioral health condition.
[3] Includes claims with a primary diagnosis of a BH condition, as well as CPT, HCPCS, and NDC codes specific to behavioral health.
Note: Certain data used in this study were supplied by International Business Machines Corporation. Any analysis, interpretation, or conclusion based on these data is solely that of the authors and not International Business Machines Corporation.
Source: Analysis includes claims data from the Medicare FFS Limited Data Set from the Centers for Medicare & Medicaid Services, deidentified Medicaid data, and the International Business Machines Corporation's Truven MarketScan Commercial Database.



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Insights on how organizations can respond, and what happens next

As governments race to contain COVID-19, it is important to know the actions society can take to mitigate the behavioral health impact of the pandemic and economic crisis. For every one dollar spent on scaling up treatment for common mental disorders, a four-dollar return can be realized in improved health and productivity. In the United States, the Coronavirus Aid, Relief, and Economic Security (CARES) Act provides $425 million for additional community-based behavioral healthcare and suicide prevention. Given the urgency of this issue, no-regrets steps for healthcare stakeholders could include the following:

- **Strengthen community prevention:** Provide risk-stratified crisis counseling support to individuals and families directly affected by COVID-19, including individuals who lose their jobs, healthcare and essential workers, older adults, people with disabilities, and individuals experiencing extended quarantine. Across whole communities, conduct outreach to promote resilience, normalize reactions, and let people know when and where to seek help.
- **Leverage data and technology:** In the initial "resolve" phase, use predictive analytics to direct prevention and clinical resources to those most at-risk for mental health or substance use problems and unmet basic needs. As we move towards recovery in the "return" phase, leverage and improve available data sources, encourage the use of artificial intelligence, and scale digital platforms (for example, digital therapeutics) to connect consumers seamlessly to evidence- and measurement-based care. As governments consider how they fund telehealth, examine what impact emergency waivers, flexibilities, and rate increases for telehealth under COVID-19 are having on care delivery.
- **Integrate behavioral and physical health services:** Initiate or accelerate efforts to reduce stigma and encourage understanding of behavioral health as fundamental to overall health. Implement universal screening and treatment for mental health and substance use problems in primary and specialty healthcare settings, including for individuals with or at high risk for COVID-19. Increase behavioral health competency of

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primary care providers, expand the use of peer counselors to enable timely behavioral healthcare, and strengthen capacity of the behavioral health workforce. Provide appropriate physical health care to individuals with ongoing behavioral health needs.

- **Address unemployment and income disparities:** To reduce long-term psychosocial risk from COVID-19, policy makers and employers may want to reimagine the future to alleviate economic disparities. More innovation may be valuable around accelerated skill redevelopment, job redeployment, supported employment, and incentivizing investments in local job growth. And, proven interventions can be applied, including enabling people to protect their health (for example, paid sick leave); and ensuring people whose livelihoods have been affected by COVID-19 are able to meet basic needs such as food, housing, and childcare.

In the turmoil around the economy and the coronavirus itself, society should be mindful of its collective resilience. The anxiety, stress, financial strife, grief, and general uncertainty of this time will undoubtedly lead to behavioral health crises. It is therefore important that communities seeking a "next normal" can draw from their inherent strength and compassion to recognize, treat, and support those experiencing this human toll of the COVID-19 pandemic.

For more related insights, visit the Center for Societal Benefit through Healthcare's webpage.

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Critical care capacity: The number to watch during the battle of COVID-19

Since the explosion of COVID-19, most countries have put in place public health measures to "flatten the curve" and accepted the concomitant economic pull back. But there is another number everyone should watch now: the capacity in hospitals to deliver critical care in intensive care units (ICU) with ventilators. It is the metric that indicates whether hospital systems will be overwhelmed.

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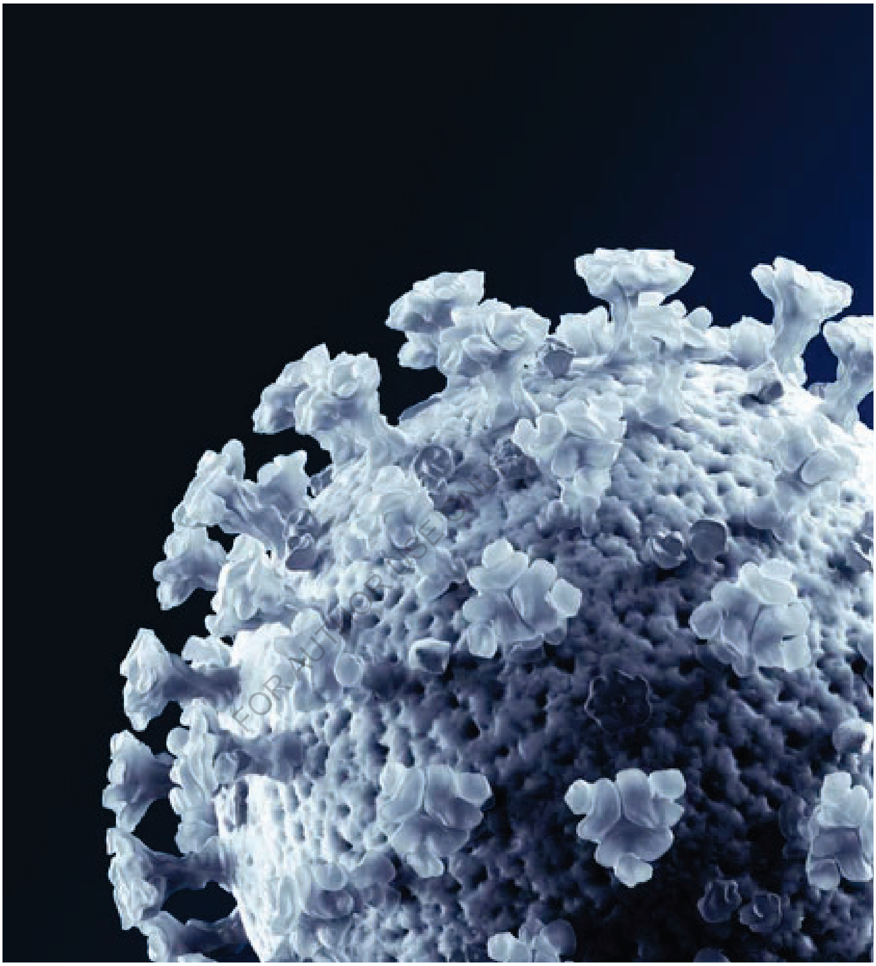
Each day the world watches the number of COVID-19 cases climb and asks: "Is it slowing yet?"

But there is another number everyone should watch now: the capacity in hospitals to deliver critical care in intensive care units (ICU) with ventilators. It is *the* metric that indicates whether hospital systems will be overwhelmed. It is *the* reason to "flatten the curve," because without more capacity more lives will be lost.



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To safeguard our lives, critical care capacity must be increased in weeks, not months. While some countries and regions may have more capacity than others all need more. It almost does not matter the cost, as every month health systems are faster ahead of the peak of patients requiring critical care, we save lives *and* a trillion dollars in GDP.

How much should we increase capacity? It depends on the starting point of each country, but in most instances is four to five times. This increase is possible; and is part of the focus of the health response across the world. But we strongly suggest to healthcare leaders to put this sentence on top of their and their colleagues' proverbial inbox: *Start watching critical care capacity.*

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Below we outline the need and possible actions to increase critical care capacity.

Since the explosion of COVID-19, most countries have put in place public health measures to "flatten the curve" and accepted the concomitant economic pull back. While the effectiveness of different approaches can be debated, these have been essential to gain control over the pandemic's growth.

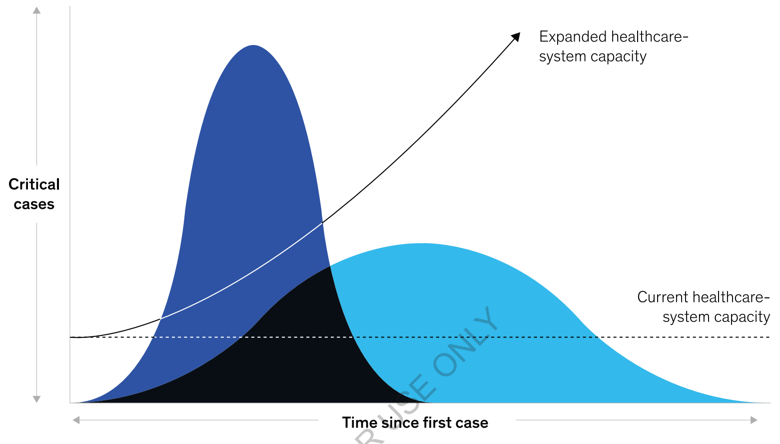
The unprecedented rise in US unemployment in recent days also portends human suffering stemming from economic turmoil. As we noted earlier this month, the virus could set the global economy back $1 trillion to 1.5 trillion in the second quarter of 2020 alone. In the United States, every four weeks of shutdown could set the economy back about $200 billion in GDP.[1] In particular, those who work in the travel, restaurant, and transportation industries are at risk, as are a large percentage of households around the world. Even in advanced economies like the United States, 25 percent of households live from paycheck to paycheck, and 40 percent of Americans are unable to cover an unexpected expense of $400 without borrowing.

The race is now on to boost critical care capacity. Expanding healthcare system capacity is vital to saving lives, as an overwhelmed healthcare system results in a material increase in the rate of mortality and can slow our return to normalcy (Exhibit 1).

Exhibit 1

Expanding healthcare capacity is critical to saving lives.

Healthcare-system capacity expansion (illustrative)



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The two main questions now are: What do we control? Where should we focus?

Growing healthcare capacity at lightning speed

Critical care capacity reflects ICUs, required hospital supplies, patient ventilator units, plus a trained workforce that has what it needs to do its job. While some of the following are already in motion, leaders are likely to want to consider the following actions, taken in tandem:

- **Cease all non-emergent care across hospitals and other sites of care**, which would free up to 30 percent bed capacity, caregiver capacity, and a portion of ventilator and personal protective equipment (PPE) capacity almost immediately. Many countries around the globe have already done this.

- **Increase critical supplies—such as PPE, ventilators—to keep current facilities fully functional and keep healthcare workers protected.** Please see Exhibit 2 below for actions we can deploy now that could expand available supplies in six to eight weeks.

- **Train additional frontline staff (for example, nurses trained on mechanical ventilator care) to deliver capacity expansion.** Curricula to upskill healthcare workers in a matter of days have been developed in Asia and Italy. Independent healthcare providers across all countries may want to deploy similar plans in order to increase workforce numbers.

- **Build out of alternate hospital capacity (for example, field hospitals, converting outpatient/ambulatory facilities to acute, converting non-healthcare facilities to acute—hotels, dorms).** Make-shift hospitals were built in a matter of weeks in China earlier this year as they dealt with the biggest surge of patients. With the assistance of the United States Army Corps of Engineers, FEMA, and mobilizing the military, at a wartime pace, the United States could likely build required bed capacity in waves in six weeks. These would not be facilities that in any regular time would be considered hospitals but could meet the needs of the affected population in extremis.

- **Activate strategic healthcare capacity** within military or other defense healthcare systems around the globe.

- **Accelerate approval of treatments**, as well as scale-up of manufacturing and distribution of the treatments that reduce severity or duration of critical care requirement, thereby reducing length of stay.

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Exhibit 2

A number of supply- and demand-side levers that healthcare stakeholders could explore to reduce the gap in the market.

● Easiest ● Most difficult

	Lever for exploration	Examples for healthcare stakeholders to potentially consider	Estimated time to impact	Ease of implementation
1. Supply	Identify all remaining inventory in market	• Identify and gather all remaining N-95 inventory currently in the market (e.g., work with manufacturers/ distributors to re-direct N-95s going to non-medical facilities or personnel to go to healthcare providers)	Immediate	
	Increase capacity of existing N-95 suppliers	• Ramp up production of major N-95 suppliers through investments, collaboration between manufacturers, exploration of alternative filter media • Convert capacity in plants of current suppliers not dedicated to N-95s to produce N-95s where similar processes exist	Medium term	
	Import from other geographies	• Explore importing from countries overseas where N-95s or suitable alternatives may be available, export restrictions dependent	Medium/ short term	
	Source from adjacent industries (non-medical)	• Explore standing up new manufacturers (e.g., convert textile plants) • Identify and source alternative substitutes from non-medical industries	Medium term	
2. Demand	Prioritize and extend usage	• Prioritize use of N-95s for only critical activities if determined appropriate • Explore extending use of N-95s across encounters where possible	Immediate	
	Re-use / reprocess	• Explore developing guidelines for re-use of N-95s • Process N-95s for re-use in line with rapidly emerging evidence and guidelines (e.g., heat decontamination)	Medium term	
	Adjust clinical workflow	• Explore designating specific areas of facility for treatment of COVID-19 patients, reducing need for N-95s across HCPs in other areas	Medium term	
	Adjust care team guidelines	• Explore developing guidelines on critical staff needed for care of COVID-19 patients and subsequently N-95s	Immediate	

All guidelines should be created alongside Infection Prevention teams and be in accordance with CDC and local DOH policy guidelines

Source: Expert interviews

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Slowing the demand for critical care

Most countries and states/provinces have deployed public health measures to slow the spread of the virus (for example, physical distancing, shelter-in-place, closing of public areas such as beaches and basketball courts). Without a vaccine or prophylactic treatment in sight the risk of resurgence of spread remains real. At the same time, given the large impact of these public health measures on people's livelihoods, all leaders are seeking a balance of managing critical care demand growth while alleviating the sharp pullback in economic activity. A few actions may be critical to achieving these twin goals:

- Realize maximum curve-flattening impact from the public health measures already deployed (which have driven the sharp economic pullback). While social norms and political systems vary around the world, more rigid application of distancing measures means that they will be more effective and can be dismissed more quickly. A number of countries have used technology effectively to support effective physical distancing (for example, the use of phone-based passes to minimize congestion in grocery stores). Create social and economic incentives for those in quarantine, perhaps including community-funded food delivery, income guarantees, solutions around caregiving needs, and job-security guarantees.
- Exponentially scale-up testing capacity and contract tracing capability. While some countries currently have too many cases to trace all contacts, the ability to test rapidly and isolate those at highest risk of infecting others will help contain a future resurgence in cases. For countries with few cases to date, rigorous testing can prevent escalation to the point where critical care capacity is strained. Mass-testing in early hot spots such as South Korea and temperature screening, testing, and contact tracing deployed in Singapore are examples of such approaches.

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Start watching critical care capacity. Reporting is improving. We encourage leaders to help increase critical care capacity to the extent they can. This will hopefully save lives and livelihoods, especially for the most vulnerable members of our society. It can be done!

Lessons from Asian banks on their coronavirus response

Financial institutions in countries initially affected by the pandemic moved quickly to safeguard their employees, transform their operations, and serve customers in new ways.

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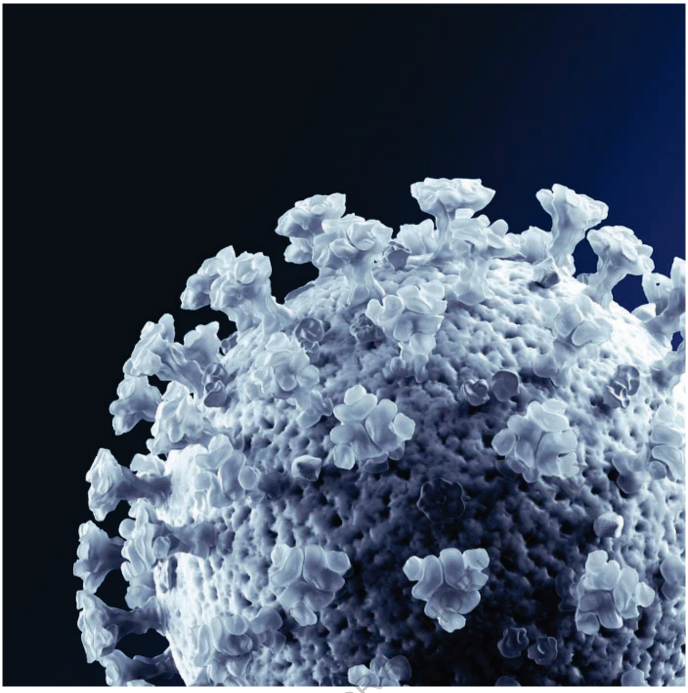
As the COVID-19 outbreak continues to spread around the world, the humanitarian crisis has been accompanied by immense social and economic disruption. Almost overnight, whole countries have had to accept a new reality: everything has changed, and daily life may never be the same.



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Asian banks have already had to grapple with all of these factors, taking actions to maintain operations, protect their workforce, and keep customers informed. Their actions could offer a valuable template for banks around the world that are still amid the crisis and experimenting with initiatives. By focusing on three imperatives—ensuring business survival, fulfilling social responsibilities, and adapting to the new normal—banks can minimize disruption and continue to provide vital services to their customers.

Ensure business survival

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In response to the pandemic, Asian banks moved quickly to shore up their operations and implement new approaches to mitigate operational disruptions. They prioritized several areas to identify issues or obstacles to business continuity and then experimented with new solutions and ways of working.

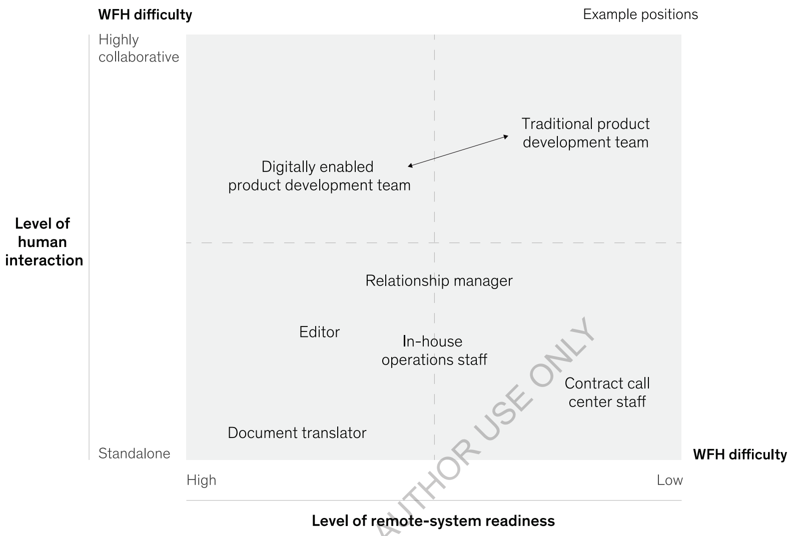
Confirm resilience of internal operations

To guide the pandemic response, many financial institutions formed a response-management unit composed of executive-level, cross-functional teams. These teams were empowered to make key decisions as well as communicate COVID-19 responses quickly and effectively across the organization.

Asian banks also had to shift to remote working for most employees, a move that required IT to ensure the organization's infrastructure and systems could support such a shift. In defining remote and work-from-home setups, bank executives considered both the level of human interaction required for certain tasks and the degree to which work can be segmented and individualized (exhibit).

Exhibit

Bank executives defined a work-from-home (WFH) framework dependent on staff needs and requirements.



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For example, contact-center staff don’t require a high level of interaction with coworkers, but banks often lack the level of technology needed to make working from home feasible. On the other side of the spectrum, digitally enabled product-development teams are better equipped to work from home compared with traditional teams (see sidebar, “Suitability of working from home by bank department”).

Solutions had to balance the elements of people, processes, structure, and technology. At one Southeast Asian bank, for example, a 125-member product development team moved its work setup completely off-site over the course of two weeks. The team first implemented no-regrets moves, such as reinforcing best practices in handling data, and then defined a clear set of actions across key operating models to enable fully remote work. The actions were shaped by various business-continuity planning scenarios, ensuring operational continuity while supporting similar levels of productivity.

De-risk traditional distribution channels

In the weeks after the outbreak, Asian banks quickly took action to ensure that normal bank operations didn't contribute to the spread of the virus among customers and employees. As the primary setting for face-to-face interaction, branches were a top priority.

Within branches, hygienic and cleaning protocols in commercial and ATM areas were stepped up, and bank notes were regularly disinfected and quarantined for two weeks to reduce risk of transmission through cash. Temperature screening was implemented for all customers, staff, and visitors entering bank premises and branches. In addition, institutions began providing aid kits (for example, thermometers, hand sanitizer, masks, and general medicines). Tellers were instructed to wear masks and wash their hands frequently.

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The way that branches were operated and staffed also changed. For example, bank hours were shortened, the number of staff was reduced where possible, and a portion of the workforce was relocated to other offices. Other steps included proactively limiting the number of customers inside a branch at a given time and encouraging physical distancing. Some banks also halted high-risk activities—for instance, limiting transmission through foreign notes by closing currency-exchange booths nationwide and discontinuing all in-branch transactions that involved foreign currencies.

These measures extended to parts of the operational areas with high concentrations of workers at a given location, such as call centers. One South Korean bank instituted a platoon system for its nearly 450 call-center employees, allowing 150 staff members to work from home at a time. Voice over internet protocols and laptops equipped with company software were installed in these employees' homes. Employees working from home handled only new customer inquiries and generic queries to avoid compromising sensitive customer information. Calls that required access to customer information were forwarded to on-premise call centers, where workspaces were altered and partition walls were heightened to increase space between employees.

Shift to digital

To some degree, the pandemic forced banks to significantly accelerate their shift to digital channels. Asian banks not only leaned more heavily on existing digital channels to enable contactless customer engagement but also accelerated the path to digitized core-banking processes such as electronic know your customer (eKYC), digital signature collection, and online document submission.

Many institutions offered customers an expanded range of online services to reduce the need for in-person banking. Ping An Bank, as part of its anti-coronavirus initiative, introduced the Do It At Home campaign to offer contactless and smart services. Customers could complete a variety of financial services on the Ping An Pocket Bank app, relating to basic banking transactions, wealth management, insurance, foreign exchange, private bank or family trust, investor education, and more. Artificial intelligence–powered customer service was rolled out to offer around-the-clock consultation when call centers were closed and face-to-face communication wasn't possible. In just two weeks, more than three million customers had made 11.67 million transactions, and 475,000 customers had viewed online lectures on mutual funds, PE investment, and financial laws and taxation.

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In response to the spread of COVID-19, DBS Singapore introduced several support measures on February 17. It offered financial assistance to affected customers in the form of complimentary insurance coverage and home-loan-payment relief for employees in affected industries. Small and medium-size enterprises were provided a package of support measures; these included a six-month property-loan principal deferment, temporary loan bridging for affected businesses, extension of import facilities up to 60 days, digital account opening, and next-day, collateral-free business loans. The bank also launched health- and education-related tools, such as online doctor consultation, online video-based lessons for kids, and taxi street-hail contact tracing. These services were tremendously popular: DBS Singapore's free COVID-19 hospital cash insurance policy, for example, recorded more than 52,000 sign-ups a day at its peak.

Strengthen liquidity position

Asian banks also had to prepare for potential changing customer borrowing needs and withdrawals. Executives assessed their institution's position to ensure sufficient liquidity. This process involved identifying key risks to liquidity from both supply and demand perspectives, such as additional drawdowns in commercial and retail businesses and large withdrawals. Some fast-acting banks developed a short-term liquidity plan and updated contingency plan, created full transparency on liquidity positions (such as through an intra-day dashboard), identified major accounts by materiality, and started negotiations with customers early. Depending on the severity of the situation, some other actions may have included canceling transactions, settling early, and trade compression if required; mobilizing trading and nontrading assets to be used as collateral; and utilizing support from government programs. Over the medium term, banks should review their liquidity models to incorporate a variety of financial scenarios.

Fulfill social responsibilities

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Banks and other large institutions have a social obligation to customers and the economy at large. Asian banks took this obligation seriously with concrete actions to support their customers and government efforts to cushion the economic impact of the pandemic.

Protect customers

Banks are in a unique position to enhance customer confidence, ease concerns about financial commitments at a time of disruption, and take proactive measures to help the most vulnerable customers. Retailers, small and medium-size enterprises, and corporate customers are all developing strategies to weather the economic disruption and maintain the viability of their businesses.

Asian banks have assisted vulnerable customers with immediate financial relief. Measures included interest rate discounts on new and existing loans for customers in affected economic sectors, payment moratoriums and late-payment fee waivers, extensions of working capital facilities and loans, and collateral-free emergency funding. Some institutions have offered additional products and value-added services, such as COVID-19 insurance and an epidemic and medical information portal.

China Merchants Bank, for example, enhanced its app to become a one-stop shop for life and financial services. Users could access various daily services for stay-at-home employees (such as food delivery, recipes, and online courses) and those returning to work (ridesharing services). These services were located in the same window as traditional financial services such as lending, wealth management, credit-card repayment, and fund transfer. A special zone on the app provided real-time pandemic data, online counseling, and a designated hospital search through partnerships with various third-party suppliers. In just one month, the special zone had more than 100 million visits, with 1.6 million visitors receiving counseling from around 50,000 doctors.

Engage regulators, governments, and society

Banks have a wealth of resources, from financial models to data analysis, that can inform public policy and shape the economic response to the pandemic. In the first months of the outbreak, Asian banks lead the dialogue among regulators and government officials aimed at supporting customers and mitigating risk.

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State Bank of India research has been working to analyze COVID-19's economic impact and propose a set of interventions to stabilize the economy. In monetary policy, SBI recommended a rate cut to accommodate the expected surge in liquidity demand and shock-related price increases. Stakeholders also considered a degree of prudential forbearance for most-affected sectors such as hotels, aviation, transport, metal, auto components, and textiles. The effort also recommended using the excise duty saving from lower crude-oil prices to provide relief to people who are lower on the socioeconomic ladder.

Adapt to the new normal

The scale and duration of economic disruption remain uncertain, but the immediate effects have increased risk and rendered many existing strategies obsolete. Once banks have taken action to ride out the initial waves of the pandemic, they must turn their attention to functioning in a post-COVID-19 world.

Mitigate financial impact

The pandemic's immediate aftermath reduced margins and volumes as well as disrupted physical channels and operations. In response, Asian banks need to model possible scenarios on the impact to profits and capital and refresh their business plans accordingly. Where necessary, additional contingency measures should be added. Banks can also create a structured approach to review their loan book and take action to mitigate risk.

Asian financial institutions also designed specific interventions to manage end-to-end credit risk. Updated credit underwriting strategies may include, for example, a request for a COVID-19 contingency plan from corporate clients at origination. Similarly, sharper risk identification, monitoring, and measurement approaches can identify clients with higher vulnerability to primary and secondary effects of the COVID-19 outbreak and anticipate deteriorating creditworthiness. In client engagement, banks have adjusted potential credit risk mitigation actions and approaches to safeguard relationships and future business opportunities.

To manage scenarios that include a prolonged spread of the coronavirus, Asian banks have explored options to quickly reorient resources from underwriting to monitoring and collection, including dedicated training sessions and outsourcing. Data-and-analytics methodologies have helped banks neutralize the impact of COVID-19 on capital (as much as possible), provisioning (such as through IFRS 9), and stress-testing models.

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Revisit strategy

Banks must develop new strategies that consider a range of external and internal factors. Emerging consumer trends include greater receptiveness to digital channels—particularly among digital-averse segments such as elderly or rural populations. After the crisis, employees may be more inclined toward remote-working arrangements, which will have repercussions on everything from real-estate costs and planning to IT spending. Meanwhile, banks could face a prolonged period of lower profits and tighter balance sheets, reduced interest rates due to regulatory pressure, and increased operational costs due to new safety measures.

These combined factors can reshuffle priorities and point the way toward new ways of serving customers. In the wake of COVID-19, Asian banks sped up the launch of digital platforms and services while expanding digital banking services to emerging ecosystems. To effectively manage the future downside risk on revenue, banks should target becoming lower-cost franchisees by considering strategic cost programs that draw on multiple cost-saving strategies, including remote working. Institutions with healthy balance sheets could consider M&A possibilities. Last, an increase in IT spending could enhance internal resiliency to future disruptions and provide more flexibility in maintaining operations.

Asian banks had no choice but to respond to the coronavirus outbreak quickly and decisively. Their rapid action lessened the impact on their organizations and customers. Following in their footsteps could help financial institutions in countries facing the next wave of the pandemic increase their own resilience.

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Leading a consumer bank through the coronaviru pandemic

The implications of the COVID-19 crisis are profound for consumer and small-business banks, and the steps they take now will shape operations long into the future. Here is where to start.

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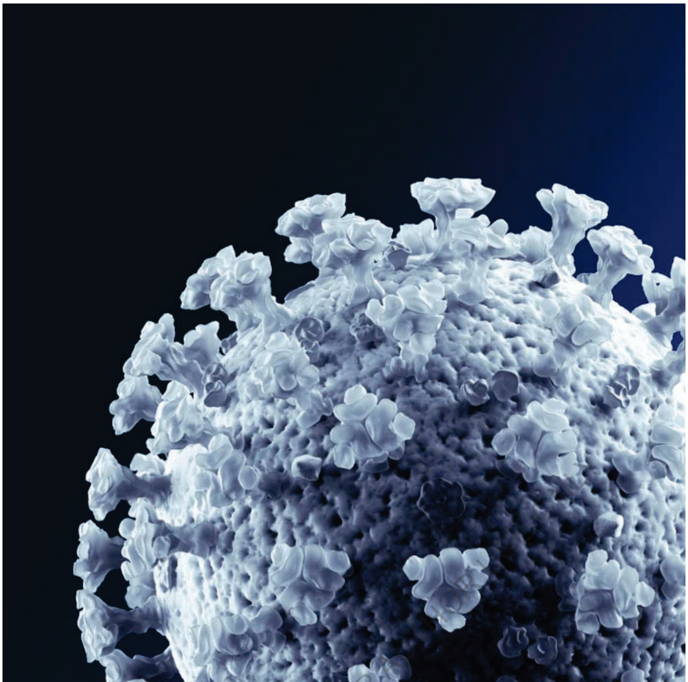
How consumer and small-business banks respond to the coronavirus pandemic will have an impact on customers, employees, and, indeed, the economy at large. As deposit gatherers, credit guarantors, and payment facilitators, these banks are among the financial institutions most personally connected to the public.



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While the near-term humanitarian challenge looms large, the situation is also likely to accelerate fundamental changes to customer behavior. As we shelter in place, we are all rapidly accelerating our adoption of digital technologies, whether they be videoconferencing, peer-to-peer payments, or online banking. This increasing comfort with digital technologies and decreased reliance on physical branches could accelerate the transformation of the banking landscape, advantaging the banks with stronger digital capabilities. In China and Italy, for example, four weeks after the coronavirus began to spread, the estimated increase in customers' digital engagement is 10 to 20 percent. If these customers have a positive experience, it could shift behavior for the longer term.

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Based on our conversations with consumer- and small-business-banking leaders from across the world, there are several top-of-mind questions: How do we get the best out of our operating model as the situation evolves? How do we serve our customers and differentiate ourselves? And how should we both accelerate out of the downturn and redefine? Each of these are momentous challenges in their own right. In this article, we share our perspectives on these issues, along with suggestions for how leaders of consumer and small-business banks can respond to them.

Implementing a dynamic and flexible operating model

Banks across the world are rapidly flexing their operating models to ensure business continuity. While it is clear that all banks will have to adapt capacity as the model adjusts, at least in the interim, the most thoughtful institutions are doing it strategically. As we discuss potential solutions with banking leaders, the initiatives they are most commonly adopting are taking proactive steps to protect the health and boost the morale of their employees, establishing an interim operational model for branches, and developing a support model for remote working.

Implement preventive measures to protect employee health

Consumer and small-business banks in most places are already undertaking the most basic steps to protect employee health. They are reinforcing hygiene and cleaning protocols inside branches, for example, both in commercial areas and around ATMs, which act as transmission vectors. And they are providing to branches care packages that include thermometers, hand sanitizer, and other personal protective equipment. Some are also issuing guidelines to keep branch personnel physically separate, with employees from each shift working in exclusive, delimited areas or at work stations separated by at least five to six feet.

The banks might want to go further, conducting emergency training to prevent coronavirus contamination. All branch personnel should participate in measures to minimize their own, their families', and their customers' health. Although additional actions may go beyond the steps recommended by official agencies, they might include instituting routine temperature checks at the beginning of each shift, assigning a dedicated employee to control facility access, and even wearing gloves and face masks. Chinese banks have gone so far as to disinfect paper currency to avoid infection, a practice followed by a few South Korean banks.

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Establish an interim operational model for branches

Banks are monitoring the situation on a day-by-day-basis, dynamically modifying branch hours of operation and closures. For example, in the United States, JPMorgan Chase has temporarily closed about 20 percent of its branches and reduced staffing in the remaining ones. Banks elsewhere are operating branches only in the morning. Canada's Big Six banks have announced that they will be working together to limit operating hours temporarily while maintaining critical services for customers. Banks should be strategic and proactive to protect their employee capacity to support a remote-working network versus losing employees to potential infection and sickness.

The coronavirus pandemic is also requiring changes to employees' ways of working, and the model will need to evolve as the facts on the ground do. Such changes could include steps that reduce the number of employees in branches at any given time. For example, a bank might staff only half of its usual number of employees per shift or develop a rotation schedule, with a third of its employees absent, a third at branches, and a third working from secure sites or home offices.

Finally, banks are also proactively limiting client flow inside their branches. Measures that banks are taking include requiring client visits by appointment when possible and keeping doors closed to restrict the number of clients inside to no greater than the number of employees. They are also promoting safe spacing by allowing only one customer per a predetermined number of square feet or by marking the floors to delimit positioning in lines to keep clients at a safe distance from each other inside the branch. Many are also moving to protect customers outside the branches, setting up mechanisms to ensure appropriate distancing and hygiene in case lines develop outside the entrances.

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Branch facilities are also setting aside dedicated service hours to customers in high-risk groups. For example, Britain's Nationwide Building Society (the world's largest building society, with more than 15 million members) will open around 100 branches an hour early so that elderly and vulnerable customers can be served in a safer environment, compliant with physical-distancing guidance, after facilities have received deep cleaning. Retailers in the United States, including Target Brands and Whole Foods Market, are taking similar steps.

Other banks are providing options for walk-in customers to contact relationship managers, service managers, and tellers remotely—through a phone booth, for example, or videoconference. To do this effectively, banks will want to identify which mass processes can be performed digitally and offer video access to all relevant employees.

Develop a support model for remote employees

Consumer and small-business banks are managing several challenges related to the coronavirus. Customer queries and concerns are surging, without a commensurate increase in staff to handle them. A significant portion of the employees are working from home—where they continue to face operational challenges, such as internet-bandwidth issues, technology glitches, and childcare priorities. Several best practices, such as the following, could help these banks implement a more efficient distributed-work environment over the coming weeks:

- *Get creative in cross-training and repurposing employees.* Demand surges are likely in the next few weeks, especially in service-related calls pertaining to repayment schedules, flexibility via payment holidays, and an increase in fraud-related activity. A surge in demand for mortgage-refinance applications, which began before the US Federal Reserve Board's rate cut on March 15, is likely to continue (Exhibit 1). To manage the surge in mortgage-refinancing applications, leaders like JPMorgan Chase and Quicken have cross-trained and reallocated employees from other products within the bank. Similarly, branch tellers who might be temporarily free because of branch closures could shift to handle demand in other parts of the business.
- *Conduct targeted analytics to address changes in call demand and agent supply.* Banks may want to consider rebuilding demand forecasting and capacity models not only to respond to the present circumstances but also to develop resiliency in the face of future demand shocks. Better data can improve a bank's workforce flexibility, allowing it to focus cross-training into roles dealing with increasing demand, away from roles dealing with declining demand. It could also identify call types that could benefit from better segmentation or routing. For example, there may be queues for which banks could suspend live call support or reduce the average handling time.
- *Enable technology setup and infrastructure for remote work.* Supporting remote-work technology and infrastructure can include assisting employees with home-office setup, ensuring adequate VPN bandwidth, and providing remote application access. It can also include adopting a suite of digital tools that facilitate effective cocreation, communication, and decision making, such as videoconferencing, file sharing, real-time communication, coediting, and task management. Extending work-at-home functionalities to more of the workforce also requires setting clear policies and communicating expectations to all employees. It is critical to ensure that agents have the necessary tools and resources to handle calls from home while maintaining customer-data-confidentiality standards.

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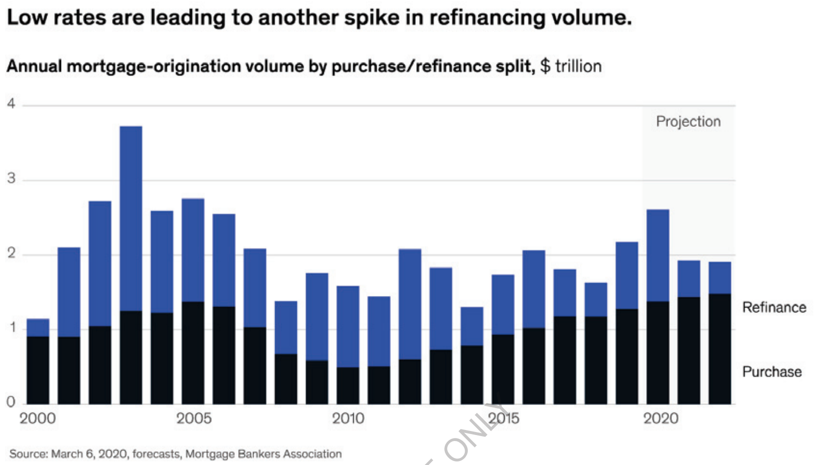
Exhibit 1



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Nurture the culture to maintain employee morale

In such challenging times, it is natural for employees to feel frustrated, given the uncertainty around their jobs and the fear of recession. It is important for bank leaders to set the tone and direction. At a minimum, this requires managers to set clear directions for remote teams that are pursuing common goals and to increase the frequency of check-ins to reinforce goal setting. We recommend daily check-ins. Managers should also take the opportunity to delegate and empower their employees for decision making. Both intrinsic and extrinsic motivation through rewards, clear spans of control, and meaningful appreciation can go a long way in supporting employee morale.

In addition to developing tools and practices that help teams work together effectively, managers should also double down on social activities that build a one-team culture, identity, and feeling without compromising physical-distancing protocols. The social aspects of co-located teams often get lost in distributed teams. Helpful activities might include virtual catch-up meetings and happy hours—any virtual event in which employees can share best practices, success stories, and challenging experiences to create a sense of community.

Serving customers in challenging times

Delivering on customer expectations while adapting the operating model to the reality of the current pandemic will be an unprecedented challenge for banks. In our view, it is highly important for banks to make their genuine concern for their customers clear and to make customer interactions with the bank as easy as possible.

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Show customers that you care for them

In contrast with 2008, when people widely considered banks to be the source of the financial crisis, banks around the world are today seeking to be part of the solution—and redefining what it means to support their customers. They are taking measures to minimize negative financial effects on customers, provide broader counseling, and lead community-support efforts. The following are some of the actions that leading banks can take to show their concern for customers:

- *Offer payment holidays and temporary relief.* Bank customers are facing extraordinary financial stress. In response, most banks are starting to waive interest charges and suspend late-account fees for customers who request such changes for coronavirus-related relief. For example, Goldman Sachs is allowing Apple Card users to skip March payments. Ally Financial is allowing automobile-loan and mortgage customers to delay payments by 90 to 120 days. We expect to see more of these actions across the industry in the coming days and weeks.
- *Provide financial-fitness tools and help lines.* In the face of so much uncertainty, bank customers will have financial questions or simply need reassurance. Banks should anticipate these and embed more financial-fitness tools and dialogue in their client

interactions. They should, in particular, direct individuals to their online financial-fitness tools and make those tools available on their website landing pages—and promote personal engagement and program chatbots accordingly. We believe that banks should start reaching out to clients proactively to discuss financial-fitness tools, starting with the customers most at risk in the current environment. Additionally, bank managers should create opportunities for human interactions for distraught customers who just want to talk through their concerns and establish help lines for customers who need support during remote (mobile or internet) transactions.

- *Serve in unexpected ways.* Especially during a crisis, customers don't always know what they will need until that need is pressing. Finding that their bank is prepared to help in unexpected ways will go a long way toward reassuring them. Financial institutions could take inspiration from the actions a few banks in China have taken (Exhibit 2). There, many banks went above and beyond their financial commitments to cater to their customers' growing medical needs during the epidemic. For example, China Construction Bank partnered with China's Department of Civil Affairs to launch a digital platform to help local community managers monitor the number of people affected by coronavirus in their specific geographies. The platform also helps residents and employees input basic personal information to apply for return to work. Additionally, it allows them to stay connected with other open-banking platforms, such as those for the rural population, medical services, education, and eldercare.

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Exhibit 2

Chinese banks took proactive digital measures in response to COVID-19.

Response measures

Category	Bank	Response	Launch date	Initial impact
No-contact banking	Ping An Bank	Based on Ping An of China's well-established ecosystem, Ping An Bank launched Do It At Home service through which customers can complete series of financial and nonfinancial services on Ping An Pocket Bank app	Feb 3	• >8 million page views • 116.7 million transactions from 3.05 million customers
Live-streaming marketing	Bank of China (BOC)	BOC's Wealth Management (WM) subsidiary set up 3 online live shows, conducted by its leading investment managers, about impact of coronavirus outbreak on capital market and newly issued WM products	Feb 11	• >26,000 viewers for first online live show • >44,000 total viewers for 3 online live shows
Ecosystem building	China Construction Bank (CCB)	CCB launched smart community platform	Feb 14	• Platform covers 738,500 communities, 404,000 companies, 1,337 schools, and 60 senior centers • 101,600 total users in 1 week
	China Merchants Bank (CMB)	CMB launched antiepidemic zone on its app, with real-time epidemic data, online counseling, and designated-hospital searching, by partnering with various third-party suppliers App users can find daily stay-at-home and return-to-work services (eg, food delivery, online videos, shared rides, online courses) and online financial services (eg, lending, WM)	Feb 11	• ~100 million visits to antiepidemic zone • Offered >1.6 million online counseling sessions with >50,000 doctors

Source: Press search; McKinsey analysis

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Enable seamless customer service and support new ways of working

The coronavirus pandemic is already leading to abrupt changes in how customers manage their finances. Customers already under health and financial stresses will need ready access to bank products and services. It is all the more important, then, to reach customers through digital channels, stay connected through innovative communication channels, meet the needs of vulnerable populations, and stabilize critical infrastructure:

- *Encouraging digital migration.* Banks should encourage more customers to use existing remote channels and digital products whenever possible. To do so, institutions can launch positive and safety-oriented messaging aimed at reducing reliance on branches for services that are digitally available while also offering discounts, providing online and call-based tutorials, and increasing remote support options. Banks can also enhance their current digital offerings, identifying key functionalities that can be improved quickly—for example, speeding up the procedure to increase limits on online transactions and simplifying password reset.
- *Keeping clients engaged via SMS, mobile apps, and digital media.* Early and proactive communication can help minimize unpleasant surprises to customers (such as potential branch lockdowns), encourage fraud-prevention measures, clarify the availability of solutions on digital channels, and define preventive measures to ensure the health and safety of clients and employees in branches. Banks in China, for example, have built information on branch status and lockdown zones into their mobile apps. Some have instituted frequent nudging mechanisms to notify clients of bill payments, deposits, and spending activity. Such efforts both engage clients and promote their financial fitness.
- *Serving vulnerable populations.* Many of the bank customers considered vulnerable to the coronavirus, especially the elderly, may not have been active online users. Banks can get creative with short-term solutions, such as remote access and delivery of paper communications to customers' doorsteps. Germany's Sparkasse set up mailboxes for direct account transfers with no human interaction.
- *Stabilizing critical infrastructure, systems, and processes.* The current situation is likely to expose technology glitches. Some financial institutions will need to address such technology gaps in order to offer a seamless digital customer experience. This will require planning ahead by scaling infrastructure capacity and network bandwidth, stress testing and scenario planning, managing near-term patches, and identifying urgent weaknesses in architecture.

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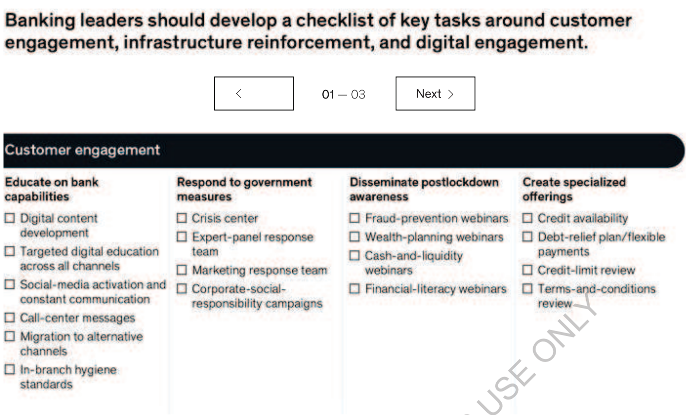
We have developed a checklist of key tasks for banks in the areas of customer engagement, infrastructure setup, and digital engagement (Exhibit 3).

Exhibit 3



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Accelerating out of the downturn: Redefining consumer and small-business banking

As the human cost of the coronavirus pandemic unfolds, we are only just beginning to come to grips with its impact on the economy and on the banking landscape. It seems likely that the forced abrupt shift to remote working will have profound long-term implications on key banking operating-model dimensions, such as location strategy, outsourcing, offshoring, and employee value proposition—for example, flexible hours, job sharing, and accessing new talent pools.

While keeping the needs and well-being of both customers and employees at the forefront, banks can use this moment to experiment with radical redesigns of their operating models to achieve better efficiency. Although the timing and shape of recovery is still unclear, we expect far-sighted organizations to begin both taking actions to mitigate the impact of the situation and positioning themselves to build momentum rapidly in the postrecovery phase. Such actions include the following:

- *Increasing the use of digital abilities to boost customer engagement.* We believe the pandemic will be a catalyst for the use of digital banking tools and will also change the way customers interact with their banks. For example, China's Ping An Bank launched the Do It At Home service as part of an initiative to help customers during the pandemic. The Ping An Pocket Bank App enables customers to complete a variety of financial-service transactions across basic banking services, insurance, foreign exchange, and wealth investment. Banks that encourage and support customers now will be well positioned to increase the use of digital channels in the future. Banks should continue to invest in boosting digital engagement and sales. Additionally, as branches perform fewer service transactions, banks may need to migrate paper documents and marketing materials to digital channels aggressively, with in-branch coaching to support the customer shift. This will pave the way for banks to reorient branches away from services and toward relationship management and business development.
- *Promoting capabilities for supporting financial advice.* The current environment will increase the pressure on banks to grow. Banks will need to think through how to differentiate themselves in delivering value to clients. This might include, for example, the emergence of bankers who can cover both investments and banking; delivery of advice to clients in a cost-effective way, via financial-fitness tools and remote advice; and enhancing solutions as ecosystems with other services, such as accounting and tax services.

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- *Encouraging relationship-based banking.* We are a long way from understanding the full financial impact of the coronavirus pandemic—and some banks will fare better than others. But overall, we anticipate that consumer-banking economics will likely be depressed as a result of net-interest-margin compression and decreased fee income. In the event of a flight to quality deposits, traditional banks can deploy relationship rewards and relationship pricing to encourage customers who have shifted to non-FDIC vehicles to come back. They can emphasize their broader suites of products and the value of relationships to underscore their value proposition to these customers.
- *Rethinking the portfolio strategy for small business.* Small-business-banking leaders may consider reevaluating their portfolio and credit strategies to develop industry-segment-specific insights. This will allow them to focus on core sectors and clients—which is not only the right thing to do during such a situation but also will cement long-lasting client relationships. Banks may also need to implement new programs to disburse funding to the most hard-hit industries and segments, such as the US Small Business Administration has done with its lending package for small businesses affected by COVID-19. Banks will need to scale the capability building of bankers and underwriters to deliver these loans to clients in their time of need.
- *Setting up capabilities for supporting clients in a postpandemic environment.* Banks can invest now to build client-support and workout capabilities, such as improving sensitivity to early-warning systems, developing short-term forbearance solutions and loan modifications, and providing guidance on alternative products. If call-center employees are severely affected, banks can also build contingency strategies to run collection programs through digital channels.

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Prior to the advent of the coronavirus pandemic, consumer and small-business banking was facing a difficult array of challenges: the threat from new digital-attacker models, changing customer expectations, low customer affinity, and depressed economics. Today, workplace dynamics, talent management, governance, bank culture, and customer routines and expectations are all in flux, and the consumer and small-business bank of tomorrow is likely to look very different than it did yesterday. To make the transition successfully, banks can begin by rearticulating the benefits of relationship banking and shifting to a more efficient and customer-centric multichannel engagement model.

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Coronavirus: How should US higher education plan for an uncertain future?

With American campuses largely empty of students, higher-education leaders need to shift their thinking to what happens next.

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The COVID-19 challenge is unprecedented; its scale still is not understood. Colleges and universities in the United States cannot know when they will open again to normal activity or to what extent education as usual will resume. But even though higher-education leaders cannot know the answers, given the uncertainty in the epidemiological and economic outlooks, they must start asking themselves questions about the medium- and long-term implications for teaching, learning, the student experience, infrastructure, operations, and staff. Disciplined scenario planning can help.

In this article, we consider three broad epidemiological and public-health scenarios (Exhibit 1). All of these represent a degree of economic disruption few adults in the United States have ever experienced.

Exhibit 1

Depending on the scenario, normal operations may not resume for US higher-education institutions until summer 2021.

Rapid and effective control: virus contained

Online learning predominates through spring and summer 2020; face-to-face instruction resumes in fall 2020

Programs are disrupted through summer, hurting major auxiliary revenue streams; 2020–21 school year operates almost normally, but new health controls stay in place; there is some disruption to international-student enrollment

Effective response but (regional) virus resurgence: virus recurrence

Online learning occurs through fall 2020; face-to-face instruction resumes by January 2021

Programs start 2020–21 school year online, resulting in major decline in auxiliary revenues; programs with strong brands and online capabilities stand to gain enrollment amid spike in attrition and switching

Broad failure of public-health interventions: pandemic escalation

Online learning occurs through 2020; face-to-face instruction resumes as late as fall 2021

Programs operate online only for at least first full semester of 2020–21 school year; there is continued switching to schools with strong online capabilities; there is significant disruption to international-student enrollment

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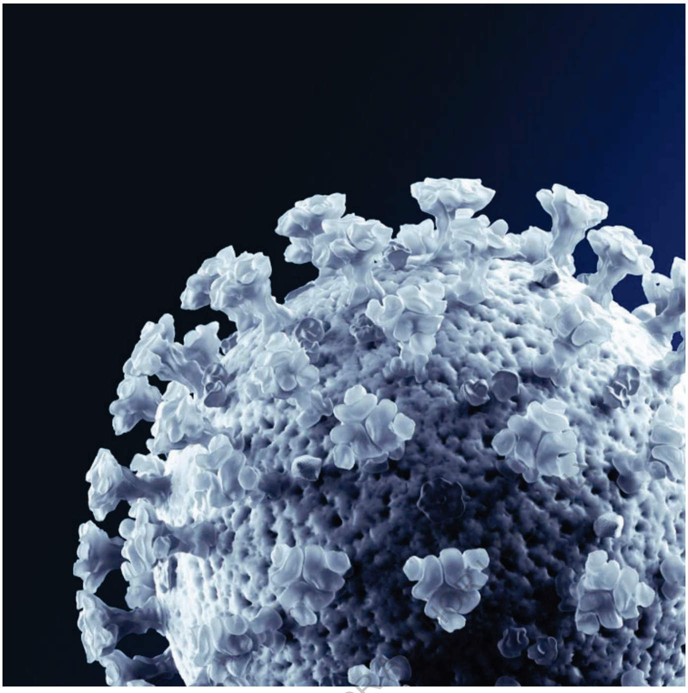
In the first scenario (virus contained), COVID-19 is contained in the next two to three months. In the second, more pessimistic scenario (virus recurrence), physical distancing and other restrictive measures last in some regions for several more months. In the final, most extreme scenario (pandemic escalation), the public-health response fails to control the spread of the virus for an extended period of time, likely until vaccines are widely available.

On the basis of these scenarios, we examine different ways in which the COVID-19 crisis could play out for US higher education (part 1). Then we suggest how institutions could respond to the unfolding conditions in both the near and medium terms (part 2).

Part 1: How the scenarios could play out for higher education

The only certainty is uncertainty. However, given the mission and function of universities, they need to examine the possibilities across everything they do.



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Coronavirus

Insights on how organizations can respond, and what happens next

Explore the collection

In the virus-contained scenario, we envision that most students will complete the current semester online, and the class of 2020 will graduate virtually—that is, without a formal on-campus ceremony. Beginning in the summer, rules on travel and events will loosen to some extent, although study-abroad programs might not resume just yet. Although additional health safeguards will be necessary, students will be able to return to class for the fall semester. However, restrictions will remain for some international students, and many members of the incoming class will have had disruption in the last months of their high-school educations.

Even this relatively optimistic outlook is likely to pose significant challenges to higher education. The sudden shift to online learning is already stretching existing infrastructure; faculty with little or no experience in teaching in this environment may struggle. Courses with a high level of hands-on components—such as clinical practicums, labs, and performing arts—will be particularly disrupted, and students in these fields may have to delay graduation to fulfill requirements. Exams will have to be held online, making it impossible to administer closed-book tests.

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In the other two, more pessimistic scenarios, most schools will be exclusively online through 2020 and into 2021. Travel will be greatly limited, and large events will not take place. Study-abroad programs will be canceled through 2021. The incoming class of first-year students will start college without an on-campus orientation. Faculty will have to make longer-term changes to their curricula and teaching approaches. A notable share of the class of 2021 will not graduate that year.

Implications for student enrollment, equity, and experience

In the virus-contained scenario, the main impact will be on persistence, as students and faculty will struggle to adapt to online coursework. Institutions with limited records of creating a compelling online experience could be hurt if their current students are dissatisfied with their digital offerings and decide to go elsewhere. Students might also delay returning until campus life is back to something close to normal.

In terms of equity, lower-income students will suffer disproportionately. They are less likely to have the resources, such as PCs and high-speed-internet access, to enable them to succeed in an online-learning environment. They will also face the most immediate financial challenges, with many industries laying off employees and on-campus employment mostly ended.

As for the student experience, hunkering down at home with a laptop and a phone is a world away from the rich on-campus life that existed in February.

In the virus-recurrence and pandemic-escalation scenarios, higher-education institutions could see much less predictable yield rates (the percentage of those admitted who attend) if would-be first-year students decide to take a gap year or attend somewhere closer to home (and less costly) because of the expectation of longer-term financial challenges for their families. International enrollment could be severely hit because of ongoing travel restrictions and fear. Both trends would depress enrollment.

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On the other hand, higher-education enrollment has traditionally increased during recessions. For example, during the global financial crisis of 2008–09, US undergraduate and graduate enrollment grew by about 5 percent and 10 percent a year, respectively, until 2011, netting a trough-to-peak addition of almost three million students. There could also be a rebalancing of students between schools. Specifically, schools that are more affordable and those that have a strong, well-developed online-learning infrastructure could see enrollment rise. Almost half of US colleges and universities had no formal online-education programs in 2018 ; they may find it more difficult to attract and keep students.

Implications for faculty and staff

In any scenario, faculty will be under intense pressure to develop and deliver online courses. Beyond that, cancellation of kindergarten through 12th grade could affect faculty members with children and compromise the availability of staff services. Mental-health resources could see greater demand. And with campuses shut down, it would not be easy to know what to do about staff whose services are not needed as much but who are members of the community and rely upon that income.

In the virus-recurrence scenario, scientific and medical research will be difficult to continue, and a poor economy would likely mean fewer grants. Finally, even if downsizing has been avoided through the summer, it may become inevitable in this scenario. Many higher-education institutions simply will not be able to keep paying all their personnel in full when there are no students on campus.

Implications for infrastructure

In the few cases in which students remain on campus, they need to be kept healthy and physically distanced. Even when there are few or no students around, universities must continue to support faculty and staff. In both cases, campus health systems may be feeling the stress. Universities with academic medical centers are on the front lines of care for their communities. If the number of COVID-19 cases requiring intensive care and ventilators rises steeply, academic medical centers could find themselves in dire straits.

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In the virus-recurrence and pandemic-escalation scenarios, dorms and other infrastructure will remain empty through 2020 or beyond. In both scenarios, that infrastructure might be used by healthcare authorities for medical staff or for quarantine. Meanwhile, IT infrastructure will need upgrading, including the integration of new learning software and tools to maintain teaching standards, as courses move online.

Implications for finances

For most colleges and universities, COVID-19-related developments will put their budgets under even more pressure. In the virus-contained scenario, current-year tuition revenues will likely fall, given refunds for study-abroad programs and the likely reduced persistence of students. Also, because online programs have traditionally been cheaper, universities are already facing calls to refund portions of regular tuition. Next year will likely see fewer international students enrolled. Auxiliary revenues (room, board, athletics, rentals, grants, and other nontuition revenue sources) will erode as refunds or vouchers for next year are issued for housing, meals, and parking—and if summer programming is disrupted or canceled.

In the virus-recurrence scenario, the situation would be worse for both tuition and nontuition revenues. Tuition revenues will dip for many schools, with reductions in international-student enrollment, cancellation of study-abroad programs, and increases in attrition, especially for schools with limited online-delivery capabilities. Nontuition revenues will also remain low, with all large events and conferences postponed and fall sports canceled. Fundraising will also be challenged in the context of a broad economic downturn. If the stock market stays weak, the value of endowments will fall.

In the pandemic-escalation scenario, all of those pressures will intensify further as the duration of online learning extends.

To understand better how the unfolding COVID-19 pandemic could affect the economics of higher education, we constructed an economic model, based on how long online programming remains the primary operating model (Exhibit 2).

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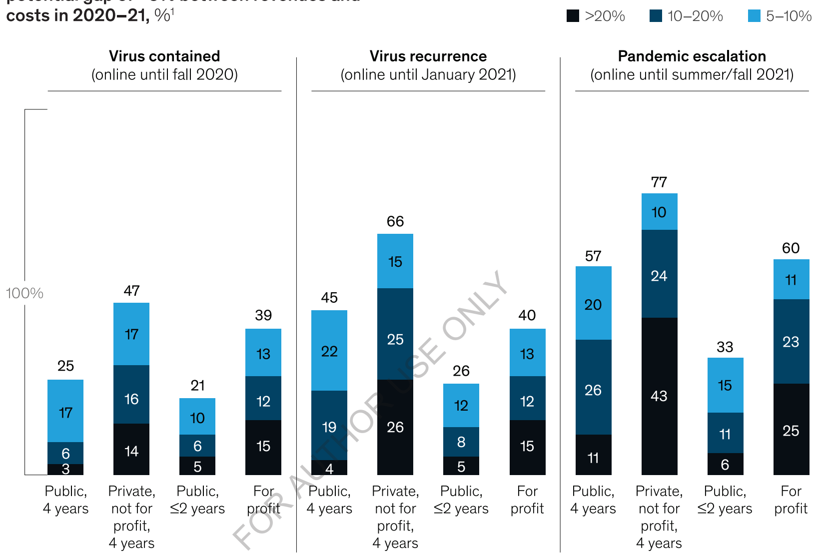
Exhibit 2

US higher-education institutions could face budget shortfalls as auxiliary and investment income falls and some students switch schools.

Share of higher-education institutions facing potential gap of ≥5% between revenues and costs in 2020–21, %[1]



Note: Figures may not sum to totals listed, because of rounding.
[1]Public, 4 years, n = 747; private, not for profit, 4 years, n = 1,606; public, ≤2 years, n = 1,179; for profit, n = 2,366.
Source: Expert interviews; Integrated Postsecondary Education Data System; McKinsey analysis

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Even under the more modest virus-contained scenario, 25 percent of public four-year institutions and almost half of private not-for-profit four-year institutions could suffer budgetary shortfalls of more than 5 percent, absent a public or philanthropic intervention. In the pandemic-escalation scenario, the percentage of US higher-education institutions experiencing budgetary shortfalls of more than 5 percent will increase to more than half. For private not-for-profit four-year colleges, that percentage will rise to 77 percent. In addition, more than 800 higher-education institutions of all kinds could suffer a 20 percent or greater budgetary shortfall (assuming costs stay the same). Some will be able to deal with the shortfall by drawing capital from their endowments; one out of three private not-for-profit schools with a 5 percent budget shortfall could cover it with draws of up to 10 percent of their endowments. That, however, is a stopgap, not a strategy (see sidebar, "COVID-19 and historically black colleges and universities").

Part 2: What colleges and universities can do

Higher-education institutions in the United States have already taken dramatic first steps to keep their people safe and to keep learning alive. Here are some other actions they can consider in the weeks and months ahead:

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- *Now: Set up a nerve center.* An integrated nerve center can help higher-education leaders plan and manage their response to COVID-19 by establishing work teams with specific areas of responsibility. The work has four parts. First, *discover* an accurate view of the situation—on campus, in virtual classrooms, and in the broader community—and derive implications from that view. Second, *decide* what to do quickly—but after stress-testing hypotheses and alternatives and ensuring adherence to university and local community values. Third, *design* a portfolio of actions—for both the short and long terms—with a pragmatic operating model, to develop detailed plans and act on them. Finally, *deliver* plans and responses in an efficient, flexible manner. Nerve centers must meet regularly—at least once (and better, twice) a day—and enforce accountability by tracking what is being done, when, and by whom.
- *Near term (April to May): Focus on students, financial resilience, and support of faculty and staff.* Start with ensuring that students have all necessary assistance, including mental-health services, and that educational standards are maintained. Faculty should receive the support required to continue their research and to learn how to teach effectively in an online environment. For nonessential staff, make quick decisions about sick-pay and employment policies. Finally, institutions must figure out where they are

with their finances. Given the continued uncertainty, they should evaluate a range of scenarios, and seek to understand their sensitivities to certain revenue streams. We will expand on specific actions to consider in future articles.

- *Medium term (June to September): Focus on enrollment, persistence, and operations.* Institutions should plan for the next school year. Establish a command center to manage yield actively, particularly regarding students at higher risk of not enrolling, such as international and lower-income students. Universities should also consider whether and how to make significant changes to current teaching models, making them more scalable, more flexible, lower cost, and, importantly, more engaging. They also need to plan for appropriate remediation for the significant disruptions to teaching and learning that all students will have experienced.

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Crises can create paralysis and fear. Rigorous scenario planning can help leaders map the potential damage and devise ways to deal with it. Universities need to look beyond the immediate crisis to create effective long-term strategies both to get through the present and to safeguard their futures in the new normal that will follow.

US coronavirus relief funds: A guide for state and local governments

State and local leaders can consider several steps now to capture the full humanitarian and fiscal benefits of the roughly $2 trillion federal relief package.

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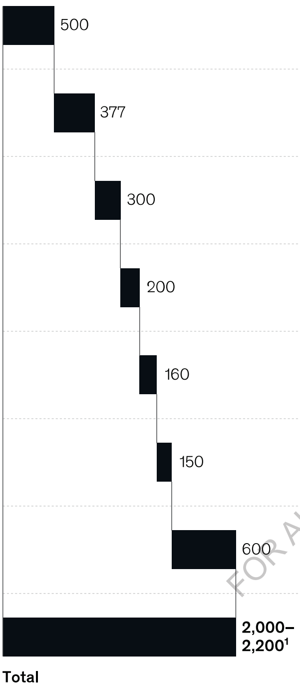
The ratification of the historic Coronavirus Aid, Relief, and Economic Security (CARES) Act floated a life raft of $2 trillion to $2.2 trillion to many US businesses, families, and local governments reeling from the economic shutdown (exhibit).

Exhibit

The CARES Act will provide economic support across six core areas.

Breakdown, $, billions



Areas of focus in the bill:

Assistance to severely distressed industries of the US economy
- A portion of this funding will go to airlines, as well as to other distressed industries.
- Most of the funding will be used to make direct loans or backstop losses in lending facilities expanded by the Federal Reserve, as well as to support states and local governments.

Small-business support
- Funding includes $350 billion in Paycheck Protection loans for small businesses, partially forgivable if used to maintain payroll continuity or cover rent, mortgage, or utility payments.
- Relief will come in $10 billion of direct Economic Injury Disaster Loans and $17 billion for the Small Business Administration to make 6 months of principal and interest payments.

Direct relief payments for individuals and families
- Cash payments will be sent to individuals on a tiered scale under a set income threshold.
  —Individuals would be eligible for $1,200 payments and couples filing jointly for $2,400 payments, with an additional $500 per child, based on income.

Supplemental insurance
- Various modifications to unemployment insurance include coverage of unemployed persons due to COVID-19, an additional $600 per person per week, and coverage of the first week of unemployment.

Healthcare support
- Most of the funding (about $100 billion) will go toward reimbursing healthcare providers for costs or lost revenues directly associated with COVID-19.
- This support also includes investment in healthcare infrastructure and assisting healthcare workers and patients.

State- and local-government support
- States will receive cash grants based on their population.

Other
- Additional funding will support nutrition, education, transportation, and infrastructure, among other expenses.

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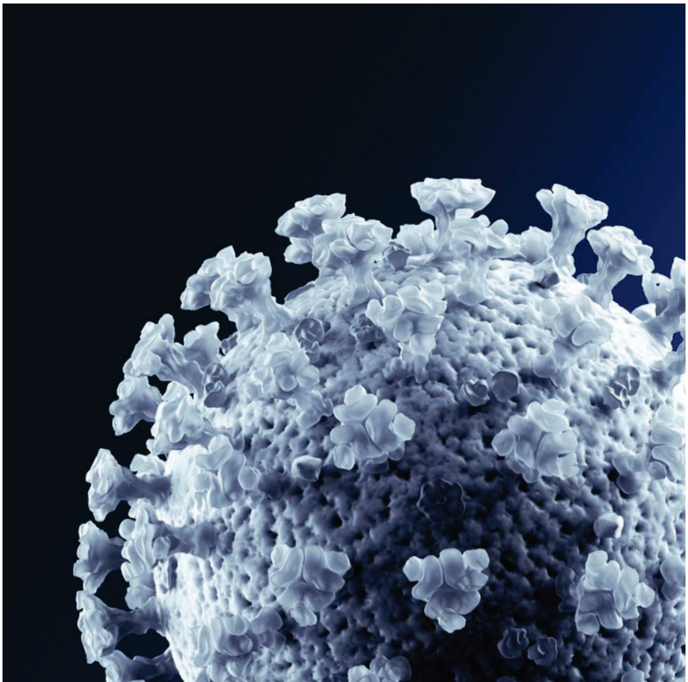
Note: Preliminary estimates; specific allocations may change through regulatory updates.
[1] Total may not sum, because of rounding. It is an estimated range because some programs are based on volumes and therefore there are not defined amounts allocated in the bill.
Source: Advisory Board; CNN; Holland & Knight; *National Review; Politico; Wall Street Journal*

Some of these benefits, including $300 billion in direct payments to households, are expected to hit the economy as soon as mid-April. Others may take a month or longer before agency rulemaking, allocations, and recipient certifications allow funds to reach the hands of end beneficiaries.



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Insights on how organizations can respond, and what happens next

McKinsey's preliminary analysis of the CARES Act estimates that nearly half of all appropriations in the legislation will be distributed through state and local governments. These funds will primarily cover spikes in demand for state and local services—for example, the more than 6.6 million Americans who filed for unemployment in the last week of March alone —but also help state agencies and local organizations recoup lost revenue, as with transportation grants to help the nation's airports stay afloat amid a drop in passenger demand. CARES Act provisions directed at federal agencies, such as the expansion of subsidized loan programs from the Small Business Administration, are also of great interest to state and local governments because they directly benefit vulnerable constituents and present opportunities for complementary relief measures.

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If the American Recovery and Reinvestment Act of 2009 taught us anything, it is that time matters. State and local governments must act swiftly to get money into the hands of beneficiaries. This urgency is one of humanitarian necessity: similar to the previous relief packages, most of the CARES Act programs provide immediate health-related response measures (for example, enhancing hospital capacity). Disbursing money quickly is also an economic imperative: 50 percent of Americans work for or own a small business and, on average, these businesses have only 27 days of cash flow. In the aftermath of the Great Recession, states accumulated a total of $500 billion in budget shortfalls, state tax revenue fell 17 percent below the previous year's levels, and personal income taxes dropped 27 percent —despite federal transfers that helped soften the blow.

In this article, we discuss the steps state and local governments can consider to maximize the impact of the CARES Act. These actions include assigning leaders to spur accountability, establishing mechanisms to coordinate with federal counterparts, planning for financial inflows, providing appropriate resources for agencies to handle the influx of demand, and overcommunicating with the individuals, businesses, and organizations that might benefit.

Distribution complexity will vary by benefit and program

Given the multiple types of distribution mechanisms—each with its own complexities—and the volume of funds to be distributed, state and local governments must prepare for a likely capacity challenge.

One bucket of support, which we estimate to be less than 10 percent of the money allocated to state and local governments, augments existing benefit programs that require minimal additional capacity to distribute. An example would be increasing the Federal Matching Assistance Percentage, which determines the degree to which the federal government finances states' Medicaid programs. Increasing the matching rate for state funds would allow the federal government to provide states with much-needed relief from entitlement obligations.

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A second bucket of support will require a moderate increase in capacity to get money out the door. We estimate this approach to include 65 to 75 percent of funds allocated to state and local governments. This funding often requires state or local governments to derive or amend their own allocation and allotment processes for third-party beneficiaries (for example, hospitals and nonprofits) that will deliver direct services. Sometimes the state's own capacity, such as eligibility verification for new unemployment benefits, will need to be augmented.

A final bucket of support—which we estimate may near 25 percent of these funds—will likely require significant investment in new capabilities (and perhaps innovation) to reach beneficiaries. One example is the expansion of funding for food purchases and demonstration projects to increase flexibility for schools to provide free meals. School districts around the country have scrambled to build creative solutions for distributing these meals during a time of physical distancing and widespread school closures.

State and local governments can consider steps to maximize the impact of the legislation

All levels of government are fully immersed in responding to the most immediate humanitarian needs, so leaders can consider several steps now to ensure maximum impact from additional funds. Many of these actions are based on the experience of state and local governments' responses to the American Recovery and Reinvestment Act as well as the early experience of states in developing their COVID-19 crisis nerve center.

Assign leaders to spur accountability and improve transparency

- *Appoint a relief and recovery lead* to coordinate across state and local agency officials. This appointee should be senior enough to convene principal-level leaders in each responsible agency. This appointee is often a deputy chief of staff or chief operating officer.
- *Establish a response lead in each agency* to manage the response (including federal-agency interaction) for the department. This leader is often a deputy commissioner or secretary.

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Establish mechanisms to coordinate with federal agencies

- *Track agency-level rulemaking and appropriations.* States can continue to rely on tools such as the Federal Funds Information for States that provide leaders with real-time information on disbursements and restrictions.
- *Reach out to federal agencies early.* Contact US government leaders in national, regional, and state offices as appropriate; in doing so, establish a protocol to maintain open lines of communication as resources go online.
- *Centrally track applications and deadlines required by various federal agencies.* Doing so will allow states to recoup qualified expenditures or receive up-front payments.

Plan for financial inflows

- *Track already-authorized emergency costs* to both ensure full understanding of expenditures related to COVID-19 and receive reimbursement from relief packages where applicable.
- *Project benefit demand* to evaluate financial impact as well as operational considerations.
- *Identify sources of working capital* (for example, emergency reserve appropriations and interfund borrowing) at the agency level to finance spending surges before federal money becomes available, particularly in the case of reimbursement programs.
- *Begin the allocation process* by cataloging existing programs, municipalities, and nongovernmental agencies that will be the ultimate recipients of many funding streams. Also, start discussions on distribution criteria and application processes before funds are available.
- *Weigh appropriate fraud, waste, and abuse controls,* particularly for programs with new eligibility requirements, such as unemployment benefits.

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Provide appropriate resources for agencies to handle the influx of demand

- *Redeploy staff* to areas of higher demand to alleviate bottlenecks in relief fund distribution; state and local governments might even consider augmenting full-time employees with recently furloughed or unemployed private-sector workers as a means of further economic stimulus.
- *Test all aspects of systems,* such as IT infrastructure and administration capacity, that are likely to experience record levels of use in services—for example, from applications for unemployment insurance and aid through the Supplemental Nutrition Assistance Program.
- *Evaluate and upgrade IT infrastructure,* including fast-tracking procurement for third-party vendors where needed to accelerate capabilities.

Communicate, communicate, communicate

- *Build a simple, one-stop web portal* with clear, up-to-date links to state and federal resources (overseen by the relief and recovery lead mentioned above) for individuals, businesses, and community organizations seeking information.
- *Establish a hotline* to support agencies in addressing questions related to relief funds.
- *Require agencies to submit citizen outreach strategies* to reach relevant segments such as loan recipients eligible for relief. Agencies can also go beyond explanations of benefits to connect vulnerable institutions and firms to service providers (for example, identifying local lenders certified by the Small Business Administration).

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Based on what we see today, state and local governments are likely to see revenue shocks as severe, or worse, than those experienced during the Great Recession. We have heard from many local government leaders who hope the next wave of relief will focus on longer-term economic stimulus to the same degree that the CARES Act provides near-term relief. We will continue to monitor developments and share additional guidance as the landscape changes.

Establishing these basic organizational structures and operating processes will leave governments better able to respond to a prolonged economic shutdown. It is ultimately in the hands of state and local leaders to put relief legislation to work to get the money flowing.

Building an e-commerce business: Lessons on moving fast

With consumers moving online in reaction to coronavirus restrictions, companies will need to learn how to launch new e-commerce businesses quickly.

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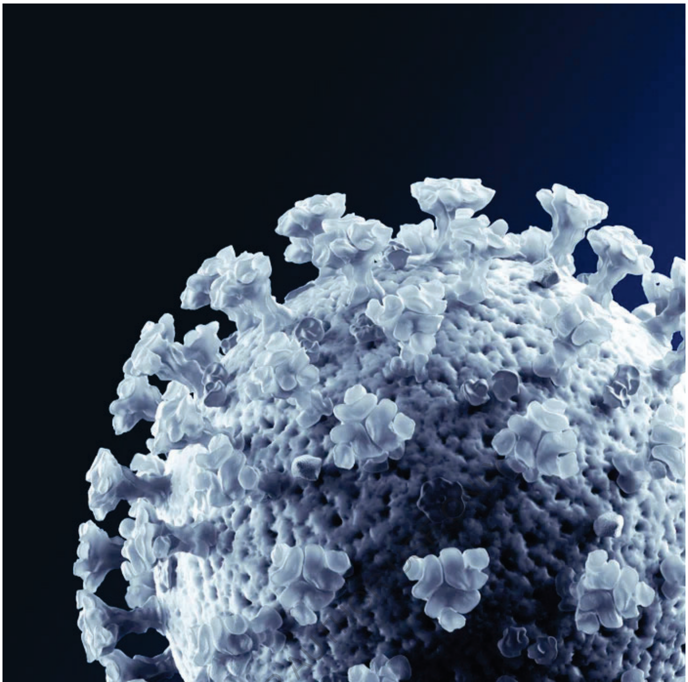
While the full implications of COVID-19 are still unknown, it's clear that the impact on retail is already significant. Emerging evidence points to a significant shift, as customers scale back their shopping in stores and instead go online.

In China, online shopping has increased 15 to 20 percentage points, and e-commerce in Italy has increased 81 percent compared with the last week of February. US consumers have largely followed the same pattern. The COVID-19 crisis is first and foremost a human tragedy, requiring companies to take immediate steps to protect their people. Amid this human cost, companies are also starting to come to terms with the impact of the crisis on their businesses. With offline shopping collapsing, companies' strategies will need to focus on fortifying their web presence and, in some cases, building an online business.



Special Collection

Coronavirus

Insights on how organizations can respond, and what happens next

We have found that companies can create a working e-commerce site in much less time than they think. In fact, a poor understanding of what's really possible with digital can be one of the most significant hinderances to moving quickly. As we highlight in *Fast Times: How Digital Winners Set Direction, Learn, and Adapt* (Amazon Publishing, February 2020), low aspirations lead to modest, even negligible, outcomes. In our experience, completely new businesses can be launched in fewer than four months. Normally, a company requires at least six to nine months to get a complete solution up and running (and often considerably longer when outsourcing the work to multiple vendors and agencies, with the increased need for coordination slowing down cycle times).

We had the opportunity to watch this thesis play out in the real world recently at one European retail chain that has around 1,000 brick-and-mortar stores across the world. The chain, owned by a private-equity fund, had no e-commerce presence. Although it had previously considered e-commerce, there were serious concerns about whether it could ever work, given the assortment, concept, and even brand constraints. Despite these issues, a variety of pressures, from consumer demand to competitive constraints, forced the company to take action.

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Thirteen weeks later, it had a functioning e-commerce business in one of the regions it operated in. Not only that, its launch was successful from the first month, generating almost 3 percent revenue growth within the chosen region, tripling average basket size compared with retail stores, and maintaining a high customer-satisfaction score. When COVID-19 started disrupting daily routines in Europe, the e-commerce revenues jumped up threefold almost overnight.

This article describes the main lessons from that program.

Be pragmatic

Before work started on launching an e-commerce business in our example, the company's leadership gathered to discuss the ambition for the endeavor. One word dominated that discussion: "pragmatic." Rather than attempting to launch a full-blown digital business across all markets at once, the CEO opted to go to market fast with a limited offering and in limited geographies, gain strong traction, and then scale up and out aggressively (see sidebar, "Supporting your remote teams").

Within days, a new team created a comprehensive, week-by-week plan that covered everything from creating customer-testing touchpoints to setting up the warehouse with electricity and equipment to photographing and writing copy for every one of the 800 products to go on offer. All nonrelevant initiatives were postponed in favor of efforts that had direct customer impact. The team closely scrutinized every feature and ruthlessly prioritized intermediate release goals for what mattered most. This biweekly review exercise also made room for fixing problems when things inevitably went wrong.

This lesson was repeated a second time when management reevaluated scaling plans in light of COVID-19. The team focused instead on further strengthening the core functionality of the e-commerce business and providing an easy, dependable way for a locked-down population to shop for what it needed.

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Be clear with responsibilities: Assign ownership, not tasks

A crucial element in enabling speed during our example retail chain's launch of its e-commerce business was clearly designating which teams were responsible for which tasks—and then giving them the space to complete their work. Management created four teams with responsibility for specific work streams and ownership over a certain portion of the customer journey. Management then stepped back, giving teams the responsibility and flexibility to solve every unplanned issue that occurred there and pushed them to be creative with solutions. The four teams and their tasks were as follows:

- *The tech-and-design team* was in charge of defining the microservices architecture, including codesigning the online-store concept with customers and building it iteratively. It also had to develop tech capabilities for connecting the back end of the store with the warehouse-management system, inventory synchronization, and order handling. The team owned the customer journey from the moment the customer arrived to when an order landed on the handheld tablets carried by the pickers in the warehouse. Over time, the tech stack developed to a point at which almost all content-level changes could be done without developer involvement.

- *The operations team* was in charge of setting up the warehouse: establishing packing stations and picking trolleys, setting up the workforce for the warehouse and customer support, liaising with carriers and intermediaries to set up a new relationship, and detailing the procedures for handling all common and edge cases. It owned the part of the journey that started when the warehouse received an order and ended when the customer received their package.
- *The product-assortment team* analyzed the full product assortment available, chose the 800 best SKUs to launch with (based on multiple quantitative and qualitative criteria—for example, "shippability" of items such as ice cream and fragile glassware, sizing to fit existing boxes, and logical fit with other products in the assortment); obtained samples to photograph, measure, and describe; and created creative online-only bundles. It owned the portion of the customer journey covering all of the steps necessary for a customer to find, understand, and choose a product. As such, the team worked closely with the tech-and-design team in the initial phases.
- *The marketing team,* which kicked off nine weeks before the launch, created a detailed marketing launch plan, set up a structured customer-relationship-management system and biweekly campaigns to increase the size of the database by almost threefold prior to launch, worked with an agency to come up with a creative launch campaign, and planned an operation in which all the content and merchandise (such as posters, T-shirts, and bags) would roll out in unison on launch day across offline stores, social media, search advertising, influencers, and various PR channels. This team owned the customer decision journey, from complete lack of awareness to the moment a customer landed on the home page for the first time.

At the end of each day, all the teams came together for an all-hands checkout to update each other about the newest developments. This habit—along with solid agile ceremonies, such as weekly sprint planning, biweekly demonstrations, retrospectives, and use of collaboration tools (Kanban boards and Slack)—was the perfect counterweight to work-stream independence and ensured that everyone was in sync at all times.

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Putting in place the right measures and key performance indicators early in the process of creating an e-commerce business is as important as launching quickly.

Learn and adapt

Putting in place the right measures and key performance indicators early in the process of creating an e-commerce business is as important as launching quickly. It allows companies to track the progress that matters so that they can learn, adapt, and drive continual improvement. It is not enough to measure overall conversion or conversion by channel. Instead, companies need more granular metrics—for example, to identify relevant customer cohorts, measure microconversions per cohort, and then improve for that use case continually. Metrics or key performance indicators that are too high level don't provide a clear-enough story. This concept, in particular, is crucial because launching an e-commerce presence is not a discrete project but much more a program of continual improvement.

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In our retailer example, the leadership decided early on that the goal of the e-commerce initiative was to launch quickly a business that could gain traction within a single region and then to use it to learn and improve before going all out globally. The company knew that it needed first to build a muscle to operate and optimize a multinational digital business—and that the best way to do that was by learning through doing.

After a successful launch, for example, the team spent a month analyzing pain points and bottlenecks and then experimenting with new solutions to improving the experience continually. It was able to act quickly because it had established a simple spreadsheet model to track progress. The team checked it daily the first two weeks and weekly thereafter. It then added new metrics as goals changed. For example, when focusing on growing B2B segments, it tracked the number of orders and revenue for B2B customers daily. When focusing on improving operations, it tracked pick-and-pack speed and the percentage of fulfilled orders per day.

The team also developed prototypes for various new features to test with customers and abandoned many pet ideas that simply didn't stick. The team had to go back on one of the online-exclusive ideas—staff curated bundles of products based on common occasions, such as birthdays—that tested very well with customers prelaunch but simply didn't perform in reality.

By keeping a weekly sprint rhythm, it was possible to pivot away from poor ideas and generate new ones constantly until the team found ones that worked. Week by week, the improvements and lessons accumulated, and by month three, the e-commerce business had matured into a state at which a good sales day wasn't a victory but business as usual.

Building an e-commerce business from scratch is no small undertaking. But experience has shown that a dedicated program properly structured can not only pull it off but do it far faster than many might think is possible.

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Five actions retail supply chains can take to navigate the coronavirus pandemic

Retail supply chains are grappling with the humanitarian impact of the outbreak, as well as new operational risks. Five actions can help retailers bring goods to communities and help employees.

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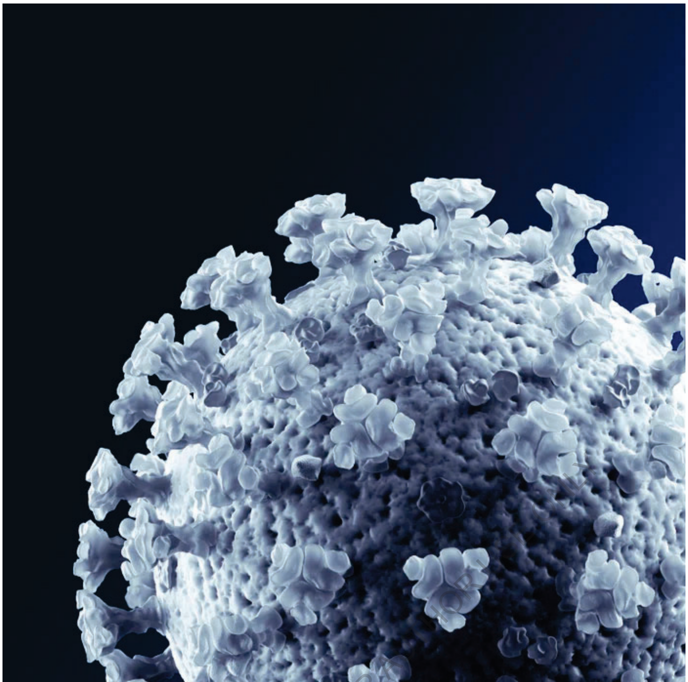
As the coronavirus outbreak has spread and its humanitarian impact has grown, retailers have stepped up their efforts to provide consumers with essential goods and to protect the health and well-being of the communities they serve. Particular challenges have arisen in global retail supply chains, where the pandemic's far-reaching effects have weighed heavily on the health and well-being of employees and jeopardized livelihoods and economic lifelines in many communities.



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Insights on how organizations can respond, and what happens next

Explore the collection

Retailers are now taking extraordinary measures to keep goods moving to store shelves and consumers' doorsteps. Supply-chain leaders are creating transparency and building rapid-response capabilities to mitigate the short-term fallout from the crisis. We focus in this article on the five actions retailers are taking to resolve the immediate challenges that COVID-19 presents to supply-chain workers, business partners, and operations. (In a subsequent article, we will examine how supply-chain leaders at retail companies can chart a path to the next normal , building resilience and returning the supply chain to full effectiveness while reimagining and reforming supply-chain operations to improve their performance.)

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Changes in consumer spending during the outbreak

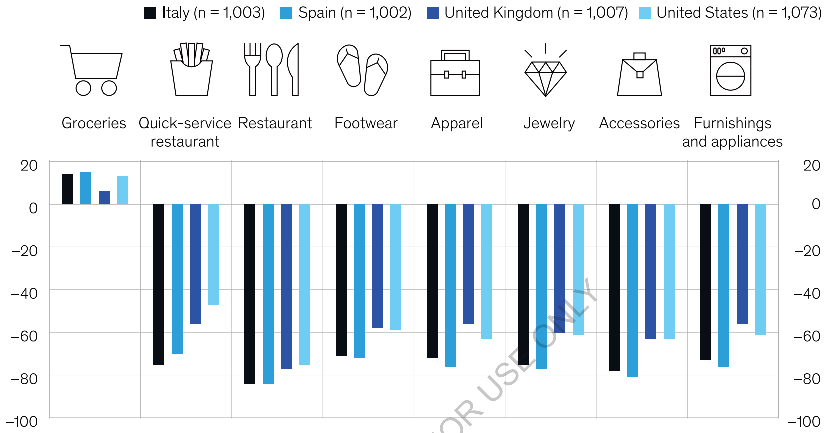
Retailers' supply-chain difficulties have largely arisen as big shifts in consumer behavior and stepped-up health restrictions have rippled back through their operations. One noteworthy shift has been an abrupt swing in purchasing patterns. Sales of nondiscretionary products, such as food, household, and personal-care products, have spiked, while sales of discretionary items, such as apparel and furnishings, have tailed off.

Our consumer research indicates that these initial shifts could persist in the very near term—though it remains to be seen how the restrictions that some governments have placed on store openings and order deliveries might further influence consumer behavior. In recent McKinsey surveys of consumers in Italy, Spain, the United Kingdom, and the United States, respondents were more likely to say that they would increase their spending on groceries than to decrease it during the next two weeks. For most discretionary consumer-spending categories, including restaurants, apparel, and furnishings, respondents were more likely to say they would decrease spending (Exhibit 1).

Exhibit 1

In several countries, consumer surveys show a likelihood of greater spending on groceries and less spending in discretionary categories.

Net intent to change spending over the next 2 weeks, by country, by category,[1] % change



[1]Net intent is calculated by subtracting the percentage of respondents stating they expect to buy more from the percentage of respondents stating they expect to buy less.
Source: McKinsey Marketing & Sales surveys conducted March 21–23, 2020; all data are weighted to match countries' populations of people 18 years and older

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Consumers have also said they will shift spending among channels. In the surveys noted above, McKinsey asked consumers whether they were planning to increase or decrease their in-store and online spending on various types of goods during the next two weeks. Only respondents in Italy and Spain said they were likely to increase their *in-store* spending on nondiscretionary goods, such as groceries and household supplies. Respondents in the United Kingdom and the United States, by contrast, were more likely to say they would increase their *online* spending on groceries and household items. And respondents in all four countries said they were likely to increase their online spending on a wider variety of items.

Other research underscores these early shifts. An analysis of retail traffic in major US metropolitan areas between February 19th and March 20th showed increases in traffic at grocery stores and warehouse chains, while movie theaters, restaurants, and malls remained closed. Downloads of delivery apps for grocery retailers increased by 100 to 200 percent over the same two-week period.

Stores, logistics systems, distribution facilities, and supplier networks weren't engineered for the rapid shifts in demand patterns we are seeing today. To adjust, retailers are retooling every aspect of their supply chains, from procurement to customer service. As supply chains for nondiscretionary goods have ramped up activity, companies have had to balance the surge in demand while also prioritizing the protection of their employees' health and well-being across the supply chain. On the other hand, supply chains supporting discretionary goods have redeployed resources to support online orders or selectively ramped down operations to deal with the drop in demand.

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How retail supply chains are adapting: Five priority areas

The pandemic has forced retail executives to mount urgent efforts to adapt their supply chains, whether by revising their purchase orders and merchandising plans or by reallocating all kinds of resources—working capital, inventory, employees, transport capacity—to where they are needed most (Exhibit 2). We explore these changes in detail below.

Exhibit 2

Immediate action across the supply chain can help retailers meet consumer demand during the COVID-19 pandemic.

Retail-supply-chain changes

● Nondiscretionary categories ● Discretionary categories

Suppliers

- ● Establish daily meetings with strategic suppliers
- ● Reduce product variety
- ● Reduce on-time, in-full requirements, as well as payment terms for key suppliers
- ● Mitigate risk for existing orders, in collaboration with suppliers

Merchandising

- ● Revise buy plans and reallocate staff toward high-demad categories
- ● Override algorithms to redirect inventory to high-density areas
- ● Dial down near-term buy plans to preserve cash
- ● Anticipate future increases in sales and adjust buy plans accordingly

Distribution

- ● Retrain employees and redeploy them to distribution centers in high-demand areas
- ● Raise wages and make temporary hires
- ● Maintain good workplace hygiene
- ● Cross-train store and back-office personnel to assist with e-commerce

Logistics

- ● Allocate more transport capacity to high-demand items
- ● Have suppliers deliver directly to stores
- ● Stage products at strategic hub stores to feed smaller stores
- ● Explore alternative and supplemental delivery options
- ● Offer transportation capacity if private fleet is available to support movement of critical goods

Fulfillment

- ● Relax same-day/next-day delivery requirements
- ● Optimize routing and accommodate more delivery slots
- ● Enforce order maximums
- ● Expand fulfillment and return options to give customers flexibility

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Suppliers: Secure demand

Surging demand for nondiscretionary goods has created network-wide stockouts for some retailers. Responding to the dip in on-shelf availability, retailers are working closely with companies across their supplier bases, including consumer-packaged-goods (CPG) makers, distributors, and co-manufacturers. For the most important product categories, category captains are holding daily meetings with strategic suppliers to work through the options for securing an adequate supply of essential high-demand items.

The first and foremost priority for retailers operating across food, drug, and mass (FDM) categories is to secure a fast and reliable supply. Retailers are taking several steps to do so. One is simplifying their SKU profiles to reduce variety and boost quantities, which helps suppliers to accelerate the processing of orders. In addition, several retailers are easing payment terms, widening delivery-appointment windows, and relaxing on-time, in-full (OTIF) requirements.

A leading mass retailer is pursuing all these measures with a special focus on improving its on-shelf availability and its replenishment speed. It is also redirecting its resources, including capital and staff, from nonessential to essential categories. Another leading producer of canned goods is holding daily “stand-up” meetings with a regional grocer to foster transparency and open communication.

Declining sales of nondiscretionary goods, on the other hand, have put pressure on the cash flows of retailers that sell or specialize in these items. To conserve cash, these retailers can remove incentives for on-time deliveries, suspend credit extensions, and do more business with suppliers that have relatively healthy cash reserves. Some retailers are counseling their suppliers to improve their management of inventory (including commodity products), advising suppliers not to buy raw materials, so they can avoid deepening their cash deficits. Retailers can also raise cash by working with their distribution partners to sell off excess inventory.

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As a last resort, retailers might explore delaying or canceling orders—an approach that poses some risk to their supplier bases. Multiple suppliers in Asia are shutting down operations as purchase orders are being canceled or pushed out. A leading apparel retailer based in North America, for example, is working closely with its vendor base to review 40 percent of its buys for the upcoming fall season while simultaneously pruning its assortment for spring 2021. These are not easy choices to make for either party and would require collaboration among retailers and vendors to benefit both sides.

Merchandising operations: Redirect inventory

As retailers recalibrate their product orders to line up with consumer demand, they will need to cascade the changes across purchasing, planning, and inventory-management operations. For nondiscretionary goods, retailers are revising their purchasing plans to favor items in high demand and to direct more of their inventories toward locations where sales are especially brisk.

As retailers recalibrate their product orders to line up with consumer demand, they will need to cascade the changes across purchasing, planning, and inventory-management operations.

To move inventory around quickly, retailers might have to bypass or override their inventory-replenishment and inventory-allocation algorithms. For example, one of North America's leading retailers is actively deploying inventory across the network to regions with the biggest product-availability deficits. In some instances, retailers will also need to reassign their merchandising-operations staffs to have enough coverage of key categories and products—a step that can require rapid onboarding and cross-training.

In addition, we are seeing retailers take money previously earmarked for in-store marketing activities and use it to build the operational flexibility they need to improve on-shelf availability for essential items. For example, a leading grocer's category teams are reallocating shelf space for canned goods and working closely with suppliers to focus on availability and replenishment speed rather than promotions.

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Some merchandising moves for discretionary categories resemble those for essential-goods categories. To conserve cash, retailers can sell more merchandise they already own by reallocating inventory among geographies. They can also dial down purchasing plans for the near term. But retailers selling discretionary goods will also need to plan their strategic buys for later periods, so that they don't run out of inventory when consumer spending rebounds.

One fashion retailer's response to the outbreak reflects all these moves. The company is selectively reallocating its financial and human resources to support e-commerce operations while changing its inventory spending to adjust to the shift to online purchases, driven primarily by store closures. The retailer is also adjusting its longer-term purchases, in the expectation that the pandemic will accelerate the adoption of e-commerce.

Distribution: Add capacity—safely

Distribution is the supply-chain segment where demand trends for nondiscretionary and discretionary goods begin to overlap significantly. We've seen some companies reassign current employees to have more capacity in nondiscretionary categories where goods are selling fastest. (In the case of discretionary-goods retailers, some are choosing to cross-train and reassign back-office and store personnel to support e-commerce operations.)

Some retailers have temporarily moved their office workers into distribution centers to perform jobs like operating forklifts, in addition to hiring associates from discretionary-goods sectors, where demand has tapered off. For example, a regional grocery retailer has been hiring fulfillment specialists from other retail sectors, including fashion and home furnishings, which have been hard hit by the crisis. The grocery retailer is quickly retraining these new workers to support pick or pack operations for the delivery of online orders.

Keeping distribution-center workers healthy during the pandemic requires taking added and necessary precautions. Tactics include staggering shifts by short intervals, so that fewer people occupy locker rooms and break rooms at the same time, as well as installing partitions to separate workers physically. A retailer, for example, has been offering day-care benefits and one-time cash incentives and is staggering shifts to improve retention and reduce turnover during this critical period.

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Maintaining good workplace hygiene is also important. Between shifts, retailers can suspend operations at their distribution centers so that cleaning crews can sanitize equipment. Health screenings can quickly identify workers who are sick. And all staff, whether long-term or temporary hires, should undergo training in proper health procedures and be given the right protective equipment. A leading mass retailer is working closely with its third-party logistics providers and staffing agencies to screen temporary workers and accelerate hiring so that it can reduce the risk of infection and ensure the continuity of essential business operations.

Logistics: Balance agility and flexibility

Now more than ever, maintaining the flexibility of logistics is essential for limiting disruption to essential services. The surge in demand across nondiscretionary product categories is slowly eating away at excess capacity. In the United States, trucking demand increased by 150 percent, year over year, in March. Freight costs have also spiked, with double-digit percentage increases in spot rates from February to March. The outbound-tender rate-reject index, which measures adherence to contracted rates for shipping, has also increased by 20 percent, indicating that carriers are rejecting contracted rates and instead selling capacity on the spot market.

The best that retailers can hope for in this tightened environment is to secure enough capacity to get essential items on store shelves reliably and swiftly. This can take some creativity—not to mention additional expense. One strategy retailers are adopting is to have suppliers bypass distribution centers and ship goods directly to stores. They are also simplifying assortments and packaging, so that suppliers can make same-SKU full-pallet shipments to hub stores or distributor-consolidation facilities. This approach puts shipping speed ahead of product variety at a time when many consumers would rather have adequate supplies of key items than a wide assortment.

Some retailers of nondiscretionary goods are supplementing their transportation capacity by partnering with discretionary-goods retailers, whose private or dedicated fleets are likely to be underutilized because of lower sales volumes. There are several examples of cooperation across industries to get products on shelves, especially in high-density urban areas. A leading North American quick-service-restaurant chain has offered its transportation capacity to food banks and FDM retailers in key metropolitan areas to help communities by assisting deliveries of essential items. In the United Kingdom, competition laws are being relaxed so that supermarket chains can cooperate and share transportation resources and depots—and get essential products on store shelves more readily.

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Fulfillment: Deliver reliably

Self-isolation, quarantining, and stay-at-home orders during the coronavirus pandemic have all contributed to notable increases in online shopping and local deliveries for nondiscretionary goods. Bringing huge numbers of deliveries to consumers at their doorsteps and modifying retail locations to facilitate curbside pickups are no small changes.

We're seeing retailers of nondiscretionary goods make these changes more successfully by adhering to several practices. One is widening delivery windows from immediate or same-day to two or three days. This allows retailers to rationalize the scheduling and routing of deliveries, so that deliveries in the same area can be grouped together and sent out in one round of drop-offs by the same driver, saving time and mileage. This approach also gives retailers more flexibility, so they can sync order deliveries with the arrival of inventory shipments.

Another practice compensates for the decline in store traffic. By converting some outlets to "dark stores," where workers pick orders, retailers can make good use of their stores' on-shelf inventories and proximity to consumers. To meet the surge in demand, some grocery retailers are also hiring more full-service shoppers, temporarily shifting in-store employees to delivery jobs, or expanding partnerships with gig-economy delivery services. In discretionary-goods categories, retailers are trying various delivery-related promotions to boost sales. One fashion retailer lowered the order size necessary to qualify for free shipments and relaxed return windows to give customers more flexibility.

Not all consumers necessarily want their goods delivered, so retailers must find ways of accommodating those who do visit stores. These approaches include capping purchases of highly sought-after items, reserving certain periods of the day for shoppers at greatest risk of infection, and cleaning and sanitizing stores frequently. Retailers must also protect their employees' health. That might call for shortening store hours to create enough time for thorough cleaning and giving workers extra training in how to avoid infection.

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The coronavirus crisis is first and foremost a humanitarian crisis. Retailers have been making sure they are protecting their employees' lives and livelihoods. It's a tough challenge, but their priorities are clear. With creative, resourceful responses to the pandemic, retail-supply-chain leaders can make sure that consumers are able to buy the goods they need while also maintaining the health and safety of both consumers and supply-chain workers. Moreover, the lessons from this challenging time can help retailers make their supply chains more resilient. The next crisis might be no less surprising, but the right plans can keep it from causing as much disruption.

A perspective for the luxury-goods industry during—and after—coronavirus

In these uncertain times, luxury-goods companies must take action to "navigate the now," plan for the recovery, and shape the future.

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Amid the coronavirus pandemic, every company's first priority is, of course, to protect the health and safety of employees, consumers, and business partners. Indeed, luxury companies have pivoted to address urgent public-health needs: factories that produced scarves and perfume now manufacture face masks and hand sanitizer, and many luxury groups have made monetary donations to hospitals and other not-for-profit organizations. At the same time, with millions of people relying on the luxury-goods industry to make a living—from factory workers and retail-store employees to small-town artisans and craftsmen—industry leaders are planning ahead and wrestling with longer-term strategic questions to ensure the survival of their businesses.

In this article, we discuss the impact of the crisis on the luxury-goods sector. We then recommend two sets of priorities for industry executives: short-term actions for "navigating the now" and longer-term considerations for shaping the future.

A hard reset or a short-term blip?

While it’s too early to quantify COVID-19’s total financial toll on the sector, the pandemic has certainly shaken some of the foundational aspects of the luxury industry—and some of these changes could be permanent.

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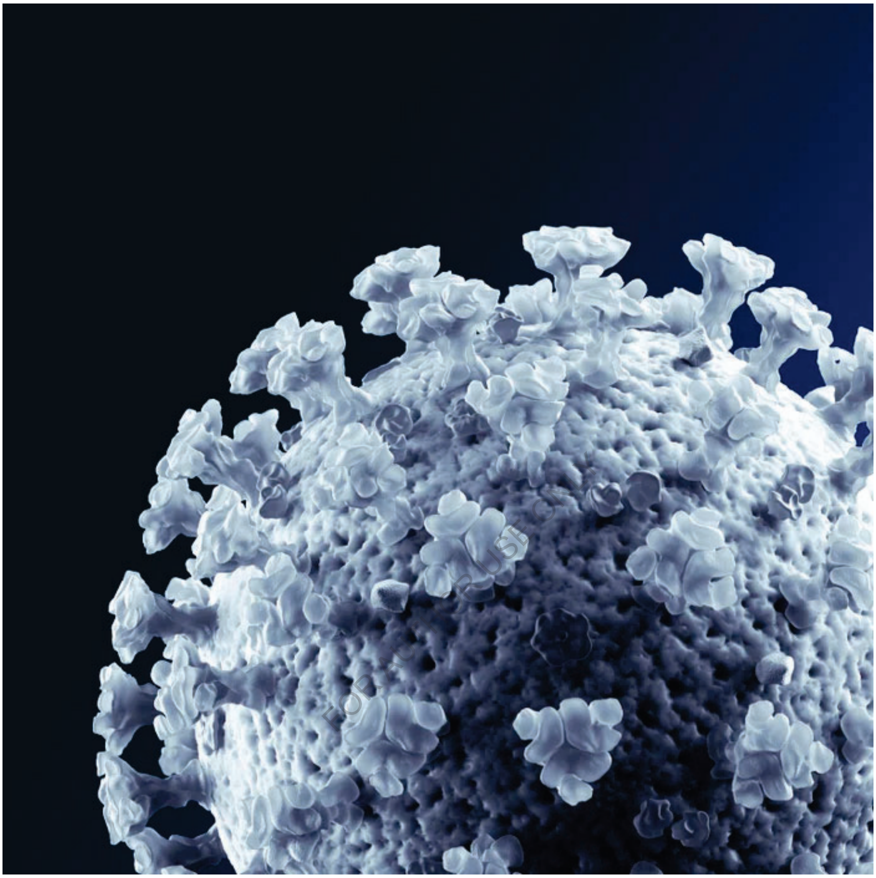

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Insights on how organizations can respond, and what happens next

Wholesale Darwinism. Even before the pandemic struck, independent luxury-goods wholesalers in Europe (many of which are small, family-owned boutiques) and some of the large North American luxury department stores were already struggling—in part because of luxury brands moving to vertical integration over the past 20 years and, more recently, the growth of e-commerce. This pandemic might force some of them out of business. The damage could extend to brands that have not yet fully transitioned to a vertically integrated distribution model, as well as to upstart brands that need wholesale channels to reach new customers and to finance the development of their full collections. To survive, wholesalers are likely to adopt aggressive commercial and discount policies—which, at least in the medium term, could hurt the luxury positioning of brands that don't have a concession model.

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From global traveler to local shopper. The luxury sector appeals to a global consumer: 20 to 30 percent of industry revenues are generated by consumers making luxury purchases outside their home countries. In 2018, Chinese consumers took more than 150 million trips abroad; we estimate that purchases outside the mainland accounted for more than half of China's luxury spending that year. Asian shoppers buy luxury goods outside their home countries not only to benefit from lower prices in Europe, but also because shopping has become an integral part of the travel experience: buying a brand in its country of origin comes with a sense of authenticity and excitement. With the recent travel restrictions, an important driver of luxury spending has come to a halt, and we anticipate only a gradual ramp-up in international travel, even after the restrictions are lifted. That said, Chinese consumers remain the biggest growth opportunity for the luxury sector. Brands, clearly, will need a new approach to attracting luxury shoppers. To reactivate Asian luxury consumers in their home countries, brands can focus on creating tailored local experiences, strengthening their digital and omnichannel offerings, and engaging more deeply with consumers in tier-two and -three cities. The latter will be challenging, given the limitations in both retail infrastructure and customer-service capabilities in those cities.

Shows without live audiences. Fashion weeks and trade shows have been essential ways that brands have maintained vibrant relationships with consumers and trade partners. While we expect some return to normalcy on this front, we also believe that the luxury industry—in close collaboration with fashion-week organizers and trade associations—should explore alternative ways to deliver the same kind of magic that these events offer when there are restrictions on international travel and large gatherings. Industry players might also consider pushing for a coordinated revamping of the fashion calendar, with brands simplifying and streamlining their presentation calendars.

From ownership to experience, and back again. "Experiential luxury"—think high-end hotels, resorts, cruises, and restaurants—has been one of the most dynamic and fast-growing components of the luxury sector. Millennials (those born 1980–95) opted more for experiences and "Instagrammable moments" rather than luxury items. Baby boomers (born 1946–64), too, were moving in this direction, having already accumulated luxury products over the years. While we expect the positive momentum of experiential luxury to persist, it will slow down in the short term as consumers temporarily revert to buying goods over experiences.

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Hyperpolarization in performance. Even before the crisis, it made little sense to talk about the sector in terms of averages because growth rates and profit margins were so widely spread out. Even within the same segment and price point, luxury brands' growth varied from 40 percent to negative percentages, and earnings from 50 percent to single-digit percentages. We expect further polarization based on three fundamentals: the health of a brand's balance sheet prior to the crisis, the resilience of its operating model (including its digital capacity, the agility of its supply chain, and its dependence on wholesale channels), and its response to COVID-19.

Another chance for 'rare gems.' Over the past decade, European luxury conglomerates, private-equity firms, and, more recently, US fashion groups and Middle Eastern investors eagerly snapped up attractive acquisition targets. As a result of the current crisis, some of these acquirers—particularly those that aren't luxury companies themselves—could find that they have neither the core competencies nor the patience to nurture these high-potential brands, and thus might be willing to put them back on the market. Acquisitions that were once forbiddingly expensive could become viable in the postcrisis period. Such developments could result in further industry consolidation or even the formation of new luxury conglomerates.

Time and again, the luxury industry has proved capable of reinvention. We are confident about the sector's long-term potential. But some brands will emerge from the crisis stronger, while others will struggle to preserve the integrity of their business. Much will depend on their ability to respond to the short-term urgencies related to COVID-19 while simultaneously planning and executing for the future.

'Navigating the now': Immediate priorities

Many luxury executives have demonstrated caring leadership during this crisis. They are prioritizing the safety of employees and customers and proactively communicating with all stakeholders about their new health and safety protocols, crisis-response activities, and the steps they're taking to keep operations running. At the same time, they must take quick action to ensure that their businesses weather the crisis. Here are short-term actions that company leaders should consider taking.

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Review 2020 inventory and rethink 2021 collections. Sales for this year's spring season are as much as 70 percent lower than last year—not surprising, considering that consumers had little opportunity to explore the spring and summer collections in stores. Decide how to phase in the 2020 fall and winter collections and develop a plan for dealing with unprecedented levels of unsold 2020 inventory—without resorting to steep discounts, which jeopardize brand equity. Stay informed about wholesalers' and e-retailers' plans to clear extra inventory. In some cases, inventory swaps might be preferable to aggressive promotions and discounting. One way to use extra inventory could be to reward loyal customers with gifts or other types of giveaways to surprise and delight them, while also whetting their appetite to shop across collections or categories.

Enhance digital engagement. As stores remain closed in many parts of the world, e-commerce is a crucial channel for keeping sales up, communicating with customers, and forging a sense of community around a brand. Accelerate your digital investments and shift media spending to online channels, with a focus on customer activation rather than brand building. Aside from enhancing your own websites, also consider partnerships with reputable e-retailers. Digital marketing could help not only boost online sales but also entice consumers to visit stores once they reopen.

More than 40 percent of global luxury-goods production happens in Italy—and all the Italian factories, including small, family-based *façonniers*, have temporarily shut down.

Manage for cash. Set up a cash-control team, with representation from the procurement and sales teams, to examine spending and identify responsible reductions in cash outflow. Review lease contracts and all operating expenses, including marketing spending and events. At the same time, prepare to selectively support wholesalers and department stores by extending accounts-receivable terms and arranging inventory swaps. Work closely with government authorities on a country-by-country basis to find ways to alleviate cash strains with public measures.

Take a 'cleansheet' view of demand planning. Review your 2020 budget and inventory plans, assessing COVID-19's impact on each region and business unit. Adjust revenue and profit forecasts and create incentives for business-unit heads to set new targets. Resist the temptation to push sales at the expense of margins, as a sales-focused approach will likely yield inaccurate demand projections and, consequently, large amounts of unsold inventory.

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Assess the strength of your supply chain. More than 40 percent of global luxury-goods production happens in Italy—and all the Italian factories, including small, family-based *façonniers* (a French term that loosely translates to "contract manufacturers"), have temporarily shut down. Luxury companies should assess, category by category and product by product, where the impact is likely to be felt most acutely. Potential short-term actions include moving inventory across regions and channels, privileging geographic markets that are less affected, and making sure to fulfill online orders. In the medium term, luxury companies should help production partners recover by making prompt payments and restoring production as quickly as possible. If Italy's *façonniers* do not survive, a signature element of the luxury ecosystem—the craftsmanship that is the result of excellence and skill passed down through generations, and the source of the "Made in Italy" aura—could be lost forever.

Adjust merchandising plans. As consumers' social routines adapt to lockdowns and physical-distancing restrictions, we are starting to see changes in buying behavior. For example, some luxury players report that, in terms of price points, high-end and low-end luxury items are proving more resilient than those in the middle of the range, perhaps due to a combination of "revenge spending" (a phrase that refers to pent-up demand for luxury items during or after crises) and a desire to maximize value for money by purchasing functional items. They're also seeing handbags and small leather goods selling better than ready-to-wear apparel during the crisis. Children's wear seems to be doing particularly well. Millennials haven't reduced their spending as much as other adult segments have. These are the observations of a few luxury players, but clearly there is no one-size-fits-all merchandising plan. Brands should carefully analyze sales data and embed consumer insights into their merchandising plans.

Shape the next normal: Longer-term considerations

Stabilizing the business during the crisis is crucial—but management must not lose sight of the longer term. Here are strategic actions to consider taking during the recovery.

Put digital at the center of your operating model. For many companies, this crisis has been a catalyst for developing and executing an online and omnichannel strategy. In China, e-commerce has attracted new customer segments and markets (exhibit); we can expect a similar pattern to play out in other geographies. Start by allocating a greater share of investment to the online channel. Explore new ways of partnering with established e-retailers. Step up your personalization efforts in digital marketing. Luxury consumers are accustomed to a high standard of service in stores; the emphasis, then, should be on creating a personalized digital experience of the same quality.

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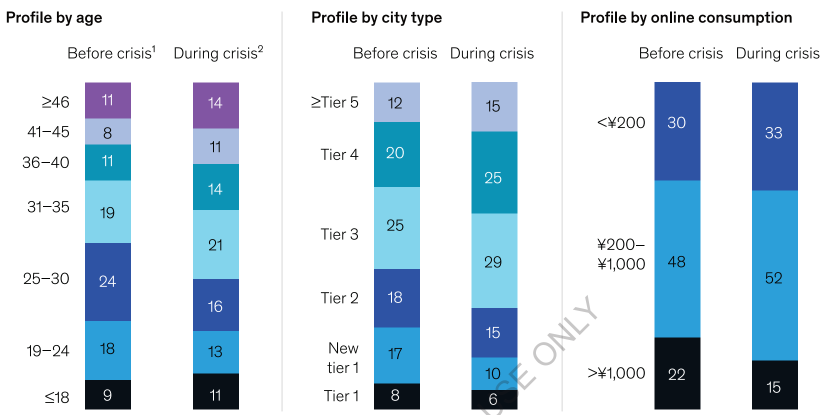
Exhibit

In China, e-commerce user profiles shifted during the coronavirus outbreak.

E-commerce user profiles before and during COVID-19 crisis in China, %



[1]Data from Jan 14, 2020, to Jan 31, 2020.
[2]Data from Feb 3, 2020, to Feb 16, 2020.
Source: QuestMobile

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Build competencies related to resilience and transformation. For the past 30 years, the luxury sector has created value, thanks to its creativity and innovation. In addition to supporting core competencies such as design, marketing, and merchandising, luxury businesses now need to build the managerial talent to support the CEO in resilience and transformation. One possibility is to create a new C-suite position, the chief transformation officer, to emphasize the importance of these competencies.

Boldly reshape the ecosystem, including through M&A. Crises can create new avenues for growth. Companies should ask themselves questions such as: "Are there companies we could potentially partner with, both to keep them in business and to allow us to expand into adjacent markets or product categories? Are there moves along the value chain (such as vertical integration) that have become more attractive? What partnerships or acquisitions—

perhaps in the technology arena—could we pursue now that were less viable before? What brands could we acquire to complement our portfolio or to initiate our journey toward becoming a larger luxury group?" As companies seek to form partnerships or make acquisitions, it will be important to consider not just economic rationales but social rationales as well: For example, could an M&A deal help a supplier in distress, save jobs in a struggling community, or strengthen the luxury sector for the longer term?

Anticipate shifts in consumer sentiment and behavior. Consumers are the ultimate shareholders of the luxury sector. We expect that, once conditions allow, consumers will want to resume their normal lives. However, the next normal might look quite different; luxury companies must try to anticipate and respond to whatever that next normal will be. For example, in our recent conversations with CEOs, one trend that is likely to intensify postcrisis is the trend toward sustainability and the desire for more-responsible consumption—reinforcing the need for companies to provide clear, detailed information about their processes and products. Experience also suggests that, after a large-scale crisis with a heavy emotional toll, consumer preferences could shift, at least for a time, toward "silent luxury"—paying more attention to classic elements, such as craftsmanship and heritage, and less to conspicuousness and "bling."

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Digitize the end-to-end supply chain. Technology—from remote-working platforms to virtual showrooms—can help luxury companies maintain productivity during the crisis and, perhaps, even improve productivity for good. In addition, the commercial elements (such as virtual showrooms and digital prototyping and sampling) will be valuable in maintaining strong relationships with buyers, even during times when travel restrictions are in place. Digitizing the supply chain from end to end will, of course, require investment in innovative, leading-edge technologies.

While the COVID-19 pandemic has made for a challenging 2020, we are confident that, with careful planning and deft execution, the luxury-goods sector can successfully weather the crisis and emerge even stronger. The actions we've outlined here can help you and the other leaders in your organization navigate the challenges of today while building and strengthening your business for the longer term.

At the heart of a crisis: How consumer-health companies can lead in the time of coronavirus

As consumer behavior continues to shift with ever-changing conditions, consumer-health companies must respond to the coronavirus pandemic with key stakeholders in mind.

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The consumer-health sector is at the center of efforts to control the current COVID-19 pandemic, which has already had sweeping effects on people and economies across the globe. As consumer-health companies respond to the crisis, they must consider the needs and interests of their major stakeholders: consumers, customers, and employees. In the near term, consumer-health companies have critical decisions to make about each group—for example, how to communicate with and distribute products to consumers, how best to support their customers (that is, retailers and pharmacies), and how to help employees adjust to drastically different working conditions and norms.

The industry is uniquely positioned to lead in this crisis, given the trust that consumers place in its brands and their reliance on its products for self-care. While the situation continues to evolve, consumer-health companies should consider taking several steps to demonstrate clear public-health leadership during an uncertain time.

How consumer behavior is changing

As the COVID-19 pandemic has progressed across and within geographies, consumer behavior has also evolved quickly. Three broad phases of consumer behavior, linked to epidemiological phases and government responses to the crisis, are playing out: escalation, accumulation, and early recovery.

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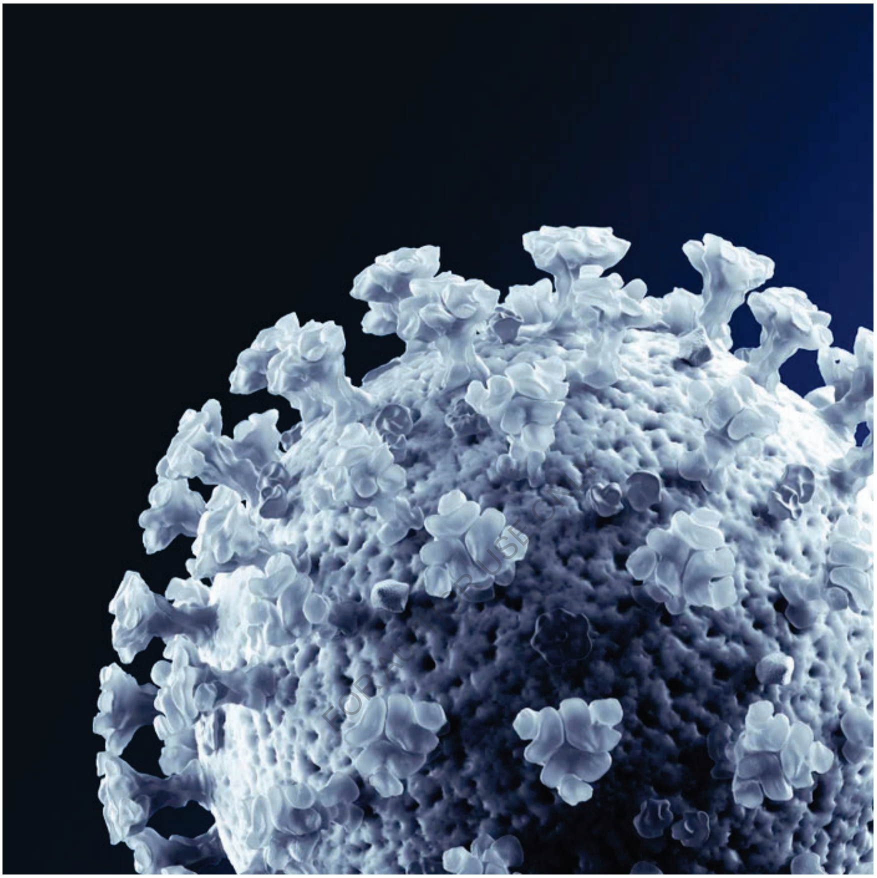

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Coronavirus

Insights on how organizations can respond, and what happens next

Each phase involves distinct consumer-purchasing behaviors. During the escalation phase, consumers tend to "pantry load" essential goods, such as shelf-stable foods, toilet paper, and cold and pain medicines. During the run-up to Italy's lockdown, a McKinsey analysis shows sales of grocery food and pharmaceuticals grew by 11 percent and 20 percent, respectively, year over year. Similar purchasing patterns have played out in the United States and in other affected countries. For example, some consumer-health companies have reported an uptick in prevention- and immunity-oriented products during this phase, including a more than 40 percent year-over-year increase in sales of multivitamins.

In the accumulation phase, consumers brace for a sustained quarantine and purchase items for self-sustainment. During this phase in Italy, consumers purchased more everyday personal-care items, such as cleaning sheets and toilet paper, and continued stocking up on essential foods. Finally, in the early recovery phase—which has started to take hold in China—consumer sentiment rebounds: for example, a recent McKinsey survey in China found that 70 percent of consumers in tier-1 and tier-2 cities intend to return to the same (or even higher) levels of spending on consumer goods after the COVID-19 crisis has been resolved.

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Consumers have also chosen to buy their products through channels different from those they used before the pandemic. In Italy, online sales of grocery items increased by 20 percent year over year from February 23 to March 11, 2020. During this period, overall e-commerce levels were up more than 80 percent, including a two- to three-times increase in click-and-collect purchases. Likewise, as customers in China's most affected areas were forced to close or experienced a reduction of up to 70 percent in foot traffic, the country's already high e-commerce sales have risen. For example, JD.com's year-over-year online fresh-food sales grew by 215 percent during the ten-day period ending February 2, compared with the same period last year. Similar channel shifts are already underway in the United States, where online traffic for certain categories, such as groceries, has increased by at least 25 percent.

We expect the impact on consumer-health companies to vary by product type and by whether a given product could help manage milder symptoms of the virus. In the consumer-health industry, there are four key product types:

- *Treatment mainstays.* These include over-the-counter respiratory and pain-relief products. Sales will probably increase during the accumulation phase as consumers stock up on essential items, including those they need to treat mild symptoms at home instead of visiting a doctor's office or hospital. According to the World Health Organization, most cases of COVID-19, while of concern, are characterized as mild, and some 20 percent of cases around the world are classified as either severe (requiring oxygen) or critical (requiring ventilation). As the strain on hospitals intensifies, more people will opt for—or be required to—follow safety measures such as self-isolation or community quarantines.
- *Prevention arsenal.* These include vitamins and dietary supplements that may support overall immunity. While such products do not protect against the transmission of COVID-19, some believe that they support overall immune-system health; they may therefore become part of a consumer's prevention regimen.
- *Lockdown essentials.* These include gastrointestinal remedies, allergy medications, oral- and eye-care products, and other items that consumers use regularly. Although these products might not be related to COVID-19, consumers are likely to purchase more of them if they think a quarantine period is highly likely.
- *Premium discretionaries.* These include certain cosmetic products (skin care, for example) that consumers may not purchase during uncertain economic conditions.

In many markets, including the United States, where COVID-19 has spread quickly, we have already observed significant demand for treatment mainstays and prevention-arsenal products. Demand is also high for some lockdown essentials, depending on the local severity of the coronavirus outbreak and the government's response. We have also seen a channel shift and increase in e-commerce, following trends in China and Italy.

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How consumer-health companies can support consumers, customers, and employees in the near term

Given the dramatic changes in consumer behavior, and more broadly, in societies and economies, it's critical that the industry moves quickly to respond to the coronavirus—and that they keep their key stakeholders in mind when making near-term business decisions. Consumer-health companies should take several actions to support consumers, customers, and employees during the pandemic.

Consumers

Consumers are understandably anxious and uncertain in the current environment, given the fast-developing nature of the COVID-19 crisis. As consumers look to known consumer-health brands and companies in times of uncertainty, these companies can do several things to help them:

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- *Educate consumers.* Consumer-health companies have the credibility and reach to help consumers cut through misinformation about the coronavirus, as well as a role to play in helping to alleviate confusion among consumers. To do so, these companies can use their own communication platforms—their corporate or brand websites—to inform consumers about product usage, direct them to the relevant health agencies, and clarify fact versus fiction for certain products. To ensure that companies provide the right information, they should coordinate closely with the relevant government agencies and strongly consider coordinated industry-wide efforts to educate consumers.
- *Get products to people in new ways.* Amid social distancing, quarantines, and shrinking inventories, this is a unique moment for consumer-health companies to support consumers by providing access to important products—waiving fees for home delivery, for example. These companies also have opportunities to partner with public-health organizations and private-delivery services to ensure that key products (including prescriptions) get to consumers when they need them.

- *Play a visible, purpose-driven role.* Since consumers trust consumer-health companies and brands about health-related issues, these companies have an important role to play serving and supporting communities affected by COVID-19. They can do so, for example, by expediting the manufacture of critical products and donating products to more vulnerable populations. Near-term public actions to support consumers can breed goodwill in the long term.

Customers

Customers are experiencing significant changes to their businesses and will continue to do so in the weeks and months ahead (Exhibit 1).

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Exhibit 1

Customers are experiencing, and will continue to experience, significant changes from COVID-19 in the weeks and months ahead.

Changes in shopper traffic

–20% to –30%

decline in foot traffic for highly affected trade areas in the US (eg, the District of Columbia, New York, Seattle); some stores with high tourist traffic report declines of ≥50%

+25%

increase in online traffic and commerce (eg, for certain retail subsectors, such as online grocery)

Changes in fulfillment models

+600%

increase in fresh-food deliveries during the Lunar New Year in China[1]

–23%

decline in cargo volumes reported by the Port of Los Angeles for February

Category shifts

+150%

increase in sales of over-the-counter cold and flu drugs; 800% increase in protective equipment; 70% increase in nonperishables; 58% increase in emergency supplies

–5% to –15%

decline in sales of fresh-food categories in US grocery stores

[1]Reported by Carrefour.
Source: Nielsen Retail Measurement Services; RetailNext

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To help retailers and pharmacies manage these disruptions, consumer-health companies can take the following actions:

- *Enable flexible product flows.* As consumers stock up on treatment, prevention, and (potentially) lockdown products, consumer-health companies should work closely with customers to ensure that product inventories align with consumer demand. This means collaborating with customers' merchant and planning teams to reallocate or identify alternative product-flow strategies: moving more inventory to online channels, for example, and making distribution centers more flexible. Consumer-health companies should also focus more on the accuracy of their inventories and the visibility of stock across omnichannel networks, since that will help minimize supply-chain or distribution disruptions as more consumers purchase products online.

- *Bolster the online presence.* As consumers increasingly purchase consumer-health products online, consumer-health companies should be ready to help customers make similar moves and meet consumers where they are. In many cases, this will require working with customers' planning teams or with online retailers to ensure that inventory levels are accurate and supply-chain logistics can keep up with the likely increase in online sales. In some cases, companies may want to accelerate direct-to-consumer sales through their own websites, though existing online channels are probably the most expedient way to meet consumers' needs in the near term.
- *Become a trusted, transparent adviser.* Consumer-health companies should maintain close contact with their customers about the availability of products and potential disruptions, particularly of the most needed products. The sales forces of these companies could be a powerful way to advise and support customers by ensuring that their shelves are stocked or by supporting pharmacists with product and treatment information.

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Employees

Supporting the health and safety of employees is also vitally important—and all companies should monitor and incorporate guidance from national health authorities, such as the Centers for Disease Control and Prevention, as the coronavirus pandemic continues to develop. Consumer-health companies should take several actions for their employees' benefit:

- *Increase communication.* In this uncertain time, it's critical that consumer-health companies communicate frequently and clearly with employees. These companies must balance the needs of the business with expectation setting and morale building, so employees know that their well-being is top of mind. Companies can do this in a more sustained way by establishing internal and external communications teams that reports directly to the C-suite and by aiming for frequent, transparent communications. The leadership teams at many companies have also been sending daily updates to help employees cut through the torrent of information on COVID-19.

- *Change working norms.* As of the time of writing, the ten largest global consumer-packaged-goods (CPG) companies had all implemented travel restrictions and advised employees in affected areas to self-quarantine. Other companies should follow suit and adjust their travel policies to permit only the most critical travel for business purposes. They should encourage remote work—universally if possible or by A/B testing remote-work-team models at all locations—and defining the labor strategy for a fully remote workforce. They should also discourage or postpone large in-person employee gatherings, such as training sessions and conferences.
- *Protect people's health.* To keep employees working safely and healthily, companies can communicate often and clearly about positive hygiene habits, applicable even if people work remotely. They should provide employees with health-related products, such as over-the-counter respiratory products and vitamins. And given the far-reaching effects of coronavirus, they should consider amending sick-leave policies to show compassion for employees whose loved ones have been affected by the virus or have been exposed to it themselves.

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How consumer-health companies can mobilize for action

The need for consumer-health companies to respond to the coronavirus pandemic—and quickly—is clear. But they must have the right organizational capabilities and mechanisms in place to do so. All CPG companies should follow a three-part plan (Exhibit 2), and there are two specific actions that are especially important for consumer-health companies to take.

Exhibit 2

Consumer-health companies should consider a three-part organizational response to COVID-19.

1

Protect people and the business
Immediate actions

- Set up a crisis-response nerve center to define potential scenarios, align leaders on those, create a single source of truth for the situation, and collaborate across the organization
- Protect employees by updating travel, meeting, bonus, and sick-leave policies
- Stress customer safety with more rigorous, frequent cleanings and good frontline hygiene
- Communicate frequently with consumers, customers, and employees on what you're seeing and doing

2

Adjust the front-end and back-end operating models
Immediate actions

- Redeploy resources (eg, workforce, production capacity) to the most critical brands, products, and channels
- Rethink sourcing and supply chain, based on disruptions to production, shipping, and demand
- Improve digital engagement with consumers by increasing e-commerce and digital-marketing investments
- Manage cash across the business to create near-term flexibility and the capacity to go on offense (eg, investing and driving growth) when coming through the crisis

3

Build scenarios to enact further changes
Intermediate planning

- Expand scope of nerve center's work (eg, develop contingency scenarios, define competitive strategy to implement when the path of COVID-19 becomes clearer)
- Develop strategies to win if the COVID-19 crisis triggers a longer-term economic downturn and/or industry disruptions
- Plan and prepare for longer-term implications for store and/or supply-chain networks

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First, companies should move quickly to set up COVID-19 nerve centers—a flexible organizational structure that guides their work on the pandemic—to cover critical areas of the business. These include protecting employees, stabilizing the supply chain, financial stress testing, monitoring inventories and levels of working capital, and managing demand during the crisis—while preparing for recovery. Cross-functional coordination is critical in the current moment of crisis response, and nerve centers, which break down organizational silos, can help consumer-health companies expedite their decision making and ability to act.

Second, companies need to focus immediately on their most critical products, especially those for treatment and prevention. This requires quick resource-allocation decisions to redeploy internal resources, including production capacity and head counts, toward those items. The nerve center can support rapid reallocation by bringing together the relevant leaders across supply chain, logistics, R&D, finance, human resources, sales, legal, and marketing. Likewise, consumer-health companies should consider their assortment of products. In other sectors, such as food and beverages, companies have already significantly reduced SKU counts on the most needed items to maximize the speed of production. Consumer-health companies should do so for their treatment mainstays.

Consumer-health companies must prioritize the needs and interests of their consumers, customers, and employees in the near term, and follow a clear plan for responding to the human and economic challenges ahead. But it's not too early to start thinking about the longer term (see sidebar, "Long-term implications for the consumer-health industry")—in particular, moving more business online, as both a distribution channel and a forum for interacting with consumers, potentially in new ways. They should also consider partnering with other stakeholders to find new ways to improve people's health overall and to mitigate future pandemics.

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Perspectives for North America's fashion industry in a time of crisis

Apparel retailers, department-store chains, and cosmetics stores employ millions of people. Industry leaders must take quick action while also planning for postcrisis realities.

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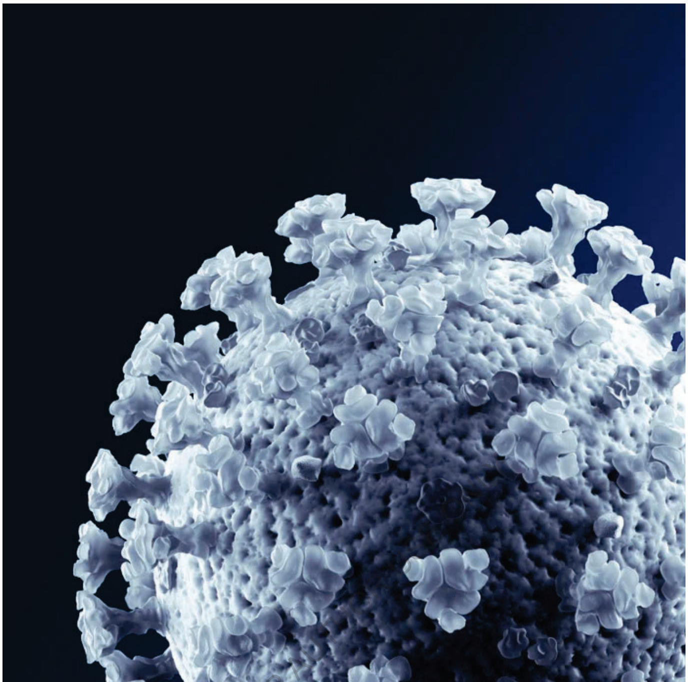
As business leaders worldwide grapple with the COVID-19 pandemic, the health and well-being of their employees and customers must be the top priority. Already, apparel and fashion companies have put their assets to good use in the crisis, be it by turning over their factories to make face masks or hand sanitizer, donating products and services to healthcare workers, or helping employees find temporary roles with companies that are hiring. Ensuring that the business can survive and thrive after this unprecedented shock is crucial as well, as our colleagues emphasize in a recently published article, "Safeguarding our lives and our livelihoods: The imperative of our time." (For the latest insights on the pandemic, see McKinsey.com/coronavirus.)

In North America, the apparel, fashion, and beauty industry generates approximately $600 billion in annual revenue and employs more than four million people. Apparel and fashion companies must act quickly to secure business continuity, minimize downside for the latter half of 2020, and get ahead of business-model changes that may be necessary coming out of this disruption.



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Coronavirus

Insights on how organizations can respond, and what happens next

This article has four objectives. First, we examine COVID-19's impact on North America's apparel and fashion sector—and the near-term outlook in light of consumer sentiment and lessons from other regions. Second, we recommend a set of urgent actions to secure business continuity. Then, we look at medium-term actions to take during the recovery to minimize the downside for the latter half of 2020. Finally, we explore longer-term actions to position companies to succeed in the postvirus business environment.

COVID-19's impact: A fundamental reset or a painful but short blip?

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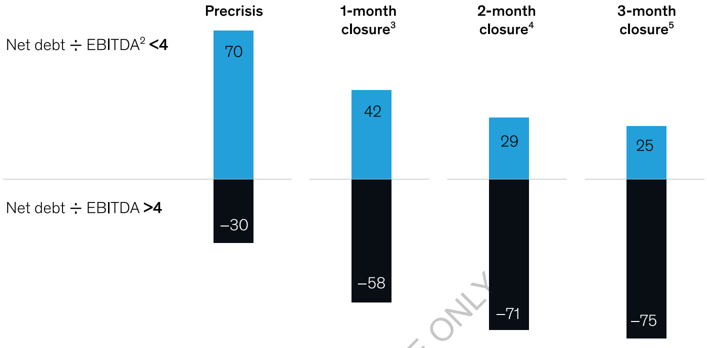
While the apparel and fashion industry, particularly in the US market, has faced challenges in the past decade (because of a combination of recession aftershocks, increased promotional intensity, channel shifts, and an excess of real estate), it has been on a path of steady if slow growth over the past three years, with value and off-price formats being rare bright spots.

Today, the situation is dire. Based on current positions for earnings before interest, taxes, depreciation, and amortization (EBITDA), 75 percent of publicly listed apparel and fashion companies in North America could find themselves with negative EBITDA or untenable net debt-to-EBITDA ratios after three-month store closures. Depending on their cash positions, these companies will be in deep financial distress unless they take urgent action (Exhibit 1).

Exhibit 1

Depending on the duration of store closures, 75 percent of apparel and fashion companies could face challenges managing debt levels.

Share of companies with high debt burdens, by duration of lockdown, %[1]



[1]Analysis of 77 listed apparel and fashion companies in North America. Net debt defined as total debt minus cash and cash equivalents.
[2]Earnings before interest, taxes, depreciation, and amortization.
[3]1-month store closure and 1-month lost sales in ramp down and ramp up: equivalent to 17% FY-revenue and cost-of-goods-sold (COGS) decline.
[4]2-month store closure and 2-month lost sales in ramp down and ramp up: equivalent to 33% FY-revenue and COGS decline.
[5]3-month store closure and 3-month lost sales in ramp down and ramp up: equivalent to 42% FY-revenue and COGS decline.

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While it's too early to quantify COVID-19's toll on the fashion sector, the pandemic has certainly shaken some of the industry's foundations:

- *Offline retail had already seen massive declines in sales and traffic at the start of the crisis—and now both have gone to zero.* Across North America, retailers are shuttering their doors for consumer and worker safety or in compliance with government orders. Recent announcements suggest no assumptions of normalcy until the end of April 2020 at the earliest. For many brands, the store closures are coming on the heels of disappointing sales in the fourth quarter of 2019 as well as traffic declines in February 2020. Compounding the problem is the fact that North America is "overstored": the United States has almost 24 retail square feet per person, whereas Germany, for instance, has just slightly more than two. Most concerning of all is the plight of retail workers, many of whom (as of this writing) have been promised at least two weeks' compensation for scheduled shifts—but stores are unlikely to reopen within that time frame. Some retailers are exploring furloughs rather than layoffs; we are also seeing retailers furlough or reduce pay for corporate employees, as a way of showing solidarity with field workers and as a cash-saving measure. In the meantime, the number of Americans seeking unemployment benefits is expected to increase precipitously in the coming weeks.

- *Online retail is not keeping pace.* While consumer engagement with apparel and fashion brands may be up at this time—as more consumers find themselves at home, idly scrolling through social media—that traffic is not translating to conversion. Even retailers with higher online penetration, such as direct-to-consumer specialty-apparel players, face challenges as consumers pull back on discretionary spending. Many retailers report that e-commerce sales two weeks ago were flat compared with the same period last year and down 20 percent last week. They anticipate further declines of 30 percent or more this week. These numbers track with what apparel retailers elsewhere in the world have experienced. Retailers with a heavier concentration of in-store sales (such as fast-fashion retailers and midtier department stores) face even greater pressure to drive consumers online and rapidly scale e-commerce operations. Furthermore, the fulfillment of online orders risks disruption, whether through reduced staffing because of illness, physical distancing, site cleaning, or even distribution-center closures under state decree.
- *Promotion is a potential 'needle mover,' but it is nearing its limits.* Unsurprisingly, retailers are heavily discounting spring and summer 2020 inventory. The specialty-apparel and department-store channels have already reached peak promotional frequency online, so it will be difficult for brands to break through with clear, differentiated offers that stand out to consumers. Messages about flash sales, savings of 50 percent off, and buy-one-get-one deals will be lost among a sea of similar emails and digital ads, which can drive conversion but will become unmanageably expensive for retailers, given the surge in online traffic. In such an environment, brands must continually evaluate the effectiveness of different promotional offers, as there is risk of giving away margin, resetting customers' value expectations, and adversely affecting brand perception.

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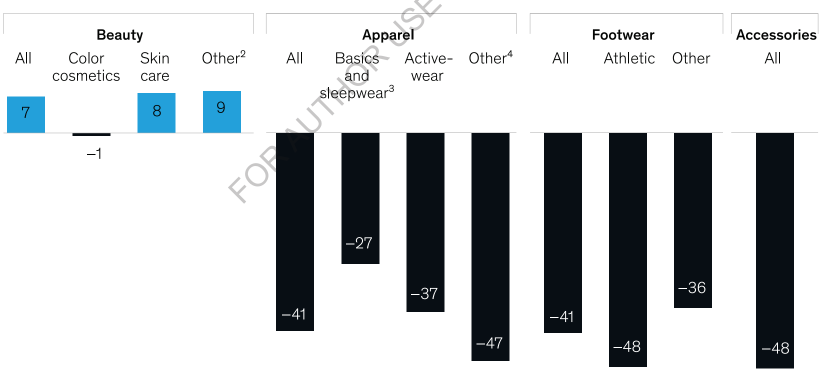
- *Consumer spending will continue to decline and may take time to recover.* Sales data from Amazon show that growth in apparel sales fell by an average of 40 percentage points between mid-February and mid-March (Exhibit 2). “Indoor” fashion categories, such as pajamas and activewear, fared a little better—but they are highly fragmented and lower margin, with limited differentiation across brands. In a March 20–22 survey of US consumers, 63 percent of respondents said that they expect to spend less on apparel than they usually do. If the shape of the recovery in North America mirrors that of China, it could be midsummer before spending and shopping behaviors begin to return to “normal.”

Exhibit 2

Sales data from Amazon reflect changes in buying behavior, with slower declines in ‘indoor’ categories focused on comfort and self-care.

Change in year-over-year sales growth, percentage-point change between Feb 15 and Mar 14[1]



[1]Change between 4 weeks ending Feb 15, 2020, and 4 weeks ending Mar 14, 2020.
[2]Includes soap, other body-care products, and hair-care products.
[3]Includes lingerie.
[4]Includes tops, bottoms, outerwear, dresses, suits, swim wear, and bridal wear.
Source: Stackline

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The apparel industry has repeatedly proven its ability to reinvent itself and adjust to where, what, and how consumers buy. We believe in the North American fashion sector's long-term potential. That said, sector averages cannot predict the destiny of an individual company. In the remainder of this article, we recommend actions for apparel and fashion companies to take. Some of these actions will mitigate risks across the industry, particularly for those retailers and brands that entered this crisis with lower levels of cash on hand. Other actions will help leaders pull further ahead. A company's ability to execute both types of actions, in a bold and timely manner, will determine whether it will emerge stronger from the crisis.

Navigate the now: Immediate priorities

While CEOs should stay abreast of how the situation evolves, there is a clear set of actions—ideally, coordinated by a COVID-19 nerve center —that companies should implement now, without hesitation.

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Lead with compassion and protect your people

Communicate frequently and clearly with employees. Set expectations about the new working norms, safety precautions being taken, and cadence of communication; build morale by creating informal opportunities for connectivity and by being open about challenges (including personal ones); and, when possible, make empathetic offers of assistance or time off to support employees' well-being. The health and safety of employees—at headquarters and in the field—is the absolute priority, requiring solutions that can be technological (such as remote working) or practical (such as staggered shifts). Protecting customers, another top priority, involves introducing new processes and policies, such as strict hygiene practices in stores and new safety procedures for handling and delivering online orders.

Manage for cash

Set up a “cash control tower,” with representation from both the procurement and sales teams, to examine spend and identify potential reductions in cash outflow. Work closely with authorities to find ways to alleviate cash strains via public measures, potentially on a state-by-state basis.

Review your in-year inventory position and assess the supply chain

Quickly review your full-year 2020 buys, category by category, making decisions based on “fashionability” (basics or evergreen products versus on-trend products), depth of buy, and confidence in style. Beginning with the spring and summer inventories, determine which products could be delayed for late summer and fall or 2021, even if in an outlet channel. Some products might also be sold in flash sales during the holiday period, depending on availability of storage space. Clear all other spring and summer products as quickly as possible to improve cash position (Exhibit 3). Managers will need to adjust buy quantities for the fall and holiday seasons, accounting for first-half carryover and any expected category shifts.

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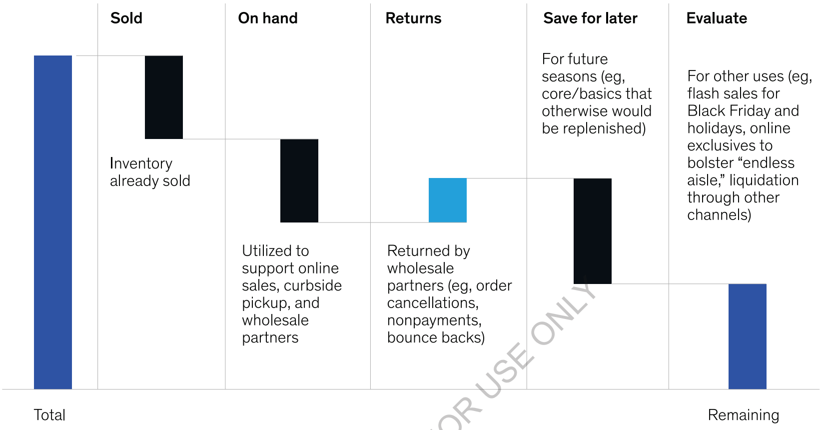
Exhibit 3

By reassessing inventory and segmenting stock in each category, a retailer can maximize gross margin and free up working capital.

Illustrative spring 2020 inventory segmentation



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As your company and other retailers reset inventory positions, you should be cognizant of the knock-on effects on brands and upstream manufacturers that are already under pressure because of decreasing unit volume in some channels and categories. Be transparent in your communications about payment terms. Support your long-term partners by consolidating volume and engaging in joint planning.

Amplify digital

Accelerate investments to enhance your digital presence and shift media spending to the online channel. These efforts should primarily apply to your own websites but may also pertain to partnerships with e-retailers or with wholesale partners that have stronger e-commerce businesses. Revisit the logic of your marketing investment: shift from brand building to customer activation, focusing on conversion, basket building, and repurchase triggers. Digital marketing will play a fundamental role in not only maintaining engagement and boosting online sales, but also enticing customers to visit stores in those geographic markets when stores reopen.

Maintain connections with consumers

Just as consumers continue to seek connections with one another during this crisis, apparel and fashion companies must continue to engage consumers as well, even if those consumers are not spending. This must happen in a way that is authentic to the brand and resonates with its consumer base. For some companies, that may mean communicating to consumers why it is still safe to shop online and how the company is ensuring that warehouse workers stay healthy. For others, it may mean sparking candid conversations about how something as seemingly frivolous as a new pair of shoes or a new tube of lipstick can bring comfort and joy in a time of chaos. This is a time to use your brand voice to speak to consumers and forge community around your brand.

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Plan the comeback: Medium-term actions for 2020

Beyond the immediate "must-dos," certain actions can help companies minimize the downside and maximize opportunities in the latter half of the year. The following steps apply to most enterprises, with variance dictated largely by the size of the store network.

Prepare to reopen stores and drive traffic

Make thoughtful, store-by-store decisions as you reopen the store network, not only to safeguard the health and trust of employees and consumers, but also because most enterprises will be operationally constrained. You might decide that certain stores should reopen in a very different capacity—for example, serving a more value-oriented consumer segment and helping to clear excess product—or shouldn't reopen at all.

We expect that most retailers will pursue a region-by-region approach to reopening stores: a gradual ramp up in staff (particularly if rehiring is necessary after an extended closure), digital engagement with loyal customers to invite them back to stores, testing of localized promotions, and compliance with local requirements (with regard to cleaning practices and store density, for example). Consumer behavior and preferences may have changed during the crisis, so forward-thinking retailers will reopen with a new operating model centered around customer engagement and styling (for example, floor-space resets to facilitate seamless in-store pickup of online orders, and scannable products that connect shoppers to online product reviews).

Reassess merchandising plans for fall 2020 and spring 2021

Weeks of shutdowns will almost certainly alter the shape of the recovery for the apparel industry. We expect continued telecommuting, reduced travel, and cancellation or postponement of special events (such as weddings and music festivals). We also expect upstream impact, with significant changes in sourcing and production. Garment manufacturers in Bangladesh, for instance, have already seen $1.5 billion in canceled orders from Europe and North America.

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Brands should monitor sales data and exchange insights with their vendors and suppliers, then review their merchandising plans for the fall and holiday 2020 and spring 2021 seasons. Consumers have been trying new brands and new categories during this crisis, so—for brands and retailers with resources to invest and the willingness to take risks—there could be opportunity to acquire new consumers.

The apparel industry has repeatedly proven its ability to reinvent itself and adjust to where, what, and how consumers buy.

Connect with brand loyalists

Look to your most loyal consumers first to jump-start growth. It's not uncommon for 10 percent of a brand's consumer base to drive 60 percent of its sales, making activating these VIPs a must-do. These consumers will likely be inundated with other brands' offers, so you will need to set the bar high to stand out; personalization will be the best way to do that. Tailored promotions, early access to new-product drops or limited editions, and invitations to VIP-only experiences can be effective levers. At the same time, many consumers might be in a different financial position than they were before the crisis. Detailed consumer segmentation and personalized promotions (not just discounts, but offers that deliver meaningful value) will be crucial for retaining your loyalists.

Shape the 'next normal': Longer-term strategic actions

CEOs should look beyond epidemiology and sales data to formulate a view on how the COVID-19 pandemic will reshape their ecosystems and how their companies might capture new opportunities. The following longer-term actions deserve management consideration.

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Map a strategic journey to financial resilience

Crises can create new avenues for growth. Companies will have entered the crisis from various positions of strength, so go-forward opportunities will be, to some extent, bound by starting positions. But all companies would do well to take a hard look at the portfolio: Are you playing in the most attractive spaces and channels? Are you set up to execute effectively to capture demand? Is there an opportunity to consolidate or acquire brands, assets, or capabilities at attractive multiples that would allow you to better serve your core customer? There will be important choices about what brands, partnerships, and organizational changes to pursue—but also about what *not* to pursue. The crisis is poised to precipitate a massive shakeout, and the players that ask and answer the tough questions will be better positioned to revive their business.

Build your operating model around digital and become truly omnichannel

While, in the short term, a demand shock has driven a decline in online conversion and sales, we believe that in the longer run there could be permanent shifts in consumer shopping behavior that push more traffic and categories online. For example, in China, new customer segments and markets have gravitated toward e-commerce; the same could happen in North America. Retailers could see a broader adoption of e-commerce among previously underpenetrated categories (such as lingerie) and consumer segments (such as baby boomers and even Generation Zers who, according to recent McKinsey research, are more likely than millennials to go to malls).

Take this opportunity to leapfrog into the digital arena by making it the center of your operating model. Start by revising channel-mix targets and investment allocation to give a greater share to online channels. Accelerate personalization in digital marketing so that you can deliver the same quality of interactions online that consumers are accustomed to in stores. Explore new ways of partnering with e-retailers to gain growth momentum through their channels while protecting your brand equity.

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Anticipate shifts in consumer sentiment and behavior

While no one can predict what the next normal will be like, we expect a strong desire on the part of consumers to resume their precrisis habits once conditions allow. Some themes that have begun to surface in our consumer research and in discussions with CEOs include the following:

- *All casual, all the time.* Many people will return to a fundamentally different work environment—one in which telecommuting, flexible hours, and an emphasis on work–life balance are new norms. Comfort could become a top consideration in apparel purchases. The trend toward "casualization," which was already strong prior to the crisis, could further accelerate.

- *A focus on flexible supply chains, centered on 'made in America.'* Many apparel and fashion companies will look to onshoring or nearshoring, as they begin to value a flexible supply chain over a low-cost one.
- *An evolution in clean beauty.* There could be a shift in what "clean" means in beauty and personal-care products, as consumers increasingly emphasize product safety and quality over organic or all-natural ingredients.

It will be critical to keep a close eye on how your consumer base is changing and determine what that means for your brand.

There's no denying that the COVID-19 pandemic will make for a difficult 2020. For some companies, even survival will be a struggle. If, however, apparel and fashion companies lead with compassion and undertake bold actions, they can position themselves not only to weather the crisis but to emerge from it even stronger.

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What food retailers should do during the coronavirus crisis

The food-retail industry plays a critical role in these uncertain times. Here are six actions food retailers should take to help their communities, their employees, and their business.

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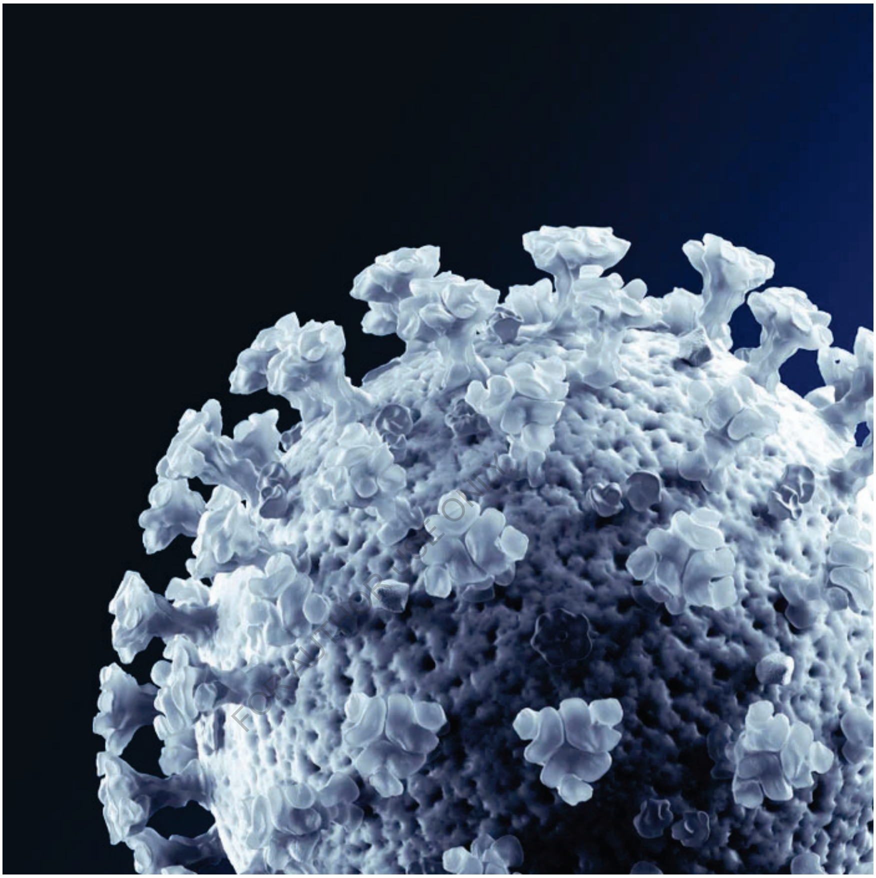
As of this writing (March 19, 2020), the epidemiological numbers of COVID-19, caused by the coronavirus, are becoming outdated by the hour. While events are rapidly evolving, a few things are becoming clear:

- The disease is less fatal than SARS, but the transmission rate is one and a half to two times higher than the flu's, with various factors driving the ultimate local fatality rates.
- The virus is located in five major transmission complexes that are in different stages of maturity—with "community spread" getting worse in several of them.
- The impact is very different for every retailer, depending on country, category, and customer mix.



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Insights on how organizations can respond, and what happens next

According to McKinsey's March 16 briefing note, two scenarios are most likely: a delayed recovery or a prolonged contraction. Regardless of which scenario plays out, food retailers will need to think ahead and be prepared to act quickly. We are continuously updating our views and keeping a close eye on what retailers are doing, and we plan to share our insights regularly. Clearly, the top priority is saving lives; managing the business is a distant second.

This article recommends six actions that food retailers can take to continue doing what they do best—serve as reliable sources of food and essential items for people across communities worldwide—while also staying calm and executing rigorously in these uncertain times. The first four actions are urgent; the last two are more focused on the long term and thus will likely require the attention of a distinct set of leaders with a different mandate to ensure sufficient focus.

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1. Protect your employees and customers

For headquarters staff, the challenges presented by this crisis—working remotely, defining contingency plans, and maintaining morale—are difficult but manageable, given ample technological solutions. The real heroes are in the field: the cashiers, the shelf stockers, the drivers, the warehouse workers. Food retailers must step up frontline hygiene and limit human contact as much as possible, using as much technology as possible. Several retailers are encouraging self-checkout, minimizing cash payments, stocking shelves only before or after store hours, and having drivers drop off deliveries at doorsteps rather than handing them to customers or going inside homes. Some franchisees have taken extra precautions, such as putting plastic tents around cashiers.

Beyond workplace and store safety, it is crucial to create an environment that fosters social
r isolation to protect the vulnerable. We have seen retailers impl
ected employees, free testing, and stay-at-home policies for em
r are feeling ill. Food retailers must also prepare for worst-case

instance, proactively creating backup plans for the most crucial staff, working in A/B teams, and moving quickly to hire additional flexible capacity. We've seen that the latter often comes at a premium (for example, Amazon is raising wages for hourly workers).

Several retailers have shown positive examples of employee and customer care. Chinese e-commerce giant Alibaba is sending coronavirus-testing kits and protective equipment to other countries. Grocery chains, including Ahold Delhaize and Lidl, are setting aside certain store hours to serve the elderly exclusively (to lessen elderly customers' risk of infection). Other retailers are donating food and essential items to the needy in their communities or offering free meals to healthcare workers and first responders.

2. Secure business continuity

Food retailers must keep the lights on: stores and distribution centers must stay open, employees must continue to work, home deliveries must be made, and customers must be served. This has proven challenging, especially when schools and childcare facilities are closed. Equally challenging is meeting the enormous (700 percent or more) spikes in demand on e-commerce sites—with the associated struggles of getting enough delivery drivers, giving customers accurate delivery time slots, and keeping the IT systems running.

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Food retailers must take the time to listen to customers' most acute needs, and then use those insights to both jury-rig solutions and define new ways to serve customers for the short and medium terms. For example, some retailers have had to flex space allocation radically to accommodate surges in demand (such as dedicating more store space to toilet paper and hand sanitizer); others have switched selected stores entirely to click-and-collect formats to protect both customers and employees. Companies must work with local governments, suppliers, employees, and service providers to develop a set of minimum norms for operating during the crisis. Several retailers have collaborated with local authorities to keep daycare centers open for "essential workers," which food-supply-chain employees certainly are.

3. Get a granular view of the local reality

The pace of recovery from COVID-19—and, consequently, the patterns in consumer demand—vary across countries and categories. Some retailers are facing spikes in demand of up to 800 percent in over-the-counter cold and flu medicines and between 25 and 50 percent in food items. Within food categories, we've seen consumers in some areas buying fruit over beer—but, after a few days, returning to beer and snacks as they find themselves having to stay home for extended periods of time. Certain store formats—convenience stores, for example—are seeing steep declines in sales, while others (such as the aforementioned e-commerce players experiencing a 700 percent increase in demand) are unable to fulfill customer orders.

As food retailers, you are the backbone of the food supply chain, and most of your companies are cash rich—which means that spotting up-front cash issues outside your own company is crucial.

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Continually staying abreast of what is happening at a detailed, local level will enable food retailers to act appropriately and act fast. Many retailers are setting up some form of a virtual nerve center to control, plan, stabilize stakeholder management, address primary threats rapidly, and mitigate threats' root causes. Financial stress testing and a cash control tower are critical in any crisis.

As food retailers, you are the backbone of the food supply chain, and most of your companies are cash rich—which means that spotting up-front cash issues outside your own company is crucial. Your ability to operate is determined by the weakest link in your supply chain. Some retailers are offering shorter payment terms to keep their suppliers afloat. Meanwhile, other retailers—such as convenience-store chains, apparel retailers, and specialty retailers experiencing forced store closures—are trying to delay payments to manage their own cash. Granularity matters.

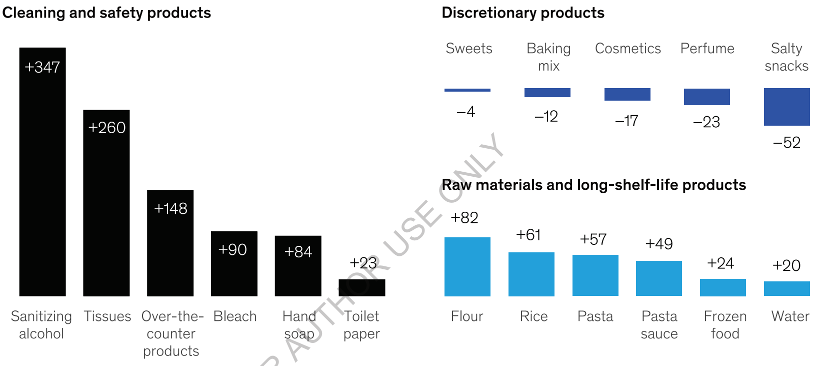
4. Simultaneously manage demand and supply

The crisis has changed what an average grocery basket looks like: the exhibit shows the shifts in demand patterns in Italy. The supply chain is struggling to keep up. To restore the balance, we believe food retailers must simultaneously manage their commercial calendars and supply chains.

Exhibit

In Italy, demand patterns shifted dramatically in the period before lockdown.

Shift in purchasing behavior in Italy,[1] % change



[1]Data from day of 1st "red zone" declaration (Feb 23, 2020) to day before full lockdown (Mar 11, 2020) compared with data from same period in 2019.
Source: GfK survey, March 2020, gfk.com

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To be clear, this is not just a matter of paying close attention to critical steps in the supply chain—such as providing supplier credits, finding alternative sources of supply, pulling in extra shifts, and safeguarding in-store replenishment, warehouses, truck drivers, and last-mile delivery. It is not just a matter of paying extra wages to secure flexible capacity to cover the peaks. These actions are, of course, important to ensure that retailers can fulfill peak demand. But it's just as important to manage consumer demand proactively.

On this front, we have seen both positive actions (CEOs and governments advising consumers to avoid panic buying and hoarding) and abhorrent behavior (online sellers charging exorbitant prices for hand sanitizer and thermometers). We suggest taking a "cleansheet" look at your marketing and promotional calendar and making adjustments, such as reducing promotion intensity in select categories, to smooth out unexpected peaks in the supply chain—not just today but also as a regular practice going forward.

5. Transform your business model to ensure that it is tech enabled and future proof

The crisis has accelerated many societal trends that were already under way: remote working, online shopping, tech-enabled retail, and localized supply chains. Even as food retailers address today's short-term challenges, they should take the time to rethink their business models to become more efficient—and, therefore, less exposed to shocks:

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- *Stores.* Can you make your store model cashless or virtually cashless? Can you replace the cashier-based model with a seamless no-checkout model? Are you using data to measure on-shelf availability in real time? Are you automating replenishment?
- *Supply chain.* Are you embracing technology sufficiently in warehousing and transportation to reduce the burden on labor? Have you adopted machine learning in your forecasting so that you can spot abnormalities fast and adjust immediately?
- *Merchandising.* Are your merchants equipped with the technological tools to run their categories "customer back" and remotely? Have you diversified sourcing sufficiently to derisk future shocks? Are there reasons for you to pursue more vertical integration or more strategic partnerships? In light of the latest consumer trends, are you striking the right balance between local and international partnerships? Should you expand your position in private labels in the face of potential GDP adversity and customers' quest for value? Or, put another way, should you introduce more private labels with a diversified but primarily local supplier mix?
- *E-commerce.* Can you accelerate investments in a seamless online-to-offline experience and proactively shift spending to your online channel, in a model that serves the customer better and is sustainable over the long term? Do you have a scalable technological backbone and delivery network to flex up and down as needed?

- *Head office.* Can you transform your head office into a flexible, remote-working team supported by tech and data? Are your systems able to handle the increased load and cybersecurity issues that come with distributed remote work?

6. Boldly reshape your ecosystem, including through M&A

Experience teaches us that crises typically trigger new avenues for growth and M&A. What moves can you make now to serve your customers, your employees, and your stakeholders better for the longer term? Which growth avenues could you pursue?

As highlighted by the more than 150 profit warnings in recent days, many companies are struggling. Very few of them are food retailers.

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Are there companies you could potentially partner with to keep them afloat while providing yourself with an opportunity to grow into adjacencies (such as food service)? Is there room to expand your footprint and find new franchise models in the aftermath of the crisis? Are there moves along the value chain and ecosystem, such as vertical integration, services, or payments, that have become more attractive? What partnerships or acquisitions, such as tech companies and tech talent, could you pursue now that were perhaps more difficult before? The answers will be specific to your country, your categories, and your customer positioning—but the opportunity to reset the strategic game board is substantial, particularly for companies that are cash rich and growth poor.

We have full confidence in food retailers' ability to handle this crisis. In every country, you—as leaders in the food industry—are crucial to the health and well-being of the population, both today and in the future. The actions we've outlined here can help you and the other leaders in your organization navigate this current crisis, as well as build and strengthen your business for the longer term.

Addressing climate change in a post-pandemic world

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A **ferocious pandemic** is sweeping the globe, threatening lives and livelihoods at an alarming rate. As infection and death rates continue to rise, resident movement is restricted, economic activity is curtailed, governments resort to extraordinary measures, and individuals and corporations scramble to adjust. In the blink of an eye, the coronavirus has upended the world's operating assumptions. Now, all attention is focused on countering this new and extreme threat, and on blunting the force of the major recession that is likely to follow.

Amid this dislocation, it is easy to forget that just a few short months ago, the debate about climate change, the socioeconomic impacts it gives rise to, and the collective response it calls for were gaining momentum. Sustainability, indeed, was rising on the agenda of many public- and private-sector leaders—before the unsustainable, suddenly, became impossible to avoid.

Given the scope and magnitude of this sudden crisis, and the long shadow it will cast, can the world afford to pay attention to climate change and the broader sustainability agenda at this time? Our firm belief is that we simply cannot afford to do otherwise. Not only does climate action remain critical over the next decade, but investments in climate-resilient infrastructure and the transition to a lower-carbon future can drive significant near-term job creation while increasing economic and environmental resiliency. And with near-zero interest rates for the foreseeable future, there is no better time than the present for such investments.

To meet this need and to leverage this opportunity, we believe that leaders would benefit from considering three questions:

- What lessons can be learned from the current pandemic for climate change?
- What implications—positive or negative—could our pandemic responses hold for climate action?
- What steps could companies, governments, and individuals take to align our immediate pandemic response with the imperatives of sustainability?

What follows is our attempt at providing some initial answers to these questions, in the hope that they will inspire ideas and actions that help connect our immediate crisis response with priorities for recovery.

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Potential lessons from the current pandemic

Understanding the similarities, the differences, and the broader relationships between pandemics and climate risk is a critical first step if we are to derive practical implications that inform our actions.

Fundamental similarities

Pandemics and climate risk are similar in that they both represent *physical shocks*, which then translate into an array of socioeconomics impacts. By contrast, financial shocks—whether bank runs, bubble bursts, market crashes, sovereign defaults, or currency devaluations—are largely driven by human sentiment, most often a fear of lost value or liquidity. Financial shocks originate from within the financial system and are frequently remedied by restoring confidence. Physical shocks, however, can only be remedied by understanding and addressing the underlying physical causes. Our recent collective experience, whether in the public or the private sector, has been more often shaped by financial shocks, not physical ones. The current pandemic provides us perhaps with a foretaste of what a full-fledged climate crisis could entail in terms of simultaneous exogenous shocks to supply and demand, disruption of supply chains, and global transmission and amplification mechanisms.

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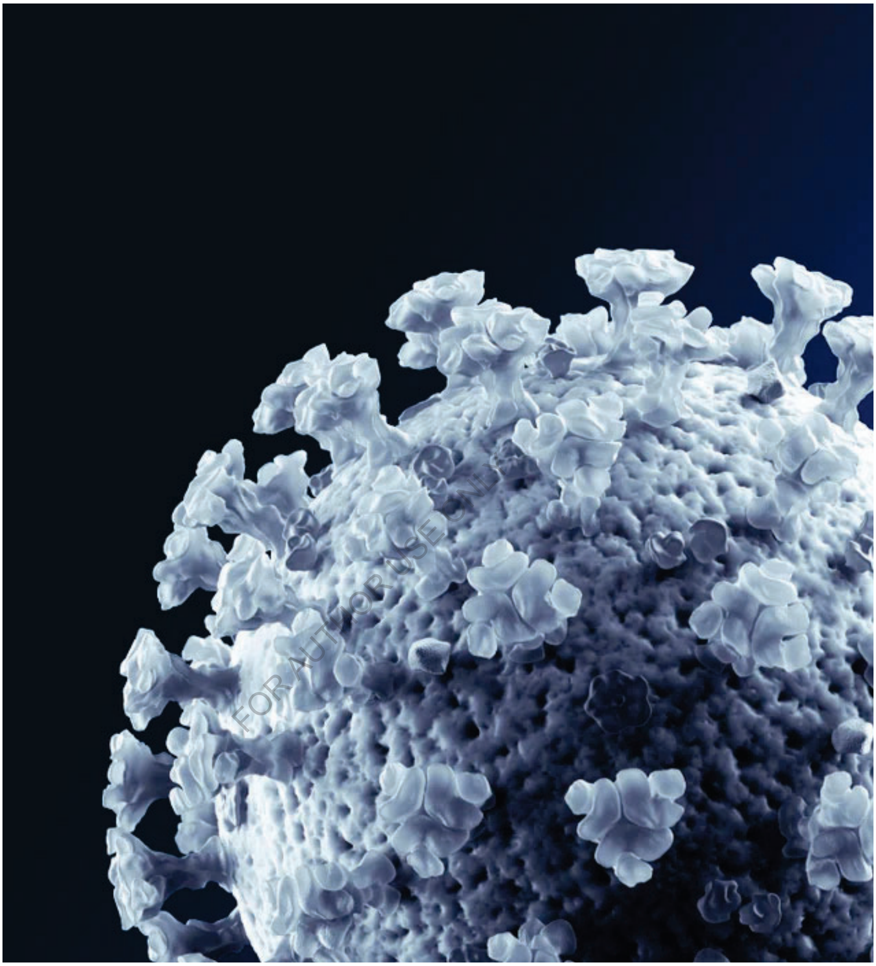

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Insights on how organizations can respond, and what happens next

Pandemics and climate risk also share many of the same attributes. Both are *systemic*, in that their direct manifestations and their knock-on effects propagate fast across an interconnected world. Thus, the oil-demand reduction in the wake of the initial coronavirus outbreak became a contributing factor to a price war, which further exacerbated the stock market decline as the pandemic grew. They are both *nonstationary*, in that past probabilities and distributions of occurrences are rapidly shifting and proving to be inadequate or insufficient for future projections. Both are *nonlinear*, in that their socioeconomic impact grows disproportionally and even catastrophically once certain thresholds are breached (such as hospital capacity to treat pandemic patients). They are both *risk multipliers*, in that they highlight and exacerbate hitherto untested vulnerabilities inherent in the financial and healthcare systems and the real economy. Both are *regressive*, in that they affect disproportionally the most vulnerable populations and subpopulations of the world. Finally, neither can be considered as a "black swan," insofar as experts have consistently warned against both over the years (even though one may argue that the debate about climate risk has been more widespread). And the coronavirus outbreak seems to indicate that the world at large is equally ill prepared to prevent or confront either.

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Furthermore, addressing pandemics and climate risk requires the same fundamental shift, from optimizing largely for the *shorter-term performance* of systems to ensuring equally their *longer-term resiliency*. Healthcare systems, physical assets, infrastructure services, supply chains, and cities have all been largely designed to function within a very narrow band of conditions. In many cases, they are already struggling to function within this band, let alone beyond it. The coronavirus pandemic and the responses that are being implemented (to the tune of several trillion dollars of government stimulus as of this writing) illustrate how expensive the failure to build resiliency can ultimately prove. In climate change as in pandemics, the costs of a global crisis are bound to vastly exceed those of its prevention.

Finally, both reflect "tragedy of the commons" problems, in that individual actions can run counter to the collective good and deplete a precious, common resource. Neither pandemics nor climate hazards can be confronted without true *global coordination and cooperation*.

Indeed, despite current indications to the contrary, they may well prove, through their accumulated pressures, that boundaries between one nation and another are much less important than boundaries between problems and solutions.

Key differences

While the similarities are significant, there are also some notable differences between pandemics and climate hazards.

A global public-health crisis presents *imminent, discrete, and directly discernable dangers*, which we have been conditioned to respond to for our survival. The risks from climate change, by contrast, are *gradual, cumulative, and often distributed dangers* that manifest themselves in degrees and over time. They also require a present action for a future reward that has in the past appeared too uncertain and too small given the implicit "discount rate." This is what former Bank of England Governor Mark Carney has called the "tragedy of the horizon."

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Another way of saying this is that the *timescales* of both the occurrence and the resolution of pandemics and climate hazards are different. The former are often measured in weeks, months, and years; the latter are measured in years, decades, and centuries. What this means is that a global climate crisis, if and when ushered in, could prove far lengthier and far more disruptive than what we currently see with the coronavirus (if that can be imagined).

Understanding the similarities, the differences, and the broader relationships between pandemics and climate risk is a critical first step if we are to derive practical implications that inform our actions.

Finally, pandemics are a case of *contagion* risk, while climate hazards present a case of *accumulation* risk. Contagion can produce perfectly correlated events on a global scale (even as we now witness), which can tax the entire system at once; accumulation gives rise to an increased likelihood of severe, contemporaneous but not directly correlated events that can reinforce one another. This has clear implications for the mitigation actions they each call for.

Broader relationships

Climate change—a potent risk multiplier—can actually contribute to pandemics, according to researchers at Stanford University and elsewhere. For example, rising temperatures can create favorable conditions for the spread of certain infectious, mosquito-borne diseases, such as malaria and dengue fever, while disappearing habitats may force various animal species to migrate, increasing the chances of spillover pathogens between them. Conversely, the same factors that mitigate environmental risks—reducing the demands we place on nature by optimizing consumption, shortening and localizing supply chains, substituting animal proteins with plant proteins, decreasing pollution—are likely to help mitigate the risk of pandemics.

The environmental impact of some of the measures taken to counter the coronavirus pandemic have been seen by some as a full-scale illustration of what drastic action can produce in a short amount of time. Satellite images of vanishing pollution in China and India during the COVID-19 lockdown are a case in point. Yet this (temporary) impact comes at tremendous human and economic cost. The key question is how to find a paradigm that provides at once environmental and economic sustainability. Much more easily said than done, but still a must-do.

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What could happen now?

While we are at the initial stages of a fast-unfolding crisis, we can already start seeing how the pandemic may influence the pace and nature of climate action, and how climate action could accelerate the recovery by creating jobs, driving capital formation, and increasing economic resiliency.

Factors that could support and accelerate climate action

For starters, certain temporary adjustments, such as teleworking and greater reliance on digital channels, may endure long after the lockdowns have ended, reducing transportation demand and emissions. Second, supply chains may be repatriated, reducing some Scope 3 emissions (those in a company's value chain but not associated with its direct emissions or the generation of energy it purchases). Third, markets may better price in risks (and, in particular, climate risk) as the result of a greater appreciation for physical and systemic dislocations. This would create the potential for additional near-term business-model disruptions and broader transition risks but also offer greater incentives for accelerated change.

There may, additionally, be an increased public appreciation for scientific expertise in addressing systemic issues. And, while not a foregone conclusion, there may also be a greater appetite for the preventive and coordinating role of governments in tackling such risks. Indeed, the tremendous costs of being the payor, lender, and insurer of last resort may prompt governments to take a much more active role in ensuring resiliency. As for the private sector, the tide may be turning toward "building back better" after the crisis.

We can already start seeing how the coronavirus pandemic may influence the pace and nature of climate action, and how climate action could accelerate the recovery by creating jobs, driving capital formation, and increasing economic resiliency.

Moreover, lower interest rates may accelerate the deployment of new sustainable infrastructure, as well as of adaptation and resilience infrastructure—investments that would support near-term job creation. And lastly, the need for global cooperation may become more visible and be embraced more universally.

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If past is prologue, both the probability of such shifts and their permanence are likely to be proportional to the depth of the current crisis itself.

Factors that may hamper and delay climate action

Simultaneously, though, very low prices for high-carbon emitters could increase their use and further delay energy transitions (even though lower oil prices could push out a number of inefficient, high-emission, marginal producers and encourage governments to end expensive fuel-subsidy regimes). A second crosscurrent is that governments and citizens may struggle to integrate climate priorities with pressing economic needs in a recovery. This could affect their investments, commitments, and regulatory approaches—potentially for several years, depending on the depth of the crisis and hence the length of the recovery. Third, investors may delay their capital allocation to new lower-carbon solutions due to decreased wealth. Finally, national rivalries may be exacerbated if a zero-sum-game mentality prevails in the wake of the crisis.

What should be done?

In this context, we believe all actors—individuals, companies, governments, and civil society—will have an important role.

For governments, we believe four sets of actions will be important. First, build the capability to model climate risk and to assess the economics of climate change. This would help inform recovery programs, update and enhance historical models that are used for infrastructure planning, and enable the use of climate stress testing in funding programs. Second, devote a portion of the vast resources deployed for economic recovery to climate-change resiliency and mitigation. These would include investments in a broad range of sustainability levers, including building renewable-energy infrastructure, expanding the capacity of the power grid and increasing its resiliency to support increased electrification, retrofitting buildings, and developing and deploying technologies to decarbonize heavy industries. The returns on such investments encompass both risk reduction and new sources of growth. Third, seize the opportunity to reconsider existing subsidy regimes that accelerate climate change. Fourth, reinforce national and international *alignment and collaboration* on sustainability, for inward-looking, piecemeal responses are by nature incapable of solving systemic and global problems. Our experiences in the weeks and months ahead could help inform new paths toward achieving alignment on climate change.

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For companies, we see two priorities. First, seize the moment to decarbonize, in particular by prioritizing the retirement of economically marginal, carbon-intensive assets. Second, take a systematic and through-the-cycle approach to building resilience. Companies have fresh opportunities to make their operations more resilient and more sustainable as they experiment out of necessity—for example, with shorter supply chains, higher-energy-efficiency manufacturing and processing, videoconferencing instead of business travel, and increased digitization of sales and marketing. Some of these practices could be expedient and economical to continue, and might become important components of a company-level sustainability transformation—one that accompanies the cost-efficiency and digital-transformation efforts that are likely to be undertaken across various industries in the wake of the pandemic.

When it comes to resilience, a major priority is building the capability to truly understand, qualitatively and quantitatively, corporate vulnerabilities against a much broader set of scenarios, and particularly physical events. In that context, it will also be important to model and prepare for situations where multiple hazards would combine: it is indeed not difficult to imagine a pandemic resurgence coinciding with floods or fires in a given region, with significant implications for disaster response and recovery. The same holds true for public entities, where resilience thinking will have to take greater account of the combination and correlation of events.

For all—individuals, companies, governments, and civil society—we see two additional priorities. First, use this moment to raise *awareness* of the impact of a climate crisis, which could ultimately create disruptions of great magnitude and duration. That includes awareness of the fact that physical shocks can have massive nonlinear impacts on financial and economic systems and thus prove extremely costly. Second, build upon the *mindset and behavioral shifts* that are likely to persist after the crisis (such as working from home) to reduce the demands we place on our environment—or, more precisely, to shift them toward more sustainable sources.

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Individuals, companies, governments, and civil society should use this moment to raise awareness of the impact of a climate crisis, which could ultimately create disruptions of great magnitude and duration.

By all accounts, the steps we take in the decade ahead will be crucial in determining whether we avoid runaway climate change. An average global temperature rise above 1.5 or 2°C would create risks that the global economy is not prepared to weather. At an emission rate of 40 to 50 gigatons of CO_2 per year, the global economy has ten to 25 years of carbon capacity left. Moving toward a lower-carbon economy presents a daunting challenge, and, if we choose to ignore the issue for a year or two, the math becomes even more daunting. In short, while all hands must be on deck to defeat the coronavirus and to restart the economy, to save lives and livelihoods, it is also critical that we begin now to integrate the thinking and planning required to build a much greater economic and environmental resiliency as part of the recovery ahead.

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