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Safeguarding lives and livelihoods

Cultivating *resilience* in crisis



May 2020



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Introduction

On March 11, 2020, the World Health Organization formally declared COVID-19 a pandemic, underscoring the precipitous global uncertainty that had plunged lives—and livelihoods—into a still-unfolding crisis. Just two months later, daily reports of outbreaks—and of waxing and waning infection and mortality rates—continue to heighten anxiety, stir grief, and cast into question the contours of our collective social and economic future. Never in modern history have countries had to ask citizens around the world to stay home, curb travel, and maintain physical distance to preserve the health of families, colleagues, neighbors, and friends. And never have we seen job loss spike so fast, nor the threat of economic distress loom so large.

In this unprecedented reality, we are also witnessing the beginnings of a dramatic restructuring of the social and economic order—the emergence of a new era that we view as the “next normal.” Dialogue and debate have only just begun on the shape this next normal will take. But since the onset of the pandemic, McKinsey has published a rapidly growing collection of insights (at least 250, at this two-month mark) on the impact of COVID-19 on the economy, the workforce, and the gamut of functions and industries, both globally and in specific regions across the world. We have collected and curated the first 100 of these articles into four compendiums, organized by the initial stages of the path we see as leading from the current crisis to the post-pandemic era—the next normal that will materialize after the battle against coronavirus has been won.

These initial stages are Resolve, Resilience, and Return; as we progress, they will be followed by Reimagination and Reform.

In this second of four compendiums, *Safeguarding lives and livelihoods*, we curate a selection of articles related to stage two, Resilience: absorbing the shock of the crisis in ways that not only support survival but also lay the groundwork for future prosperity. We start by outlining what we see as key elements of the next normal, looking to the past for inspiration in navigating current challenges. We issue a call to action for leaders to safeguard both the lives and livelihoods at stake as the pandemic persists, especially with regard to specific demographics—black Americans, for example, and populations in particular geographies worldwide. And we review some progressing data on COVID-19, such as changes in the attitudes and behavior of consumers in response to the crisis.

You can download this and three other compendiums at [McKinsey.com/pathbeyondcovid-19](https://www.mckinsey.com/pathbeyondcovid-19), as well as find these and our entire collection of individual insights at [McKinsey.com/covid-19](https://www.mckinsey.com/covid-19).

We look forward to your feedback at Crisis_Feedback@McKinsey.com.

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The future is not what it used to be: Thoughts on the shape of the next normal

The coronavirus crisis is a world-changing event. Here are seven elements for business leaders to consider as they plan for the next normal.

by Kevin Sneader and Shubham Singhal

Dealing with the coronavirus crisis and its aftermath could be the imperative of our times. Indeed, we have argued that it augurs the “imminent restructuring of the global economic order.” As Ian Davis, one of our previous managing partners, wrote in 2009 in the midst of the global financial crisis:

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.

It is impossible to know what will happen. But it is possible to consider the lessons of the past, both distant and recent, and on that basis, to think constructively about the future. We believe the following elements will be important in the shaping of the next normal—and that business leaders will need to come to terms with them.

1. Distance is back

In the mid-1990s, the idea of the “death of distance” gained currency. The thinking was that new web-based and telecom technologies had made it possible to communicate and work in new ways that dramatically reduced the value of physical proximity. As the flow of information became cheap and seamless, global supply chains of bewildering complexity were able to deliver just-in-time products as a matter of routine. Cross-border trade reached new peaks. And the world’s burgeoning middle class took to travel and tourism with something like abandon.

Even before COVID-19 hit, there were signs of unease, expressed in calls for protectionism and more restrictive immigration and visa policies. In these ways, people sought, in effect, to create more distance from those unlike themselves.

Such attitudes were far from universal, of course. But to deal with the pandemic, governments around the world have imposed restrictions on people and goods of a severity not seen for decades. According

to one study, more than three billion people live in countries whose borders are now totally closed to nonresidents; 93 percent live in countries that have imposed new limits on entry because of the coronavirus. If a modern-day Hannibal wanted to cross the Alps peacefully, his elephants would be turned away. Eventually, the tourists will come back and the borders will reopen, but it is certainly possible that the previous status quo will not return.

Indeed, for businesses, the prospect of more border restrictions, a greater preference for local over global products and services, the need for resilience across supply chains driving a move to bring sourcing closer to end markets (see “2. Resilience AND efficiency”), and perhaps renewed resistance to globalization are all possible second-order consequences of the actions being taken now to cope with the coronavirus. Technology continues to shrink physical distance, but in other ways, it could be set for a return.

2. Resilience AND efficiency

Even when lockdown restrictions begin to ease, businesses will need to figure out how to operate in new ways. In short, resiliency—the ability to absorb a shock, and to come out of it better than the competition—will be the key to survival and long-term prosperity.

Again, the past can be a prelude. McKinsey research on the 2008 financial crisis found that a small group of companies in each sector outperformed their peers. They did get hurt, with revenues falling about the industry average, but they recovered much faster. By 2009, the earnings of the resilient companies had risen 10 percent, while that of the nonresilients had gone down almost 15 percent. What characterized the resilient companies was preparation before the crisis—they typically had stronger balance sheets—and effective action during it—specifically, their ability to cut operating costs.

This advice is still sound—but insufficient. COVID-19 could end up dwarfing the financial crisis in economic damage. In that case, it will not be enough for many companies to tweak their business model; instead, they will need to rethink it.

One implication of this has to do with how supply chains operate; companies are finding themselves vulnerable because they cannot get the parts they need. Supply chains built on just-in-time inventory and distributed component sourcing may well have to be reconsidered, given the way many have been disrupted. Instead, companies will want to build backup and safety plans.

Other key elements of business structure will also be revisited. For example, the *Wall Street Journal* observed that the crisis has revealed weaknesses in succession plans as leaders get sick and deputies quickly need to be found across all aspects of operations. Companies are learning the hard way that succession planning has to go much deeper than the C-suite, and much broader, responding to possible short-term disruptions as well.

Investors are likely to take note, and to devise ways to incorporate resiliency more systematically into their valuations. Indeed, in the wake of recent natural disasters, the impact of climate change was increasingly being recognized by business leaders and investors, with consequent effects on decision making and valuations. This pressure to include environmental, social, and governance factors in valuing a business is likely to expand to incorporate resilience to outside shocks, such as pandemics. In sum, many companies will rebalance their priorities, so that resiliency—in all its manifestations—becomes just as important to their strategic thinking as cost and efficiency.

3. The rise of the contact-free economy

In three areas in particular—digital commerce, telemedicine, and automation—the COVID-19 pandemic could prove to be a decisive turning point.

E-commerce was already meaningfully and visibly eating into the sales of brick-and-mortar stores. What the coronavirus has done is to accelerate a change in shopping habits that was already well established. Early indications from China, for example, are that new customers and markets—specifically individuals aged 36 and over and residents of smaller, less prosperous cities—have

begun to shop online in greater numbers. In Europe, 13 percent of consumers said in early April that they were planning to browse online e-tailers for the first time. In Italy alone, e-commerce transactions have risen 81 percent since the end of February.

The figures for telemedicine and virtual health are just as striking. Teladoc Health, the largest US stand-alone telemedicine service, reported a 50 percent increase in service in the week ending March 20, and is adding thousands of doctors to its network. The Federal Communications Commission is spending \$200 million to improve connectivity between patients and virtual-healthcare providers, and the US Department of Health and Human Services has increased reimbursements for telemedicine and enabled cross-state provision of virtual care. Sweden's KRY International, one of Europe's biggest telehealth providers, reported that registrations were up more than 200 percent. France and Korea have both changed regulations to ease access to telemedicine. With a vaccine or treatment at least months away, patients and healthcare providers both have reason to expand virtual interactions.

Greater automation was already occurring before COVID-19. In late 2017, the McKinsey Global Institute estimated that 60 percent of all jobs could see more than 30 percent of their key tasks automated, affecting 400 million to 800 million jobs around the world by 2030. According to the Brookings Institution, over the three recessions that have occurred over the past 30 years, the pace of automation increased during each.

In effect, it is becoming possible to imagine a world of business—from the factory floor to the individual consumer—in which human contact is minimized. But not eliminated: for many people, getting back to normal will include popping into stores again, and the roadside kiosks typical of much of the developing world are not about to be replaced by cashless hyperstores. Patients with complex needs will still want to see their doctors in person, and many kinds of jobs are not automatable. But the trends are unmistakable—and probably irreversible.

4. More government intervention in the economy

During times of great crisis, such as World War II, citizens have proved willing to accept—even embrace—greater government control of the economy. Already, there has been economic intervention on a scale that hasn't been seen for decades, if at all. As of April 10, governments across the globe had announced stimulus plans amounting to \$10.6 trillion—the equivalent of eight Marshall Plans. Most spending is directed to three areas—supporting citizens' basic needs, preserving jobs, and helping businesses to survive another day.

India is making direct cash transfers to needy citizens, and Indonesia is expanding social-welfare benefits to ten million more households. Britain and France are covering wages (up to 80 percent) of workers affected by COVID-19; Italy is suspending loan and mortgage payments; Brazil is easing labor regulations on companies. And central banks from Australia to Europe to South Africa to Canada are cutting rates.

As governments step up to serve, or save, the private sector, the means they choose will differ. Some countries will outright nationalize, some will take equity stakes, some will provide loans, and others will choose to regulate. If nonperforming loans require a second bailout, the banking sector could become something like a regulated utility in some markets.

A push to redefine the global public-health ecosystem to navigate possible future pandemics and related threats better could provide additional impetus for cross-country public-sector intervention. Reform of financial institutions gained momentum in 2009, and the same could be true for public health in the near future.

As our colleagues wrote in the context of climate change, “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.” The implications for the role of the state will materially affect the way business is conducted; business leaders in many more sectors

will have to adjust to the next normal of greater government intervention.

At some point, governments may decide to get out of the business of business; how they do so will be complicated and differentiated. How much, how fast, and in what ways governments reduce their economic role will be one of the most important questions of the next decade.

5. More scrutiny for business

Rightly or wrongly, there is a perception in many countries that during the financial crisis, financial institutions were culpable for the trauma, accepted billions of dollars from taxpayers, and gave little back. Now citizens all over the world could face higher taxes and/or fewer services in order to pay for the \$10.6 trillion committed so far. The public will expect—indeed, demand—that their money be used for the benefit of society at large. This raises complicated questions. What does it mean for businesses to do right by their employees and customers? If a financial institution accepts a bailout, how should it think about calling in loans? When, if ever, is it appropriate to resume buybacks and pay higher dividends?

Even before the coronavirus, there was a growing sense that shareholder value should not be the only corporate value. In August 2019, more than 181 US CEOs signed a statement committing themselves to other priorities—investing in employees, supporting communities, and dealing ethically with suppliers—in addition to shareholder value. The idea of the “triple bottom line”—profit, people, and planet—has become mainstream, as have socially responsible investment funds.

With many businesses likely to be operating to some extent with public money, the scrutiny will be intense. There will be real effects on the relations between government and business, and between business and society. That could show itself in the form of more regulation, particularly in regard to domestic sourcing and workforce safety. And as the coronavirus reveals or heightens awareness of social fractures, business will be expected to be part of finding long-term solutions.

The coronavirus could be the biggest global challenge since World War II. In the wake of that conflict came the question: “What did you do during the war?” That question will be asked, forcefully, of both government and business, once the COVID-19 battle has been won. Business leaders need to ask it of themselves now.

6. Changing industry structures, consumer behavior, market positions, and sector attractiveness

One of the key questions facing business leaders is whether their industry will rebound from the economic shock posed by the virus, or sustain lasting damage. The answer to this question likely lies in an assessment of the degree to which industries find themselves susceptible to the elements highlighted in this article. For example, those that have shown themselves to be less resilient may find it difficult to regain their pre-COVID-19 standing. In the auto sector, for example, companies have relied on global just-in-time-based supply chains; they will be under pressure to change so that continuity of supply is just as valued as cost and speed to market.

In addition, there could be lasting changes to consumer attitudes toward physical distance, health, and privacy. For example, increased health awareness and a corresponding desire to live more healthily could bring lasting change to where, how, and what people eat. Some consumers and governments—but by no means all—may change

their attitudes toward the sharing and use of personal data if it can be demonstrated that the use of such data during the crisis helped safeguard lives.

For millennials and members of Generation Z—those born between 1980 and 2012—this crisis represents the biggest disruption they have faced. Their attitudes may be changed profoundly and in ways that are hard to predict. The tourism, travel, and hospitality sectors may see their businesses subject to long-term changes in business and individual travel preferences. Concern over the possibility of other “black swan” events could change how consumers approach financial security—saving more and spending less. The list of questions about how consumers will behave after COVID-19 is long, and uncertainty is high. As a result, this is the subject of much research by McKinsey and others.

Given the intensity of these pressures, it is reasonable to question whether existing market positions will be retained without significant effort to reposition and respond to changes confronting industries and sectors as a whole. To this can be added the economic impact of stretched balance sheets and valuations leading to changes in business ownership.

In this context, it is possible that institutions may find new and enduring ways to collaborate, prompted by the regulatory and other changes that have enabled corporations to work together in order to address the current crisis.

As the coronavirus crisis reveals or heightens awareness of social fractures, business will be expected to be part of finding long-term solutions.

7. Finding the silver linings

If necessity is the mother of invention—and it often is—there could be some positive outcomes of the coronavirus crisis. These are unlikely to come anywhere near to compensating for the human and economic toll it is wreaking. However, given the general shortage of optimism at the moment, it may be heartening to consider a few encouraging possibilities.

One has to do with the human imperative to communicate. In this sense, the death of distance continues to be very real, and very positive. Individuals, communities, businesses, and governments alike are all learning new ways to connect: almost everyone knows a story of the grandparent who finally learned to Zoom, Skype, or FaceTime.

For businesses, the consequences have been profound. Many have learned how to operate remotely—and at a high level and at far greater speed. These practices could well stick, making for better management and more flexible workforces. Flexible work is often critical to support employees at different life stages such as parents with young kids, women during parts of their career, or affinity groups such as the disabled.

Business leaders now have a better sense of what can, and cannot, be done outside their companies' traditional processes. Many are beginning to appreciate the speed with which their organizations can move once they change how they do things. In short, the coronavirus is forcing both the pace and scale of workplace innovation. Indeed, as businesses are forced to do more with less, many are finding better, simpler, less expensive, and faster ways to operate.

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The urgency of addressing COVID-19 has also led to innovations in biotech, vaccine development, and the regulatory regimes that govern drug development, so that treatments can be approved and tried faster. In many countries, health systems have been hard to reform; this crisis has made the difficult much easier to achieve. The result should be more resilient, responsive, and effective health systems.

These silver linings are thin compared with the scale of the coronavirus catastrophe. Nurturing a next normal that will be better than what it replaced will be a long-term test of all our institutions, global and local, public and private. It will be critical to reconstruct for the future and not solve for the problems of the past.

One possible next normal is that decisions made during and after the crisis lead to less prosperity, slower growth, widening inequality, bloated government bureaucracies, and rigid borders. Or it could be that the decisions made during this crisis lead to a burst of innovation and productivity, more resilient industries, smarter government at all levels, and the emergence of a reconnected world. Neither is inevitable; indeed, the outcome is probably more likely to be a mix. The point is that where the world lands is a matter of choice—of countless decisions to be made by individuals, companies, governments, and institutions.

The early 20th-century British explorer Ernest Shackleton once noted, "Optimism is true moral courage." Optimism and courage: these qualities are needed more than ever as leaders make the decisions that will shape the next normal.



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Addressing climate change in a post-pandemic world

The coronavirus crisis holds profound lessons that can help us address climate change—if we make greater economic and environmental resiliency core to our planning for the recovery ahead.

by Dickon Pinner, Matt Rogers, and Hamid Samandari

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.

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 socioeconomic 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.

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 disproportionately 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 disproportionately 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.

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.”¹

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).

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.² 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

¹ “Breaking the tragedy of the horizon—climate change and financial stability—speech by Mark Carney,” Bank of England, September 29, 2015, [bankofengland.co.uk](https://www.bankofengland.co.uk).

² See Andrew Winston, “Is the COVID-19 outbreak a black swan or the new normal?,” *MIT Sloan Management Review*, March 16, 2020; and Rob Jordan, “How does climate change affect disease?,” Stanford Earth, School of Earth, Energy & Environment, March 15, 2019.

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.

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.³

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.

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 well choose to prioritize what they see as more pressing economic needs (such as restoring jobs), or more expedient means (such as maintaining higher-carbon legacy assets) 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.

³María Mendiluce, “How to build back better after COVID-19,” World Economic Forum, April 3, 2020, [weforum.org](https://www.weforum.org).

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.

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.

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 CO₂ 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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COVID-19: Investing in black lives and livelihoods

The unfolding public-health and possible economic disaster of the pandemic will disproportionately affect black Americans—unless stakeholders respond immediately.

by Aria Florant, Nick Noel, Shelley Stewart III, and Jason Wright

Amid the rising deaths, infections, and possible economic implosion of the COVID-19 pandemic, our country's most pressing need is to save lives and arrest any plunge into a prolonged recession or depression. The crisis is already hitting major social and economic systems, yet black Americans will experience a disproportionate share of the disruption—from mobility and mortality to unemployment and bankruptcy.

McKinsey analysis shows that black Americans are almost twice as likely to live in the counties at highest risk of health and economic disruption, if or when the pandemic hits those counties.¹ To assess disruption, we evaluated five indicators: underlying health conditions, poverty rate, number of hospital beds, percentage of people in severe housing conditions, and population density. This integrated health and economic perspective describes which counties are likely to take a “one-two punch” due to the pandemic and could get trapped in a vicious cycle of economic instability and poor health.

In addition, we found that about seven million jobs—39 percent of all those held by black Americans, as compared with 34 percent for white Americans—are now threatened by reductions in hours or pay, temporary furloughs, or permanent layoffs.²

Indeed, the pandemic underscores the consequences of the structural disparities that have persisted in this country for centuries while presenting an opportunity to invest in building more equitable systems that will benefit society overall. In this article, we outline some of the key findings from our forthcoming report on COVID-19 and black America.

Places

Because the situation continues to evolve, projections are necessarily, at best, probabilistic. Even so, our analysis suggests that black Americans are 1.4–1.8 times as likely to live in counties at highest risk of disruption from the pandemic (exhibit). Thirty percent of the country's population lives in these high-risk counties, compared with 43 percent (17.6 million) of black Americans. The counties in the highest-risk decile are home to only 10 percent of the US population as a whole—but to 18 percent of the black population.

Health and lives

Nationally, black Americans are not only more likely to be at higher risk for contracting COVID-19 but also have lower access to testing. In addition, they are likely to experience more severe complications from the infection; black Americans are on average about 30 percent likelier to have health conditions that exacerbate the effects of COVID-19.³

Unfortunately, black Americans are overrepresented in nine of the ten lowest-paid, high-contact essential services, which elevates their risk of contracting the virus. Thirty-three percent of nursing assistants, 39 percent of orderlies, and 39 percent of psychiatric aides,⁴ are black. Black workers are putting their lives and health on the line to provide goods and services that matter to our society.

Although little testing data are available, as of April 4th, ten of the 16 states where 65 percent of black Americans live were below the median testing rate for the country as a whole.⁵ Black Americans were

¹ Counties' risk of disruption related to the pandemic is measured by comorbidities that predispose residents to complications associated with COVID-19, poverty rates, population density, number of hospital beds, and the share of residents in severe housing conditions (characterized by overcrowding, a lack of access to kitchen and plumbing facilities, and rent burdens). For each of these indicators, we ranked counties into 10 deciles, with each decile representing 10% of the population, and assigned a decile score for that indicator. Then, we created a combined index score based on the individual decile scores, and assigned a final, combined decile score to each county. Each indicator is equally weighted. Age was not included. This analysis does not include epidemiological forecasting. Counties do not have to have identified cases of COVID-19 to qualify for this analysis. Sources include: 2017 CMS-LDS Medicare FFS data and DRG 835/837 data © 2020 DR/Decision Resources, LLC. All rights reserved. Reprinted with permission. Reproduction for non-commercial use is permitted if attributed; American Community Survey, 5-year estimates 2013–2018. *Poverty status in the past 12 months*; U.S. Census Bureau. 2010 Census. *Population, Housing Units, Area, and Density*; American Community Survey, 5-year estimates 2013–2018. *Total Population*; CMS Hospital Compare and Medicare Provider Cost Reports; Robert Wood Johnson Foundation, *US Department of Housing and Urban Development, Comprehensive Housing Affordability Strategy*.

² McKinsey Global Institute analysis.

³ Centers for Disease Control and Prevention; includes cardiovascular disease, asthma, diabetes, chronic kidney disease, hypertension, and obesity.

⁴ McKinsey Global Institute analysis, US Bureau of Labor Statistics, and the National Center for O*NET Development.

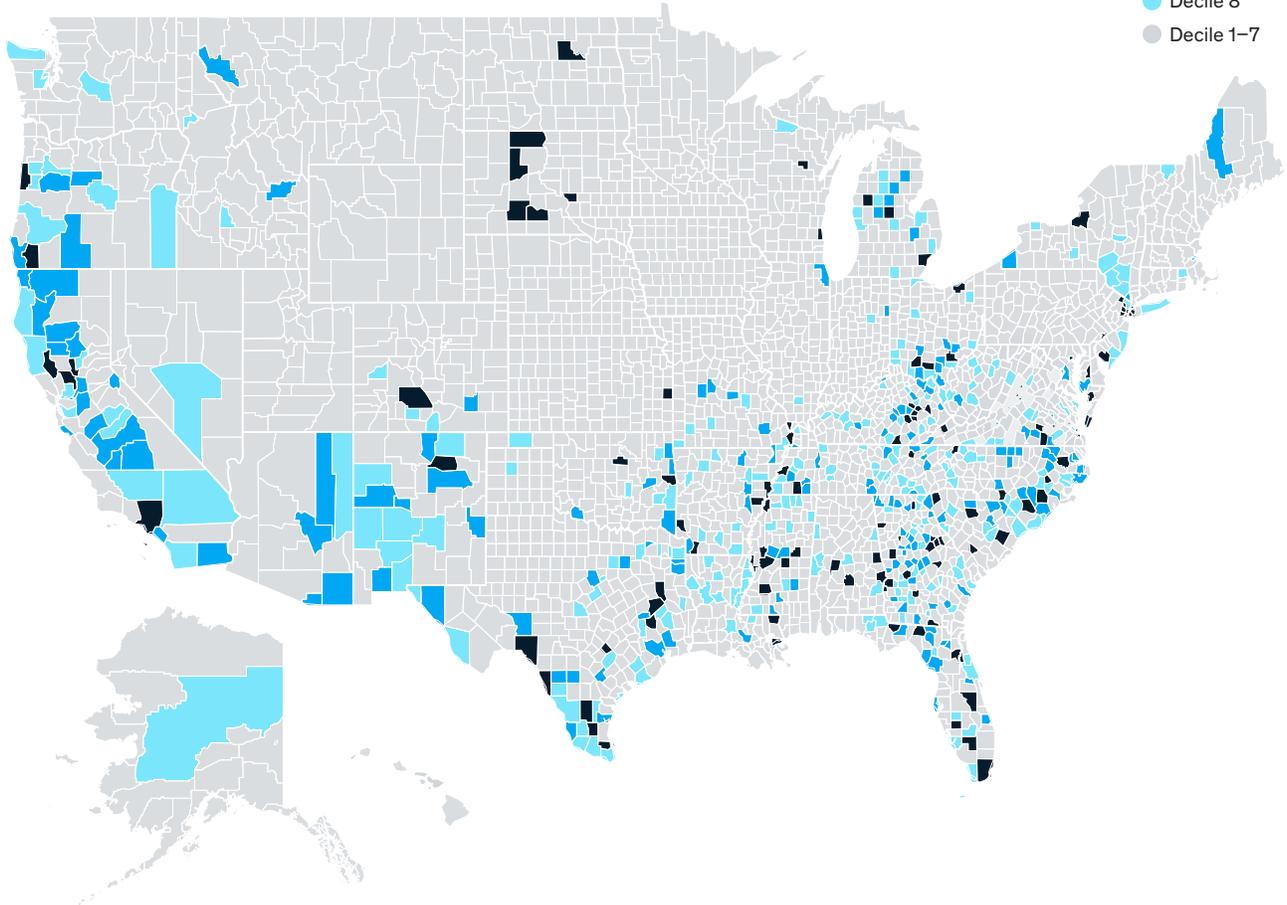
⁵ Most recent data: The COVID Tracking Project (State by State), April 7, 2020, covidtracking.com.

Exhibit

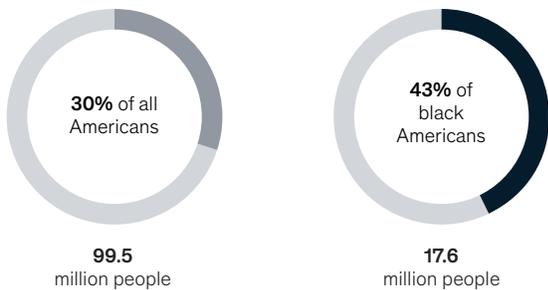
Black Americans are almost twice as likely to live in places where, if contagion hits, the pandemic will likely cause outsize disruption.

Counties¹ most at risk of disruption due to COVID-19, heat map of highlighted counties in deciles 8–10, representing 30% of the population

- Decile 10
- Decile 9
- Decile 8
- Decile 1–7

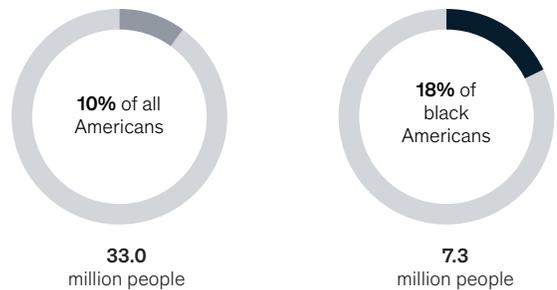


● ● ● Deciles 8–10 (566 total counties)



Black Americans are clustered² in **244 counties**

● Decile 10 (127 total counties)



Black Americans are clustered in **72 counties**

¹ Data includes 3,115 counties, 99% of counties in the United States. For 30 counties, COVID comorbidities were estimated using the state average due to lack of available data.

² In these counties, black Americans are overrepresented (>13%) or above 100,000 total people in absolute terms.

Source: 2017 CMS-LDS Medicare FFS data and DRG 835/837 data © 2020 DR/Decision Resources, LLC. All rights reserved. Reprinted with permission. Reproduction for noncommercial use is permitted if attributed; American Community Survey, 5-year estimates 2013–18, *Population, housing units, area, and density*; American Community Survey, 5-year estimates 2013–18, *Poverty status in the past 12 months*; *Comprehensive Housing Affordability Strategy*, US Department of Housing and Urban Development; Robert Wood Johnson Foundation; total population, hospital compare and Medicare provider cost reports, US Centers for Medicare & Medicaid Services; 2010 US Census, US Census Bureau; McKinsey Global Institute analysis

already twice as likely as their white peers to die from diabetes, hypertension, and asthma—all risk factors that exacerbate COVID-19 symptoms.⁶ Even black Americans who do not need care for COVID-19 are likelier than white Americans to suffer from the pandemic's secondary effects on our overloaded medical system, including delayed—but necessary—medical procedures.⁷

Risks to livelihoods and economic futures

As the impact of the pandemic moves from health to economic consequences, black Americans will likely sustain more damage across every stage of the wealth-building journey.⁸ Crucially, 39 percent of jobs held by black workers (seven million jobs in all) are vulnerable as a result of the COVID-19 crisis compared with 34 percent for white workers.⁹ Forty percent of the revenues of black-owned businesses are located in the five most vulnerable sectors—including leisure, hospitality, and retail—compared with 25 percent of the revenues of all US businesses.¹⁰ Forty-eight percent of black survey respondents¹¹ report regularly using food-assistance programs, compared with 31 percent of white respondents. Such services are likely to come under significant strain and interruptions as a result of the pandemic.¹²

Protective measures

There is an immediate opportunity to protect black Americans and their communities from the worst effects of the COVID-19 crisis. These interventions should target the places where black people live, work, and do business.

To identify and mitigate disparities, it will be critical to track the damage and the recovery from the pandemic along racial lines. Relevant information

includes (but is not limited to) rates of infection, access to healthcare providers and testing, jobs lost, and small business loans allocated. In addition, stakeholders could also identify and patch gaps in services normally provided by the public education system and increase resources for the most affected students and families.

Training and deploying community health workers, which are common in places where the need for healthcare significantly outstrips supply, could increase access to health services.¹³ Community health workers help connect patients to both health and social services, build trust in healthcare systems, and reserve capacity for licensed healthcare workers to treat the most critical cases. Community and faith-based organizations can use their roles as hubs to organize the workers, share information about the virus, encourage preventive measures such as environmental and personal hygiene and physical distancing, and distribute personal protective equipment (PPE) and sanitary equipment to the homes of essential workers. These organizations can also provide targeted, wrap-around support to people with high-risk comorbidities.

Stakeholders could deliberately support the most vulnerable workers, including black Americans. Some employers are finding creative solutions that keep people employed, and this could be supplemented with job-matching and reskilling programs that can efficiently redeploy talent even during a macroeconomic contraction. Employers could also maintain a commitment to equity when they downsize. Support programs that provide direct and in-kind forms of liquidity (such as straightforward cash assistance, short-term extensions for financial obligations, and loan- and interest forgiveness) could help sustain families in financial distress.

⁶ https://commed.vcu.edu/Chronic_Disease/Equity/2017/narrowingthegap.pdf

⁷ https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2018_SHS_Table_P-10.pdf

⁸ For more on black Americans and the wealth-building journey, see Nick Noel, Duwain Pinder, Shelley Stewart III, and Jason Wright, "The economic impact of closing the racial wealth gap," August 2019, McKinsey.com.

⁹ McKinsey Global Institute analysis; '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

¹⁰ Analysis of 2012 Survey of Business Owners

¹¹ Survey respondents from McKinsey's March 27-29 2020 Consumer Survey

¹² McKinsey COVID-19 Consumer Survey, 3/29/2020

¹³ Nellie Peyton, "Using lessons from Ebola, West Africa prepares remote villages for coronavirus," Reuters, March 25, 2020, reuters.com.

Community development financial institutions (CDFIs), churches, and nonprofits could help black-owned businesses and residents to access recovery funds. Similarly, new financial products and programs such as community rainy-day funds could fortify the resilience of communities. Corporations could make a point to work with black-owned businesses.

Recovery, rebuilding and reimagination

COVID-19's outsized impact on the black community reflects public health and socioeconomic disparities that have long been intertwined. The pandemic is an opportunity to invest in addressing structural challenges to help black Americans recover and to build and sustain more equitable communities.

Investments in public health, digital infrastructure, institutions of public education, and economic development planning should continue long after the COVID-19 pandemic subsides. In particular, stakeholders could consider setting national goals to improve health equity and create plans to meet those goals.

Support for black homeowners and businesses could be a priority to ensure that black families do not lose their assets and resources. That

kind of support could include protection from bankruptcy, insolvency, and eviction, all of which will disproportionately affect black Americans as part of the pandemic's fallout. Institutions could also support equity in compensation and career progression. These types of assistance speak less to protection and more to providing the opportunities and stability required to help black families build a resilient economic foundation.

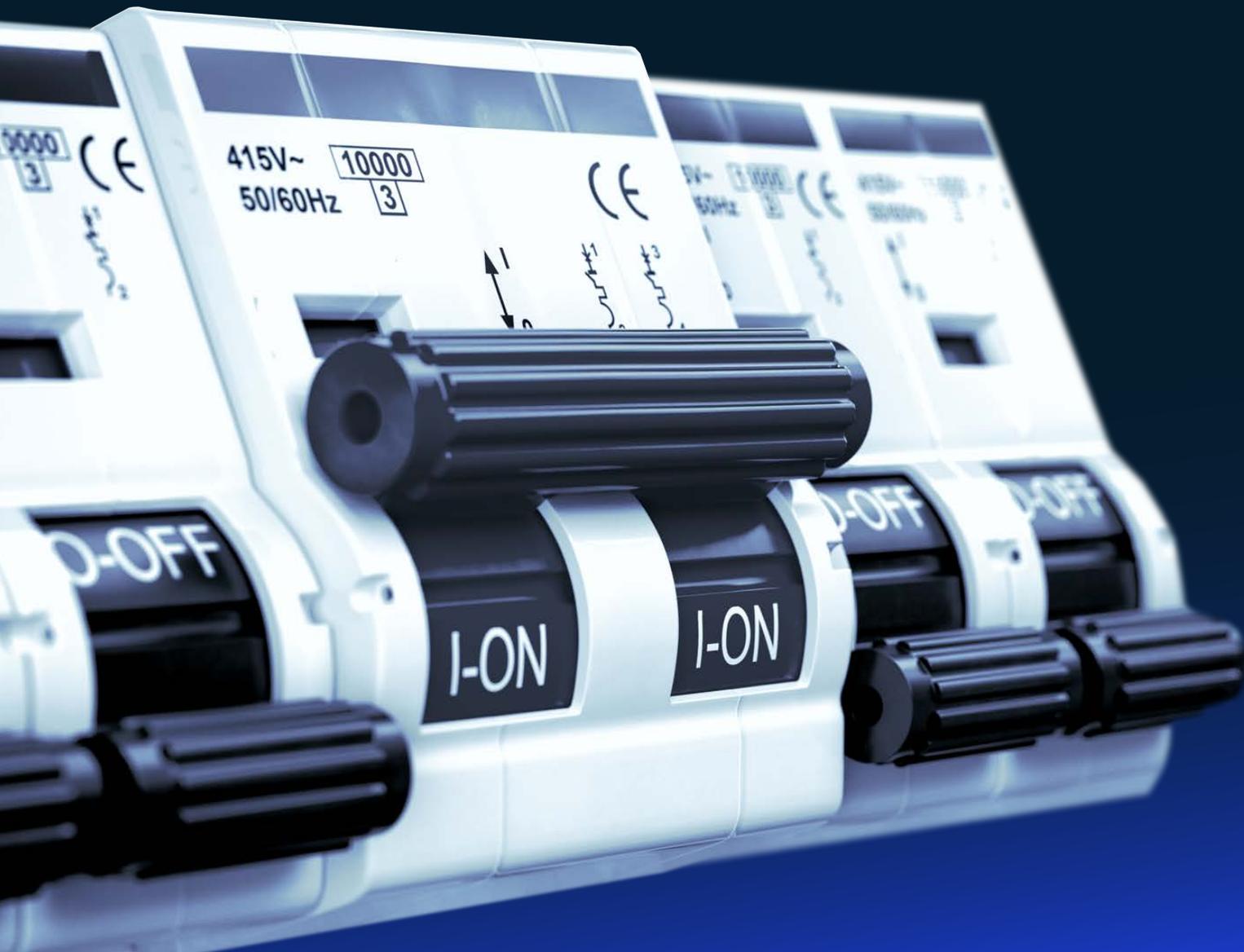
The COVID-19 pandemic is already a generation-defining crisis. Because it affects all social systems, it heightens preexisting structural challenges that black Americans face. But a trial can also be an opportunity. Our society can consider how we can respond to the COVID-19 crisis and fallout to fortify black communities and help them do more than simply recover. We can use the urgency of the pandemic to build more equitable systems that increase the long-term resilience of black Americans, communities, and institutions. As we progress toward this goal, the US economy could benefit to the tune of \$1.5 trillion.¹⁴

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The authors would like to thank Earl Fitzhugh, JP Julien, Duwain Pinder, and Sam Yamoah for their insights and contributions to this article.

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¹⁴ Noel, Pinder, Stewart, and Wright, "The economic impact of closing the racial wealth gap."



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How to restart national economies during the coronavirus crisis

By recognizing differences among regions and sectors, governments can get people back to work faster and safeguard our livelihoods.

by Andres Cadena, Felipe Child, Matt Craven, Fernando Ferrari, David Fine, Juan Franco, and Matthew Wilson

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 shock to our lives *and* livelihoods from the virus-suppression efforts could

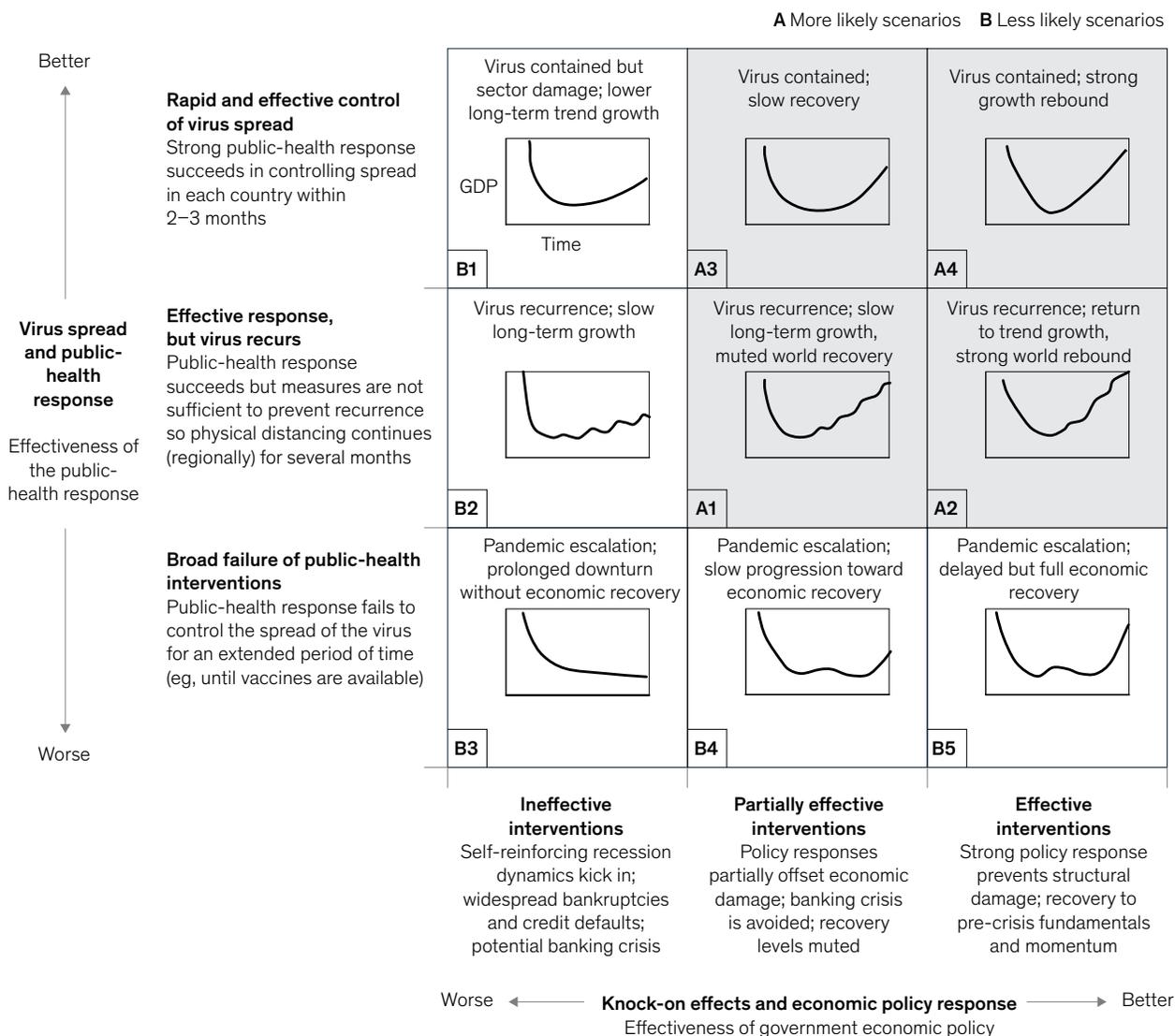
be the biggest of the past 100 years.¹ If we do not stop the virus, many people will die. If attempts to stop the pandemic cause severe damage to social and economic networks, people will experience large-scale suffering in the medium and long term. The world must act on both of these fronts—suppressing 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).

¹ Kevin Buehler, Arvind Govindarajan, Ezra Greenberg, Martin Hirt, Susan Lund, and Sven Smit, “Safeguarding our lives *and* our livelihoods: The imperative of our time,” March 2020, McKinsey.com.

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



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.

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?

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

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 re-open 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.

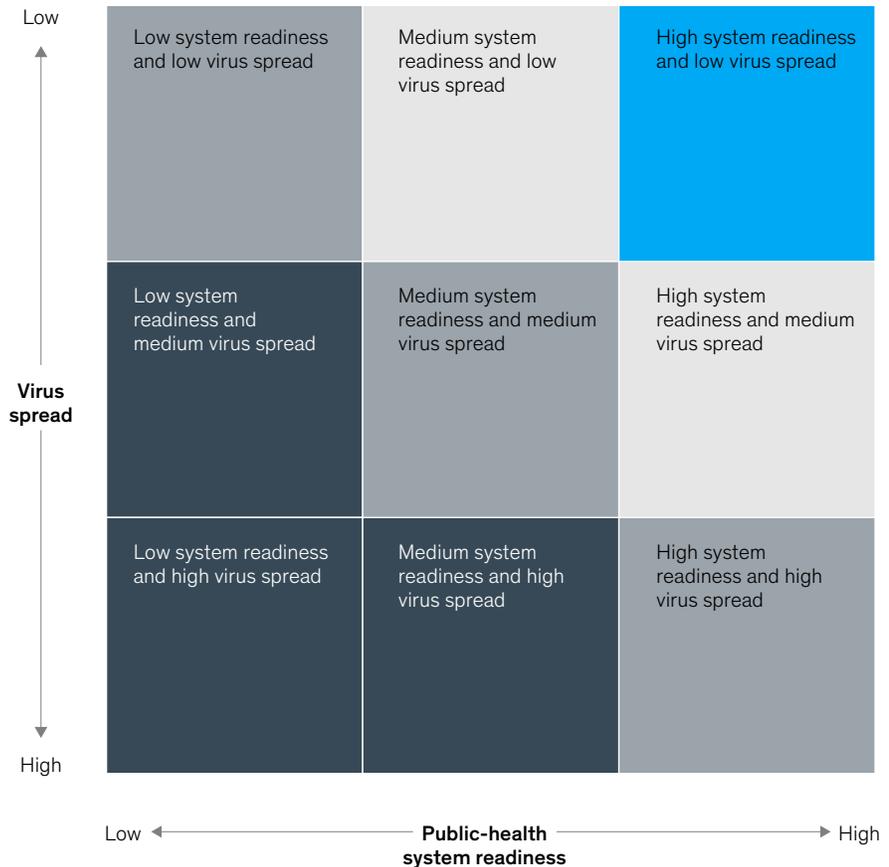
Response leaders can plot subnational regions (states, counties, cities, hospital-influenced zones, and so on) on this matrix to evaluate when each can restart some measure of economic activity. Regions with strong public-health systems and few or no cases, where tracking and isolation of transmission 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-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.

Exhibit 2

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

Readiness to restart economy:

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



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.

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

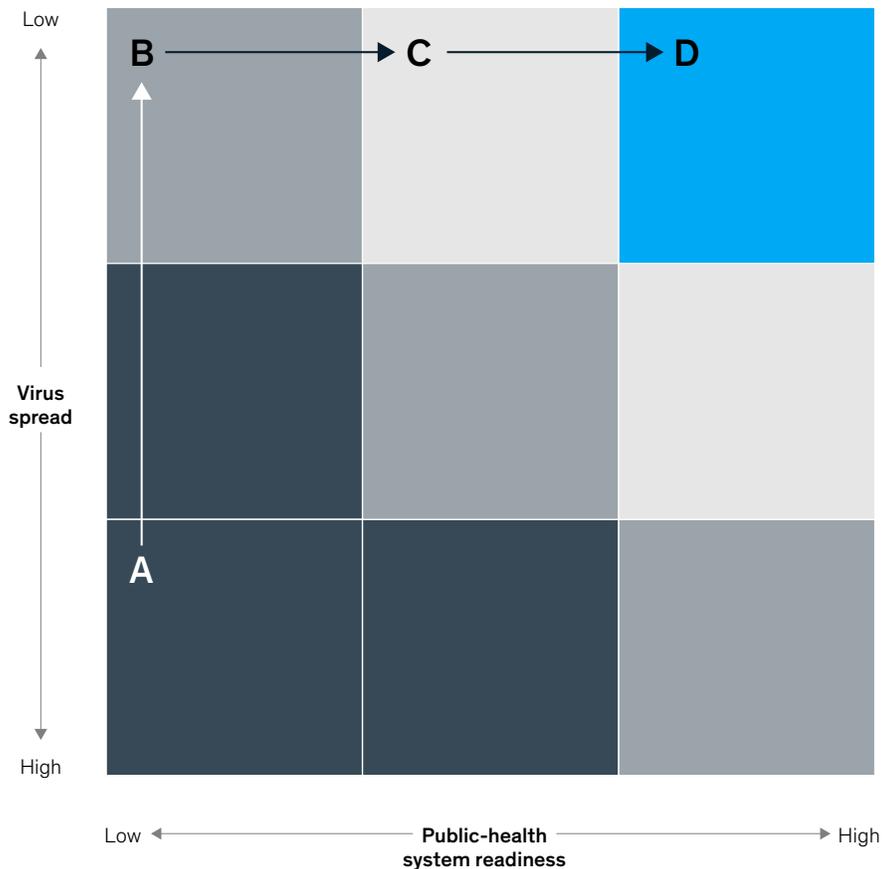
- Mandatory lockdown measures in Stage 4 slow the virus spread, placing the city in a position to start reopening its economy through Stage 3 measures

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



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

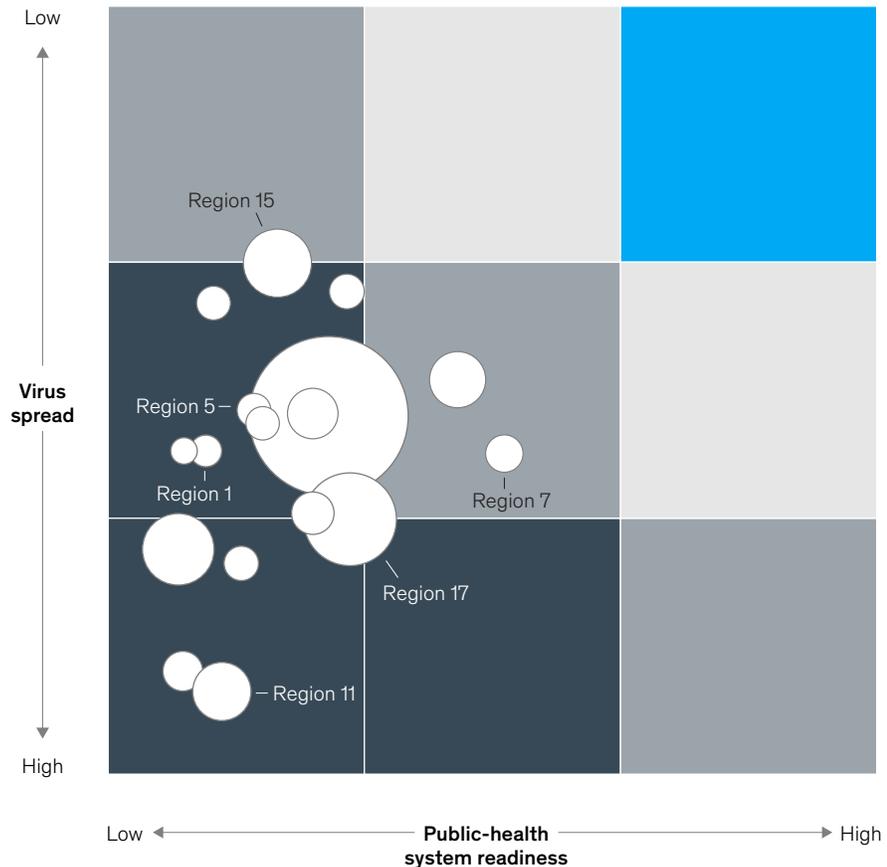
Officials must track the public-health response by region.

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

Readiness to restart economy:

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

○ Economic relevance, region



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

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).²

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.

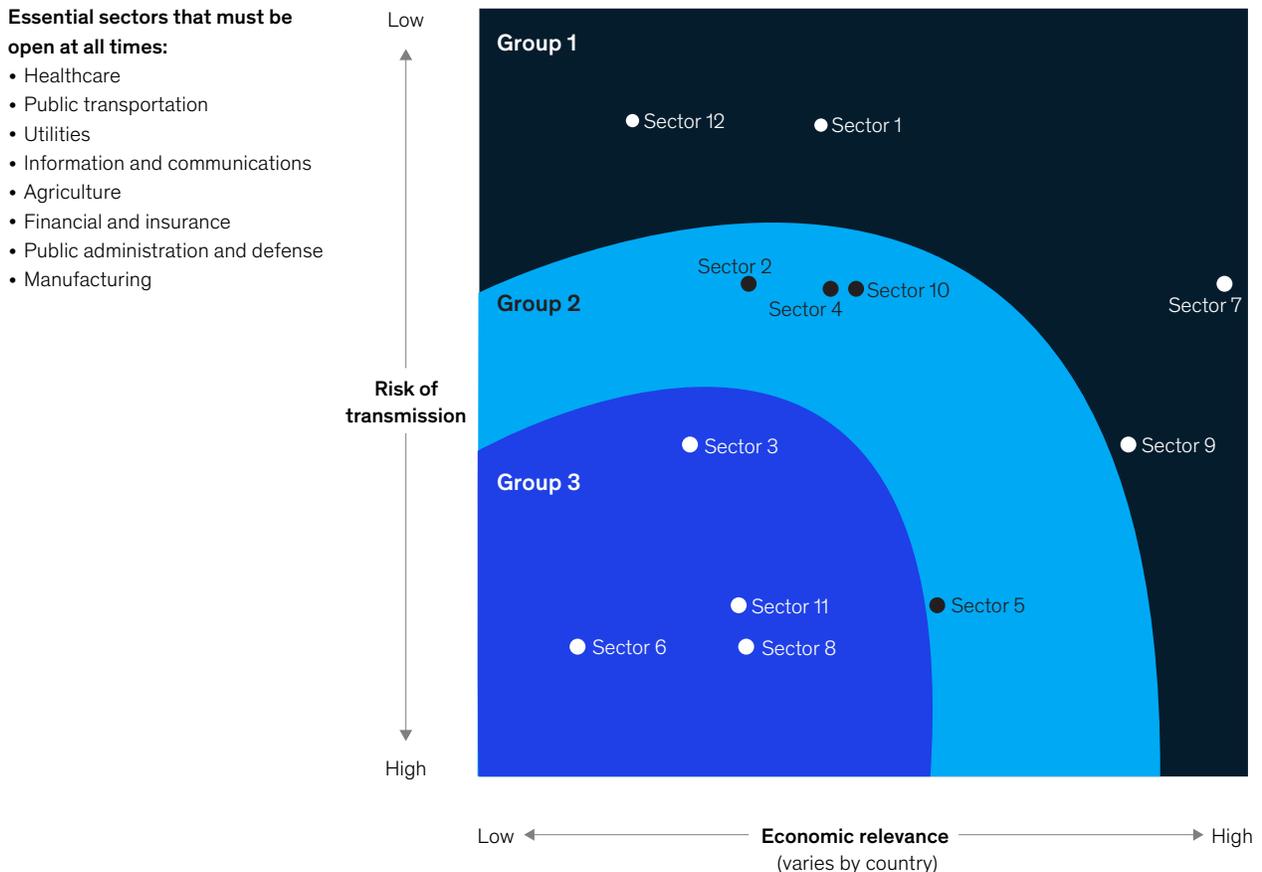
Some strategic sectors of the economy will need to operate even in lockdowns, including healthcare, defense and security, and procurement of strategic goods and services such as food, medicine, energy, water, gas, and communications. Remaining sectors can be gradually reopened regionally, as the public-health 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.

² Few metrics are available to describe specifically how an economic activity contributes to transmission. Until a better metric is available, we use a proxy based on the number of people interacting closely and for longer periods.

Exhibit 6

Governments can prioritize sectors based on their economic relevance.

An illustration of how countries might prioritize sectors



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.

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.

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

Exhibit 7

Protocols for safety and health are essential in every sector.

Illustrative measures

Cross-cutting measures¹

Remote working	<ul style="list-style-type: none"> • Encourage remote work for the next 3–6 months • Create remote-work policies that offer employees productivity incentives
Physical distancing	<ul style="list-style-type: none"> • Ensure a minimum distance of 1.5 meters between two people¹ • Define regulation to establish maximum capacity in closed places • Suspend any in-person events that congregates more than 25 people
Temperature and control	<ul style="list-style-type: none"> • Monitor people's temperature in all buildings and shops daily • Request employee quarantine when the slightest COVID-19 symptom shows up
Health and hygiene	<ul style="list-style-type: none"> • Establish daily disinfection procedures • Promote mandatory health and hygiene protocols for employees (eg, washing hands, wearing masks and gloves)
Reporting	<ul style="list-style-type: none"> • Report to relevant health authorities of any case with COVID-19 symptoms • Report the chain of contagion to relevant health authorities
Enforcement	<ul style="list-style-type: none"> • Perform random checks across sectors to ensure compliance • Impose fines in cases of noncompliance

Sector-specific protocols: Retail¹

- 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.

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.

as China, Japan, Singapore, and South Korea—that have begun to use them.

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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How to rebuild and reimagine jobs amid the coronavirus crisis

Public-, private-, and social-sector leaders are taking urgent steps to manage the fast-evolving crisis of jobs and work. But there is room—and need—for greater focus, speed, boldness, and innovation.

by David Fine, Julia Klier, Deepa Mahajan, Nico Raabe, Jörg Schubert, Navjot Singh, and Seckin Ungur

COVID-19 is the most serious health crisis the world has experienced in a century—and it could also be one of the biggest destroyers of jobs in human history. That matters greatly: when people are stripped of their work, they suffer losses not just of income but also of dignity, meaning, and hope.

The International Labour Organization has forecast that the pandemic could reduce global working hours by nearly 7 percent in the second quarter of 2020—equivalent to 195 million full-time jobs.¹ McKinsey's analysis suggests that, in regions as diverse as Africa, Europe, and the United States, up to a third of the workforce is vulnerable to reduced income, furloughs, or layoffs as a result of the crisis. Many millions of jobs could be lost permanently. That, in turn, would greatly dampen consumer spending, with knock-on effects across economies.

Even in countries in which laid-off workers receive protection through unemployment insurance or wage subsidies, there will be many informal workers who fall through the safety net—and the social and psychological toll of joblessness will be widely felt. Indeed, there is a serious danger that the loss of work will disproportionately affect those who can least afford it, including lower-wage earners and small enterprises.

Leaders in the public, private, and social sectors are already taking urgent steps to manage the fast-evolving crisis of jobs and work. But we believe there is room—and need—for greater focus, speed, boldness, and innovation in this effort. Our worldwide research on emerging strategies and best practices suggests that governments and their partners need to take urgent action in the following two key areas:

1. Create a granular view of who needs help to keep their job—or find new work. Countries, regions, and cities can quickly develop a granular view of where jobs are at risk and where there is additional demand for labor—by sector,

occupation, demographics, and geography. That view needs to put special focus on small businesses and the most vulnerable workers, including those in the gig economy and the informal sector.

2. Build smart, cross-sector solutions to get that help to them fast. As governments prepare to reopen economies postlockdown, they need to find smart ways to maximize employment and protect against new infections, following global guidelines and those of their local public-health agencies. Again, special focus will be needed on restarting and supporting small businesses, which account for the majority of jobs in most countries. At the same time, governments and businesses will need to create new mechanisms to help people whose jobs are at risk redeploy into occupations in which labor demand still outstrips supply—and rapidly build the skills needed for their new roles.

Creating a granular view of who needs help to keep their job—or find new work

Many countries have already taken decisive actions to safeguard jobs. Such actions include implementing wage subsidies, allowing freelancers and sole traders to claim unemployment benefits without shutting down their businesses, and supporting working-from-home policies through tax incentives or transfers.

To deepen the effectiveness of such efforts and to open up new job opportunities, governments and other key institutions can quickly create a more granular picture of where jobs are at risk and where there is additional demand for labor. We suggest that this picture should demarcate the extent of the challenge on three key dimensions: industry sector and occupation, demographics (such as income, education level, and age), and enterprise size.

¹“COVID-19: impact could cause equivalent of 195 million job losses, says ILO chief,” United Nations, April 8, 2020, news.un.org.

Which industry sectors and occupations are most at risk?

In recent days, our colleagues have published analyses showing the number of jobs at risk by sector and occupation in key regions of the world, as lockdowns and physical-distancing measures shutter large parts of the economy.² In Europe and the United States, just two service industries (accommodation and food services plus wholesale and retail) account for around 40 percent of all vulnerable jobs. Among occupations, more than 80 percent of customer-service and sales roles are at risk.

Building on these broad views of the sectors and occupations at risk, governments can develop a granular view of the jobs that are vulnerable, both by industry and service and by occupation. Each occupation can be assessed according to the level of disease exposure inherent in the role and the degree of demand shock that the occupation has experienced during the crisis. This assessment can also consider where demand for labor has increased. For example, our analysis of the Australian labor market shows that, during the crisis, there have been significant new job opportunities in the grocery, call-center, and information- and communication-technology (ICT) sectors.

A heat map can be created at the level of an entire country, a region, a city, or a suburb. The result would provide governments and their private-sector partners with an initial list of the businesses and services in which jobs could be lost—and are therefore in need of interventions to safeguard employment—as well as those in which jobs are being created. In Australia, for example, we have developed heat maps at both the national and state levels, and it is possible to refine that further to individual postcode (Exhibit 1). Their value lies in tracking where opportunities for redeployment may exist. The heat maps would need to be updated regularly to capture the dynamic nature of the labor market, given the evolution of the pandemic and governments' responses to it.

Which demographics are most vulnerable?

Decision makers need to be keenly aware of the danger that the loss of work will disproportionately affect those who can least afford it, including lower-wage earners. For example, McKinsey's analysis in the United States has found that lockdowns disproportionately affect low-income workers. People who were living paycheck to paycheck do not have the financial cushion to absorb a shock of this magnitude (Exhibit 2).³

Building on these broad views of the sectors and occupations at risk, governments can develop a granular view of the jobs that are vulnerable, both by industry and service and by occupation.

²Ibid.

³Ibid.

Exhibit 1

The number of jobs lost and gained may be estimated by postcode, with details on occupation and industry.

Job loss by postcode, detailed by industry and occupation, Australian example, %¹

Industry	Occupation								
	Community-/personal-service workers		Managers		Laborers		Clerical/administrative workers		Total ²
	Sales workers	Machinery operators/drivers	Technicians/trade workers	Professionals					
Arts/recreation	59	67	45	41	34	48	52	17	49
Accommodation/food	43	46	28	43	7	28	14	17	34
Retail trade	36	17	27	34	22	11	10	9	29
Other	38	57	23	25	19	26	11	8	24
Transport/postal/warehousing	24	53	30	19	30	37	19	4	24
Rental/hiring/real estate	32	16	19	15	17	22	5	6	20
Mining	33	13	20	5	20	23	13	4	16
Education/training	26	11	16	6	15	13	11	5	10
Information media/telecom	18	22	17	5	11	18	12	4	10
Private households employing staff	18	10	10	7	6	12	8	2	10
Construction	20	11	12	4	11	13	7	3	10
Wholesale trade	21	2	12	6	15	9	4	3	10
Manufacturing	9	0	13	3	14	5	8	3	8
Healthcare/social assistance	20	13	18	7	11	20	4	6	8
Agriculture/forestry/fishing	15	10	8	7	7	9	6	2	7
Financial/insurance	32	15	24	12	19	25	4	5	7
Electricity/gas/water/waste	18	6	8	4	10	10	4	3	7
Administrative/support	22	29	16	13	-1	-7	6	7	4
Professional/scientific/technical	9	4	6	2	6	7	3	1	3
Public administration/safety	-5	-1	-3	-1	-1	-5	-1	-1	-1
Total ²	32	22	20	14	13	12	7	4	14

¹Calculated as current number of jobs multiplied by % demand shock multiplied by % vulnerability because of physical proximity. Demand shock approximated based on McKinsey consumer research, market-capitalization change (at a subindustry level), or IBISWorld impact assessment. Vulnerability because of physical proximity determined as % of layoffs because of proximity.

²Total calculated as net change in number of jobs divided by total current number of jobs.

Source: ABS; IBISWorld; S&P Capital IQ; McKinsey analysis

In Europe, our analysis finds that education has a significant impact on the level of short-term job risk, potentially exacerbating existing social cleavages. Four-fifths of the total jobs at risk in Europe are positions that do not require a tertiary degree, while employees without a tertiary degree are almost

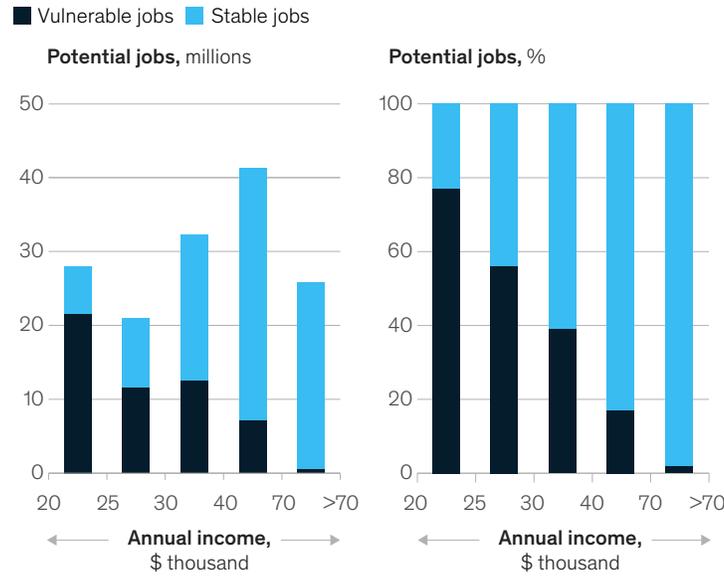
twice as likely to have their job at risk than are employees with a university education. Our research in Europe also finds that the jobs of young workers—those aged 24 and younger—are at significantly higher risk in the crisis.⁴

⁴Ibid.

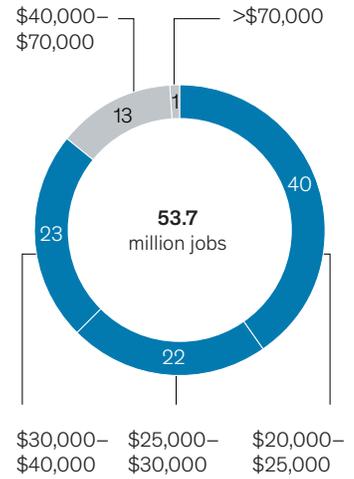
Exhibit 2

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

Level of job vulnerability¹ by income band



Vulnerable jobs¹ by annual income band, %



Note: Figures may not sum to 100%, because of rounding.

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

Source: LaborCube; McKinsey Global Institute analysis

Countries in every region and at every development stage need to ensure that similar analysis is undertaken so that they can identify the most vulnerable groups—and target interventions to safeguard the employment of those groups. Interventions may include ramping up existing programs to support vulnerable groups. In Brazil, for example, 3.1 billion reais (approximately \$610 million) has been provided to the Bolsa Família, a government program introduced in 2003 to support Brazilian families living in poverty, enabling it to reach an additional one million people directly affected by the COVID-19 impact on the economy. Interventions may include ramping up existing programs to support vulnerable groups. Another intervention example is the Canada Emergency Response Benefit that aims to provide a taxable benefit of 2,000 Canadian dollars (approximately \$1,440) a month for up to four months to support

workers who are facing unemployment and are not eligible for employment insurance.⁵

Beyond income level, education level, and age group, countries might also need to consider the particular risks to the jobs of minority and female workers. In emerging economies, in particular, special attention will need to be paid to informal-sector workers, who make up a large share of the total workforce and are particularly vulnerable.

How will small enterprises be affected?

Special focus will also be needed on small and medium-size enterprises (SMEs), which account for the majority of jobs in most economies, and many of whose viability is more likely to be put at risk by the crisis. McKinsey’s analysis in Australia, for example, has found that SMEs account for 68 percent of all jobs at risk across the economy—and

⁵“Analysis of Canada’s COVID-19 economic response plan,” Retail Council of Canada, March 28, 2020, retailcouncil.org.

nearly 80 percent of jobs in accommodation and food services, one of the hardest hit sectors. And a recent McKinsey survey of SMEs in the United States found that half of all companies in the study had already laid off or furloughed employees (Exhibit 3).⁶ Those who are self-employed or part of the gig economy are also seeing precipitous drops in their incomes.

This is an even greater consideration in developing economies. In Africa, for example, SMEs account for 80 percent of employment, compared with 50 percent in the European Union and 60 percent in the United States. Compounding this, many small businesses in emerging markets operate in the informal sector, making it critical that economic-revitalization efforts extend to informal parts of the economy.⁷

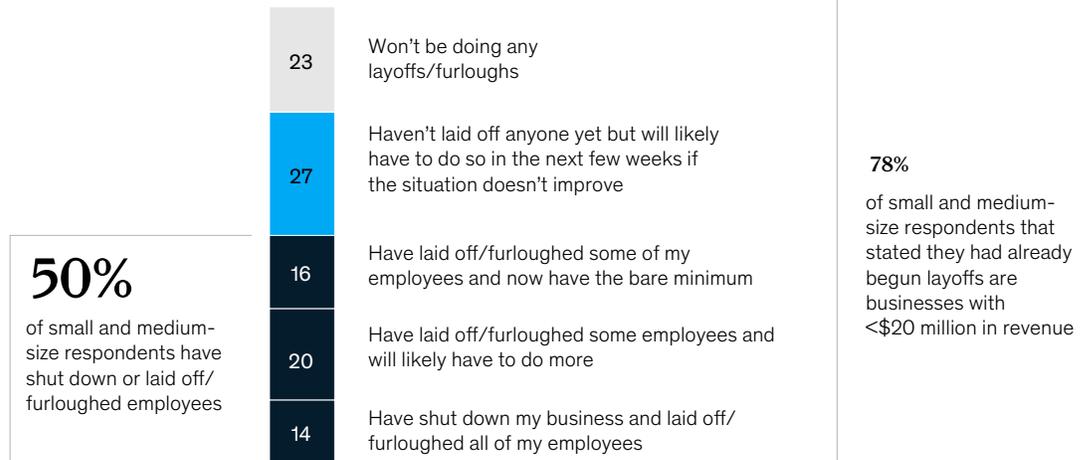
Smaller businesses, including those in the informal sector, typically have smaller balance sheets than do their larger counterparts. In the United States, for example, the median small business has a cash buffer that will last only 27 days, while one-quarter of SMEs surveyed hold a cash buffer that will last only 13 days or fewer.⁸ Some SMEs are highly dependent on a few large B2B customers, while many such enterprises operate in hard-hit sectors, such as tourism and retail. Another challenge among informal enterprises and gig-economy workers is that they are typically not registered with government and regulatory agencies, making it difficult to ensure that help will reach them. Compounding the issue further, small businesses often have a disproportionately large share of the economy in rural areas.

Exhibit 3

Fifty percent of US small and medium-size businesses, predominantly smaller businesses, say they have already laid off employees.

Overall outlook for layoffs/furloughs

Near-term intent to lay off/furlough employees, % of respondents¹



¹ Responses collected Mar 26–Apr 2, 2020; includes businesses with <\$500 million in annual revenue; n = 1,004. Question: What is your view/outlook on layoffs/furloughs at your business over the next 1–2 months?

Source: McKinsey US Small and Medium-Size Business Financial Pulse Survey; McKinsey analysis

⁶ Lindsay Anan, Neha Jain, Deepa Mahajan, Marukel Nunez Maxwell, and Abhijit Singh Pandher, "Tracking US small and medium-sized business sentiment during COVID-19," April 2020, McKinsey.com.

⁷ Kartik Jayaram, Acha Leke, Amandla Ooko-Ombaka, and Ying Sunny Sun, "Tackling COVID-19 in Africa," April 2020, McKinsey.com.

⁸ Lindsay Anan, Neha Jain, Deepa Mahajan, Marukel Nunez Maxwell, and Abhijit Singh Pandher, "Tracking US small and medium-sized business sentiment during COVID-19," April 2020, McKinsey.com.

All of that makes it essential that governments and larger businesses understand the extent to which SMEs—and the people they employ—are vulnerable to losing their work.

Building smart solutions to help people get back to work

Governments around the world, along with private and social sectors, are redoubling their efforts to suppress COVID-19 and save lives. While the battle is far from over, there are indications that an increasing number of countries are succeeding in slowing or reversing the growth rate of infections. These countries can prepare to transition to a new phase in which physical-lockdown restrictions are carefully modified while test, trace, and track strategies remain firmly in place.⁹

Safeguarding and recreating jobs must be critical priorities as countries, regions, and cities enter this transition. A sector- and occupation-level heat map can be a key tool in this effort: for each at-risk industry or service, governments and their partners can shape bold, rapid interventions to increase business activity and recreate jobs.

One key focus of these interventions must be to stimulate consumer demand and rebuild confidence—and lessons on those topics can be learned from previous crises. For example, several countries that experienced sharp drops in tourism in the wake of terror attacks focused on rebuilding local confidence and demand before addressing global markets. A crucial tool was to offer vouchers or discounts for targeted customer groups.

We should note that many countries do not have the luxury of throwing money at the challenge of rekindling their economies, as they face serious fiscal and liquidity constraints. In these countries, solutions will require considerable creativity—and potentially the involvement of the private sector.

In South Africa, for example, businesspeople quickly established the South African Future Trust to offer an initial 1 billion South African rands (approximately \$55 million) in support to SMEs affected by the pandemic. It received more than 10,000 applications in the first few days after launch on April 3, 2020, and has partnered with the country's largest banks to process applications and make payments directly to SME employees within three days. At the same time, governments and businesses will need to create new mechanisms to help those people whose jobs are at risk redeploy into occupations for which labor demand still exists.

These initiatives will require unprecedented speed and agility—and extraordinary degrees of collaboration. To make that possible, governments may need to enable companies to cooperate to keep people employed, engage in joint training programs, and work together to support the small businesses in their supply chains.

Safeguarding and recreating jobs through targeted redeployment and reskilling

Even before the COVID-19 crisis, structural shifts—for example, the adoption of automation and the move toward clean energy—that were reshaping the labor market and increasing demand for particular skills were under way. Technological advances were expected to bring large-scale change in demand for particular roles in the workforce. For example, demand was forecast to increase for ICT specialists and managers as well as for “future skills,” such as digital literacy and cognitive, social, and emotional skills. Demand was expected to decline for administrative roles.¹⁰

The COVID-19 crisis ushers in a new paradigm for reskilling across three dimensions. First, physical distancing causes traditional formats to be replaced online, calling for creativity in delivering effective training (specifically for soft skills, such as teamwork). Second, rapid reskilling requires

⁹Tom Latkovic, Leah Pollack, and Jordan VanLare, “Winning the (local) COVID-19 war,” April 2020, McKinsey.com.

¹⁰For example, see *Jobs lost, jobs gained: What the future of work will mean for jobs, skills, and wages*, McKinsey Global Institute, November 2017, McKinsey.com.

much shorter interventions and a different system to recognize those skills. Microcredits will replace traditional degrees in many cases. Third, a crisis of this degree calls for a mindset shift toward the greater good of society as opposed to focusing on competitive advantage for a specific company. Companies that otherwise would be business competitors will need to collaborate and provide reskilling opportunities at an industry level.

We propose the following three key ideas for action:

- ***Rapidly build online “talent exchanges” to create transparency on job openings and facilitate redeployment.*** There is an urgent need for transparency on changing demand, growing job opportunities, and information on existing skills that may be underutilized and for better, faster matching between job seekers and employers. Industry associations, labor agencies, and groups of large companies can quickly create exchanges or portals on which employers can post new openings and displaced workers, backed by their existing companies, can find redeployment and secondment opportunities. For example, a group of companies in the US food sector created an exchange in just six days, launching it in early April 2020. Governments and not-for-profit organizations can complement online exchanges with support services for displaced workers, such as coaching, counseling, and helping polish résumés. Granted, there would be tremendous challenges in bringing talent exchanges to the scale required, but the COVID-19 crisis creates unprecedented urgency for public and private sectors to ramp up their efforts in this arena.
- ***Reskill at speed and scale.*** Governments, business associations, and educational institutions should be asking themselves, “How do we use the downturn to retrain and future-proof our workforce?” The temporary decline of some industries also provides an opportunity for upskilling toward future-skill-growth areas. Two discrete interventions are needed in this regard: rapid upskilling for short-term demand surges,

such as in grocery retail, and longer-term upskilling or reskilling that enables individuals to move into careers aligned with future-skill trends, such as health services. Longer-term interventions could also focus on digital literacy and social and emotional skills—the building blocks that workers need to stay relevant in a more dynamic and digitized labor market.

- ***Design effective, government-backed incentives for redeployment and reskilling.*** As governments provide crisis support to businesses and individual workers, they can incentivize several important shifts that will help reshape economies to be more productive and equitable when they recover from the crisis. In return for financial support—such as subsidies and tax rebates—during the crisis, governments can require businesses to invest in training and upskilling their workforces. In Germany, for example, the recent Qualification Opportunities Act provides for government subsidies of companies’ employee training programs—with smaller businesses receiving proportionally greater subsidies. Up to 100 percent of training costs for microbusinesses and up to 50 percent for SMEs are covered by subsidy. Governments can also achieve other objectives, such as increasing registration of informal businesses and improving female participation in the economy, in return for financial support.

Restarting vulnerable small businesses: The stalled job engine

The initiatives to reopen economies and redeploy and reskill displaced workers we have described will touch businesses of all sizes. But special focus will be needed on small businesses.

Governments around the world are already taking action to support and protect small enterprises. Some are purchasing goods and services, including through stockpiling and redirecting procurement to small vendors, directly from businesses that are experiencing revenue loss. Others are stepping up to offer direct subsidies, tax rebates, and payment deferrals.

More can be done—fast—to build on these initiatives. Ideas for action to restart and sustain the SME job engine include the following:

- **Help SMEs take advantage of online talent exchanges.** Often, small businesses do not have access to the market information and technical infrastructure that can help them quickly redeploy labor or expand their portfolios of services. Governments can create a talent exchange dedicated to SMEs. They can also counsel SMEs regarding new opportunities that would leverage their current skills and capabilities, fast-track issuance of business licenses when needed, and offer technical support to transition service offerings—for example, for restaurants transitioning to delivery services. In all such efforts, governments could consider quickly reducing regulatory barriers—even if it is on an interim basis during the crisis.
- **Build alliances among large and small businesses.** Governments and industry associations can engage large companies and industry leaders to take responsibility for entire sector ecosystems and value chains. Larger businesses can provide unique perspectives and practical advice to smaller businesses—for example, by helping a supplier, such as a sewer, transition to making cloth face masks as a short-term measure and by helping smaller businesses shift to remote work or digital channels. There are already examples of multinationals and state-owned enterprises stepping in to support SMEs, specifically in countries with fiscal

constraints. In one country, a group of large companies and wealthy individuals have formed a relief fund for SMEs; the fund is considering taking equity stakes in the portfolios of SMEs in return for financial support during the crisis.

- **Protect the most vulnerable segments of SMEs.** Governments need to act fast to ensure that SMEs—including informal microenterprises and gig-economy workers—are included in relief and stimulus packages. For example, some have debated the employment status of gig-economy workers in the context of access to unemployment benefits. Minimum-wage and antidiscrimination laws may not apply to them, and retirement security is also a concern. Governments can also explore how to make sure that SMEs benefit from demand stimuli to reignite employment creation, which will entail making SMEs' procurement rules much more effective than they have been up to now.

In many countries, COVID-19 infections are still doubling each week—or even faster. Responses to save jobs need to be even swifter: solutions and interventions must be designed and deployed in days, greatly accelerating processes that, in normal times, would take months. The suggestions described in this article may seem obvious to many, but sometimes obvious is not fast. We truly believe that efforts to protect and create jobs have to move at an unprecedented speed.

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Winning the (local) COVID-19 war

As governors, mayors, and other leaders work to protect lives and livelihoods, they will need to confront this enemy across six domains, pressing hard to safeguard industries, and using data to adapt based on ‘the facts on the ground’.

by Tom Latkovic; Leah Pollack; and Jordan VanLare, MD

Individuals and business leaders understandably want to know when life will return to normal, or at least when economic activity can resume unencumbered. We admit we do not know.

We do know we face an enemy that is poorly understood, potentially adaptive, and has already attacked most of the United States. Most epidemiologists have concluded that there will likely be some degree of contagion across the country for at least 12 to 18 months. With that reality in mind, we offer three suggestions to help state and local leaders navigate the challenging set of choices required to safeguard lives and livelihoods in our communities.

We base our conclusions on analysis of the experience of certain Asian countries most often cited as successfully navigating the crisis; a review of the growing body of relevant literature; direct experience in the healthcare delivery system; and an analysis of previous economic crises.

1. Prepare to fight and win a war: Build a true command center with sufficient resources and authority; find talented people (within and beyond government) with the necessary skills, especially in operations and logistics; and invest in the most relevant data and information, as well as the capability to adapt based on the “facts on the ground.”

2. Engage across six domains and multiple theaters: The six key domains are (i) foundational public health, (ii) societal compliance, (iii) health system capacity, (iv) industry safeguarding, (v) protection of the vulnerable, and (vi) economic health. Theaters of the COVID-19 war will be in cities, counties, and, in some cases, neighborhoods. The command center needs to coordinate and integrate “joint operations” across these domains and theaters. At present, most cities and states are engaged in two or three domains, often independently, and with inadequate adaptation.

3. Execute well to earn flexibility: This war is unlikely to be fought in clearly delineated or linear “stages.” Rather, leaders will need to throttle up or down the intensity of interventions over time based on the facts as they emerge. A “composite index” based on the epidemiological reality in a community, its performance across domains, and the extent of effective treatment or a vaccine could help inform leaders when they can consider removing restrictions on economic activity (or put them in place).

1. Prepare to fight and win a war
Many state and local leaders have planned and executed their response with the same

Command Center Checklist

- Clear governance with agile decision-making processes
- Useful, accurate, current information across all domains and all theaters
- Each team/domain has clear, tangible objectives, necessary resources, and authority to act
- Clear mechanisms to interface and engage with public and private stakeholders
- Sufficient talent: large group of outcome-oriented leaders with mix of skills—operators, logisticians, strategists, analysts, clinicians, etc.

infrastructure, people, and approaches used to recover from either natural disasters or previous epidemiological outbreaks. While there is much to gain from those approaches, combating COVID-19 is much more analogous to fighting a war in at least four ways:

Indefinite end-date: There is near consensus among epidemiologists that most states will face some (maybe meaningful) virus outbreaks for an extended period, potentially up to 18 months or longer.

Distinct theaters: Given that communities vary in size, health system sophistication, resources, and economic composition, the timing and execution of known strategies will vary considerably, especially over time.

Relevance of operational logistics: Army General and President Dwight D. Eisenhower observed: “You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics.” Combating COVID-19 requires dramatic and immediate requisitioning of millions of items, reskilling people at scale, and adapting millions of square feet of physical environments.

Adaptation: As in any war, a variety of favorable or unfavorable developments could evolve. The situation could change based on mutations of the virus, exogenous events, innovations, and unforeseen circumstances.

The implication is that states and cities can each benefit from a command center and leadership structure designed to last at least 18 months with the right resources and authority to act. Below we highlight a handful of fundamental requirements within a checklist that can be used as a guide to consider the right structure, processes, and people for the command center.

2. Engage across six domains and multiple theaters

Domain 1: Foundational public health

McKinsey has assessed the myriad strategies intended to stop the spread of coronavirus based on four criteria: whether the strength of the evidence indicates that the interventions reduce disease spread; the degree of unfavorable economic impact; degree of unfavorable social impact; and the degree of implementation difficulty (Exhibit 1).

We conclude that five are most fundamental:

- 1. Protecting healthcare workers.** Develop the ability to fully protect healthcare workers with personal protection equipment (PPE), including masks, gloves, and protective gowns.
- 2. Widespread, systematic, and accurate testing.** South Korea implemented a holistic testing strategy across both asymptomatic and symptomatic patients at 1 percent per capita by allocated testing centers and drive-thru testing. US testing currently stands at 0.43 percent per capita (as of April 3, 2020).¹ Israel has employed batch testing of 60 people simultaneously (by pooling samples in a single test kit) followed by additional testing only if the sample is positive.²
- 3. Scalable contact tracing.** Digitally enabled centralized and decentralized contact tracing has played a large role in geographies that have “flattened the curve.” Hong Kong and South Korea have, for example, publicly available applications/text services to alert individuals to nearby cases and allow these individuals to take precautions. In practice, public communications will need to be ramped up digitally to focus on which people should be quarantined and how they should do it.

¹ “Most recent data,” The COVID Tracking Project, April 5, 2020, covidtracking.com.

² “Israelis introduce method for accelerated COVID-19 testing,” ISRAEL21c, March 19, 2020, israel21c.org.

Exhibit 1

Assessment of 23 key public health interventions

Categories	Interventions to stop contagion	■ High ■ Medium ■ Low			
		Impact on epidemic	Economic impact	Social impact	Implementation difficulty
Protection	Protection of essential health workers—adequate PPE ¹ and protocols	■	■	■	■
	Systematic testing	■	■	■	■
	Sign and symptom screens	■	■	■	■
Detection/ quarantine	Contact tracing	■	■	■	■
	Time-limited quarantine of infected patient	■	■	■	■
	Time-limited quarantine of those in contact with infected patient	■	■	■	■
	Extended quarantine of high-risk population	■	■	■	■
Personal behavior	Personal/home hygiene (eg, hand-washing, surfaces)	■	■	■	■
	Targeted use of masks	■	■	■	■
	Voluntary physical distancing	■	■	■	■
Economic activity	Migrate to remote working where possible	■	■	■	■
	Workplace safeguards (eg, masks, physical distancing)	■	■	■	■
	Prohibiting selective activity/sectors	■	■	■	■
Travel/ movement	Full shelter in place	■	■	■	■
	Stop large gatherings (eg, church, sports)	■	■	■	■
	Stop small gatherings (eg, church, sports)	■	■	■	■
	Restricting movement in/out of state/city	■	■	■	■
	Mass transportation shutdown	■	■	■	■
	Cleaning/protocols of mass transportation	■	■	■	■
Education	Shift primary education to remote	■	■	■	■
	Shift secondary education to remote	■	■	■	■
	Shift higher education to remote	■	■	■	■
	Require education safeguards	■	■	■	■

¹ PPE, Personal protective equipment

4. Effective quarantines of those infected and their close acquaintances. Detection and contact tracing are effective only if those at risk are safely separated from others. To date, most documented clusters of infection have occurred in families (78 to 85 percent of clusters), demonstrating the potential need to separate intrahousehold members and those with close acquaintances.³ Numerous countries and several US cities have used hotels for low-acuity infected patients for whom returning home could pose a transmission risk.

5. Use of masks in public places. There is ongoing debate about the effectiveness of widespread use of masks, such as outside of healthcare settings.⁴ While the evidence is inconclusive, we note that countries where masks (not necessarily N95 respirators) are more frequently worn in public have a 1 percent growth rate of the virus compared with a 17 percent growth rate⁵ in countries that do not. We hypothesize that the primary benefit of widespread use of masks in the United States may be in limiting

³Report of the WHO–China Joint Mission on Coronavirus Disease 2019 (COVID-19), WHO, February 2020, who.int.

⁴Burch J and Bunt C, “Can physical interventions help reduce the spread of respiratory viruses?,” Cochrane Clinical Answers, March 3, 2020, cochranelibrary.com.

⁵Multiple recent articles from *Time* and *The New York Times*.

the transmission from infected people to healthy people, especially in shared living spaces, retail settings, or workplaces and in conjunction with hand-washing.⁶ This strategy could prove particularly helpful in the United States, where aggressive screening (such as testing of asymptomatic people), contact tracing, and quarantines are not widely used. Any strategy that expands use of masks by the general population needs to ensure that healthcare workers are protected first.

We classify the other public health strategies into three additional categories (Exhibit 2):

“Most painful, most effective”: Evidence suggests these approaches to be very effective, with a very high cost economically and socially. When applied, the management objective should be to execute with as high a degree of compliance as possible to limit the duration necessary.

“Close to no-regret”: These are strategies with at least some evidence of contagion reduction while having a relatively modest economic or social cost. The objective for these strategies should be to plan to operate them for the indefinite future. That means setting societal and stakeholder expectations.

“Effective, but painful”: These are strategies with at least some evidence to reduce contagion but with high economic and/or social cost. The objective should be to know (a) when to deploy these interventions, (b) when to stop, and (c) how best to mitigate their economic and social costs.

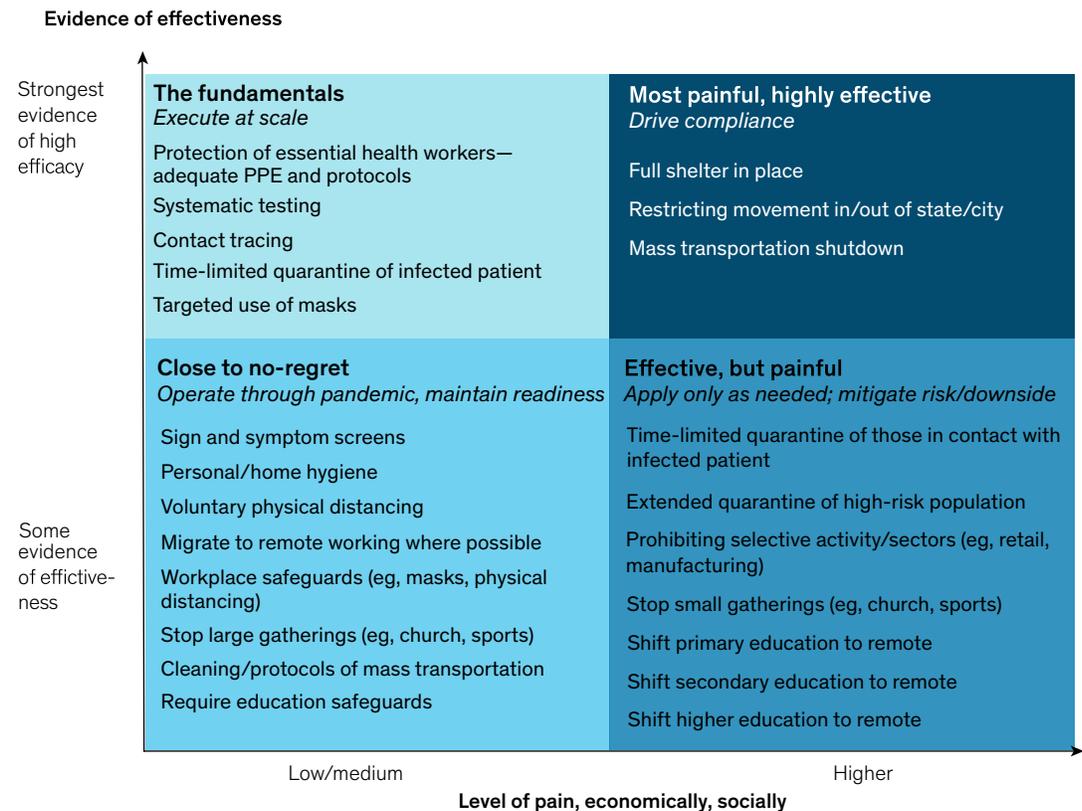
Domain 2: Societal compliance

Policies to limit transmission, especially quarantining, physical distancing, remote work requirements, and shelter-in-place orders are only effective to the extent the public adheres to

⁶ Aiello AE et al., “Mask use, hand hygiene, and seasonal influenza-like illness among young adults: a randomized intervention trial,” *Journal of Infectious Diseases*, 2010, Volume 201, Number 4, pp. 491–8.

Exhibit 2

Four archetypes of public health strategies/interventions



them. We currently observe high variability in the approaches to activity restriction in the United States across communities. Some communities are using “sticks,” such as fines and arrests, to increase adherence. Others have not implemented penalties for noncompliance, and as a result, nonessential businesses and public gatherings in areas such as parks continue to operate as normal. Chicago and New York City are attempting to limit transmission within households and close or high-risk communities by providing temporary housing for infected individuals in hotels, but other urban areas are sending infected patients to self-quarantine in crowded apartments. Most municipalities are using some form of regular communication to the public through multiple channels.

McKinsey has monitored the different approaches across locations and continues to examine the differences in outcomes (Exhibit 3). While no

definitive conclusions can be made, we observe a steeper decline in infections where quarantine and distancing policies have been rapidly implemented and tightly enforced (for example, Lodi, Italy, where lockdown was rapid and penalties, including arrests, were implemented) compared with those communities that have been less intense in their enforcement (for example, Spain, where only fines were used). Conceptually, any lack of adherence to physical distancing and quarantine policies increases contact and therefore infections of susceptible people. Physical distancing and quarantine policies that are weakly enforced impose social and economic cost without extracting the full benefit of eliminating contact.

Segmentation

As with any attempt to change behavior, segmentation is useful. Below we focus on three groups: older people, younger people, and lower-income people.

Exhibit 3

Approach to movement restrictions have varied

Type, speed, and breadth of response¹

Region	Type	Speed	Fines	Arrests	Masks ²	Inter-vention date 2020	Cases at time of intervention
Taiwan	Isolated non-strict quarantine	Rapid			✓	Feb 2	10
South Korea	Isolated non-strict quarantine/contact tracing	Rapid	✓		✓	Mar 3	5,186 ³
Singapore ⁴	Isolated non-strict quarantine/contact tracing	Rapid	✓	✓	✓	Jan 28	7
China-Hong Kong	Strict lockdown	Rapid	✓	✓	✓	Jan 28	5
Italy-Lombardi	Strict lockdown	Rapid	✓	✓	✓	Mar 8	4,189
US-New York City	Stay-at-home order	Slow	⋯			Mar 21	11,710
Spain	Strict Lockdown	Moderate	✓			Mar 14	6,391
US-Washington	School closings, no social gatherings	Moderate				Mar 15	643
Germany	School closings, no social gatherings	Slow	✓			Mar 22	2,660
US-Michigan	Stay-at-home order	Moderate				Mar 23	1,329
US-Chicago	Shelter-in-place order	Rapid	✓	✓		Mar 21	753
US-Louisiana	Stay-at-home order	Moderate				Mar 22	837
China-Hubei	Strict lockdown	Moderate	✓	✓	✓	Jan 23	444
US-Ohio	Shelter-in-place order	Rapid				Mar 22	356
US-California	Shelter-in-place order	Moderate	✓			Mar 17	698
US-Maryland ⁵	Shelter-in-place order	Moderate	✓	✓		Mar 23	290
US-Arizona ⁶	School closings, limited social gatherings	Slow				Mar 19	45

■ Previous epidemic experience with SARS/MERS ■ 10-day post-measure still TBD; early preliminary figures

Exhibit 3 cont.

Days to double case volume, # of days

Region	Pre-measure ⁷	Post-measure ⁸	Change
Taiwan	15.5	60.6	45.1
South Korea	2.8	39.8	37.0
Singapore ⁴	1.8	6.8	5.0
China-Hong Kong	2.5	6.8	4.3
Italy-Lombardi	2.7	5.8	3.1
US-New York City	1.4	4.2	2.8
Spain	1.7	4.3	2.7
US-Washington	3.9	6.5	2.6
Germany	3.1	5.5	2.4
US-Michigan	1.3	3.1	1.8
US-Chicago	1.9	3.3	1.4
US-Louisiana	2.4	3.7	1.3
China-Hubei	1.9	3.0	1.1
US-Ohio	2.2	3.2	1.1
US-California	3.0	3.3	0.3
US-Maryland ⁵	2.5	2.7	0.3
US-Arizona ⁶	3.2	3.3	0.2

¹ One factor in evaluating outcomes, intrinsic (eg, disease progression) and extrinsic factors will also influence case numbers.

² A check indicated widespread use of masks at time of intervention.

³ South Korea cases taken at time of strict measures post-super-spreader church event (ie, infection relapse).

⁴ A check indicated MoH or Department of Health recommendations towards mask usage at time of intervention; does not necessarily indicate government-mandated mask wearing.

⁵ As of March 31, 2020, moved to stay-at-home order.

⁶ As of March 31, 2020, issued shelter-in-place order.

⁷ Average over 5 days.

⁸ Average 6–10 days post-measure implementation.

Source: Johns Hopkins University daily cases as of March 29, 2020; press searches

To reduce the potential peak demand for scarce healthcare resources, it is particularly important to reduce contagion to segments of people that are more vulnerable, namely older people and those with high-risk health conditions. Hospital admission data from China, South Korea, and Germany (all places with extensive testing) show a much higher propensity among older individuals to require hospitalizations and intensive care unit (ICU) care. If the United States could better protect 40 percent of people over 60, roughly 6 percent of the US population, it could reduce peak consumption of critical care by 35 percent (Exhibit 4).

It is important to note that many of the strategies to protect older and higher-risk Americans also could create a myriad of challenges. Therefore, any approach must directly address the practical, social, and behavioral needs of people who may be in relative isolation for a long period of time and have sources of income compromised.

Additionally, a growing body of evidence suggests that certain segments of people and those in certain communities have been less likely to comply with physical distancing.^{7,8} Recent Centers for Disease Control and Prevention data⁹

⁷ Murad Y, "Most U.S. Adults Practice Some Degree of Social Distancing Amid Coronavirus Spread," Morning Consult, March 20, 2020, morningconsult.com.

⁸ Cummins E, "I'll do what I want': Why the people ignoring social distancing orders just won't listen," Vox, March 24, 2020, vox.com.

⁹ CDC COVID-19 Response Team, "Severe Outcomes Among Patients with Coronavirus Disease 2019 (COVID-19)—United States, February 12–March 16, 2020," *Morbidity and Mortality Weekly Report*, 2020, Volume 69, Number 12, pp. 343–6, cdc.gov.

Exhibit 4

Potential reduction in critical care demand from better protection of older populations

Sensitivity of age-based prevention on critical care resource consumption in the United States
 reduction in critical care days from base case, by achieving prevention rate
 (cases rebalanced across other age groups¹), %

		Portion of US population	Shift in exposure to COVID-19, by age						
			+20%	+0%	-20%	-40%	-60%	-80%	-100%
Age group	Over 60 years old	22%	17%	0%	-17%	-35%	-52%	-69%	-87%
	Over 70 years old	11%	12%	0%	-12%	-25%	-37%	-50%	-62%
	Over 80 years old	4%	6%	0%	-6%	-12%	-18%	-24%	-30%

¹ Model assumes fixed number of cases in the United States, shifting cases away from vulnerable groups in each scenario; 10-days critical care average length of stay with additional four days hospitalization average length of stay (ALOS).

Source: Imperial College London (individual case data from mainland China); JAMA Network; US Census Bureau

show higher rates of admission from younger people in the United States compared with other countries,¹⁰ implying that older people may be more consistently physical distancing. We also observe considerable geographic variation across communities.¹¹ Successfully adapting the behavior of distinct segments, especially over time, will require a mix of segment-specific messaging, incentives, and potential enforcement.

Physical distancing and quarantines could take an even higher toll on lower-income people and marginalized communities, such as undocumented workers.¹² Many of these groups have less stable housing and are more likely to lose income or access to healthcare. Additionally, 34 million Americans have no paid sick leave, which correlates to a higher likelihood they will go to work

with a contagious disease.¹³ Ensuring compliance will require specific strategies to address these concerns and ensure that these vulnerable communities are not disproportionately impacted.

Domain 3: Expanding health system capacity

The primary motive for public health interventions is to flatten the incidence curve and prevent demand for healthcare services from outstripping supply. Logically, communities and states that create and maintain (or have the potential to quickly create) more health system capacity will have more degrees of freedom. We believe that at least a doubling of critical care capacity is likely possible and necessary, at least temporarily, across most parts of the United States. More capacity may be needed in select communities.

¹⁰ Ferguson NM et al., "Impact of non-pharmaceutical interventions (NPIs) to reduce COVID19 mortality and healthcare demand," Imperial College London, March 16, 2020, imperial.ac.uk.

¹¹ Glanz J et al., "Where America Didn't Stay Home Even as the Virus Spread," *The New York Times*, April 2, 2020, nytimes.com.

¹² Benfer EA and Wiley LF, "Health justice strategies to combat COVID-19: Protecting vulnerable communities during a pandemic," *Health Affairs*, March 19, 2020, healthaffairs.org.

¹³ Ibid.

We describe the necessary bed infrastructure, workforce, clinical operations, and supplies needed to scale up capacity in our recent publication, *Critical care capacity: The number to watch during the battle of COVID-19*.¹⁴ Select examples of capacity expansion are described below.

- **Bed capacity.** New York City hospitals were charged with expanding capacity by 50 percent and advised to have a plan to reach 100 percent. Specialty hospitals are being converted to general medicine and ICU beds. New Jersey is bringing shuttered hospitals back online. The Armed Services are standing up field hospitals and mobilizing floating naval hospitals. Bed capacity is a solvable logistic challenge that the United States and others around the world have solved before in disaster zones and battlefields.
- **Workforce.** Health systems are stretching staffing ratios; reskilling physicians, nurses, and other clinical staff to work with COVID-19 patients; redefining roles in team care (for example, intensivist leading a team of noncritical care physicians); deploying remote monitoring and telemedicine across the country; and bringing nonpracticing or retired healthcare workers back into the workforce. Recruiting and changing regulations and processes to licensing and credentialing former military medics, out-of-state professionals, and retired healthcare professionals are helping to buttress supply. However, addressing fatigue, infection, and growing demands in other geographies will likely pose greater challenges over time.
- **Clinical operations.** Shifting Emergency Medical Services, Emergency Room, inpatient, and Intensive Care Unit operations to accommodate COVID-19 and non-COVID-19 patients is critical. Communities where health systems collaborate, coordinate, and share resources (to the extent permissible) to create a more integrated local response are likely to emerge stronger.
- **Supplies.** Maintaining access to critical supplies, particularly PPE, testing equipment,

and ventilators, will likely be a choke point for scale up. It is important that states understand the needs of their communities and coordinate logistics to direct supplies to areas of greatest need, most likely in deep partnership with state and local healthcare providers and their associations. In doing so, states should understand and coordinate best practices in demand management across the healthcare ecosystem, including for non-COVID-19 patients. States also may consider working with local manufacturers to ramp up production in existing factories, convert other factories where possible to manufacture supplies, and redirect existing inventory of non-healthcare businesses.

Domain 4: Industry safeguarding

If one believes the risk of contagion will continue for at least 12 to 18 months, the public and private sector leaders should collectively drive widespread use of the most effective adaptations and safeguards to economic activity (Exhibit 5). Examples include physical barriers, face guards, physical distancing, health screenings before entry, generous and flexible sick leave, and other approaches for limiting virus transmission. Widespread use of these safeguards and adaptations across Asia (for example, Hong Kong, Taiwan, South Korea) provide evidence it may be possible to reactivate economic activity without large-scale reemergence of contagion.

Safeguarding also could be critical to managing the psychological impact of the disease, restoring consumers' confidence, and ensuring that people engage in activities deemed safe. Given the intensity with which leaders are communicating the very real risks of exposure to COVID-19, it may prove challenging to adapt the physical distancing message at the appropriate time, especially if some degree of contagion is present. Leaders will need to consider strategies to bolster what the private sector can do on its own. For example, the government could consider visible certification for environments and/or the creation of clear safeguarding standards to reassure consumers.

¹⁴ Singhal S, Finn P, Kumar P, Craven M, and Smit S, "Critical care capacity: The number to watch during the battle of COVID-19," March 2020, McKinsey.com.

Exhibit 5

Select best practices for safeguarding public health in the workplace



Source: Centers for Disease Control and Prevention; Occupational Safety and Health Administration.

Enacting these measures will be more challenging for some industries, and policy makers will need to weigh the speed and completeness with which these practices can be adopted with the criticality of each sector. We assessed major sectors of the economy based on the intrinsic risk of spread given the nature of the activity, their ability to adopt safeguards, the extent to which they are essential for society to function, and their economic vulnerability (Exhibit 6).

We then aggregated each sector into one of five segments primarily based on how critical these activities are typically considered by states and how difficult it would be for each industry to safeguard. According to our analysis, 41 percent of GDP and 19 percent of employment are relatively easier to safeguard with limited changes to existing processes and approaches (Exhibit 7). These limited changes could include, for example, adopting physical distancing practices, maximizing

telework, and developing hygiene protocols, as many companies did in China.¹⁵ On the other end of the spectrum, 20 percent of GDP and 37 percent of employment are activities that are quite difficult to safeguard and would require significant changes to “business as usual” to limit contagion.

A more detailed description of each industry is provided below.

Critical (critical essential need; lower risk of transmission): Sectors typically considered critical to day-to-day functioning of society and can be safeguarded to mitigate contagion with relatively modest modifications. These sectors do not typically involve widespread direct engagement with others (for example, utilities providers) and may be safeguarded by reinforcing basic practices (for example, hand hygiene, physical distancing).

¹⁵ Huang X, Sawaya A, and Zipser D, “How China’s consumer companies managed through the COVID-19 crisis: A virtual roundtable,” March 2020, McKinsey.com.

Exhibit 6

Assessment of sectors by contagion risk and economic vulnerability

Macro group	Sectors	% of US 2019 GDP ¹	% of US 2019 employment ¹	Pop-ulation exposed	Public health threat		Economic threat		
					Intrinsic risk of spread	Ability to safe-guard	Critical ²	Ability to work remotely	Shut-down resilience
Business	Information	5.2%	1.9%	Low	Low	Easier		High	High
	Finance	7.5%	4.2%	Low	Low	Easier		High	High
	Real estate	13.3%	1.5%	Low	Medium	Easier		Medium	Medium
	Professional services	7.6%	6.2%	Low	Low	Easier		High	Medium
	Management	1.9%	1.6%	Low	Low	Easier		High	High
Consumer	Wholesale	5.9%	3.6%	Low	Medium	Easier		Medium	Medium
	Retail	5.9%	9.8%	High	High	Harder	Yes ³	Low	Low
	Recreation	1.1%	1.6%	High	High	Harder		Low	Low
	Food and accomodation	3.1%	9.2%	High	High	Harder		Low	Low
Industrial	Agriculture	0.8%	2.0%	Low	Low	Medium		Low	Medium
	Mining	2.3%	0.5%	Low	Low	Medium		Low	Medium
	Transportation	2.7%	3.4%	High	High	Harder	Yes ³	Low	Low
	Utilities	1.7%	0.3%	Medium	Low	Medium	Yes	Low	High
	Construction	4.1%	4.9%	Low	Low	Medium		Low	Medium
	Manufacturing	10.9%	8.3%	Medium	Medium	Medium		Low	Low
Social and support	Administrative	3.1%	6.1%	Medium	Medium	Medium	Yes	Low	Medium
	Education	1.2%	2.4%	High	High	Medium	Yes	Medium	Medium
	Social services and healthcare	7.5%	13.3%	High	High	Harder	Yes	Low	High
	Government	12.2%	14.7%	Medium	Medium	Medium	Yes	Medium	High

¹ Sum is less than 100%, due to other minor sectors not depicted.

² Sectors typically considered critical by states

³ Partial

Source: Moody's Analytics; US Bureau of Labor Statistics (CES, QCEW); Moody's Analytics

Critical but adaptable (critical essential need; medium risk of transmission): Sectors typically considered critical to day-to-day functions of society with a high risk of contagion and barriers to safeguarding (for example, retail grocery). These sectors and activities may require significant adaptation (for example, screening sick employees, face masks and gloves, physical dividers between some employees and customers) to ensure limited employee and customer exposure and to reduce the risk of virus spread. Safeguarding these sectors may require identifying and procuring a meaningful amount of physical materials and supplies.

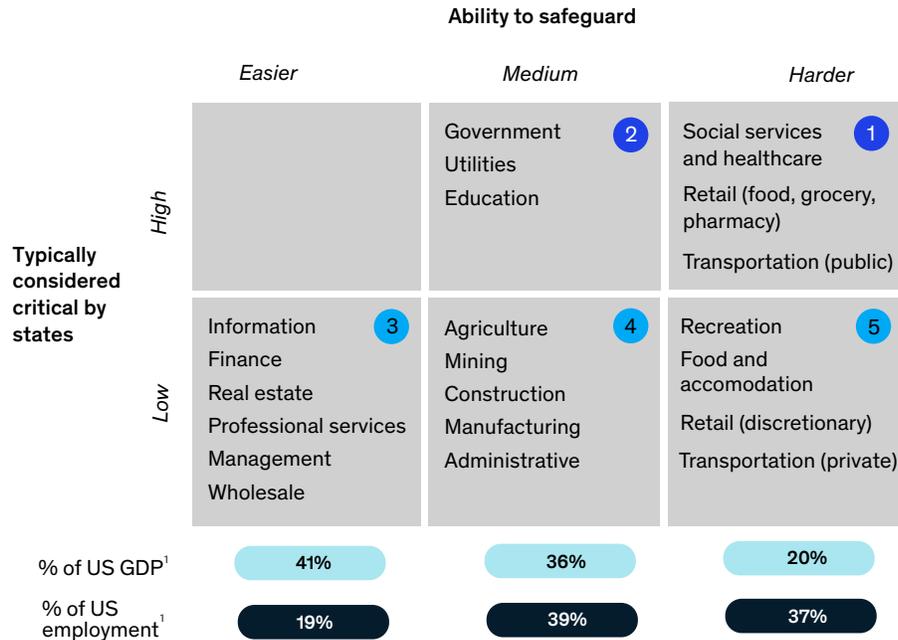
Medium risk (less critical essential need; medium risk of transmission): Noncritical sectors that could be safeguarded with comparably basic

changes in protocol or process. These could include implementing improved hand-washing requirements and/or drive-through access for bank branches, as well as remote working options. These sectors may be easier to keep open or reopen quickly.

Adaptable (less critical essential need; higher risk of transmission mitigated with major investments): Sectors with comparably high risk of contagion that can be safeguarded but only with meaningful adaptation (for example, constructing enclosures around desks in offices or schools). The timeline for safeguarding these industries will be governed by the speed at which institutions can make the required changes to operate safely.

Exhibit 7

Sectors categorized by criticality and ability to safeguard



Sector categories

- 1** Critical, highest risk—Staying online requires intense precaution, monitoring, and safety enforcement
- 2** Critical, but adaptable—Staying online is comparably easier
- 3** Medium risk—Less critical, more modest intrinsic risk that can be safeguarded
- 4** Adaptable—Less critical, high intrinsic risk but easier to safeguarded
- 5** Most challenging—Less critical, high intrinsic risk and challenging to safeguard

¹ Sum is less than 100%, due to other minor sectors not depicted.
Source: U.S. Bureau of Labor Statistics (CES, QCEW), Moody's Analytics

Most challenging (low essential need; highest risk): Sectors comprised of less critical activities with a high risk for contagion that are very challenging to safeguard (for example, recreation). These activities often require significant interaction with people in an uncontrolled environment. Policy makers may want to focus particularly on ensuring economic support for organizations and employees in these sectors.

Safeguarding economic and social activity could be a considerable operational and logistical challenge.

Early evidence suggests that efforts to safeguard activity are highly variable across states,

communities, and individual institutions. Some companies are rapidly innovating; others are slower to move. Driving high degrees of compliance with the most critical strategies for each type of work will be exceptionally challenging.

To cite one example, adapting K–12 schools in the United States to operate the way Taiwan kept schools open through the crisis would require changing dozens of protocols across 130,000 distinct schools, training 3.2 million teachers, and adapting 50 million desks to have protective shields.

It is possible to facilitate more rapid safeguarding through three efforts: first, by creating clear safeguarding protocols to guide businesses in

creating appropriate practices and processes; second, by developing robust audit and compliance capabilities to ensure safeguarding protocols are being followed; and third, by considering programs or approaches to support and assist institutions, especially small and midsize businesses.

Domain 5: Protection of the vulnerable

COVID-19 is especially destabilizing for vulnerable populations. This includes individuals who were vulnerable before the pandemic (for example, due to chronic physical or behavioral health conditions, limited mobility, advanced age, and existing unmet health-related social needs such as food and housing insecurity) as well as those who have become vulnerable as a result of the pandemic (for example, being newly unemployed, experiencing social isolation). Certain vulnerable populations may be at particular risk of being adversely affected by COVID-19 or spreading it to others due to potentially limited or delayed testing or high rates of underlying chronic disease. They also may have more limited ability to quarantine. Further, individuals who are economically vulnerable and concerned about losing their jobs may be reluctant to get tested or follow quarantine protocols to help contain the spread because they cannot afford to stop working.

In addition, the pandemic's adverse effects (for example, uncertainty, stress, economic strain, rates of morbidity and mortality) and associated mitigation measures (for example, physical distancing, quarantines) can lead to the onset or exacerbation of depression, anxiety, excessive substance use, and other signs of distress. Public health efforts to contain COVID-19 have also further limited the availability of critical behavioral health support services. These include in-person therapy, group therapy, residential services, and support groups. Additionally, increased demand may strain social services support, including supply within food banks, while simultaneously facing decreased volunteer and employee availability.

As the pandemic worsens, state and local leaders can proactively track data related to health-related basic needs (for example, Supplemental Nutrition Assistance Program enrollment, eviction rates). In addition, they can consider actions to mitigate

the impact of COVID-19 on vulnerable populations directly or by coordinating with and supporting private sector and social sector institutions. Other ideas include exploring telehealth for behavioral health, alternative sites for acute psychiatric care (where inpatient beds are reprioritized for COVID-19 cases), temporary eviction moratoriums, and changing eligibility for food assistance programs (Exhibit 8).

Domain 6: Economic health

COVID-19 is already having profound effects on the economy. The economic ramifications are projected to be significantly worse than those in the 2008 financial crisis. Unemployment claims spiked to 3.3 million in mid-March, with an additional 6.6 million added in early April. The previous record for weekly unemployment claims was 695,000, set in 1982. Most forecasts suggest that additional claims will be filed throughout April. While some relief efforts will be coordinated at the federal level, there is much that state and local policy makers can consider to reduce the economic pain caused by COVID-19, as well as to enable rapid recovery.

First, develop the analytical fact base required to target interventions appropriately. State and local leaders will benefit from a comprehensive and dynamic understanding of which of their populations, industry sectors, business sizes, and local regions are most vulnerable to the economic effects of COVID-19. The economic impact will vary by a state or city's specific economic mix as well as by the intensity of the virus' spread in that geography.

Second, work with industry to operationalize the federal economic supports as quickly as possible. Coordinating with large businesses and industries to bolster key employers and their workforce is essential. Equally important is providing support to small business owners in navigating, applying, and obtaining some of the \$350 billion in Small Business Administration (SBA) loans. The planned legislation is more than ten times the expansion of SBA's historical annual total loan volumes of around \$25 billion, creating significant need to scale to meet the needs of the 30 million-plus small businesses in the United States, 80 percent of which are self-employed individuals and more than

Needs created or exacerbated by COVID-19

Health-related basic need	Potential COVID-19-related challenges
Employment	Economic downturn threatening small businesses Spike in unemployment due to businesses closing as a result of physical distancing
Housing	Ability to quarantine compromised by living arrangements (eg, shelters, group homes) Increase in housing insecurity due to inability to pay rent
Food security	Destabilization of food safety net as a result of illness and physical distancing policies (eg, school closures, staff shortage at food agencies) Rise in food insecurity due to loss of income from layoffs and reduced hours
Transportation	Public transportation systems reducing frequency of routes Ride-share options reduced with physical distancing
Social support	Elimination/reduction of in-person social support services and socialization opportunities due to physical distancing
Education and language/literacy	Lack of educational support for students with special education or language needs during school closures Limited access to technology to continue with online learning during shutdown Rapid flow of information about COVID-19 may not be provided in appropriate languages or channels to meet needs of hard-to-reach populations
Safety (including racism/discrimination)	Increasing discrimination against certain racial/ethnic groups Exacerbation of existing racial/ethnic tensions and economic disparities Physical distancing/isolation and economic stress may trigger domestic abuse Economic stress may increase rate of crime

a quarter owned by minorities.¹⁶ Small businesses collectively employ around 60 million US workers, and the median small business has only a 27-day cash buffer. This fact alone underscores how many businesses are at risk.

Third, ensure that state and local governments are ready and able to get payments from both new federal programs and existing safety net programs into the hands of citizens quickly and easily. Given that 78 percent of US workers live paycheck to paycheck, there is not a lot of time to help

individuals most in need. In our recent publication, “COVID-19: How American states can manage the surge in unemployment services,” we highlight the ability to dramatically expedite unemployment benefits through a series of five levers.¹⁷

Fourth, states could develop and implement a set of economic recovery interventions that would not only provide immediate relief to people and businesses, but also build a path to a more resilient and inclusive post-pandemic economy. The interventions they identify should be influenced by

¹⁶ U.S. Small Business Administration website, sba.gov.

¹⁷ Fahs R, Mehta N, Pallotta J, Riley R, Tucker-Ray S, Vuppala H, and Whiteman R, “COVID-19: How American states can manage the surge in unemployment services,” March 2020, McKinsey.com.

the populations and businesses most at risk in the coming months and years, lessons learned from prior pandemics and global economic crises, and lessons from other countries that are beginning to emerge from COVID-19's shadow.

State and local leaders are rightly focused on near-term solutions to provide immediate relief, some of which are outlined in Exhibit 9, below. It is also important to focus on establishing today the infrastructure, capabilities, and talent needed to recover and succeed in the post-COVID-19 economy.

3. Execute well to earn greater flexibility

This war is unlikely to be fought in clearly delineated "stages." It is more likely that leaders will need to ramp up and down the intensity of interventions (or the resources dedicated to them) over time. At present, many leaders are asking when it will be safe to relax some of the most intense restrictions on activity, such as shelter-in-place orders. Ultimately these decisions are judgments. That said, at least three aspects of this war could inform those judgments: the epidemiological reality in the community, domain performance, and the science.

Epidemiological reality

Leaders could enjoy increasing flexibility as the three conditions described below occur.

1. The *portion of the population that is actively contagious*, especially those not effectively quarantined, is sufficiently low for leaders to accept the risks associated with relaxing restrictions.
2. The *rate of new infections* is sufficiently low that leaders are confident that the total of active cases will decline in the near future. Preliminary analysis of outbreaks in Wuhan, China, Lodi, Italy, and South Korea suggest that containing the rate of new infections below 6 percent may stabilize the population over the course of 17 to 24 days.

3. Confidence there is sufficient *health system capacity* to meet three types of potential demand. First, health systems will be able to treat new and existing COVID-19 patients with a proper and consistent standard of care.¹⁸ Second, health systems have the capacity to treat emergent non-COVID-19 patients with an appropriate standard of care. Third, health systems have enough capacity to accommodate a potential surge in cases should the virus reemerge—this may mean maintaining surge beds and supplies ready for reactivation.

In addition, leaders would benefit from understanding the scale and degree of potential immunity to COVID-19 developing among the populations in their communities.

Domain performance

All else being equal, the stronger the performance achieved across domains the greater the flexibility leaders may have to relax restrictions. For example, leaders may feel more confident about relaxing restrictions on certain types of activity as they become confident those activities are sufficiently safeguarded and the necessary public health capabilities are in place. It may also be true that the stronger the performance in one domain, the less resource or intensity will be needed in the others.

The science

While effective treatment, prophylaxis, and vaccines would be the most welcome innovations, leaders will likely need to navigate choices well before the science is definitive.

That said, the pace and scope of research across the public and private sectors appears to be growing rapidly. Moreover, the diversity in approaches observed across the United States (and globally) is fertile ground for analysis of real-world evidence.

Monitoring, understanding, and applying the rapidly growing body of science could make a considerable difference in the approach of states

¹⁸ What is a proper standard of care? At a minimum, this includes fully protected healthcare workers, sufficient bed capacity allocated to patients with highest need (e.g., critical care at quaternary hospitals), and supply of essential supplies (e.g., ventilators, masks).

Levers for immediate relief

	Example specific measures	
<p>People</p>  <p><i>People-oriented interventions should be tailored to account for underemployed populations and vulnerable populations</i></p>	<p>Protect current employment</p>	<p>Support continued employment through targeted wage subsidies</p>
	<p>Enable rapid returns to the workforce</p>	<p>Reduce barriers to accessing work (eg, ease licensing requirements) Create COVID-19 response job portals to connect the unemployed or underemployed with companies seeing spikes in demand</p>
	<p>Support critical needs</p>	<p>Ease critical expenses through residential loan forbearance measures or eviction freezes Identify and communicate to beneficiaries of any stimulus funding measures to ensure appropriate enrollment</p>
<p>Businesses</p>  <p><i>Business-oriented interventions should be tailored to account for specific sectors (eg, tourism, airlines), business sizes (eg, SMBs), and regional differences (eg, rural vs urban)</i></p>	<p>Improve liquidity/cash flow</p>	<p>Ease financial obligations (eg, postpone/waive taxes or fees for SMBs or hardest hit sectors, commercial mortgage loan forbearance measures) Accelerate state's payment of outstanding AP¹ to state vendors Facilitate process for SBA loans/grants (eg, portal to support application prep)</p>
	<p>Invigorate demand</p>	<p>Target affected sectors and SMBs with dedicated state purchasing/procurement programs Shift attention to demand spikes and essential needs</p>
	<p>Restart/continue operations</p>	<p>Support shift to remote operations (eg, expanded WiFi coverage, targeted loans for remote work equipment)</p>

¹ AP, accounts payable; SMA, Small Business Administration; SMB, small- and mid-sized businesses.

and cities. These locales would benefit by most closely monitoring three issues:

1. **Ability to limit new infection**, including the expected timeline to effective vaccination and pre- and post-exposure prophylaxis
2. **Treatment efficacy**, to reduce disease severity and decrease healthcare resource need
3. **Transmission**, most importantly the extent to which asymptomatic people transmit the disease and the relative role of direct (i.e., person-to-person) versus indirect (for example, from contaminated surfaces) transmission.

To assist leaders in making these choices, we have created an illustrative COVID-19 War Dashboard (Exhibit 10). This dashboard highlights

the most critical measures of success in each domain and the key interventions that can be “activated” to achieve these results (for example, adding resources, increasing intensity, improving execution). Leaders could also create and use a “composite index” to empirically measure the epidemiological reality in their communities, domain performance, and the state of the science.

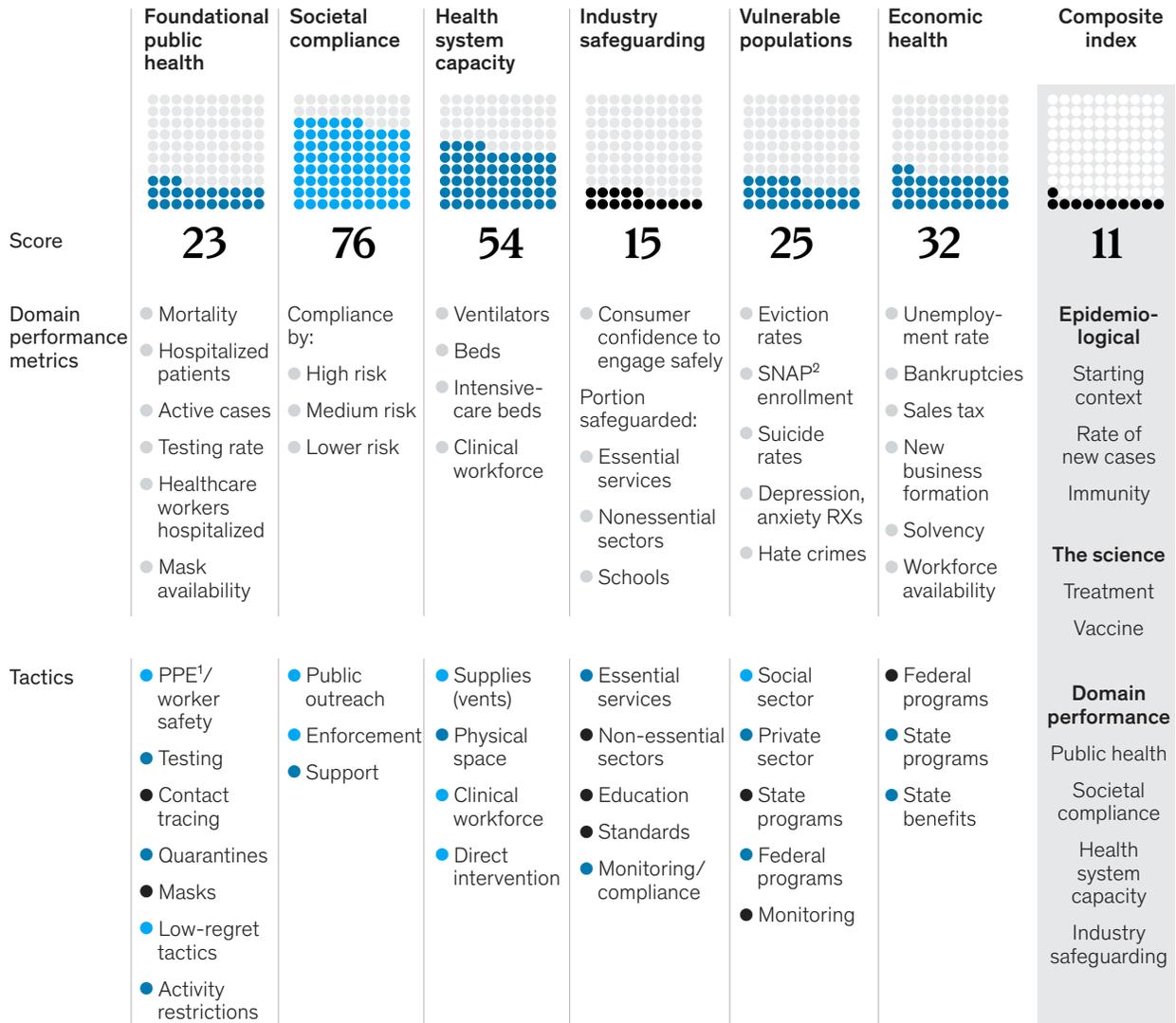
We hope that these perspectives are useful in fighting the COVID-19 war. Protecting our lives and our livelihoods may be the challenge of our time. We will update these perspectives and data regularly to reflect new information.

A COVID-19 War Dashboard helps connect actions to outcomes.

Illustrative COVID-19 dashboard performance score by domain

Degree of activation

● High ● Medium ● Low



¹Personal protective equipment.

²Supplemental Nutrition Assistance Program.

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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.

by Sven Smit, Martin Hirt, Kevin Buehler, Susan Lund, Ezra Greenberg, and Arvind Govindarajan

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.

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.

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!

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?

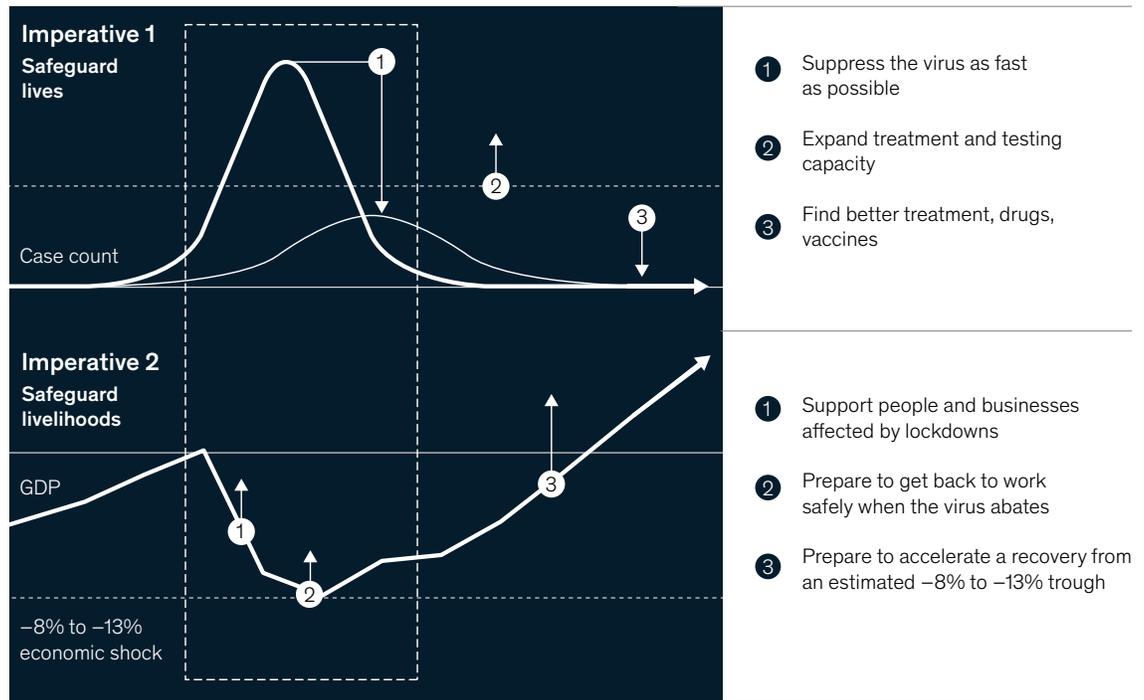
In the following sections, we offer ways to think about these pressing issues. (Please also see “Beyond coronavirus: The path to the next normal,” by our colleagues Kevin Sneader and Shubham Singhal, which tries to imagine what the future might look like.)

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?

Exhibit 1

The imperative of our time



Source: McKinsey analysis in partnership with Oxford Economics

- *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.

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.

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

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.

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.

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:

- **Ineffective:** self-reinforcing recession dynamics kick in; widespread bankruptcies and credit defaults; potential banking crisis

- **Partially effective:** policy responses offset economic damage to some degree; a banking crisis is avoided; but high unemployment and business closures mute the recovery
- **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).

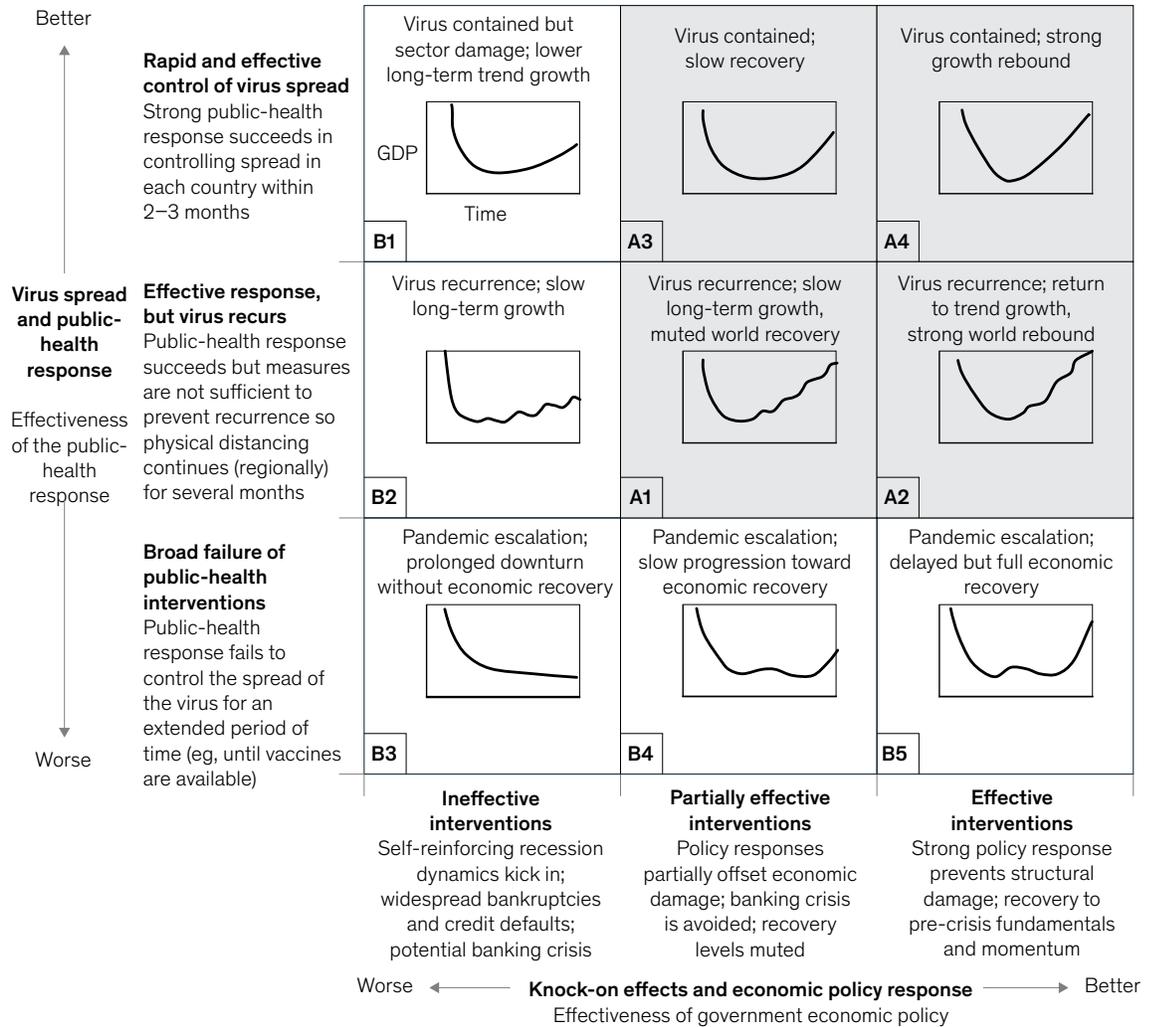
We believe that many currently expect one of the shaded scenarios, A1–A4, to materialize. In each of these, the COVID-19 spread is eventually controlled, and catastrophic structural economic damage is avoided. These scenarios describe a global average, while scenarios will inevitably vary by country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

Scenarios for the economic impact of the COVID-19 crisis

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



Making it real: How this could unfold

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).

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).

A darker picture of the future

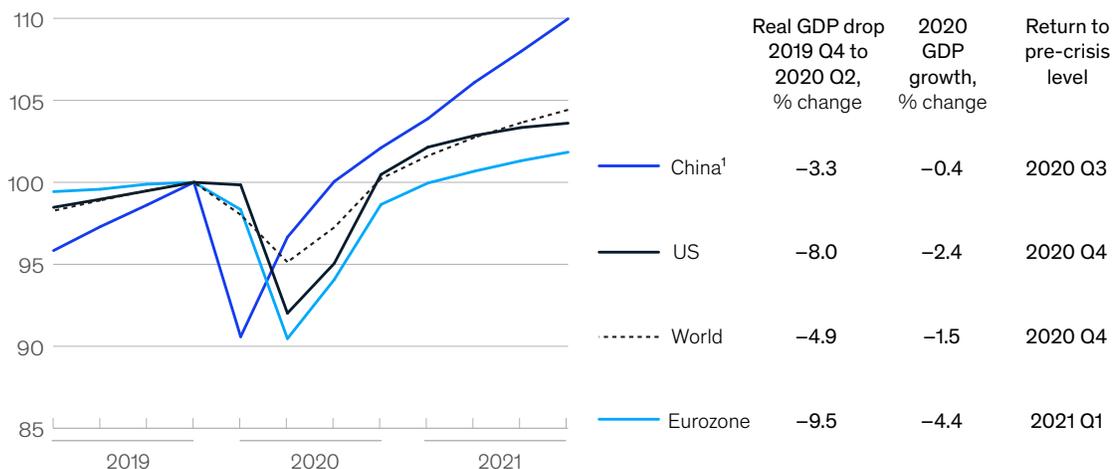
Of course, it is entirely possible that countries are not very effective in controlling the virus, or in mitigating the economic damage that results from efforts to control the virus spread. In this case, economic outcomes in 2020 and beyond would be even more severe.

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.

Exhibit 3

Scenario A3: Virus contained

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



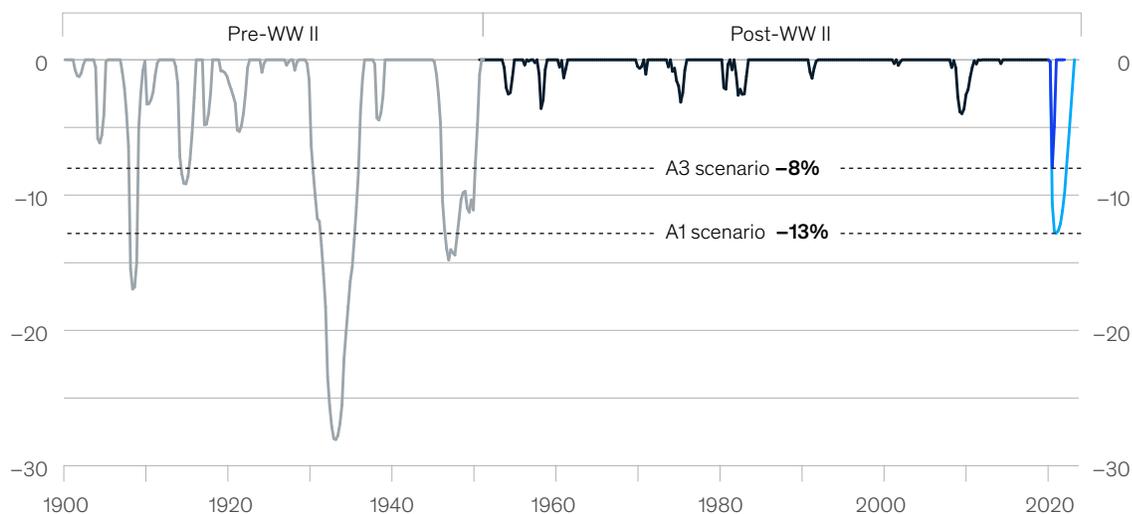
¹Seasonally adjusted.

Source: McKinsey analysis in partnership with Oxford Economics

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

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).

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.

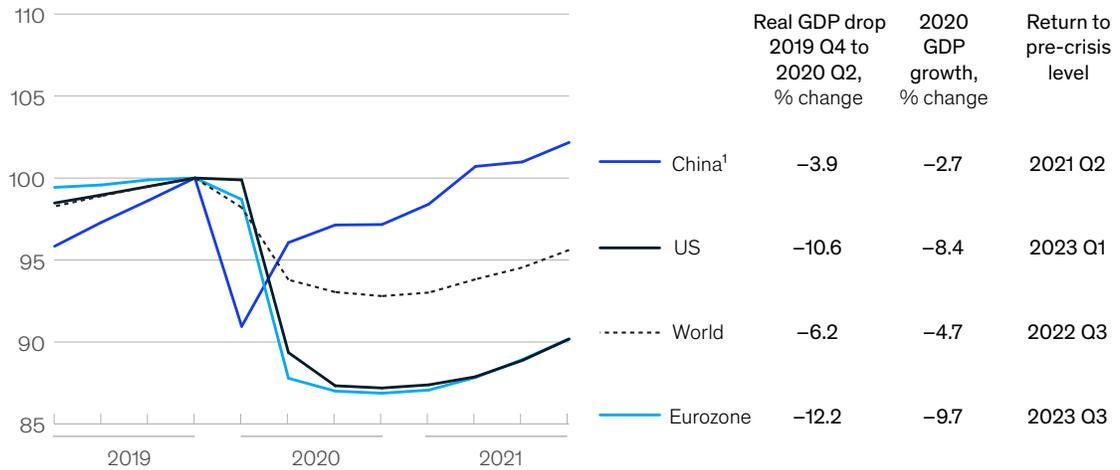
We are not writing to predict that this will happen but rather to issue a call to action: to take the measures needed to stop the spread of this virus and the damage to the economy as quickly as humanly possible. As we write this, countries in Europe and the United States have not yet taken the strong 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.

Scenario A1: Muted recovery

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



¹Seasonally adjusted.

Source: McKinsey analysis in partnership with Oxford Economics

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.

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.

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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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.

by Shubham Singh, Patrick Finn, Pooja Kumar, Matt Craven, and Sven Smit

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.

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* \$200 billion 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.*

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).

The two main questions now are: What do we control? Where should we focus?

Growing healthcare capacity at lightning speed

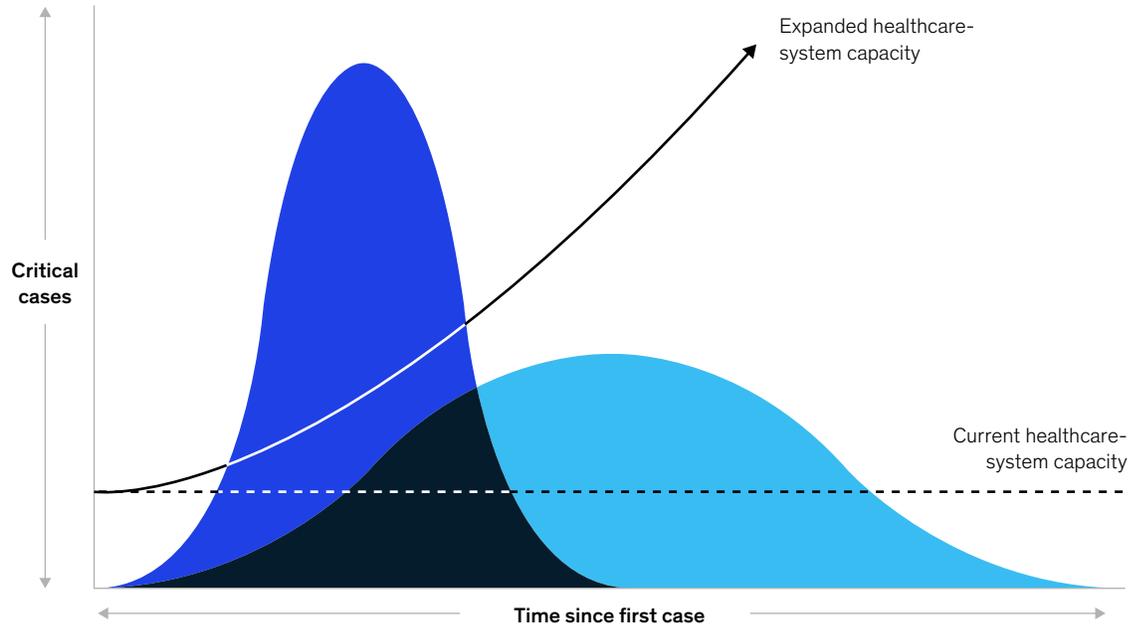
Critical care capacity reflects ICUs, required hospital supplies, patient ventilator units, plus a trained workforce that has what it needs to do its job. While some of the following are already in motion, leaders are likely to want to consider the following actions, taken in tandem:

- ***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

¹ Sven Smit, et al., *Safeguarding our lives and our livelihoods: The imperative of our time*, McKinsey & Company, March 2020, mckinsey.com.

Expanding healthcare capacity is critical to saving lives.

Healthcare-system capacity expansion (illustrative)



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.

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

Exhibit 2

A number of supply- and demand-side levers that healthcare stakeholders could explore to reduce the gap in the market.

	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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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

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.

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!

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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.

by Erica Hutchins Coe and Kana Enomoto

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.^{1,2,3}

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.^{4,5} 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.

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.^{6,7,8} 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.

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.⁹ 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.¹⁰ 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

¹ Classen TJ and Dunn RA, “The effect of job loss and unemployment duration on suicide risk in the United States: a new look using mass-layoffs and unemployment duration,” *Health Econ*, 2012, Volume 21, Number 3, pp. 338–50, [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/22111111/).

² Milner A, Page A, and LaMontagne AD, “Cause and effect in studies on unemployment, mental health and suicide: a meta-analytic and conceptual review,” *Psychological Medicine*, 2014, Volume 44, Number 5, pp. 909–17, [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/24811111/).

³ Nordt C et al., “Modelling suicide and unemployment: a longitudinal analysis covering 63 countries, 2000–11,” *Lancet Psychiatry*, 2015, Volume 2, Number 3, pp. 239–45, [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/25811111/).

⁴ Paul KI and Moser K, “Unemployment impairs mental health: Meta-analyses,” *Journal of Vocational Behavior*, 2009, Volume 74, Number 3, pp. 264–82, [sciencedirect.com](https://www.sciencedirect.com).

⁵ Goldmann E and Galea S, “Mental health consequences of disasters,” *Annu Rev Public Health*, 2014, Volume 35, pp. 169–83, [ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov/24811111/).

⁶ Forbes MK and Krueger RF, “The Great Recession and Mental Health in the United States,” *Clinical Psychological Science*, 2019, Volume 7, Number 5, pp. 900–13, journals.sagepub.com.

⁷ Witters D, *Americans Less Happy, More Stressed in 2009*, GALLUP, January 1, 2010, news.gallup.com.

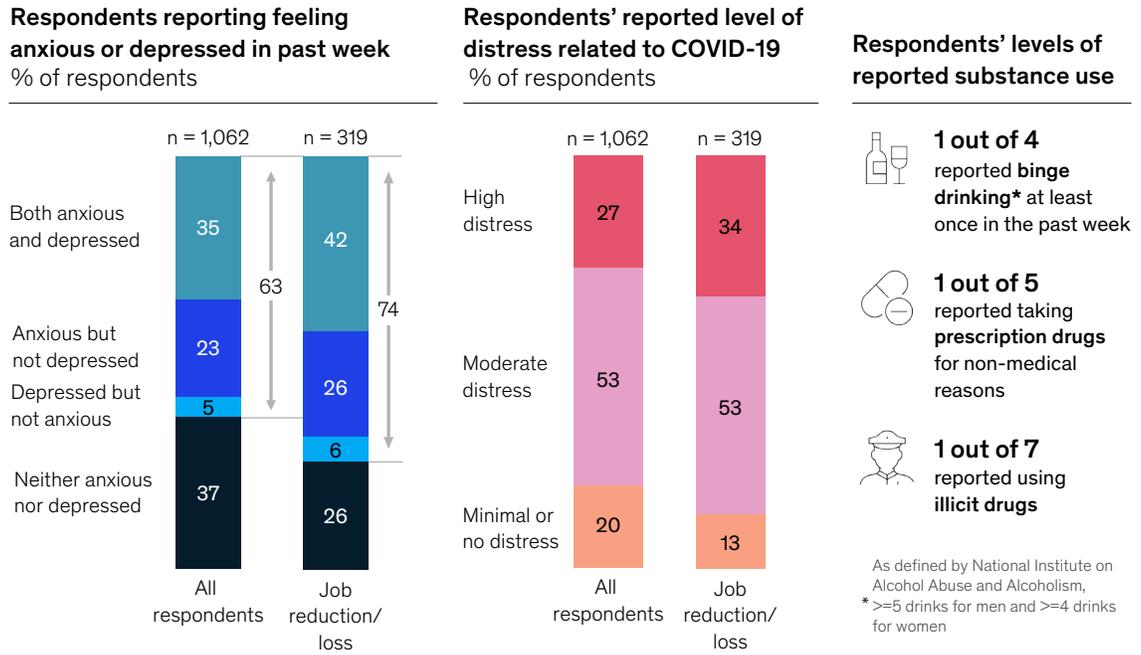
⁸ Case A and Deaton A, *Deaths of Despair and the Future of Capitalism*, first edition, Princeton, NJ: Princeton University Press, 2020.

⁹ Davenport S et al., *Potential economic impact of integrated medical-behavioral healthcare: Updated projections for 2017*, Milliman, February 12, 2018, [milliman.com](https://www.milliman.com).

¹⁰ *Mental health in the workplace*, World Health Organization, May 2019, [who.int](https://www.who.int).

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?

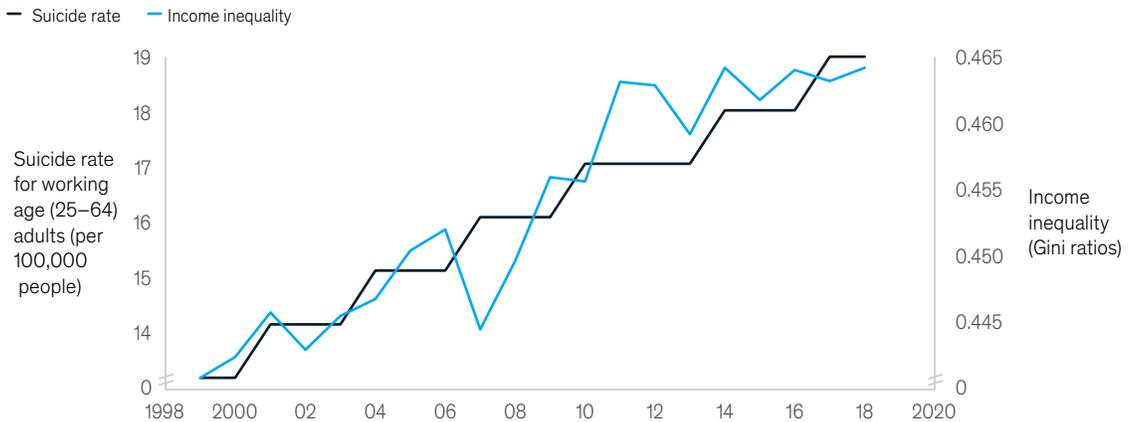
QFEEL2a. Please indicate your level of distress related to the Coronavirus/COVID-19 pandemic (10-point scale from least distressed to most distressed. "High" is 8–10, "Moderate" is 4–7, and "Low" is 1–3).
QEMP5. Since the Coronavirus/COVID-19 began impacting the US, has the number of hours you have worked increased, decreased, or stayed the same?

Source: McKinsey COVID-19 Consumer Survey, 3/29/2020

Exhibit 2

Association between income inequality and suicide rate in the United States.

Suicide rate for working age adults vs income inequality



Source: CDC WISQARS, 2020; U.S. Census Bureau, Current Population Survey, 1968 to 2019 Annual Social and Economic Supplements (CPS ASEC)

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.

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

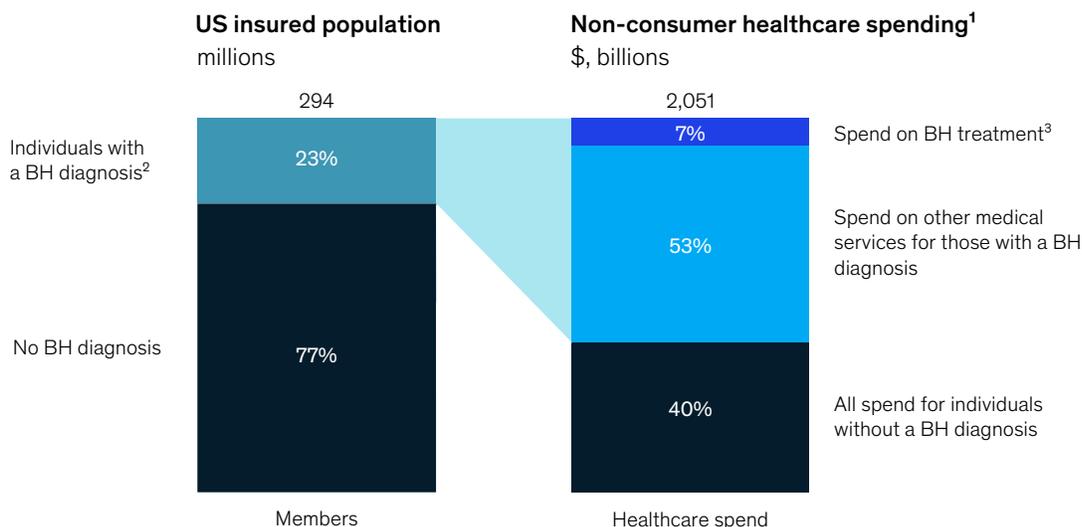
pandemic and economic crisis.^{11,12} For every one dollar spent on scaling up treatment for common mental disorders, a four-dollar return can be realized in improved health and productivity.¹³ In the United States, the Coronavirus Aid, Relief, and Economic Security (CARES) Act provides \$425 million 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

¹¹ Disaster Technical Assistance Center Supplemental Research Bulletin, *Greater Impact: How Disasters Affect People of Low Socioeconomic Status*, SAMHSA, July 2017, samhsa.gov.
¹² Giorgi G et al. "Economic stress in workplace: The impact of fear the crisis on mental health," *Work*, 2015, Volume 51, Number 1, pp. 135–42, ncbi.nlm.nih.gov.
¹³ *Mental health in the workplace*, World Health Organization, May 2019, who.int.

Exhibit 3

Presence of behavioral health (BH) diagnosis and corresponding healthcare spend in the United States.



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.

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,¹⁴ 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 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.

¹⁴ Sneider K and Singhal S, *Beyond coronavirus: The path to the new normal*, McKinsey & Company, March 2020, mckinsey.com.

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Saving our livelihoods from COVID-19: Toward an economic recovery

The pandemic could give rise to a new era of human development. Otherwise, economic and social development may falter for decades.

by Andres Cadena and Fernando Ferrari-Haines

We are now living through the most uncertain moment of our times. Many countries have been in lockdown since early March 2020. Even Japan, once a beacon of hope for controlling COVID-19, is now moving toward total isolation. Many political leaders realize that physical distancing might be the norm for at least several months. They wonder how—or if—they can maintain indefinite lockdowns without compromising the livelihoods of their people.

Political leaders aren't alone in their fears. As the pandemic continues its exponential course, workers in most countries wonder what will become of their jobs when the lockdowns end. Businesses struggling to pay their employees and cover operational costs wonder if they will have clients or customers when they reopen. Banks and investors realize that many companies, especially small and midsize ones, will default and are trying to protect both financial stability and public savings. Meanwhile, governments are working to calculate the magnitude of the shock and sharpening their tools to save economies from collapse. They know that history will judge them by the decisions they make now.

This daunting scenario poses several basic questions. How can we save both lives and

livelihoods? Which decisions are best managed by governments? How can they evaluate the risks that experts predict from a prolonged lockdown, such as starvation, domestic violence, and chronic depression—as well as protect jobs, income security, food supplies, and the general welfare of the most vulnerable people among us? How and to what extent should they try to save banks, prevent fiscal ruin, and safeguard future generations?

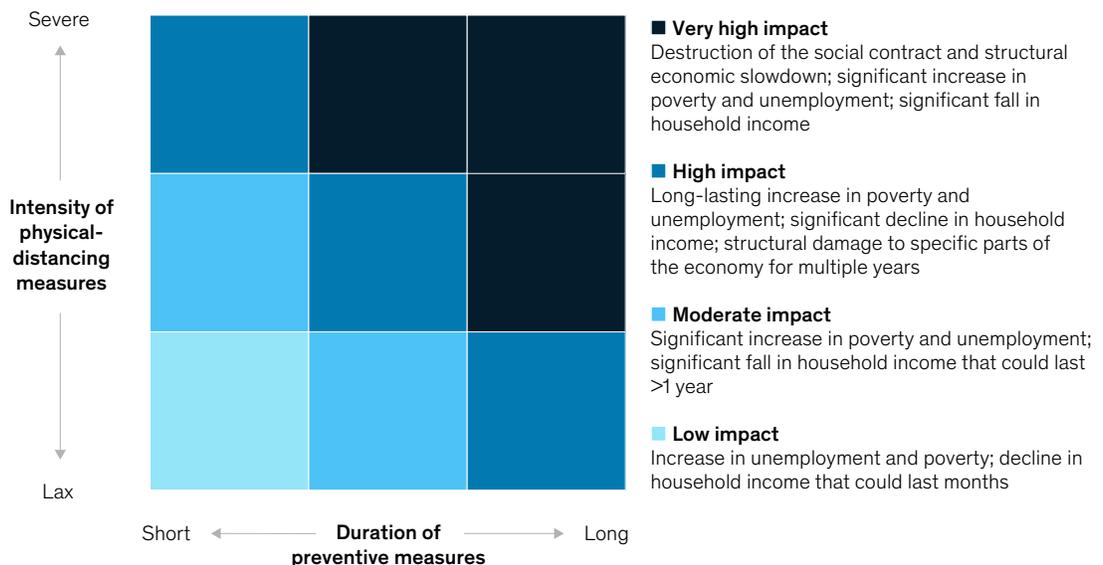
Governments could address all these questions strategically. In effect, they are caring for two patients who react to the same medicine—physical distancing—in very different ways. The first patient is the public-health system. Physical distancing might cure or alleviate its symptoms but could exacerbate those of the second patient, the economy. This trade-off suggests a physical-distancing strategy for governments: ensuring the health system's ability to deal with COVID-19 *and* protecting the economy.

Exhibit 1 shows how different levels of physical isolation affect economic conditions. A recession could occur if faltering demand, restricted supply, and lost income reach critical levels. The differences

Exhibit 1

Physical distancing could affect the workforce profoundly.

Impact of prolonged physical distancing on livelihoods



Analyzing a granular level of information might help countries quantify the weekly impact of physical distancing on various key indicators by region and by economic sector.

between scenarios could be tenfold: a country that applies physical distancing in a lax way and ends it too soon could face zero GDP growth, but if the same country imposed a very strict and prolonged quarantine, GDP might plunge by 20 percent. In some Western economies, the latter scenario might increase government control of strategic sectors.

Countries can avoid the worst scenarios if they work quickly along three principal lines of action: first, minimizing the impact of physical distancing on the economy; second, spending deeply to keep it afloat; and third, spending even more to accelerate the crisis recovery and to close historical gaps.

Minimize the economic impact of physical distancing

In a recent article, we showed how different isolation strategies can have different effects on the ability of countries to save both lives and livelihoods.¹ Policies for localized physical distancing at the regional, sectoral, or individual level might have better results than blanket lockdowns of entire countries. The time has therefore come to quantify the impact of lockdowns on people's livelihoods.

Advanced analytics could help countries estimate—with a high level of confidence—the shock to the economy by aggregating data on power consumption, debit- and credit-card spending, applications for unemployment insurance, default

rates, and tax collections. Exhibit 2 estimates the changes in demand for goods and services by using visits to Google services as a proxy. We calculate that the number of these visits in several countries fell by as much as 95 percent during the first two weeks of the lockdowns.

Individual countries that implement localized physical distancing might be able to keep track of how many people are in the streets at any given time and how much economic activity those people generate. But approaches to physical distancing will probably vary a good deal from country to country, depending on how they balance public-health issues with privacy concerns. Countries could plan prolonged lockdowns for the elderly and children and estimate their levels of consumption. They could quantify the number of employees in essential sectors that continue to operate (health, security, food and beverages, agriculture, utilities, and transportation). They could determine which regions or states should remain under complete lockdown and which sectors are operating under strict health protocols in other places. And they could track how many people are working from home in each sector and their contributions to the economy.

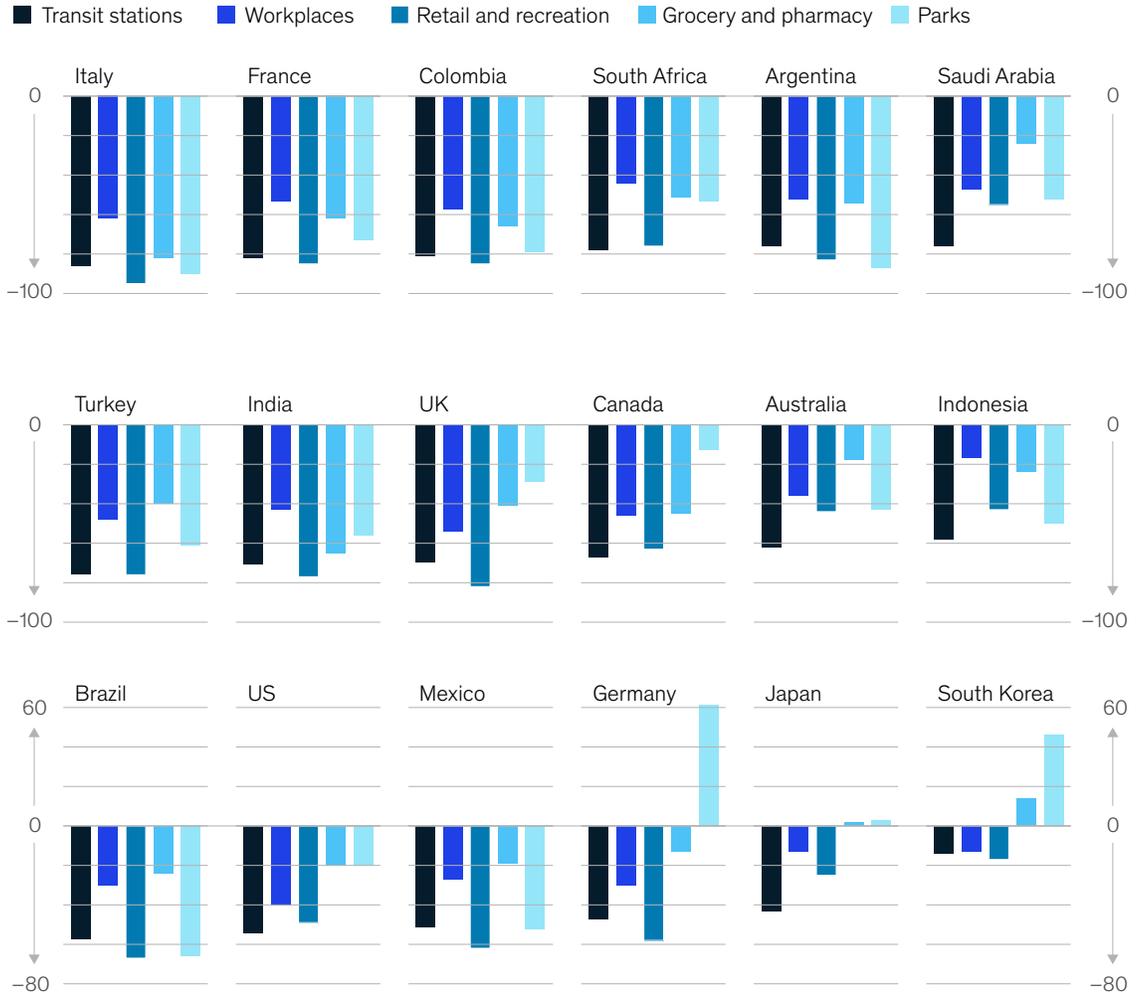
This granular level of information might help countries quantify the weekly impact of physical distancing on GDP, productivity, aggregated demand, income loss, unemployment, poverty, and fiscal-deficit levels by region and by

¹ Andres Cadena, Felipe Child, Matt Craven, Fernando Ferrari, David Fine, Juan Franco, and Matthew Wilson, "How to restart national economies during the coronavirus crisis," April 2020, McKinsey.com.

Exhibit 2

During the first weeks of physical distancing, shocks to demand will vary among countries and sectors.

Demand-shock examples during first weeks of physical distancing, % of variation vs baseline¹



¹Median value (for corresponding day of week) during 5-week period from Jan 3 to Feb 6, 2020. Changes in number and length of visits reported in Google services.

Source: COVID-19 Community Mobility Reports, Google, Apr 5, 2020, google.com

economic sector (Exhibit 3). If countries knew all that information, they would know the cost of the lockdowns on the livelihoods of their people.

Spend deeply to keep the economy afloat

Armed with information on the economic impact of physical-distancing strategies, governments can prepare their next moves (Exhibit 4).

To recover from the pandemic's health and economic consequences, we must uphold the social contract—the implicit relationship between individuals and institutions. The market economy and the social fabric that holds it together will be deeply compromised, or perhaps undermined, if massive numbers of jobs are lost, vendors can't fulfill their contracts, tenants can't make their rent, borrowers default at scale, and taxes go unpaid. Governments could therefore quantify the minimum

level of income that households need to cover their basic necessities, the minimum level of liquidity that companies need to cover their costs (including payrolls) and to protect their long-term solvency, the minimum liquidity levels that banks need to support defaults, and the minimum amount of money that governments need to supply all those requirements. Let's examine each of them.

Formal, informal, or independent workers will all have their own particular financial needs. So will vulnerable populations, such as people at higher risk of infection, which might not be able to return to work for some time. Leaders in the public sector

should determine the level of support that each population segment requires and the appropriate distribution channels for fast delivery. Familias en Acción in Colombia and Janani Suraksha Yojana (JSY) in India, for example, are conditional-cash-transfer (CCT) programs that support millions of vulnerable people. Such programs could temporarily expand to cover other segments of the population, such as informal and independent workers. It might also be necessary to consolidate databases and information systems and to digitize all payments.

Since revenues have plummeted, many companies require help to safeguard employment. Their

Exhibit 4

During and after the COVID-19 crisis, countries will have to address the needs of households, companies, the financial system, and the government.

Stakeholder needs during COVID-19 crisis

	Households	Companies	Financial system	Government
Segments	<ul style="list-style-type: none"> •Formally employed •Informally employed •Independently employed •Unemployed •Socially vulnerable 	<ul style="list-style-type: none"> •By size •By cluster •By restrictions on industry's ability to operate 	Inapplicable, as it is systemic	<ul style="list-style-type: none"> •National •Local
Needs	<ul style="list-style-type: none"> •Coverage of basic needs •Retention of jobs 	<ul style="list-style-type: none"> •Liquidity to support payrolls and operating capital •Sustainability through lower costs •Innovation and restructuring •Restoration of demand 	<ul style="list-style-type: none"> •Maintenance of system operation and prevention of default •Solvency •Restructuring 	<ul style="list-style-type: none"> •Economic recovery •Competitive markets •Long-term fiscal sustainability •Higher consumption •Investment
Levers	<ul style="list-style-type: none"> •Temporarily strengthen monetary-transfer programs (eg, CCT¹ programs) •Facilitate payment of expenses and financial obligations •Reconsider labor regulations to enhance job supply •Provide universal income tied, if possible, to work 	<ul style="list-style-type: none"> •Postpone government-related fees •Facilitate payment of financial obligations •Purchase equity shares in companies, when appropriate •Restore demand for business •Transfer cash to companies •Reduce or eliminate taxes •Support employment and/or wages •Stabilize supply-chain costs •Foster lean operations, digitization, agility, new business models, and M&A 	<ul style="list-style-type: none"> •Inject liquidity to the system •Lower interest rates •Release solvency or apply Basel regulations flexibly •Separate credits from "good" and "bad" banks and protect liquidity of former •Foster lean operations, digitization, agility, new business models, and M&A 	<ul style="list-style-type: none"> •Review and deprioritize unnecessary spending •Identify and leverage all available resources •Use monetary expansion via debt and equity emissions •Preserve competition •Accelerate infrastructure projects, fast-track private investment in them, and foster urban-renewal and mega housing projects •Sponsor the development of digital clusters to supply digital government services •Ease investment conditions to take advantage of the accommodation of global supply chains •Promote at-scale agribusiness development •Stimulate exporting

¹Conditional cash transfer.

needs vary widely among sectors of the economy; professional-service firms, for example, usually have twice as many working-capital days as restaurants do. What's more, physical distancing will affect different kinds of companies in different ways. As a first move to help them, several countries have already frozen short-term fiscal, parafiscal, and social-security payments. Some are using innovative instruments to irrigate money—for instance, capitalizing national reinsurance agencies to cover most of the expected losses from the new loans required to bridge payroll payments and working capital.

Banks can play a meaningful role during the crisis in two fundamental ways: lending money to companies in distress and recognizing that some companies simply can't survive. If default rates on current loan portfolios skyrocket, the expected shock to incomes and to supply and demand could compromise the solvency of some banking systems. Besides thinking about loosening solvency and warranty regulations, governments might consider creative solutions, such as distinguishing among banks according to their credit portfolios to strengthen financial institutions' balance sheets and injecting government-backed convertible loans against their long-term warrants and restructuring targets. (Governments implemented these mechanisms successfully in other financial emergencies, such as the 1997 Asian market crisis, the 1999 Latin American crisis, and, most recently, the 2008 crisis in Europe and the United States.)

Strengthening the balance sheets of banks might not be enough to deal with the aftermath of COVID-19; governments might have to use monetary expansion through debt and equity emissions backed by central banks. Countries with deeper capital markets could not only securitize loans and new instruments but also use the financial strength and long-term view of pension funds and other institutional investors to ease short-term crisis-related pressures on public finance.

Governments shouldn't be shy about using such instruments extensively if that's needed to keep economies running. Since such stimuli would have a cost, additional fiscal requirements could

complement them in the medium term. To preserve national solvency, governments might also reexamine historical exemptions from taxation.

Spend more to accelerate the crisis recovery and close historical gaps

After countries estimate the size of the stimulus packages needed to help households, companies, and financial systems, they can start designing additional, customized programs to restore demand and accelerate recovery. People who receive direct subsidies to stay at home could gradually return to work as each sector of the economy introduced new health and behavioral practices. Meanwhile, as many workers as possible should receive new job opportunities. To provide them, governments could introduce innovative labor regulations and help companies operate 24/7 under flexible schemes. They might also turn old-fashioned CCT programs into universal-income alternatives linked to new jobs in ambitious, government-led programs for infrastructure, housing, and industrial reconversion. Each country could find its equivalent of Franklin Roosevelt's New Deal.

Governments may also find it advisable to relax their regulatory regimes to help businesses not only reopen but also grow. Most countries have national, local, and sectoral regulations that were perfectly appropriate before the coming of COVID-19 but will be extremely expensive in the next normal. National programs to eliminate red tape at scale will help a good deal. Speed and flexibility are essential.

Businesses in sectors facing strict physical-distancing policies might need additional long-term capital. Governments could use innovative special-purpose vehicles to inject fresh equity and provide fiscal incentives to attract long-term investors. Businesses receiving that sort of aid should expect to commit themselves to restructuring: rescue packages could promote leaner operations, digital and industrial reconversions, the introduction of new channels, agile organizational structures, and innovative learning techniques. Governments could also ensure that such aid programs encourage competition—poorly designed policies that strengthen oligopolies and threaten the interests of consumers will be costly in the long run.

Although governments should carefully weigh the impact of their aggressive programs against long-term fiscal sustainability, they can play a significant role in restoring demand for goods and services and in fostering investment in new business models. Many initiatives—for instance, accelerating infrastructure projects; fast-tracking private investment to build hospitals, schools, and other social projects; encouraging urban renewal and very large housing projects; sponsoring the development of digital clusters to digitize government services; easing investment conditions to take advantage of global supply chains; capturing near-shore production opportunities; promoting large agribusiness developments; and stimulating exporting—could promote those goals. It is time to spend—but wisely.



The COVID-19 pandemic is a global tragedy. But that shouldn't—and needn't—prevent us from finding innovative ways to accelerate progress. It would not be the first disaster to do so. This may be the right time to introduce fiscal, labor, pension, social, environmental, and economic reforms to speed up progress toward sustainable development. Ameliorating poverty, diminishing inequality, and protecting the environment could figure prominently in global and national agendas. Governments, companies, and social organizations could act quickly to promote full financial inclusion,

the transition to cashless economies, and the provision of better and more efficient social and public services. Political leaders might condition access to massive economic-stimulus programs on efforts to reduce informality, rethink healthcare systems, digitize entire sectors of the economy to accelerate productivity, and encourage digital innovation—especially high-quality public education with universal internet access.

Governments ought to act quickly. The first step is to understand the economic impact of the crisis in both the short and medium terms. Second, governments could inject the minimum viable liquidity to keep markets alive. Finally, they could expedite ambitious fiscal and monetary policies to accelerate recovery. In most economies and markets—national and international alike—ratios of debt to GDP will likely rise. Confidence that tax frameworks will gradually support next-normal debt levels will be necessary.

Once the pandemic ends, countries around the world will probably find themselves more in debt than ever. If they restructure and innovate, attract investment, and increase their productivity, a new era of human development will begin. But if they spend haphazardly and imprudently, economic and social development might falter for decades to come. The societies, governments, institutions, companies, and people of the Earth now face basic choices. Let's hope they think about them seriously.

Andres Cadena and **Fernando Ferrari-Haines** are senior partners in McKinsey's Bogotá office.

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

Up to one-third of US jobs may be vulnerable—and more than 80 percent are held by low-income workers

by Susan Lund, Kweilin Ellingrud, Bryan Hancock, James Manyika, and André Dua

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.

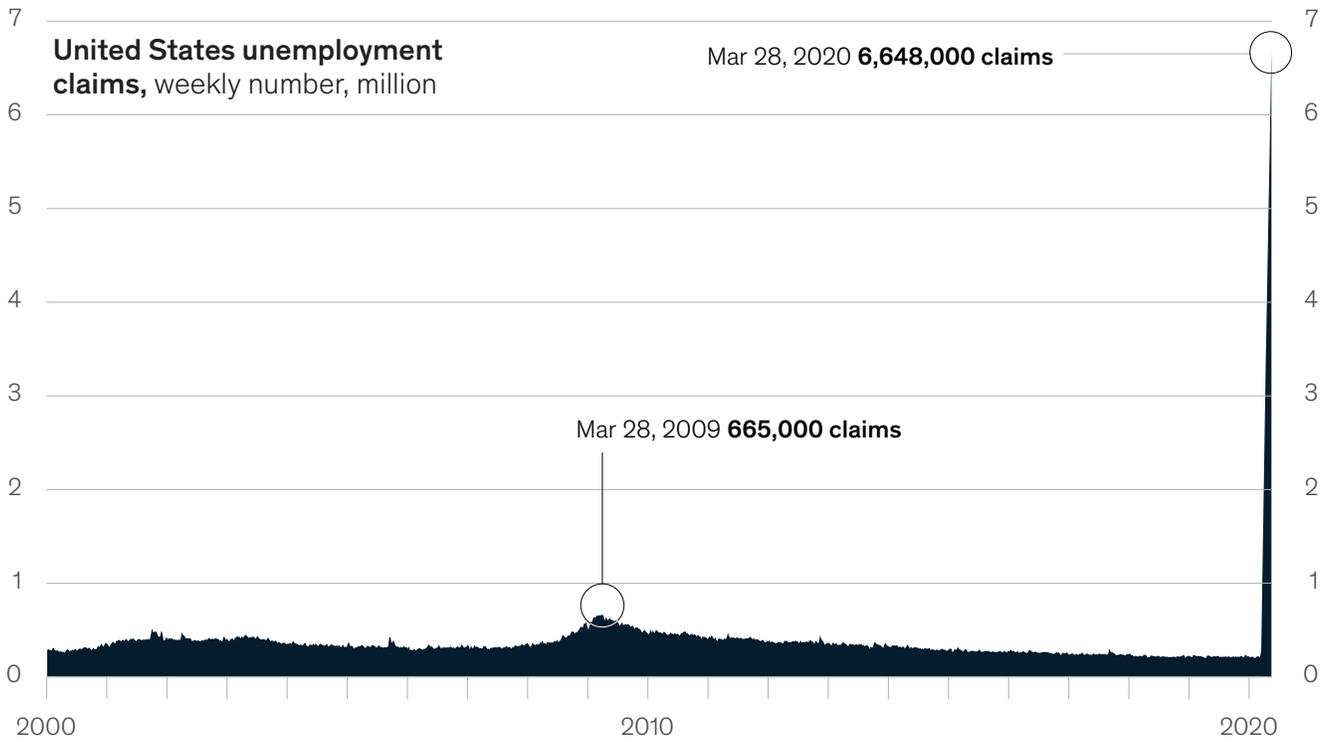
As of March 30, three-quarters of Americans were living under state or local stay-at-home mandates or advisories—and the economic fallout has been swift and dramatic. Discretionary spending has taken a hit, consumer confidence has been shaken, and small businesses are struggling. While there is great 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

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

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 here for more on methodology.)

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 disproportionately 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.

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.

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).¹ 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.

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.

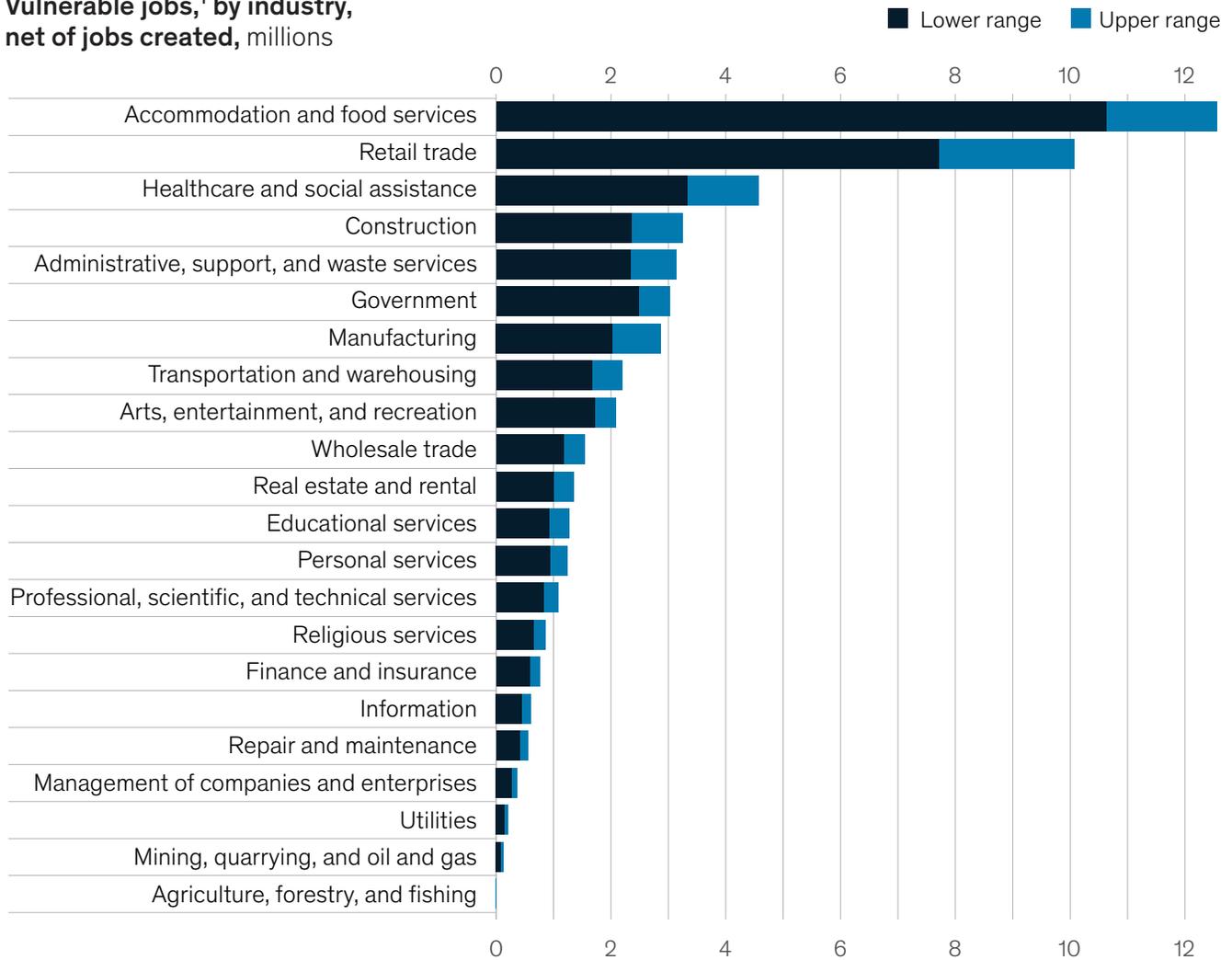
The knock-on effects of the shutdown that may be felt later in the year are beyond the scope of our

¹ We do not attempt to forecast when or whether these jobs will be restored, nor do we look at longer-term ripple effects throughout the economy. The figures used throughout the rest of this article refer to the high end of the range and a full national shutdown scenario.

Exhibit 2

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

Vulnerable jobs,¹ by industry, net of jobs created, 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.

Source: LaborCube; McKinsey Global Institute analysis

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.

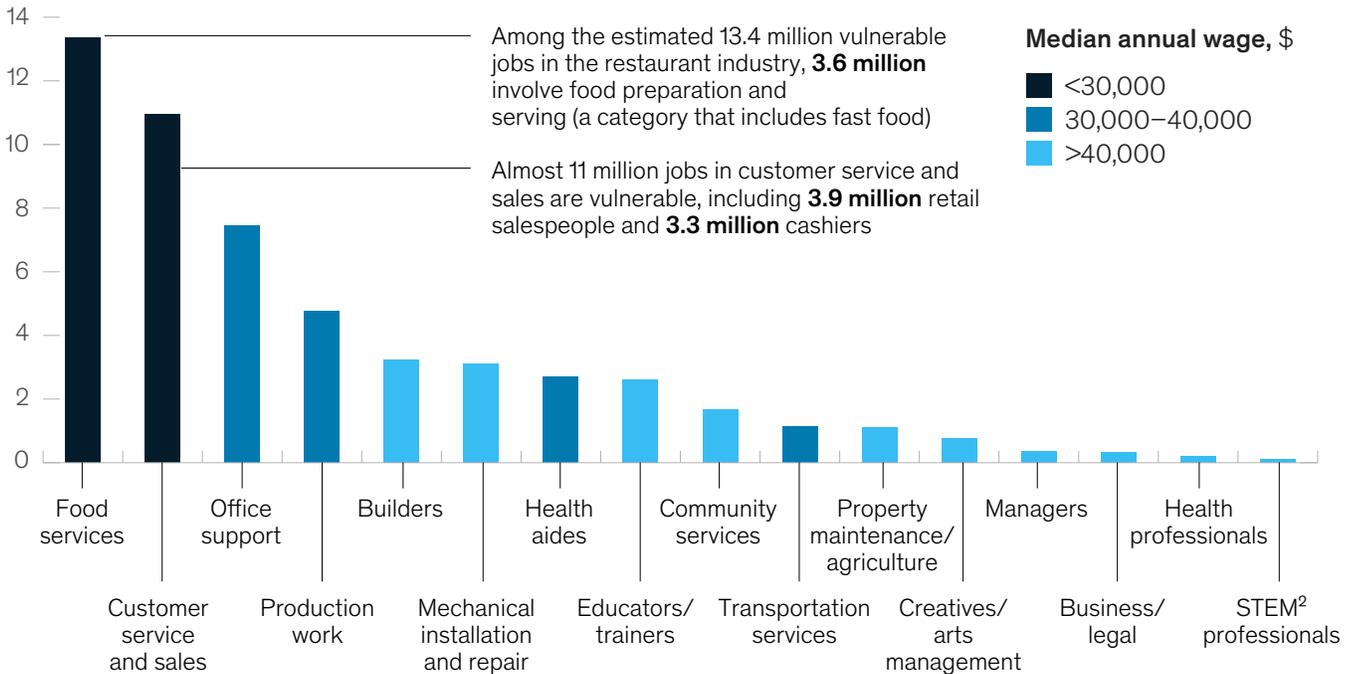
Which occupations are at risk, and where are they located?

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

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.

²Science, technology, engineering, and mathematics.

Source: LaborCube; McKinsey Global Institute analysis

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.² 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.

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.

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,

²The average hours worked in many of these occupations is less than 40 hours, although a more detailed breakdown is not available.

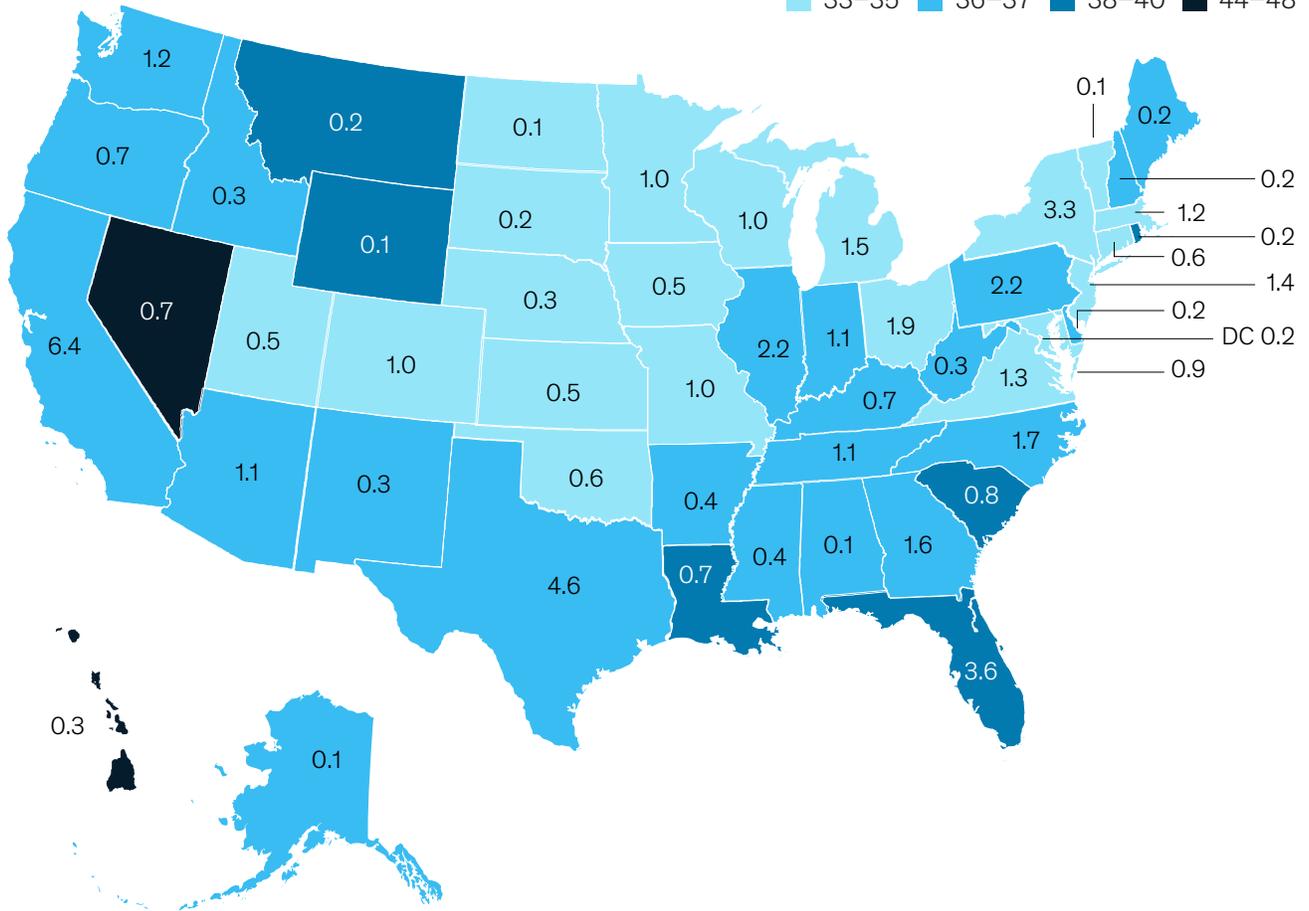
Exhibit 4

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

Vulnerable jobs,¹ %

33–35 36–37 38–40 44–48



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

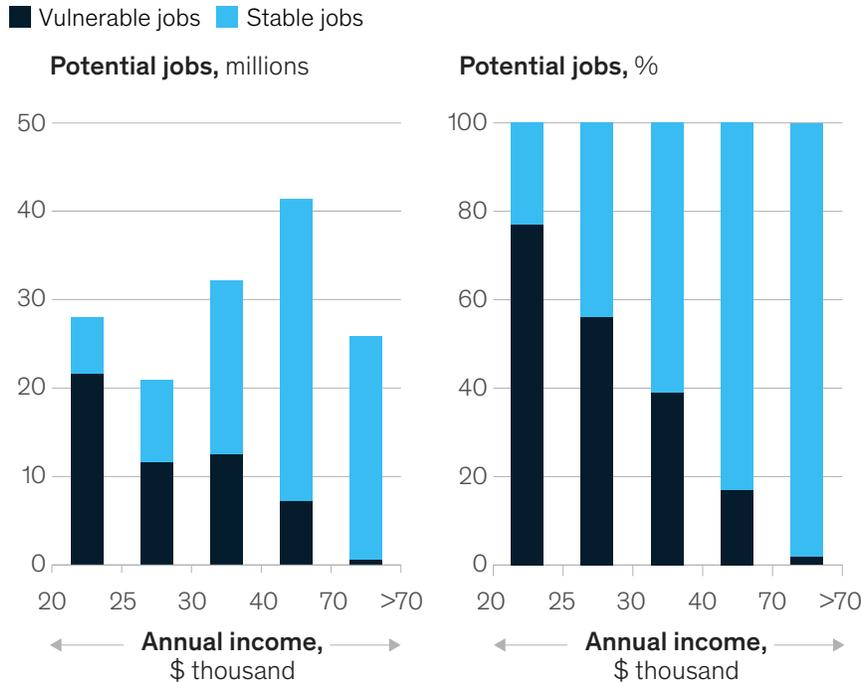
including 1.7 million in Los Angeles County alone. Piling onto losses in the service sector, L.A.’s entertainment industry has also put production on hold. New York and Texas each stand to lose more than 3 million jobs, at least temporarily. In New York City, the current epicenter of the crisis, the impact could exceed 1.5 million jobs.

Low-income workers and small businesses are the most vulnerable

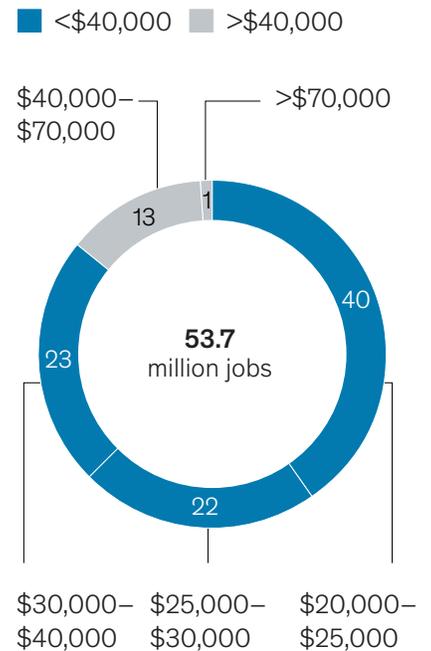
The workers bearing the brunt of the initial shock are the very people least equipped to weather it. Up to 86 percent of the initial impact affects jobs that were paying less than \$40,000 per year (Exhibit 5). Almost all (98 percent) of the affected jobs paid less than the national living wage of \$68,808 for

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

Level of job vulnerability,¹ by income band



Vulnerable jobs by annual income band¹ %



Note: Data may not sum to 100, because of rounding.

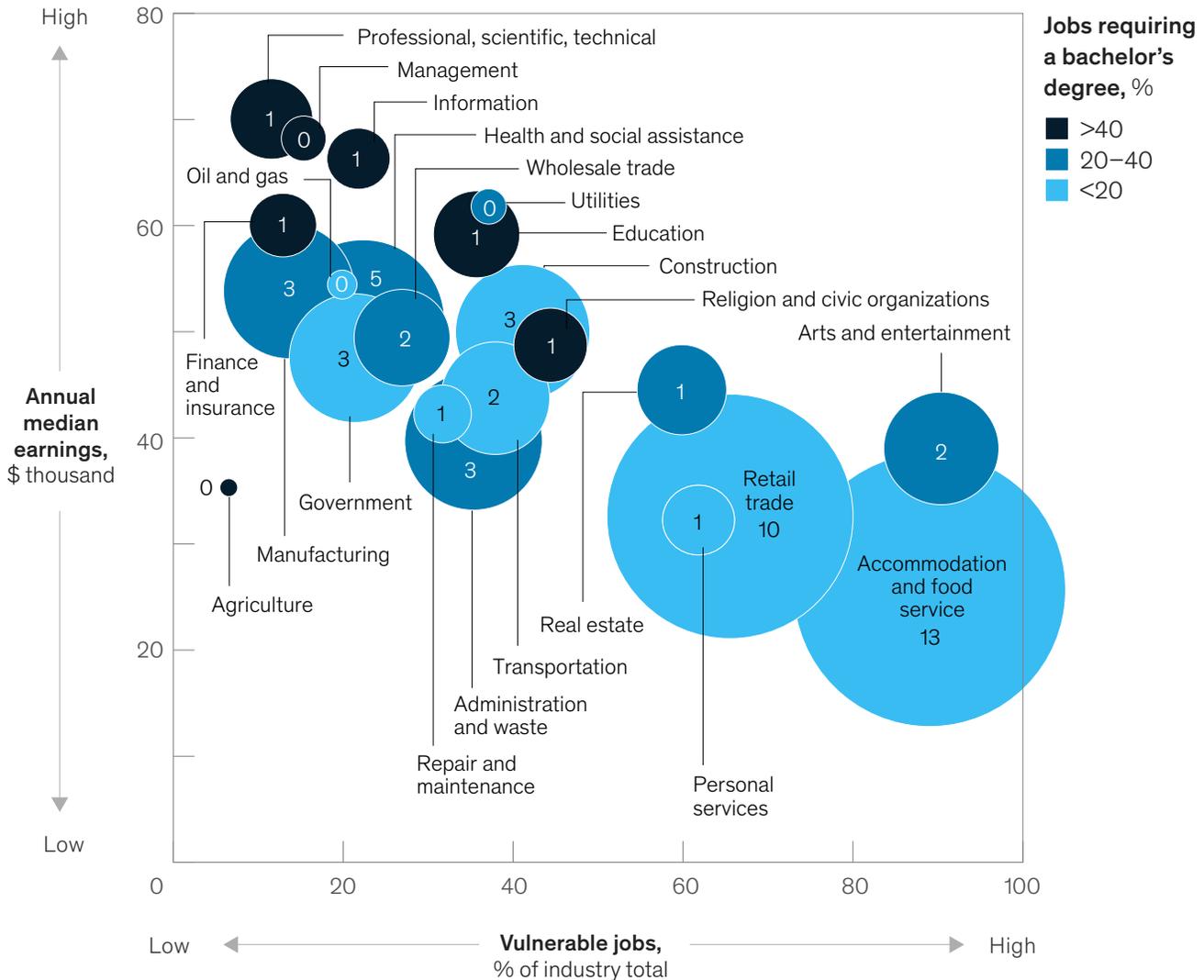
¹Vulnerable jobs are subject to furloughs, layoffs, or being rendered unproductive (for example, workers kept on payroll but not working) during periods of high physical distancing.

Source: LaborCube; McKinsey Global Institute analysis

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.

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)



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.

a family of four.³ Even before the pandemic, some 40 percent of Americans reported that they could not cover an unexpected \$400 expense without borrowing or selling assets.⁴ Finances were already precarious for many of the people who are now without work.

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-

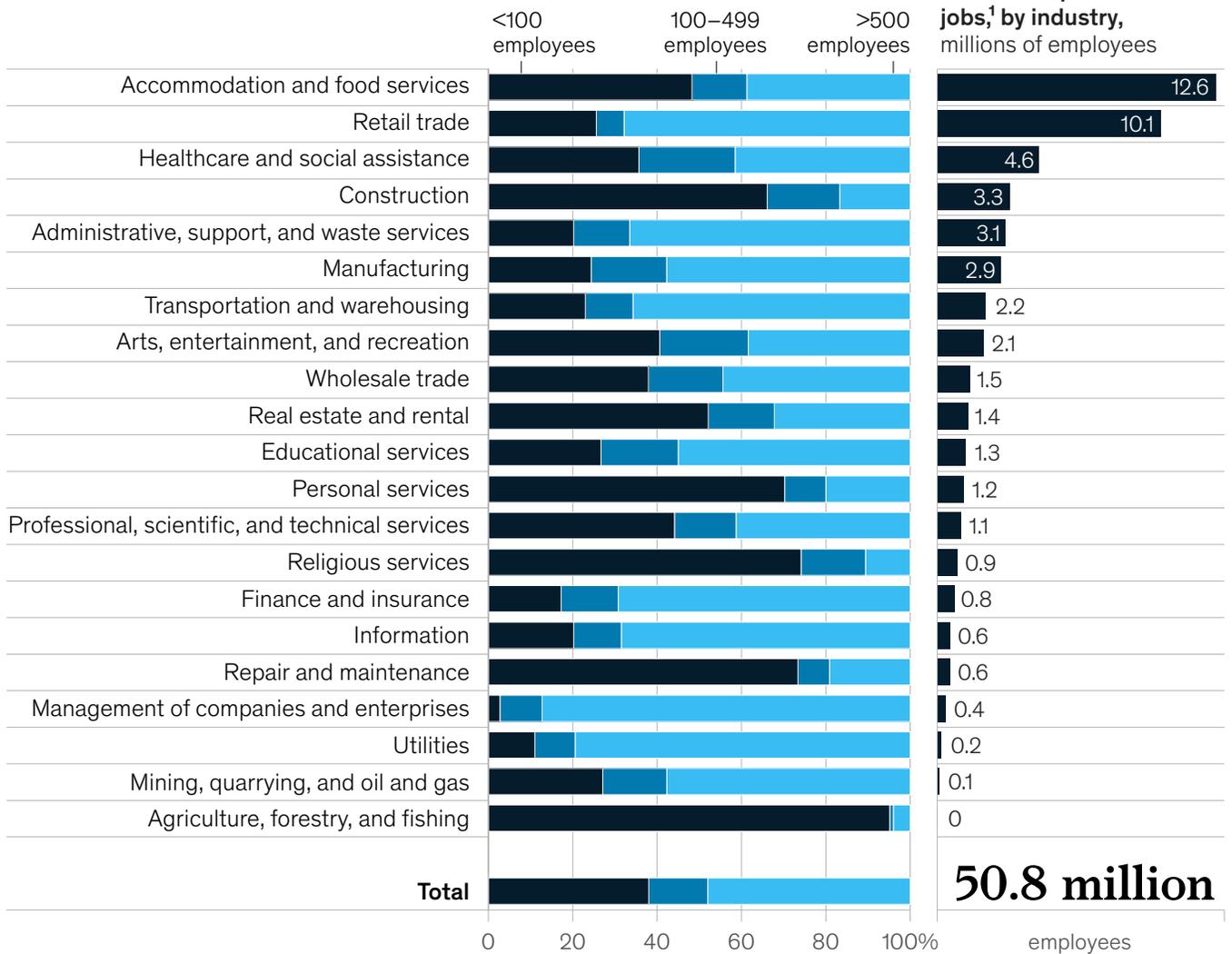
³The US median wage is \$38,640. Based on MIT’s Living Wage Calculator, the national median living wage is \$68,808 for a worker in a two-worker, two-child household, livingwage.mit.edu.

⁴Report on the economic well-being of US households in 2018, Federal Reserve, May 2019, federalreserve.gov.

Exhibit 7

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

Vulnerable private-sector jobs,¹ by industry and company size, %



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

Americans, Hispanics, and people with a high-school education or less.

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.

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 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.

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 re-opening 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.

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.

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Learning from data

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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.

by Alan FitzGerald, Krzysztof Kwiatkowski, Vivien Singer, and Sven Smit

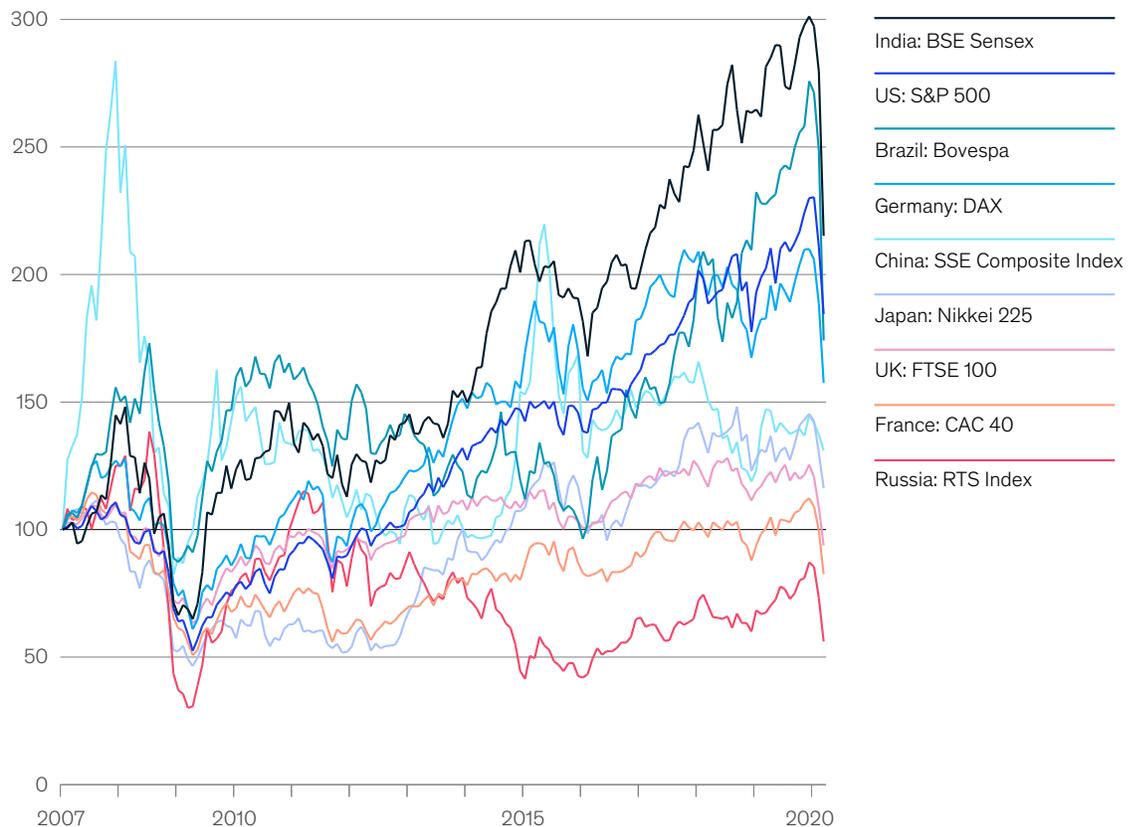
The human tragedy of the COVID-19 pandemic continues to deepen, with the heaviest toll now seen in Europe and the United States. Although testing remains limited, the number of confirmed cases of the virus worldwide has exceeded 1 million, and more than 70,000 have died. The United States, Italy, and 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)



Source: Haver Analytics; McKinsey analysis

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



Source: Haver Analytics; McKinsey analysis

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.¹ 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.

Amid the fast-moving pandemic and the policy responses, economic forecasting has become an unusually uncertain enterprise. The Organisation

¹ McKinsey’s Global Economics Intelligence (GEI) is a joint project of the firm’s Strategy & Corporate Finance Practice and the McKinsey Global Institute. GEI provides free monthly macroeconomic data and analysis of the world economy to email subscribers. To add a name to the subscriber list, go to Broadcast.McKinsey.com/51/1043/landing-pages/gei.asp. The authors wish to thank Richard Bucci, Samuel Cudre, Debadrita Dhara, Eduardo Doryan, Adrian Grad, Ryan Luby, Tomasz Mataczynski, Moira Pierce, Raye Qin, Jose Maria Quiros, Erik Rong, and Maricruz Vargas for their contributions to making GEI possible.

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

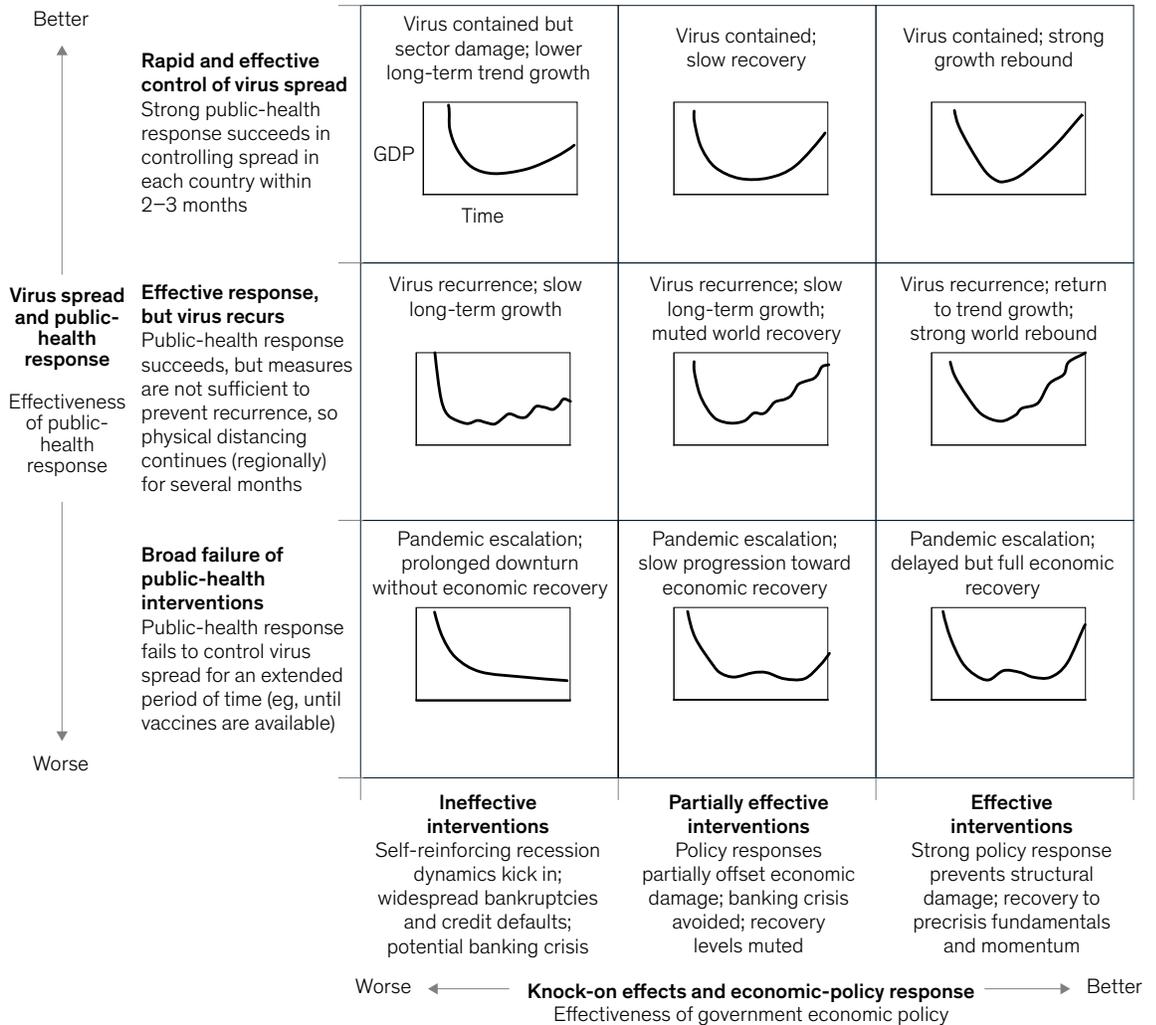
later, it cut the estimate to 2.5 percent.² The McKinsey Global Institute has taken a different approach, developing scenarios that help conceptualize the course of the pandemic and potential paths to public-health and economic recovery (Exhibit 3). The scenarios consolidate assumptions into a range of estimates of the GDP impact of lockdowns on consumption and economic activity.

²McKinsey's own cautiously advanced estimates of the effect of the coronavirus on GDP growth, undertaken with Oxford Economics, suggest a global slowdown (from a preoutbreak consensus of 2.5 percent) to 2.0 percent growth in a quick-recovery scenario and 1.0 to 1.5 percent growth in a global-slowdown scenario. In 2020, growth could slow to 1.34 or 0.45 percent (from 1.75 percent) in the United States, to 1.68 or 0.75 percent (from 1.84 percent) in Europe, and to 4.68 or 3.82 percent (from 6.00 percent) in China. Matt Craven, Linda Liu, Mihir Mysore, Shubham Singhal, Sven Smit, and Matt Wilson, "COVID-19: Implications for business," March 2020, McKinsey.com.

Exhibit 3

Scenarios for the economic impact of the COVID-19 crisis

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



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

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.³ The course of the pandemic and the human tragedy it is causing are far from exhausted. Measures to limit its deadlines 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.

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

³"COVID-19 coronavirus pandemic," Worldometer, April 3, 2020, worldometers.info.

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.

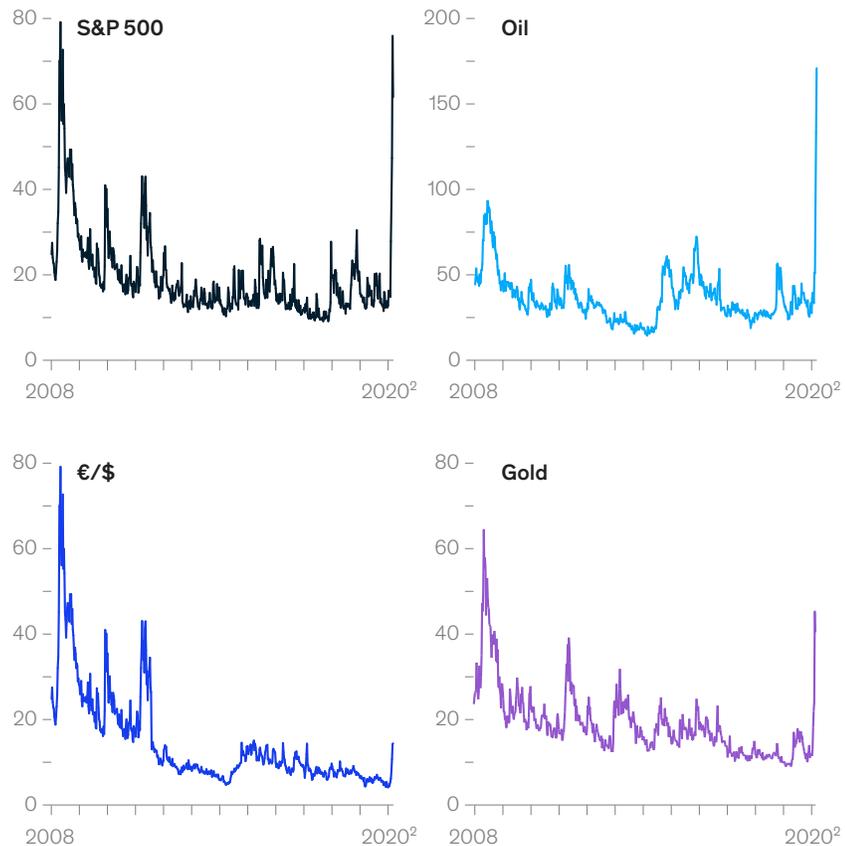
Economic intervention

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

Exhibit 4

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

Selection of volatility indexes¹



¹S&P 500: S&P 500 Index Option Volatility Index; €/€: CBOE Euro Currency Volatility Index; oil: CBOE Crude Oil Volatility Index based on US Oil Fund option prices; gold: CBOE Gold Volatility Index based on SPDR Gold Shares options.

²Updated through Mar 24, 2020.

Source: CBOE; McKinsey analysis

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.

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.

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.

The US Congress came together to pass a stimulus package of unprecedented size, with provisions to support businesses and individuals.

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.

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.

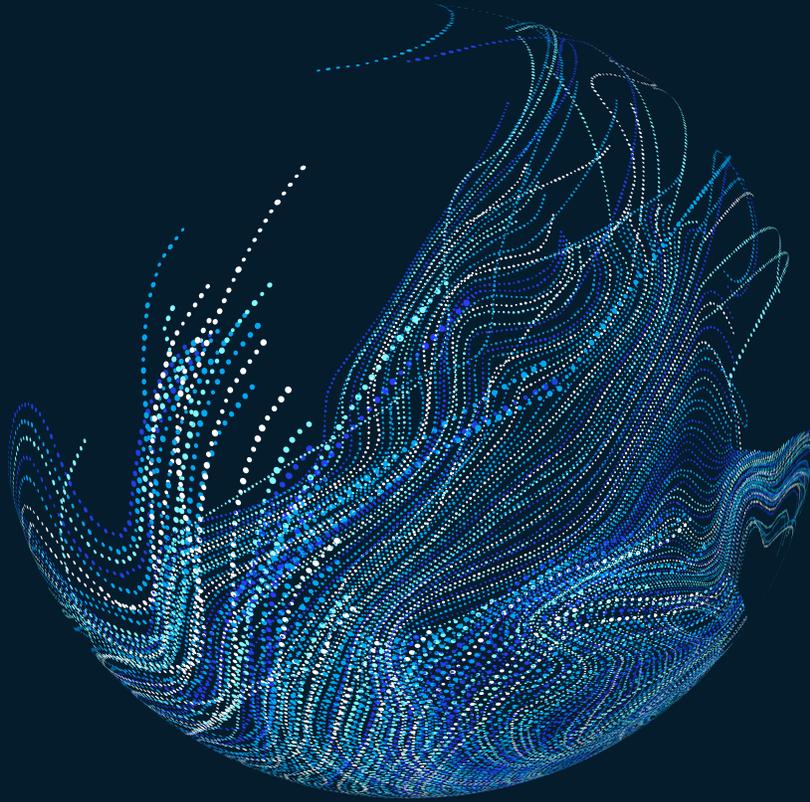
The experience in China offers important lessons for nations still grappling with this grave public-health crisis—both in the rapid, forceful containment of the outbreak and in the careful reopening of social and economic life.

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

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The coronavirus effect on global economic sentiment

In our latest survey, global executives report a gloomier outlook than one month ago. Two-thirds expect a sizable contraction in the world economy, and a record share predict declining company profits.

by Alan FitzGerald, Vivien Singer, and Sven Smit

As the COVID-19 pandemic spreads quickly across and within geographies, executives share growing concerns about its economic impact—and, varying by region, dramatic shifts in their views since the beginning of March.¹ Responses to our latest McKinsey Global Survey on the economy,² conducted from April 6 to April 10, show that overall sentiment is more negative than it was just one month ago: for example, two-thirds of respondents expect a moderate or significant contraction in the world economy’s growth rate—that is, a recession or a depression. In early March, only 42 percent said

the same (Exhibit 1). And 56 percent say the same thing about growth in their home economies, up from 24 percent one month ago.

Respondents’ overall outlook for their home countries and the global economy has changed less in the past month, though their views remain decidedly downbeat. At least six in ten believe that conditions in their home economies and in the global economy will worsen in the coming months. At the company level, prospects are especially grim. Respondents are nearly twice as likely as they

¹“Economic Conditions Snapshot, March 2020: McKinsey Global Survey results,” March 2020, McKinsey.com. The online survey was in the field from March 2 to March 6, 2020, and garnered responses from 1,152 participants representing the full range of regions, industries, company sizes, functional specialties, and tenures. To adjust for differences in response rates, the data were weighted by the contribution of each respondent’s nation to global GDP.

²The online survey was in the field from April 6 to April 10, 2020, and garnered responses from 2,121 participants representing the full range of regions, industries, company sizes, functional specialties, and tenures. To adjust for differences in response rates, the data are weighted by the contribution of each respondent’s nation to global GDP.

Exhibit 1

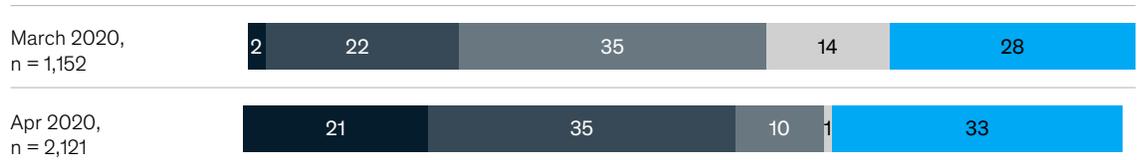
Respondents are much likelier than one month ago to expect moderate or significant contraction, both globally and at home.

Expected changes in economic growth rates, next 6 months, % of respondents¹

Global economy



Respondents’ home economies



¹Figures may not sum to 100%, because of rounding.

²Includes respondents who said “significant increase,” “moderate increase,” and “minimal increase.”

were one month ago to say that the profits of their companies will decrease in the next few months; at 61 percent, that is the largest share to report a negative outlook on profits since we began asking the question, in the wake of the 2008 financial crisis (Exhibit 2).³

Even so, the results point to some bright spots. When asked about nine scenarios for the pandemic's impact on GDP, a majority of respondents say the

four more positive scenarios are most likely to play out in the next year (Exhibit 3).⁴

As for the prospects of national economies, respondents in China⁵ are much more optimistic than those elsewhere, even compared with their counterparts in the rest of Asia (Exhibit 4)—and much more positive than they were one month ago (Exhibit 5). Respondents in North America are also likelier than others to expect improvements in the

³“What executives think about the economy: 2004 to now,” March 2020, McKinsey.com.

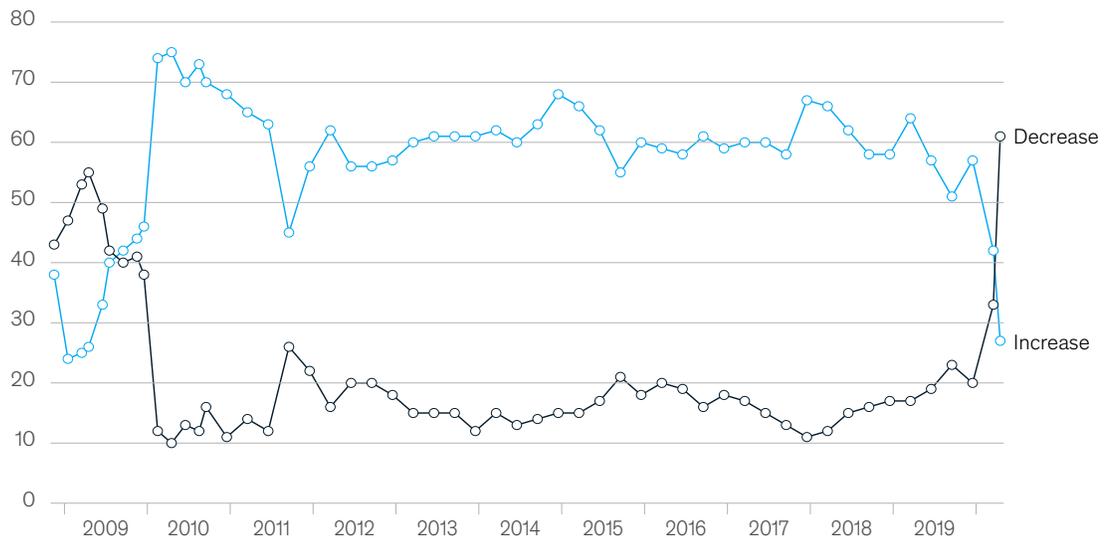
⁴For more on McKinsey's COVID-19 scenarios, see Sven Smit, Martin Hirt, Kevin Buehler, Susan Lund, Ezra Greenberg, and Arvind Govindarajan, “In the tunnel: Executive expectations about the shape of the coronavirus crisis,” April 2020, McKinsey.com; and Sven Smit, Martin Hirt, Kevin Buehler, Susan Lund, Ezra Greenberg, and Arvind Govindarajan, “Safeguarding our lives and our livelihoods: The imperative of our time,” March 2020, McKinsey.com.

⁵Includes mainland China, Hong Kong, and Taiwan.

Exhibit 2

Expectations for company profits hit an all-time low, with the largest share of respondents since the 2008 financial crisis predicting a decrease.

Expected changes in company profits, next 6 months, % of respondents¹

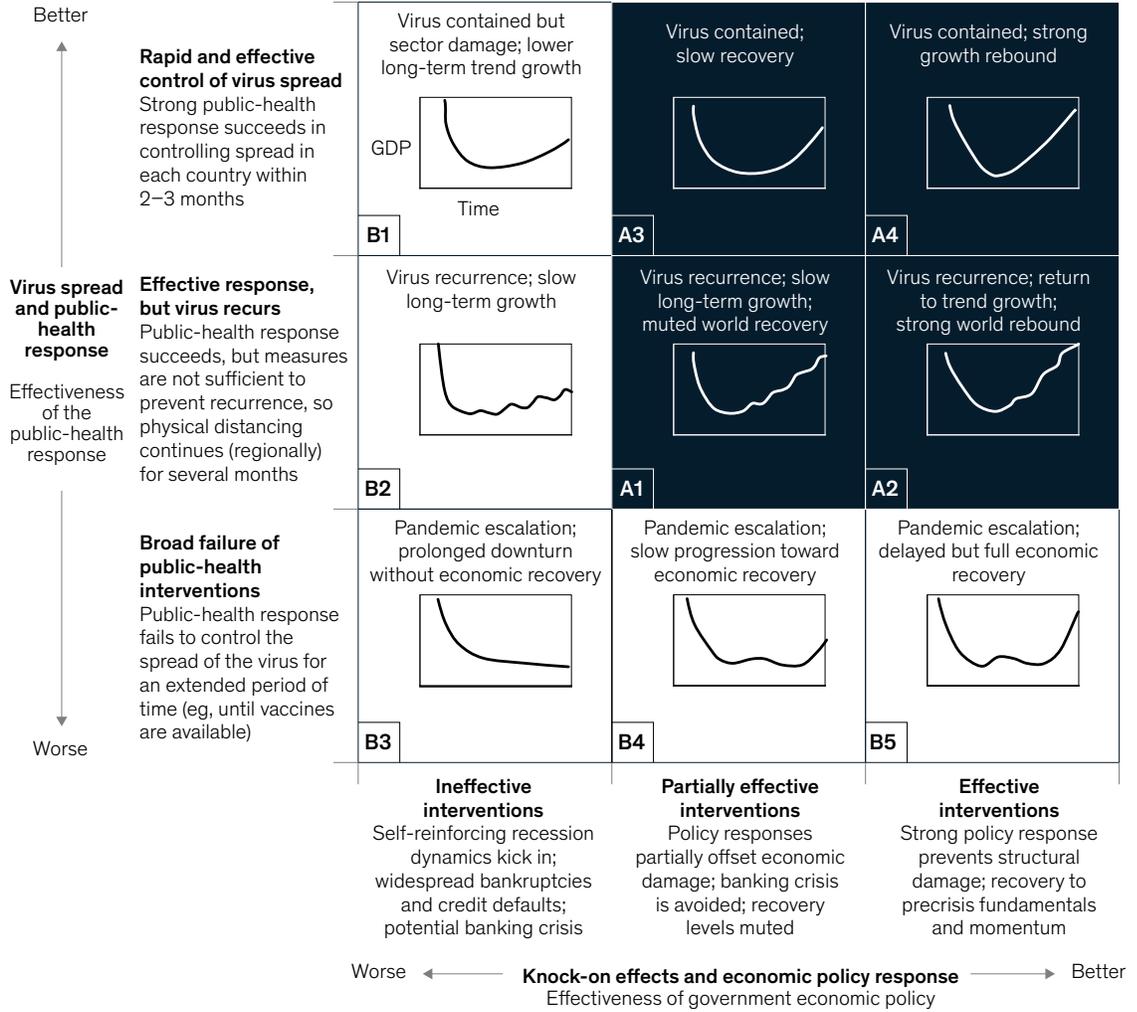


¹Respondents who answered “stay the same” or “don’t know” are not shown.

Exhibit 3

When asked about nine COVID-19 scenarios, a majority of respondents choose the four most positive ones as the likeliest outcomes

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



Most likely scenario, % of respondents

	A1	A2	A3	A4	B1	B2	B3	B4	B5
	31	6	16	6	15	11	3	9	2
	59								
	100%								

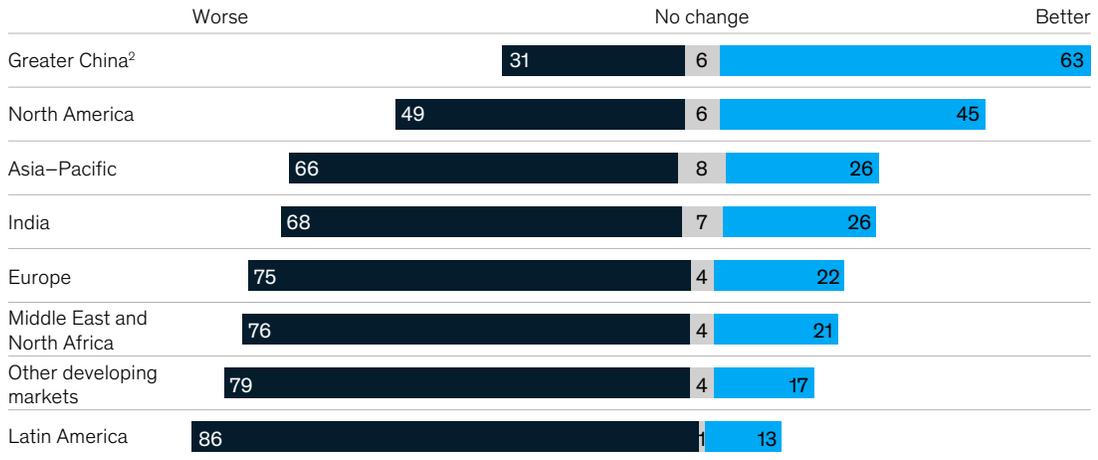
Note: Figures may not sum to 100%, because of rounding.

Exhibit 4

Across regions, respondents in China and North America are much more optimistic than others about their home economies' prospects.

Expected economic conditions in respondents' economies, next 6 months,

% of respondents, region by office¹



¹ Figures may not sum to 100%, because of rounding. In Greater China, n = 143; North America n = 490; Asia-Pacific n = 249; India n = 151; Europe n = 784; Middle East and North Africa n = 79; other developing markets n = 91; and Latin America n = 134.

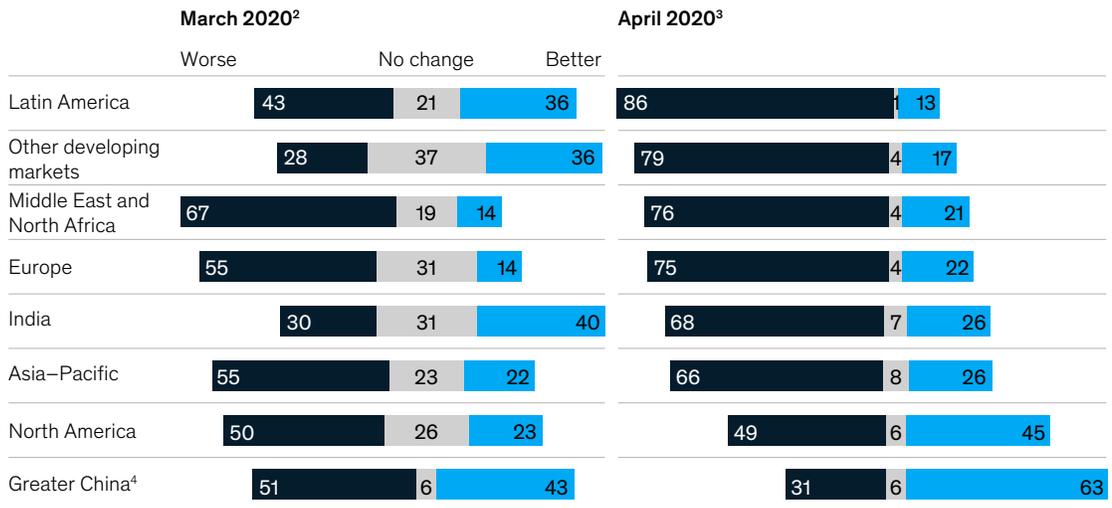
² Includes respondents in mainland China, Hong Kong, and Taiwan.

Exhibit 5

Since last month's survey, the outlook for respondents' home economies has declined in most regions of the world.

Expected economic conditions in respondents' economies, next 6 months,

% of respondents, region by office¹



¹ Figures may not sum to 100%, because of rounding. ² In Latin America, n = 73; other developing markets n = 69; Middle East and North Africa n = 38; Europe n = 436; India n = 101; Asia-Pacific n = 125; North America n = 260; Greater China n = 50. ³ In Latin America, n = 134; other developing markets n = 91; Middle East and North Africa n = 79; Europe n = 784; India n = 151; Asia-Pacific n = 249; North America n = 490; Greater China n = 143. ⁴ Includes respondents in mainland China, Hong Kong, and Taiwan.

months ahead, even though the number of US cases of COVID-19 exceeded China's two weeks before the survey was in the field.⁶ Respondents in Latin America expect their economies will be hardest hit in the near term, compared with other regions, and sentiment there—as well as in most other geographies—has become more negative since the previous survey.

⁶Coronavirus disease 2019 (COVID-19) situation report 68, World Health Organization, March 28, 2020, who.int.

The contributors to the development and analysis of this survey include **Alan FitzGerald**, a senior expert in McKinsey's New York office; **Vivien Singer**, a specialist in the North American Knowledge Center; and **Sven Smit**, a senior partner in the Amsterdam office and a co-chair and director of the McKinsey Global Institute.

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A global view of how consumer behavior is changing amid COVID-19

As shutdowns continue, consumers still expect reduced income and expenses. But they report some areas of increased spending and are adopting new brands, channels, and behaviors they say they will keep.

by Shruti Bhargava, Courtney Buzzell, Tamara Charm, Resil Das, Michelle Fradin, Anne Grimmelt, Janine Mandel, Kelsey Robinson, Sebastian Pflumm, Anvay Tewari, and Christa Seid

Governments and organizations continue to work toward containing COVID-19 and stemming the growing humanitarian toll it is exacting. Meanwhile, consumers globally are feeling its economic effects and are still pulling back dramatically on discretionary spending (Exhibit 1). European countries are the least optimistic, while China's optimism is higher, and Chinese consumers' intent to spend across select categories is starting to recover.

Consumers have shifted toward digital channels, products, and services across categories, but that shift has not come close to offsetting the overall reduction in spending.

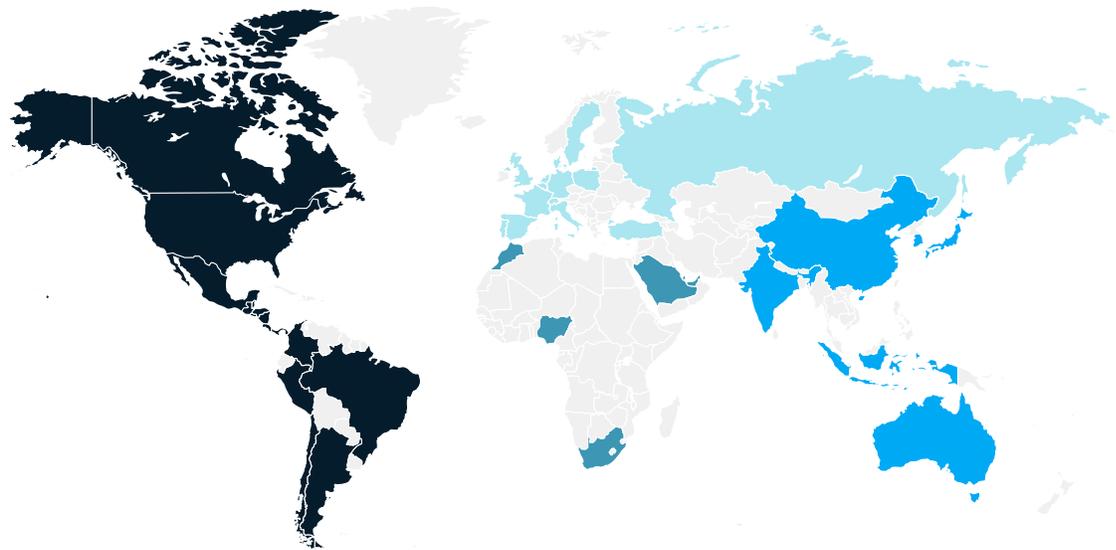
Our global survey series across 41 countries continues to track consumer sentiment through the crisis (see sidebar). The following exhibits focus on a subset of 12 core countries, selected because of their economic significance and the impact that COVID-19 has had on their populations.

1. Consumer sentiment

Consumer optimism has fallen across the Americas and Europe since mid-March, while most Asian countries have maintained or increased their level of optimism (Exhibit 2).

Exhibit 1

We are tracking consumer sentiment across 41 countries.



AMERICAS

- Argentina
- Brazil
- Guatemala
- Belize
- Honduras
- El Salvador
- Nicaragua
- Costa Rica
- Panama
- Canada
- Chile
- Colombia
- Mexico
- Peru
- USA

APAC

- Australia
- China
- India
- Indonesia
- Japan
- South Korea

EUROPE

- Belgium
- Denmark
- France
- Germany
- Italy
- Netherlands
- Poland
- Portugal
- Russia
- Spain
- Sweden
- Switzerland
- Turkey
- UK

AFRICA AND MIDDLE EAST

- Morocco
- Nigeria
- Saudi Arabia
- South Africa
- Qatar
- United Arab Emirates

Sidebar

Since mid-March, McKinsey has fielded consumer surveys, now in 40 countries around the globe, to understand the impact of COVID-19 on consumer sentiment and

stated behavior. Surveys are conducted online in local languages and are repeated weekly, bi-weekly, or monthly depending on the region. Results are weighted on a

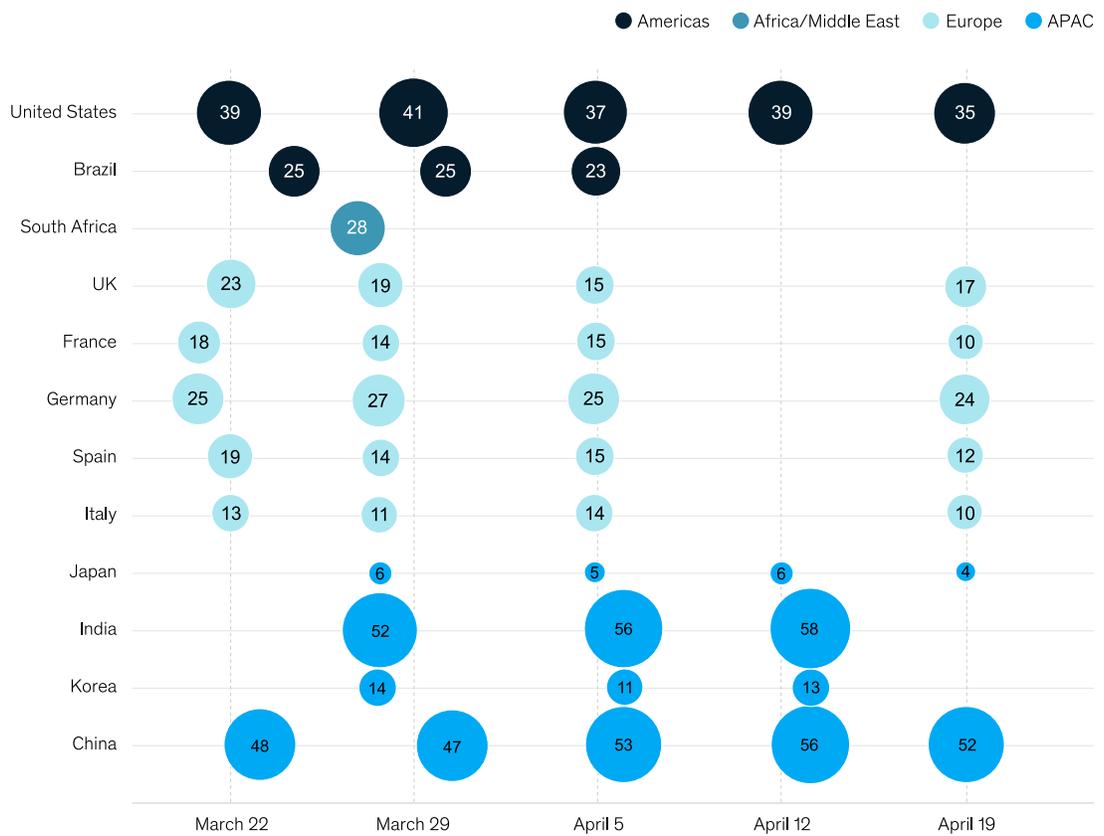
country basis for representative balance of the consuming class, based on variables including age and socioeconomic status.¹

¹ In India, the survey was conducted in English and primarily fielded in Tier 1 cities.

Exhibit 2

Consumer sentiment varies greatly across countries impacted by COVID-19.

Optimism about country's economic recovery after COVID-19,¹ % of respondents²



¹Q: "How is your overall confidence level on economic conditions after the COVID-19 situation?" – Rated from 1 "very optimistic" to 6 "very pessimistic."
²Percent of people who answered 1 "very optimistic" or 2 "optimistic"

Source: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between March 15 and April 19, 2020

European consumers were the least optimistic at the beginning of the crisis, consistent with these countries' lower consumer sentiment measures before COVID-19. However, levels of optimism have dropped since mid-March by 25 percent to 40 percent in the United Kingdom, France, Spain, and Italy. In contrast, Germany's optimism has remained steady since mid-March at a higher level than that of its European neighbors.

Although US consumers were more optimistic in the middle of March, optimism dropped by 10 percent in last week's measure, as shelter-in-place orders continue throughout the country.

China and India, two countries with high levels of optimism even before the COVID-19 crisis, have seen optimism increase since mid-March by around 10 percent each.

2. Consumer income

Many consumers across countries expect an income decrease in the next two weeks. China and India are again exceptions, with a portion of consumers expecting an increase in income (Exhibit 3).

Between 25 and 63 percent of consumers globally expect their household income to continue to fall over the next two weeks, while few (less than 10 percent in most countries) expect an increase. Chinese and Indian consumers are the most

optimistic, with 25 and 18 percent respectively expecting salaries to increase—however, 47 percent and 55 percent still expect a decrease. The next tier of countries includes the United States, the European countries, Japan, and Korea, where 30 to 51 percent expect a decrease. In the final tier of countries, Brazil and South Africa, more than 60 percent of consumers expect decreased income.

3. Consumer spending

Pockets of optimism remain across the globe, driving expectations of increased spending in some regions (Exhibit 4).

Chinese consumers' optimism results in a net increase in expected future spending, a situation also observed in Saudi Arabia, Indonesia, and Nigeria. Other countries, including Colombia, Chile, Brazil, Portugal, and Poland, have relatively low optimism but still expect to increase spending—potentially due to stocking-up behavior driven by stay-at-home orders. Most European consumers (including those in Italy, Spain, France, and the United Kingdom), in addition to Korea and Japan, are less optimistic and, as a result, expect to spend less. While US consumers are more optimistic, they match European consumers' reluctance to spend; in contrast, Canadian consumers are less optimistic and show the least willingness to spend among countries surveyed.

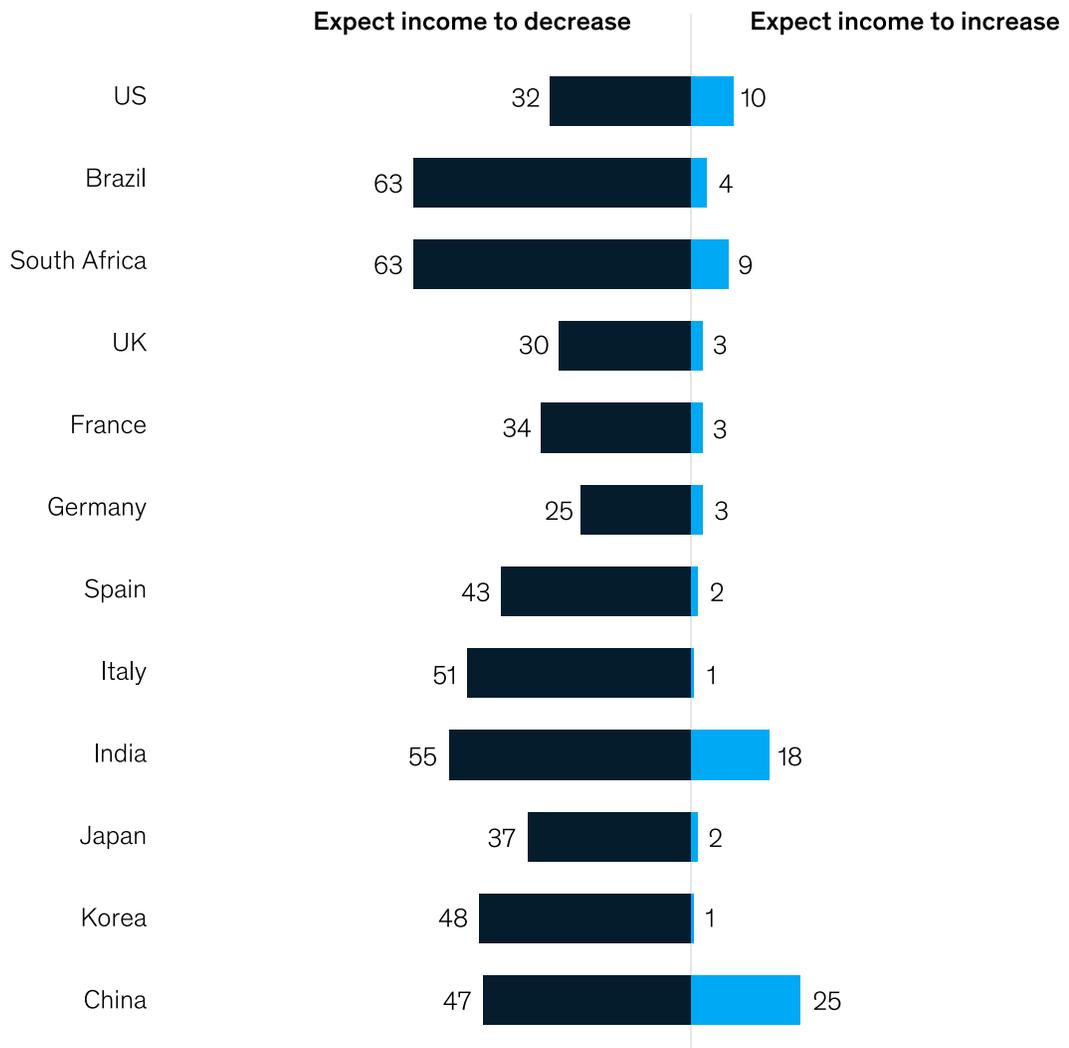
Between 25 and 63 percent of consumers globally expect their household income to continue to fall over the next two weeks.

Exhibit 3

Consumers globally expect their income to decrease in the near future.

Respondents who expect their income to decrease vs. increase over the next 2 weeks¹

% of respondents

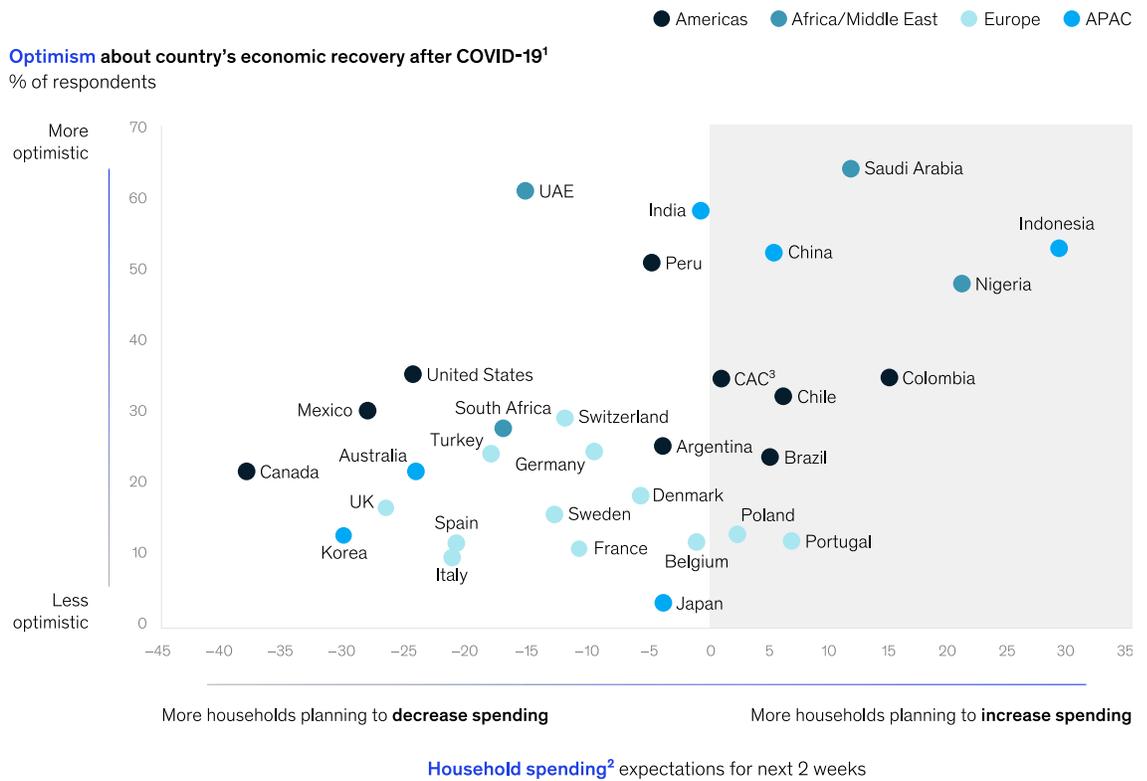


¹Q: "How do you think your overall available income may change in the next two weeks?"

Source: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between March 15 and April 19, 2020

Exhibit 4

Optimism and anticipated spending are largely correlated globally.



¹Q: "How is your overall confidence level on economic conditions after the COVID-19 situation?" – Rated from 1 "very optimistic" to 6 "very pessimistic."
²Q: "How do you think your overall spending may change in the next two weeks?" Number represents percent who indicate they will increase spending minus percent who indicate they will decrease spending
³Central America and Caribbean
 Source: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between March 15 and April 19, 2020

4. Category spending

Globally, consumers are still spending (and sometimes spending more) on basics such as food, household supplies, and personal care items, as well as on home entertainment. As countries move through the contagion curve, we see increased momentum across select categories (Exhibit 5).

Consumers are dramatically pulling back on discretionary spending in most countries excepting China. Some of the categories showing the most precipitous declines include restaurants, apparel, footwear, jewelry, accessories, travel, and entertainment out of home. This behavior is consistent with large-scale shelter-in-place orders around the globe as well as consumers' stated expectations of reduced spending.

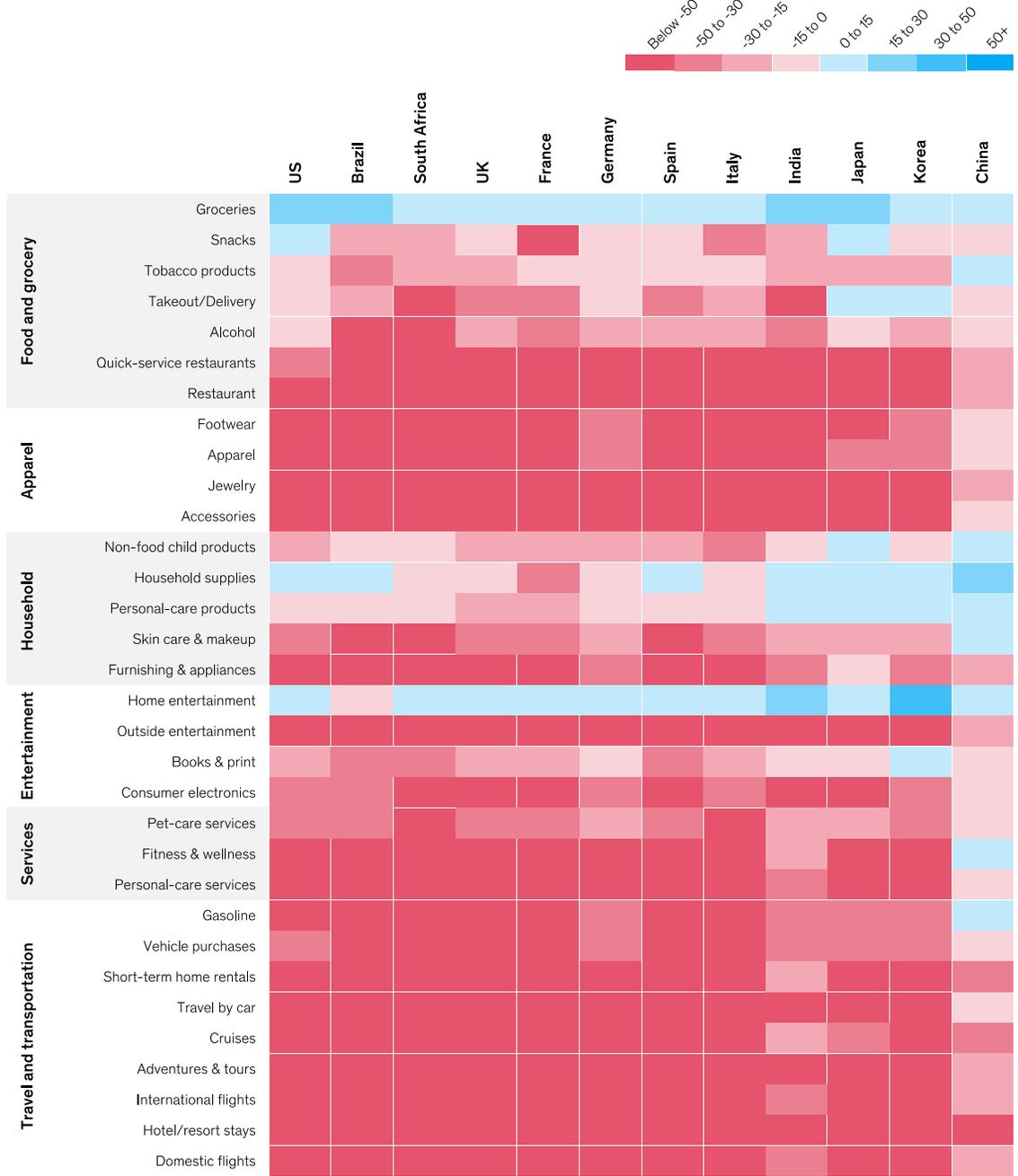
Consumers expect to spend more on basics such as groceries, household supplies, and in some countries personal-care items. Consumers are also trying new brands when the ones they are used to are unavailable. Bigger brands with more robust supply chains are growing faster as a result, giving them a unique opportunity to earn consumer trial and loyalty.

As countries progress along the contagion curve, there are pockets of increased spending. Chinese consumers are beginning to spend more across a few categories outside of basics, including pet-care services, fitness and wellness, skin care and makeup, and basics for childcare. Their shopping habits before, during, and after the COVID-19 peak show that shopping behavior after

Exhibit 5

Global consumers anticipate pulling back on spending across categories.

Expected spending per category over the next 2 weeks compared to usual¹
net intent %²



¹Q: "Over the next two weeks, do you expect that you will spend more, about the same, or less money on these categories than usual?"
²Net intent is calculated by subtracting the percent of respondents stating they expect to decrease spending from the percent of respondents stating they expect to increase spending.
 For Skin care & makeup, the China data only includes Skin care. Makeup net intent was -4.
 Source: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between March 15 and April 19, 2020

Most consumers globally expect to spend less time working and more time consuming entertainment, including digital and video content, news, and social media.

the peak resulted in more than 30 percent lower traffic but larger basket sizes for food purchases, and depressed traffic and consumption for apparel and department stores (40 to 50 percent below pre-COVID-19 levels). In South Korea and Japan, food takeout and delivery are showing positive momentum.

5. Expectations of duration of personal impact

Consumers globally expect long-lasting effects of COVID-19 on their personal routines and finances (Exhibit 6).

More than 75 percent of consumers globally expect the impact of COVID-19 on their routines and finances will be felt for more than two months, and about 50 percent expect the duration to be for more than four months. Even in China and India, where more than 50 percent of consumers are optimistic about the overall strength of their economies to rebound, about 90 percent expect it will be more than two months before routines go back to normal, and almost as many expect their finances to be impacted for a similar duration. In Germany, while

95 percent of consumers expect a lengthy impact on their routines, fewer (58 percent) expect this duration of impact on their finances. In contrast, almost 90 percent of consumers in Japan and South Korea expect disruptions to their finances to last more than two months.

6. How time is spent

Across 11 of our 12 countries, consumers continue to shift their time to home-based activities including cooking, news consumption, digital entertainment, and digital social connection. China is the only country where these activities are decreasing in favor of working more (Exhibit 7).

Most consumers globally expect to spend less time working and more time consuming entertainment, including digital and video content, news, and social media. Consumers expect to spend more time on domestic tasks, including cooking and home improvement. A notable exception is China: as it emerges from the worst effects of the pandemic, consumers plan to spend more time back at work and less time on leisure and entertainment.

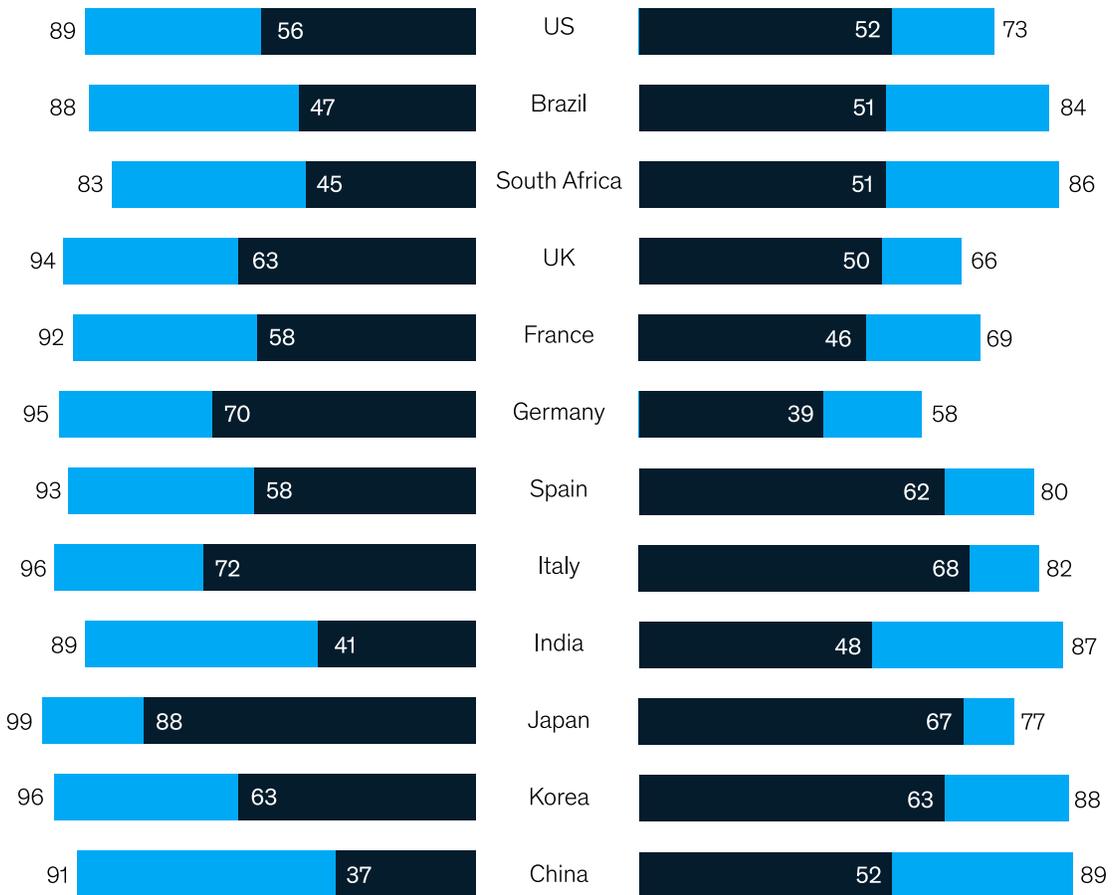
Exhibit 6

Consumers expect the personal effects of COVID-19 to be long-lasting.

■ 4+ months ■ 2-3 months

How long do you believe you need to adjust your routines due to COVID-19?¹

How long do you believe your personal/household finances will be impacted by COVID-19?²



¹Q: "How long do you believe you need to adjust your routines, given the current coronavirus (COVID-19) situation, before things return back to normal in your country (e.g., government lifts restrictions on events / travel)?"

²Q: "How long do you believe your personal/household finances will be impacted by the coronavirus (COVID-19) situation?"

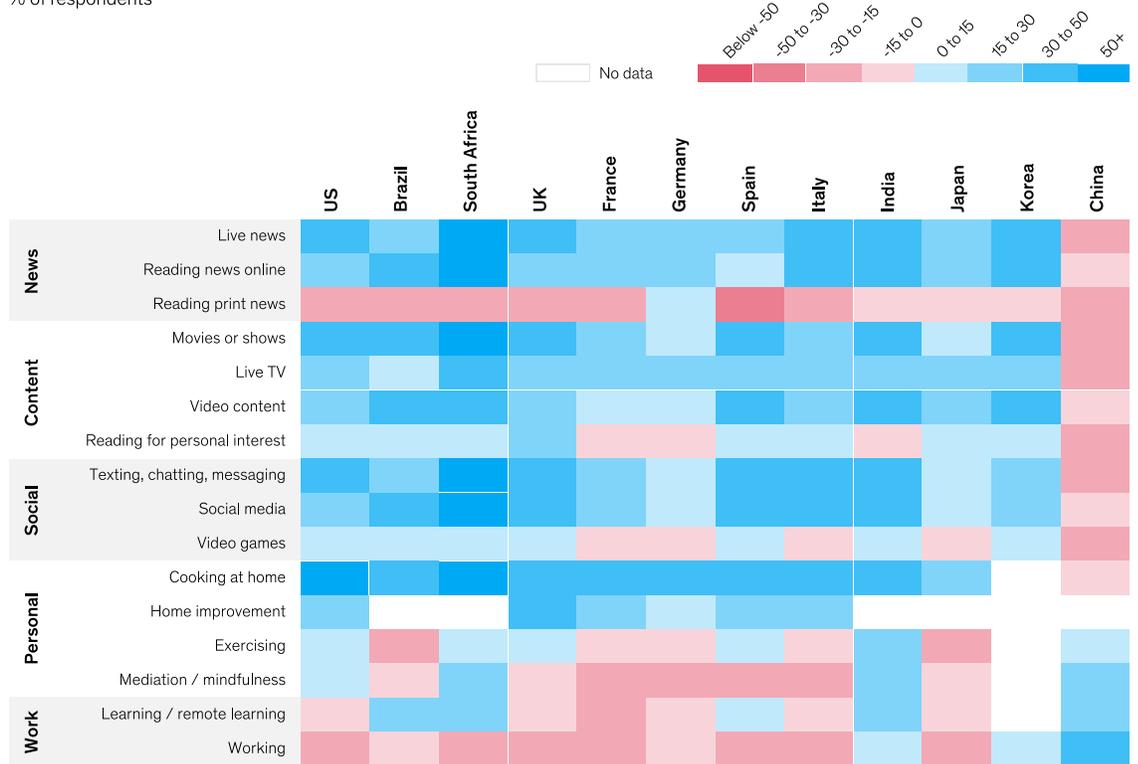
Source: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between March 15 and April 19, 2020

Exhibit 7

Globally, consumers are shifting their time away from work and toward digital and video entertainment.

Expected change to time allocation over the next 2 weeks¹

% of respondents



¹Q: "Over the next two weeks, how much time do you expect to spend on these activities compared to how much time you normally spend on them?"
Source: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between March 15 and April 19, 2020

7. Activity adoption and growth

Digital and low-touch activities are growing, attracting both new and increased users during the pandemic. Consumers expect some of these activities to enter their "next normal" (Exhibit 8).

During the pandemic, consumers have taken up new ways to learn, work, entertain themselves, procure essentials and non-essentials, connect with others, and increase wellness while at home.

Usage of online streaming and personal video chats has increased rapidly across most countries. Online fitness, including the use of wellness apps, has grown in almost all countries.

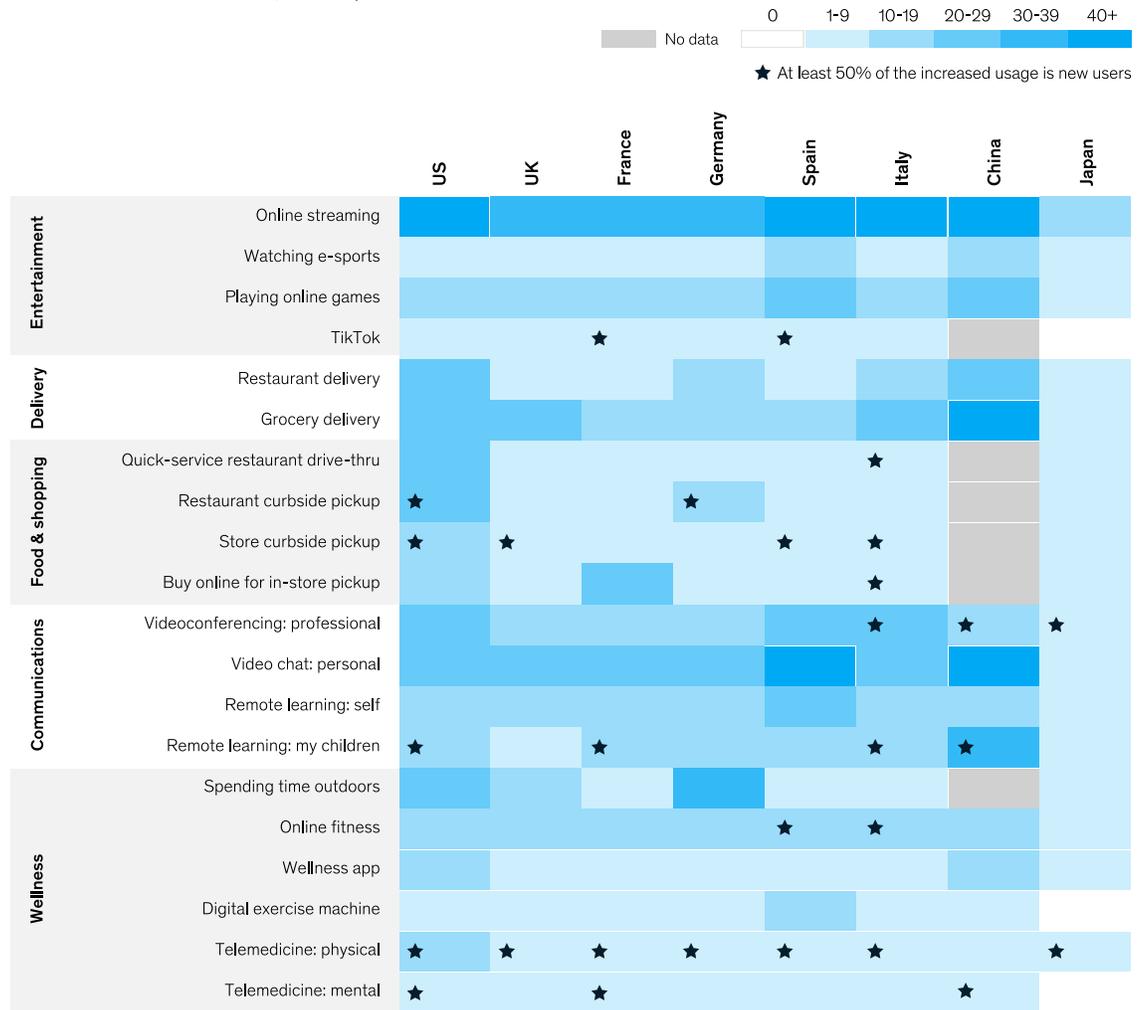
Consumers have also expanded their usage of restaurant and grocery delivery as new ways to procure food safely with limited in-person interaction. Similarly, curbside pickup has grown in popularity: restaurant curbside pickup has attracted new users in the US and Germany, while trial of store curbside pickup has increased in the US, UK, Spain, and Italy.

Consumers globally have replaced some of the in-person aspects of their work and healthcare with digital solutions. Many have begun using physical and mental telemedicine since the crisis started, with more than 50 percent of the growth of these activities coming from new users.

Exhibit 8

Adoption of digital and low-touch activities since COVID-19.

New users and increased users,¹ % of respondents²



¹Q: "Have you used or done any of the following since the COVID-19 situation started? If yes, Q: Which best describes when you have done or used each of these items? Possible answers: "just started using since COVID-19 started"; "using more since COVID-19 started"; "using about the same since COVID-19 started"; "using less since COVID-19 started."

²Percent of all respondents who are new to the activity plus percent of respondents who report they have increased their usage of the activity since COVID-19 started

Source: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between March 15 and April 19, 2020

Similarly, videoconferencing for both work and personal uses has gained in popularity across the countries surveyed.

8. Long-term outlook for new behaviors

Consumers across countries remain hesitant to return to international travel, large public gatherings, and trips to the mall once the effects of COVID-19

decrease. Across most countries, consumers say they will increase online shopping (Exhibit 9).

Looking ahead to the "next normal," consumers remain hesitant to return to some of the activities that were part of their daily life before the start of the pandemic. Consumers globally do not intend to undertake international travel soon, while consumers in several countries—with the exception of Germany and France—plan to restrict domestic

Exhibit 9

Consumers anticipate changing behaviors post-COVID-19.

Expected behavior post-COVID-19 compared to pre-COVID-19,¹ net intent %²



¹Q: "Once the coronavirus (COVID-19) situation has subsided, which of the following do you think you will do more or less compared to before the coronavirus (COVID-19) situation started?"

²Net intent measures percent who indicate they will do more of this activity minus percent who indicate they will do less

SOURCE: McKinsey & Company COVID-19 Consumer Pulse surveys, conducted globally between April 10 and April 19, 2020

travel as well. Most consumers expect to shop less frequently in physical stores for items other than grocery, simultaneously shifting that spending online.

German, French, and Spanish consumers intend to do less. In contrast, consumers in all countries except the UK expect to return to physical stores once COVID-19 has passed.

While many consumers have started shopping online for groceries during the pandemic, future intent for online grocery shopping is mixed: consumers in the UK, Italy, and Japan intend to do more online grocery shopping, while American,

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The authors wish to thank John-Michael Maas for his contributions to this article.



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Safeguarding Europe's livelihoods: Mitigating the employment impact of COVID-19

The COVID-19 pandemic has put tens of millions of jobs at risk. Examining the industries, occupations, and demographics most in peril can help decision makers shape targeted and rapid responses.

by David Chinn, Julia Klier, Sebastian Stern, and Sahil Tesfu

After weeks of concerted public-health efforts, Europe appears to have bought itself a much-needed moment of relief in the fight against COVID-19. Even in heavily affected countries such as Italy and Spain, infection rates have started to slow down, mostly because of the stringent lockdown measures enacted by governments. However, with the absolute numbers of infections and deaths still on the rise, and the grim economic consequences of lockdown and physical-distancing regulations slowly materializing, leaders still face the dual imperative of safeguarding lives *and* livelihoods.

The 2008–09 financial crisis provides a sobering analogy: it began as a financial shock but soon spilled over into the real economy. The COVID-19 pandemic, in turn, is a public-health crisis that is now beginning to take its toll on the real economy—primarily because the lockdown measures that were taken to protect lives have severe consequences for businesses and their employees. With economic activity in many sectors having ground to a near standstill, many businesses are struggling to uphold their financial obligations. And with uncertainty looming large, many companies are considering adjustments in their workforce. This could potentially put millions of jobs at risk through reductions in hours or pay, temporary furloughs, or permanent layoffs.

Our analysis, based on occupation-level data, estimates that the COVID-19 crisis could leave up to 59 million jobs at risk¹ in Europe—a staggering 26 percent of total employment in the 27 member countries of the European Union (EU-27), plus the United Kingdom (EU-28). Naturally, the level of risk will vary greatly among occupations and industries, depending on whether they are system relevant or not, how closely they are performed in physical proximity to others, how much of the work can be done remotely through technology, and potential changes in demand as the crisis evolves.

Safeguarding jobs at risk in otherwise healthy, productive enterprises is imperative; losing those jobs would not only be a tragedy on an individual level but would also be very painful from an economic

perspective. Every job has tangible economy-wide benefits as it supports consumption, saves on welfare spending, and avoids the adverse health effects that unemployment frequently brings. Europe must avoid the significant rise in unemployment witnessed during the 2008–09 financial crisis: the unemployment rate rose by 27 percent from 2008 to 2009 across the EU-28, and youth unemployment reached staggering heights, especially in some Southern European economies.² Overall it took almost ten years for EU-28 labor markets to recover, with great variance among European countries, and countries such as Greece, Portugal, and Spain have not reached precrisis employment levels.³ As estimates of the expected economic shock created by the pandemic far outstrip that of the financial crisis, mastering this challenge will be even more important in the current context.

We hope that our analysis will help build the case for swift and forceful action, improve the understanding of which jobs and groups are particularly vulnerable, and provide new insights on what can be done to mitigate the potential negative fallout.

European business leaders and governments, as well as the European Commission, have already begun to take decisive action to respond to the employment challenge—but much remains to be done. We therefore also identify a set of potential steps that business leaders and governments can take now to minimize the number of jobs at risk and to sketch a path forward once lockdown regulations start lifting.

COVID-19 is having far-reaching impact on European labor markets

The EU-27 countries have introduced varying degrees of stay-at-home mandates or advisories owing to COVID-19, as has the United Kingdom. As of April 7, almost all of the 230 million employees across the EU-27 and the United Kingdom are affected—through the closing of nonessential shops, implementation of remote working and physical-distancing guidelines, cancellation of

¹We define “at risk” as a reduction in hours or pay, temporary furloughs, or permanent layoffs.

²Eurostat, European Commission, April 9, 2020, ec.europa.eu.

³Eurostat, European Commission, April 9, 2020, ec.europa.eu; McKinsey analysis.

The COVID-19 crisis has the potential to dramatically accelerate structural adjustments and disruptions that were already underway in many important industries in Europe.

events, institution of travel bans (including internal travel, in the case of Italy), and in some cases, even full-on production stops.⁴ This has had a significant impact on the economy, with reduced discretionary spending and consumer confidence, putting many companies in a precarious position.

During the financial crisis of 2008–09, employment in the United States fell faster and deeper than that in the EU-28—likely a result of more flexible labor regulation—but it returned to precrisis levels by the end of 2014. The European economy, in contrast, only started to turn around in 2013 and did not return to precrisis employment levels until the fourth quarter of 2016.⁵

Some changes in employment during a crisis might be necessary owing to operational inefficiencies that become pronounced by the crisis but that are not caused by it. However, the COVID-19 crisis has the potential to dramatically accelerate structural adjustments and disruptions that were already underway in many important industries in Europe, such as the manufacturing and automotive sector, robbing business leaders and policy makers of much-needed time. Hence, there is an urgent need to avoid short-term employment decisions that could harm companies and their respective economies in the long run. There is an equally urgent need to find solutions to soften the social impact

of the rapid acceleration of structural adjustments brought about by the current crisis.

The need to find a solution because of the economic impacts of unemployment—which can be significant and far reaching—is urgent. Less employment means less income for people, which in turn slows down consumption. As a result of lower demand for goods and services, companies will experience lower revenues. Government financial burden will increase significantly, as revenues from employment and consumption taxes will decline at the same time as costs to the welfare system increase, potentially leading to higher taxes.

The need to find a solution because of the social consequences of unemployment—which, although difficult to quantify, can also be significant—is equally urgent. Inequality in society is exacerbated by higher unemployment rates, as social-welfare systems cannot fully alleviate the negative effects of a loss in employment. Increases in crime rates and social unrest are also potential consequences of an increase in unemployment.⁶ Moreover, unemployed people are twice as likely as employed people to experience mental illness (the rate can be even higher for lower-wage workers), and they receive inpatient treatment more often.⁷ Unemployed people also suffer from stigma and lower life satisfaction.

⁴Eurostat, European Commission, April 9, 2020, ec.europa.eu; McKinsey analysis. The definition of “essential” varies across countries but mainly encompasses supermarkets, pharmacies, banks, gas stations, and essential public services.

⁵Eurostat, European Commission, April 9, 2020, ec.europa.eu; McKinsey analysis.

⁶Horst Entorf and Philip Sieger, *Does the link between unemployment and crime depend on the crime level? A quantile regression approach*, IZA discussion paper, number 8334, July 2014, iza.org.

⁷Klaus Moser and Karsten I. Paul, “Unemployment impairs mental health: Meta-analyses,” *Journal of Vocational Behavior*, June 2009, Volume 74, Number 3, pp. 264–82, sciencedirect.com; Lidia Farré, Francesco Fasani, and Hannes Mueller, “Feeling useless: The effect of unemployment on mental health in the Great Recession,” *IZA Journal of Labor Economics*, September 2018, Volume 7, Number 8, izajole.springeropen.com.

While there is great uncertainty about the depth and duration of the downturn, the McKinsey Global Institute (MGI) estimates that the COVID-19 pandemic could almost double Europe's unemployment rate in the coming months. Two dimensions will drive how bad the economic fallout of the current crisis will be: the economic impact of the virus spread, will depend on the effectiveness of the public-health response, and the economic impacts of the knock-on effects, which will depend on the public-policy responses to mitigate these effects.

In the two most likely scenarios modeled by MGI, the spread of COVID-19 is eventually controlled, and catastrophic structural economic damage is avoided.⁸ The more optimistic of the two scenarios assumes that the virus would be controlled within two to three months of economic shutdown, resulting in unemployment peaking at 7.6 percent in 2020 before returning to the precrisis level of 6.3 percent by the fourth quarter of 2021.

The more pessimistic scenario assumes that Europe fails to contain the virus within one quarter and is forced to implement ongoing physical-distancing and quarantine measures throughout the summer, making the impact more severe. The unemployment rate for the EU-27 in this scenario is projected to peak in 2021—at 11.2 percent—and is unlikely to recover to 2019 levels by 2024.⁹

While it should be noted that most government unemployment statistics are lagging, meaningful indicators released for three large European economies are telling. In Germany, company applications for *Kurzarbeit* (the German program for short-time work allowance) rose from 1,900 in February to more than 725,000 between March 1

and April 13.¹⁰ For comparison, during 2019, 1,300 companies, on average, applied for short-time working arrangements each month.¹¹ *Kurzarbeit* was used almost exclusively by metals, high-tech, and other manufacturing industries during the 2009 financial crisis, accounting for approximately 80 percent of all the employees in the program. In the current crisis, applications come from almost all sectors but mainly from transport and logistics, accommodation, and food and tourism.¹² In the United Kingdom, applications for “universal credit” increased nearly tenfold between the last two weeks of January and the last two weeks of March—to 950,000.¹³ Meanwhile, the number of reported unemployed people in Spain rose by more than 300,000 between February and March, an increase of 9.3 percent.¹⁴

Nearly 60 million European jobs are at risk

The sharp rise in benefit filings might just be the tip of the iceberg. We estimate that up to nearly 59 million jobs (26 percent of total employment) across Europe are potentially at risk of reductions in hours or pay, temporary furloughs, or permanent layoffs.

To arrive at this figure using a granular approach, we first used occupation-level data to identify professions that are likely to be prevented from a quick return to business as usual, based on the necessary physical proximity to coworkers and exposure to the general public. We sorted occupations into three categories:

- *Low-risk occupations* include 160.5 million workers who either do not work in close proximity to others (such as accountants, architects, and journalists) or whose work

⁸From full briefing materials in Matt Craven, Mihir Mysore, Shubham Singhal, and Matt Wilson, “COVID-19: Implications for business,” April 3, 2020, McKinsey.com.

⁹McKinsey analysis, in partnership with Oxford Economics, assumes a “U”-shaped recession without financial crisis, unlike the “L”-shaped recession in 2008–09.

¹⁰“The number of short-time work advertisements multiplies [in German],” German Federal Ministry of Labour and Social Affairs, March 31, 2020, bmas.de; “The number of ads for short-time work continues to grow dynamically [in German],” German Federal Employment Agency, April 9, 2020, arbeitsagentur.de.

¹¹“The number of short-time work advertisements multiplies [in German],” March 31, 2020.

¹²“Noticeable rise in short-time working arrangements,” German Federal Employment Agency, March 20, 2020; arbeitsagentur.de.

¹³Daniel Herari, “Coronavirus: Latest economic data,” House of Commons Library, April 16, 2020, commonslibrary.parliament.uk.

¹⁴“Registered unemployment increases by 302,265 people in March compared to the previous month [in Spanish],” Spanish Ministry of Labour, Migrations and Social Security, April 2, 2020, prensa.empleo.gob.es.

provides essential health services (such as physicians, ambulance drivers, and health-service managers) or other essential services (such as those in police work, food production, education, public transit, water, and utilities).

- *Medium-risk occupations* include 14.7 million workers who perform their work in close proximity to others but do not interact with the general public; this includes machine operators, construction workers, and psychologists.
- *High-risk occupations* include 54.8 million workers, most of whom work in close proximity

to others and have significant exposure to the general public; they include retail cashiers, cooks, and actors.

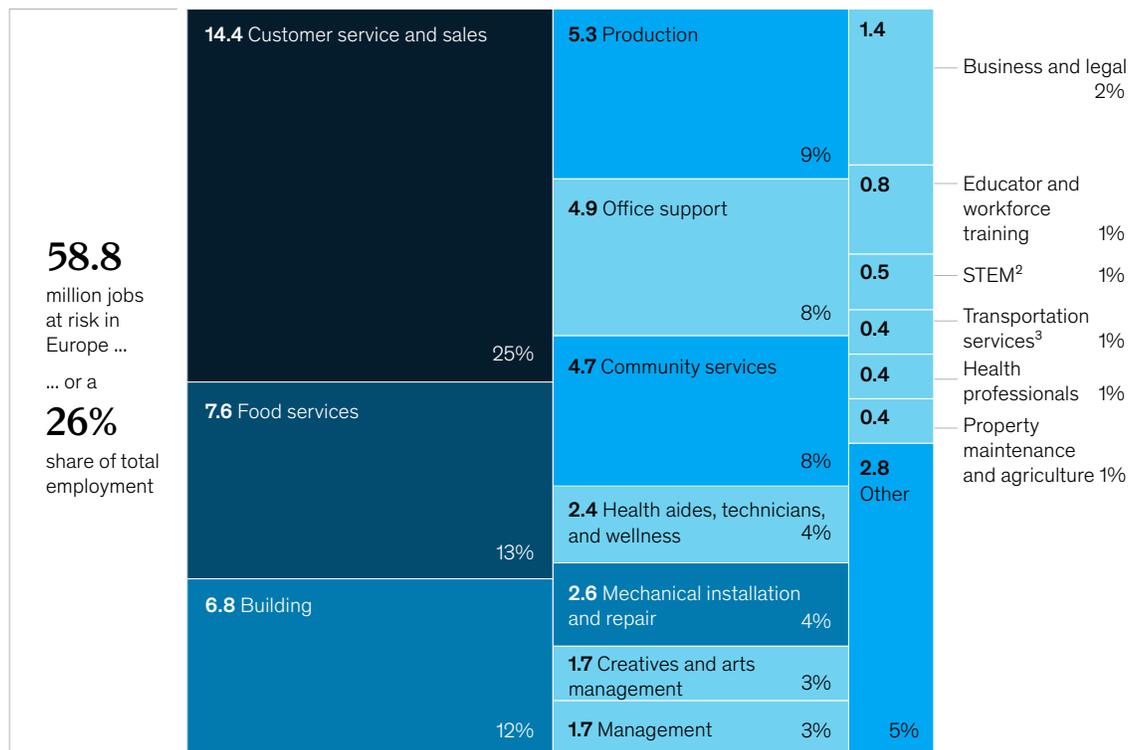
Second, after determining the occupation-level risk, we used the model to estimate an additional, industry-specific risk factor for each job, based on short-term changes in demand because of the COVID-19 outbreak.

The breakdown of jobs at risk by job cluster in Exhibit 1 shows that 50 percent of all jobs at risk in Europe come from customer service and sales (25 percent), food services (13 percent), and building (12 percent),

Exhibit 1

Fifty percent of all jobs at risk in Europe fall into customer service and sales, food service, and building.

European jobs potentially at risk, by job cluster, millions, % share of total cluster employment¹



Note: Analysis determines jobs at risk based on physical-distancing policies and their immediate knock-on economic consequences; assumes level of physical distancing (defined by shelter-in-place policy) based on state policies. Figures may not sum to 100%, because of rounding.

¹Based on the job-cluster framework defined by the McKinsey Global Institute.

²Science, technology, engineering, and math.

³Does not include any form of commercial-transportation jobs, such as heavy trucking and lorry driving (which is included in the "production" job cluster).

Source: Eurostat; LaborCube; Occupational Employment Statistics, US Bureau of Labor Statistics; McKinsey Global Institute analysis

occupations (12 percent); production work (9 percent), office support (8 percent), and community services (8 percent) make up another 25 percent. Less affected are workers in the health, science, technology, engineering, mathematics, business, and legal professions; educators; and trainers.

Looking at results by industry sector, we find that certain ones are particularly at risk (Exhibit 2). Jobs at risk represent 74 percent of total sector employment in the accommodation and food sector, 50 percent in the arts and entertainment sector, and 44 percent in the wholesale and retail sector. Wholesale and retail

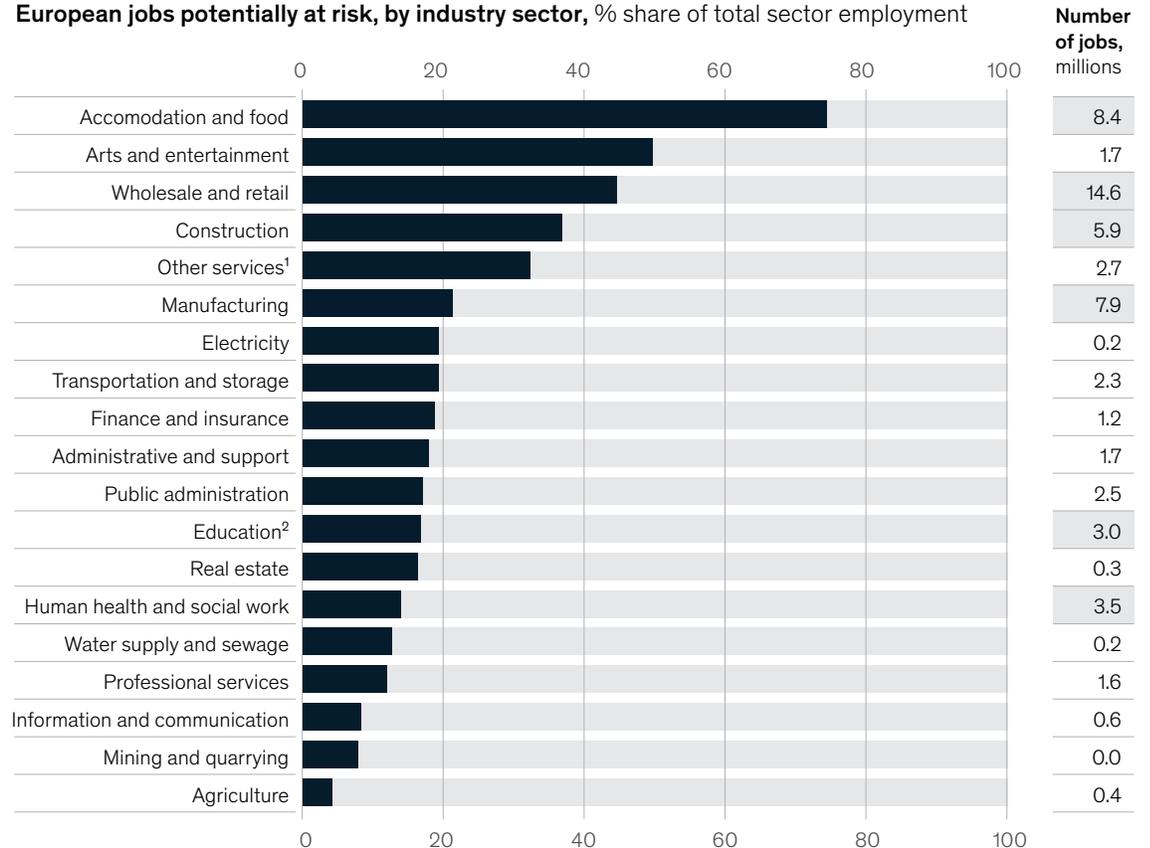
represent around 14.6 million jobs at risk (25 percent of total jobs at risk) and accommodation and food around 8.4 million (14 percent); manufacturing and construction also see substantial numbers of jobs at risk. Other sectors are much less affected, such as professional services (1.6 million), finance and insurance (1.2 million), information and communication (0.6 million), agriculture (0.4 million), and real estate (0.3 million).

While the industry-level analysis presented in Exhibit 2 provides an economy-wide view of the jobs at risk from the pandemic, some workers and business types are much more vulnerable than

Exhibit 2

European jobs in accommodation and food, arts and entertainment, and wholesale and retail are particularly at risk.

European jobs potentially at risk, by industry sector, % share of total sector employment



Note: Analysis determines jobs at risk based on physical-distancing policies and their immediate knock-on economic consequences; assumes high level of physical distancing (defined by lockdown and shelter-in-place regulations by governments).

¹Includes household employment.

²Includes nonteaching employees in the education sector, such as administrators, childcare workers, and social workers; primary, secondary, and tertiary as well as vocational educators are considered essential occupations.

Source: Eurostat; LaborCube; Moody's; Occupational Employment Statistics, US Bureau of Labor Statistics; McKinsey Global Institute analysis

others. Our analysis shows that the risk of reduced hours and pay, temporary furloughs, and permanent layoffs varies significantly by education, age, and business type.

Short-term job risk is highly correlated with level of education, potentially exacerbating existing social inequalities. About 80 percent of jobs at risk (46 million) are held by people who do not hold a tertiary degree (bachelor, master, or doctoral

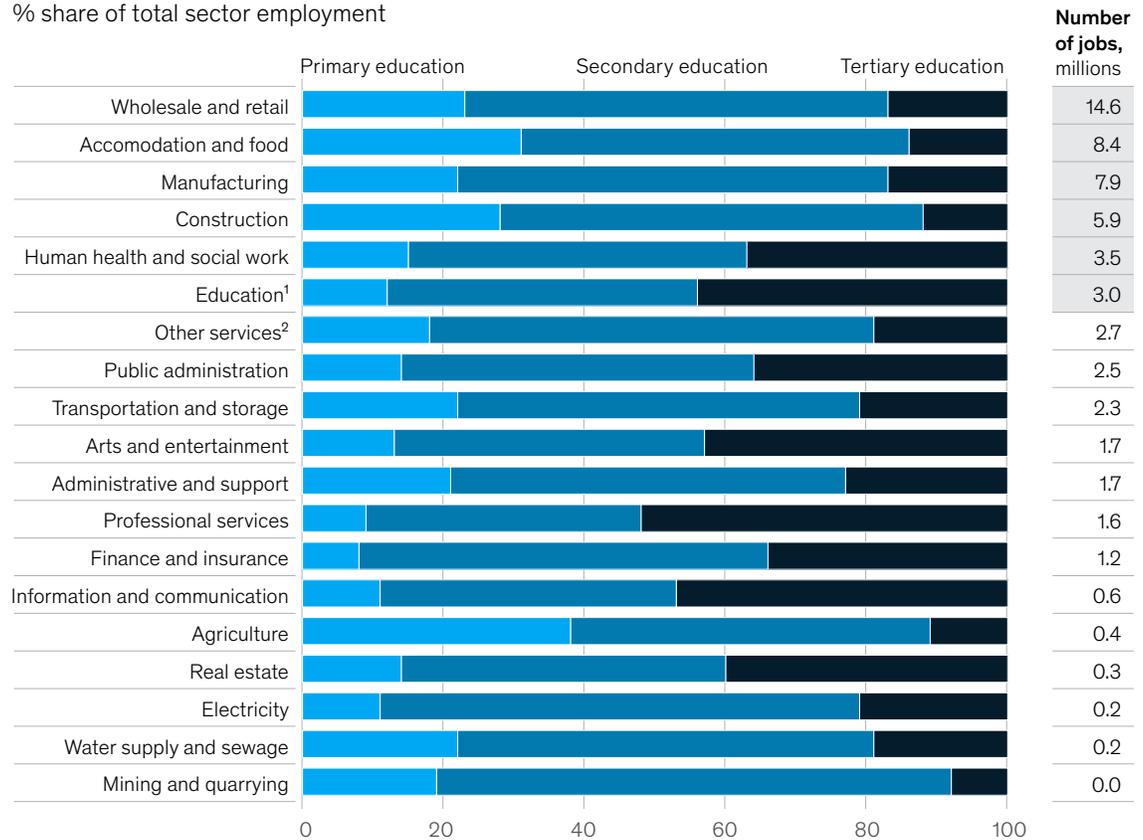
degree). Employees without a tertiary qualification are almost twice as likely as those with a university (or equivalent) degree to have their jobs at risk.¹⁵

Not surprisingly, the sectors most affected by the economic shutdown have a significantly lower share of employees with a university degree (Exhibit 3). The wholesale and retail and the accommodation and food sectors have a total of 14.6 million and 8.4 million jobs at risk, respectively, with only

Exhibit 3

The most affected industry sectors have a significantly lower share of jobs requiring tertiary education.

European jobs potentially at risk, by industry sector and education level, % share of total sector employment



Note: Analysis determines jobs at risk based on physical-distancing policies and their immediate knock-on economic consequences; assumes high level of physical distancing (defined by lockdown and shelter-in-place regulations by governments).

¹Includes nonteaching employees in the education sector, such as administrators, childcare workers, and social workers; primary, secondary, and tertiary as well as vocational educators are considered essential occupations.

²Includes household employment.

Source: Eurostat; LaborCube; Moody's; Occupational Employment Statistics, US Bureau of Labor Statistics; McKinsey Global Institute analysis

¹⁵For purposes of this article, "tertiary education" is defined as International Standard Classification of Education 2011 education levels 5 through 8; this analysis defines "jobs at risk" as those related to physical-distancing policies and their immediate knock-on economic consequences.

17 percent and 14 percent of employees holding a tertiary qualification. Meanwhile, 52 percent of employees in the professional-service sector hold a degree, and the sector has fewer jobs at risk (1.6 million).

But short-term job risk also varies significantly by age. Employees aged 15–24 years are almost twice as likely as those aged 25–54 years to have jobs at risk (41 percent versus 25 percent, respectively); they account, however, for five times fewer of the total jobs at risk because of their small share in the total workforce. Employees aged 25–54 years hold 42 million jobs at risk (71 percent of the total), whereas younger employees hold only 7 million (just under 12 percent) (Exhibit 4).

Comparing age profiles against sectors, this higher risk for young employees is consistent with the relatively younger age profiles of the most affected sectors. Employees aged 15–24 years account for 16 and 20 percent of the wholesale and retail and

the accommodation and food sectors, respectively, whereas they account for 10 percent or less in most other sectors.

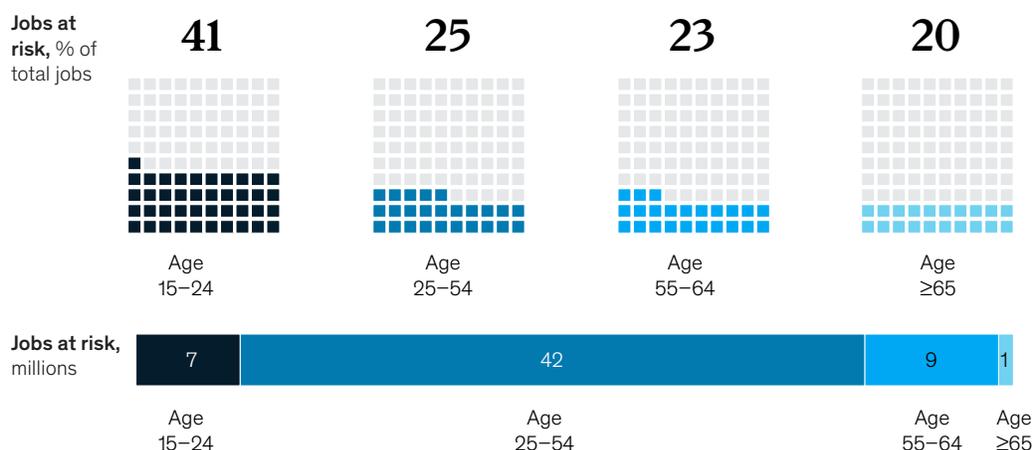
Crucially, employment in small and medium-size enterprises (SMEs), or those with fewer than 250 employees, which accounted for more than €4.3 trillion in value added in the EU-27 plus the United Kingdom in 2019, is particularly at risk. At least two of three jobs at risk are in an SME, and more than 30 percent of all jobs at risk are found within microenterprises consisting of nine employees or fewer.¹⁶ This includes 70 percent of SME jobs at risk in the accommodation and food sector, 56 percent in the wholesale and retail sector, 75 percent in the real-estate sector, 76 percent in the construction sector, and 68 percent in the professional-service sector.

The high share of SME jobs at risk is particularly worrisome, given that these jobs may be harder to recover in the long term should they not be

Exhibit 4

The short-term job risk for employees aged 15 to 24 years is higher than for those in other age groups.

European jobs potentially at risk, by age group¹



Note: Analysis determines jobs at risk based on physical-distancing policies and their immediate knock-on economic consequences; assumes level of physical distancing (defined by shelter-in-place policy) based on state policies. Figures may not sum to 100%, because of rounding.

¹ Age groups as provided in employment statistics by Eurostat; further differentiation not possible, because of data limitations.

Source: Eurostat; LaborCube; McKinsey analysis

¹⁶ Our definitions of "microenterprise" and "small and medium-size enterprises" builds on those in "Commission recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises," European Commission, May 6, 2003, op.europa.eu.

protected through the crisis. The risk to jobs in small enterprises is further increased by the fact that in 2016, only 56 percent of all companies with 50 or fewer employees provided remote access to email, applications, and documents for their employees, compared with 93 percent of all companies with more than 250 employees.

Companies and governments should act now to protect jobs at risk

Reducing the number of jobs at risk because of the short-term impacts of the COVID-19 pandemic in otherwise healthy, productive enterprises is crucial—both for economic reasons and because employment is important to life satisfaction. Every job protected has a potential positive spillover effect—retention of productivity and consumption, reduced dependence on welfare, and positive health and mental well-being.

Considered together with the disproportionate risk to jobs in small businesses and their lower recovery prospects, there is a strong business case to invest heavily now in minimizing the risk to employment to ensure a faster recovery and reduced long-term costs to the economy and to European governments.

In order to respond to the driving factors that will put jobs at risk in the coming months—not being able to return quickly to business as usual owing to the nonessential character of the tasks performed, high physical proximity, and the short-term drops in demand, for instance—companies and governments alike need to take a set of measures to address the driving factors.

Potential steps companies can consider

Regarding physical proximity, companies need to apply effective protocols, such as separating work shifts and segmenting the workforce based on vulnerability. These measures should allow some occupations to continue, even if the physical proximity that they require is high. Also, companies should invest in enabling remote work wherever possible. Much has already changed in the past few

weeks, but further investments in remote-working possibilities (for example, in access and hardware) are required and are likely to pay off, as remote working will probably remain as part of the routine for a significant amount of time.

Companies will also need to redeploy their nonutilized workforce to staff crisis activities adequately. This could include introducing temporary secondments between departments and between companies (as far as possible, given current labor-law restrictions). Hiring processes should also be expedited to hire people at scale in critical occupations and industry sectors, such as in grocery stores and logistics.

Furthermore, companies should protect the jobs that are at risk owing to a sudden drop in demand. Companies could shift employees to respond to these changes; for example, they could move them from precrisis business activities to new ones that have seen an uptick in demand (for example, to apparel companies that produce masks and other protective gear, to distilleries that make hand sanitizer, and to companies that are leveraging their logistics networks to move essential goods to where they are needed). Enabling short-term transfers of employees to companies with increased demand would cover some of the temporary needs using existing employees. In the United States, for example, FMI (food-industry association) and Eightfold AI have collaborated to create an online marketplace, called Talent Exchange, that matches workers who have been recently furloughed or laid off with critical open jobs, based on their individual skill profiles.¹⁷

In addition to shifting employees, companies should alleviate the costs that are caused by the drop in demand until the economy rebounds. This could include offering unpaid or partially paid leave with a right of return (such as sabbaticals, seasonal or monthly leave, reduced overtime allocation, or the use of worktime accounts) and reducing compensation costs without any impact on base pay (for example, by deferring bonus payments or implementing a shorter workweek).

¹⁷ *New at McKinsey*, "A new AI-powered network is helping workers displaced by the coronavirus crisis," blog entry, April 8, 2020, McKinsey.com.

Companies should also expand remote learning and reskilling initiatives for all nonutilized employees to lay the ground for their strategic ambitions in a postcrisis world. In particular, targeted reskilling initiatives could focus on technological as well as social and emotional skills, which are predicted to have an increase in demand over the next decade. This could help build the requisite human capital to close the digital gap that currently exists in businesses, especially in critical emerging fields such as artificial intelligence, blockchain innovation, and platform models.¹⁸

Potential steps governments can consider

Governments need to respond as well. They could provide incentives for the temporary redeployment of workers to critical sectors, industries, and regions. For example, construction workers could be deployed to build and extend hospitals, and textile workers could be deployed to produce masks. This could include giving companies incentives to cooperate with the transfer of employees. For instance, food retailers could employ restaurant staff. In addition, unemployed workers could be encouraged to apply for positions where there is a staffing shortage, such as in healthcare or grocery retail.

Digital platforms powered by artificial intelligence, such as Talent Exchange, could provide a quick and readily implementable solution for national labor agencies to match people with jobs depending on supply and demand.

Governments could also support broad up- and reskilling initiatives. Labor agencies and ministries could cooperate with adult-education providers and with innovative edtech start-ups to provide programs free of charge, particularly to SMEs that might not otherwise be able to afford them or to develop them in house. Additionally, employers could receive absentee payroll subsidies for employees undergoing training, a practice already

in place in Singapore as a response to COVID-19.¹⁹ Up- and reskilling to fill critical roles—for example, facilitating and financing training in health and safety protocols—would be beneficial for the remaining workforce. This would not only ease the financial burden for companies but would also lay the necessary groundwork for a return to “normal” business.

Governments should consider two sets of measures. First, ensure the liquidity and solvency of companies and employees. This could be achieved by providing financial, tax, and other relief for enterprises to ensure their short-term liquidity, such as through postponement of payments of social or tax installments, loan guarantees for SMEs or start-ups, or suspended rent for SMEs in distress. In addition, governments could guarantee pay for employees and the self-employed—for example, by introducing short-term work allowances and income support for freelancers.

Second, governments could consider adapting the regulations that might encumber the dual imperative of protecting lives and livelihoods. For example, they could create simplified and expedited application processes for unemployment benefits and SME support, and they could modify the associated criteria. Governments could also eliminate the requirement that people apply for unemployment benefits in person, and they could renew or extend residence permits for seasonal workers. They could also (temporarily) relax regulations with respect to critical professions. For example, they could allow trucks to drive seven days a week, extend supermarket shopping hours, or allow faster foreign medical accreditation.

Planning for the lockdown exit now

As the economy gradually reopens, governments and businesses will need to plan ahead for the review and gradual adaptation of measures that were taken during lockdown.²⁰

¹⁸ Jacques Bughin, Eric Hazan, Susan Lund, Peter Dahlström, Anna Wiesinger, and Amresh Subramaniam, “Skill shift: Automation and the future of the workforce,” McKinsey Global Institute, May 2018, McKinsey.com.

¹⁹ “Statement on labour market developments 2019,” Singapore Ministry of Manpower, March 12, 2020, mom.gov.sg; “Food services and retail sectors get enhanced training support package to help mitigate the impact of COVID-19,” SkillsFuture Singapore and Workforce Singapore, March 19, 2020, ssg-wsg.gov.sg.

²⁰ For more, see Andres Cadena, Felipe Child, Matt Craven, Fernando Ferrari, David Fine, Juan Franco, and Matthew Wilson, “How to restart national economies during the coronavirus crisis,” April 2020, McKinsey.com.

Additionally, companies should start to consider changes to and innovation in their business model—and the model should include remote learning programs for nonutilized workers. Companies should also carefully review any structural inefficiencies and vulnerabilities that the current crisis has made visible in their operating model—and decide on what can be done to address them. While some companies may need to enter a long and difficult period of slow rebuilding, others might be able to find near-term opportunities, such as strategic moves, partnerships, innovation, and new ways of working and collaborating.

Most important, both governments and business leaders should monitor the likelihood of the economic shock developing into a drawn-out “U”-shaped recession. While sizable economic-stimulus packages are already launched and underway, they need to be continually reviewed to

adjust for size and content (such as leveraging public procurement, stimulating private consumption, and implementing public-work programs) so that they support economic recovery.

The COVID-19 pandemic has put tens of millions of jobs at risk across Europe, with potentially far-reaching economic and social consequences. Business leaders and policy makers across the continent have already begun to take decisive action to mitigate this risk—but much remains to be done. Paying close attention to the industries, occupations, and demographics most at risk can help Europe’s decision makers shape responses that are targeted and rapid. Armed with a keen understanding of the challenge, they can take bold, innovative action to safeguard jobs—now and in the future.

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Europe needs to prepare now to get back to work—safely

The next coronavirus challenge for European policy makers is to restore both lives and livelihoods.

by David Chinn, Hauke Engel, Daniel Härtl, Milena Quittnat, Marja Seidel, Pal Erik Sjatil, Sven Smit, Sebastian Stern, and Eckart Windhagen

As the coronavirus crisis has deepened, European governments have established virus-control commands and economy-protection commands, but few—if any—have a similar structure in place for exit command. The same is true for business. Most have established war rooms with teams assigned to cope with issues related to the supply chain, workforce management, and finances. But there has been less effort directed at establishing the detailed protocols that will be necessary to bring employees back to work safely. There is still little clarity, for example, on the most effective ways of ensuring compliance with the physical-distancing and other health protocols that will be necessary for everyday life and work to resume. We believe that in order to protect lives and livelihoods, Europe's public and private sectors need to accelerate their exit planning so that they are ready to act when lockdown restrictions lift or loosen.

In this article, we describe how European policy makers and business leaders can think about how to prioritize both protecting lives and restoring livelihoods. Even in countries where lockdowns are unlikely to be lifted for several weeks, governments and companies need to be planning and preparing to restart their economies.

We start from three observations:

- Countries are working hard to establish enablers, especially testing, contact tracing, and quarantining.
- There is much to learn from what other countries are doing as they ease restrictions; it is important to think through how to adapt those efforts to the European context.
- A localized approach, down to the region or district level, is well suited to address the demand shocks that have, so far, inflicted the most hurt on Europe's economies.

The spread of COVID-19, the disease caused by the coronavirus, has been uneven. In some parts of Europe, health systems are overwhelmed, and death rates are high; others have seen lower levels of

infection and mortality. Even so, the efforts to control COVID-19 have been imposed uniformly within most countries. These measures have been draconian enough that the continent is likely to see the largest quarterly decline in economic activity (from 8 to 11 percent for the eurozone) since 1933. According to recent McKinsey estimates, the unemployment rate could increase 20 to 35 percent this quarter. This is the direct impact on Europe's livelihoods. What cannot be measured—but is just as important as figures such as GDP—is the value of restoring a sense of normality and well-being, with children back in school and physical isolation eased. It is about getting Europeans back to the lives they loved.

Although most European countries are still deep in lockdown, a few are beginning to discuss publicly how to restart their economies. Austria announced that, starting in mid-April, some shops will be allowed to reopen. The Czech Republic is doing something similar—and also allowing some sports activities. Denmark and Norway are opening some schools later in April. For most countries, however, any significant loosening is at least a few weeks away.

Exiting from lockdown will be more complicated than entering it was. The risk of resurgence will have to be continually managed, including by increasing the capacity to care for critical patients if necessary. Protecting lives depends on minimizing the risk of infection to the most vulnerable (the elderly, the immune compromised, and those with serious conditions) while keeping the health system functioning. At the same time, given the complexity of the issue, European authorities need to be developing detailed plans to reopen their economies to secure people's livelihoods well before easing lockdown restrictions begins to be possible.

So far, most of the economic harm that Europe has suffered has resulted from weak demand. Lockdown has meant that sectors such as aviation, entertainment, hospitality, nonessential retail, and manufacturing are simply not doing much business because consumers are staying home. In 17 of 25 industries studied, demand shock, not supply shocks—the availability or productivity of the

workforce or materials—accounted for most of the damage (Exhibit 1). In a smaller number of sectors, such as construction, the reduction of economic activity is largely because of the lack of a workforce; in others, the disruption of supply chains is the most pressing problem.

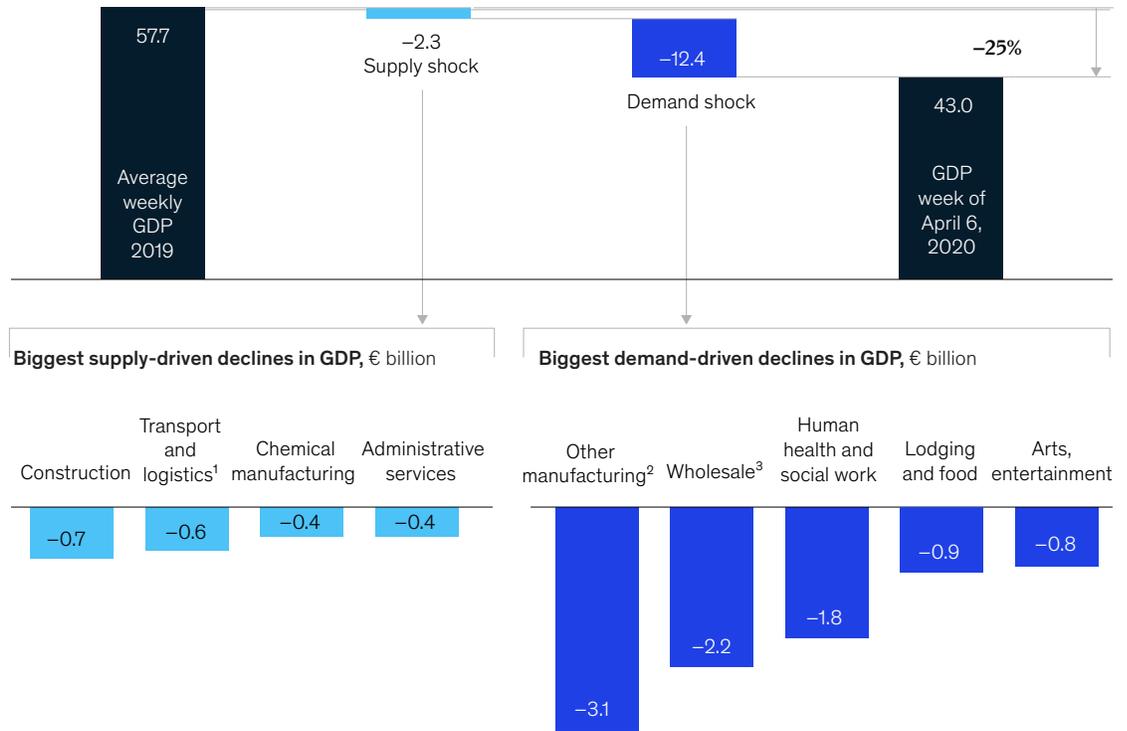
We expect demand problems to continue to be the main bottlenecks to economic recovery in the short term. In a sense, this is good news because addressing demand issues is relatively straightforward. It is about enabling people to shop

and interact with each other, confident in their safety. Addressing supply shocks may be more difficult. Different industries will reopen at different speeds, and global supply chains, which are already suffering, may not keep pace. In that case, serious supply-side challenges will emerge as lockdowns continue. While the immediate focus should be on handling demand shocks, in part because of the major impact they are having on people’s well-being and social lives, supply-side issues will also need to be addressed over the coming weeks.

Exhibit 1

Demand shocks from COVID-19 are taking a toll on German GDP.

Estimated change in German GDP during the lockdown for week of April 6, 2020, € billion



¹Excluding airlines.

²Covers mining as well as the remaining manufacturing activities (ie, manufacture of motor vehicles, of machinery and equipment, and other manufacturing).

³Including retail of motor vehicles.

Source: Eurostat; O*NET OnLine; McKinsey analysis

Learning from Asia's lockdown-exit strategies

When it comes to enabling people to emerge from their homes to shop, travel, and entertain themselves, some Asian countries are ahead of the curve, particularly China and South Korea. They have implemented measures in two broad categories to manage a gradual release from lockdown: refining physical-distancing rules and applying effective, large-scale testing combined with contact tracing to contain contagion chains. Both sets of measures aim to stimulate demand by getting consumers out of their homes and businesses back to work.

In China, restaurants have been allowed to reopen in some areas, but only at 50 percent capacity to ensure physical separation between customers. Many factories, malls, and restaurants have installed thermal scanners at their entrances; people with high temperatures are denied access. The Alipay Health Code, use of which is compulsory for those who want to leave COVID-19-affected areas, is an app that allows users to track their health status. Users with green codes can move freely, while users with amber or red codes must go into quarantine for seven or 14 days, respectively. Governments in both China and South Korea are using apps, location data, and other means to enable contact tracing and to enforce compulsory quarantines.

Europe's public-sector leaders should evaluate these initiatives, identify the best ideas, and then determine how to adapt them to local norms, which may be very different. Already, governments are building their testing capacity and looking for technology tools that can help them trace contact. Some are beginning to develop protocols that provide the framework for physical distancing as economic activity picks up, such as those for segmenting the workforce and creating physical separation over both time and space. A variety of technological approaches that seek to take into account the European context, particularly the challenge of data privacy, are also in development. One example is the Pan-European Privacy-Preserving Proximity Tracing platform, to which governments have no access. Apps built on this

platform do not store location data, but they do note if two people were in proximity. If one later tests positive for COVID-19, the other is informed.

There is no consensus yet on the most effective way to trace and isolate people exposed to COVID-19 while protecting their privacy. Given the scale of innovation under way, however, there is reason to be optimistic that a variety of effective approaches will be devised and adopted.

The public-sector imperative: Creating a localized steering mechanism

As European countries begin to consider how to exit lockdowns, local leaders are often the ones best placed to evaluate conditions and impose measures that maximize economic recovery while protecting public health. The decisions on which measures to deploy when and where should be made locally—when possible, district by district—because there are material differences in the severity of the crisis and economic circumstances (Exhibit 2).

As previous McKinsey work has noted, the first and most obvious factor in determining readiness to exit lockdown is the number of new cases. Until that number falls to manageable levels (that is, well within the capacity of the local healthcare system to manage cases individually), infection suppression will remain the priority. The second important factor is how well systems can detect, manage, and prevent new cases. Exhibit 2 shows how this looks today on a country-by-country basis. But the same data can be gathered at the state, province, or even submunicipal level. Doing so will allow national and local leaders to determine when they can begin to ease restrictions. For example, COVID-19 has been brutal for Spain, but some provinces have been much harder hit than others. After considering these two factors, both individually and in relation to each other, leaders in a less-affected province could make a case to restart the local economy, even if the country as a whole were not ready to do so.

Modeling of conditions in France also found wide divergences in the scale of COVID-19 cases, the availability of critical-care beds, and the level of

household income (Exhibit 3). All these factors will inform when and how leaders can ease lockdown conditions.

While local decision making, or steering, is likely the best option to maximize benefits, it will be challenging to implement. Authorities will need to integrate rapidly national and local decisions, communicate with their residents, and implement gradual changes to rules around physical distancing.

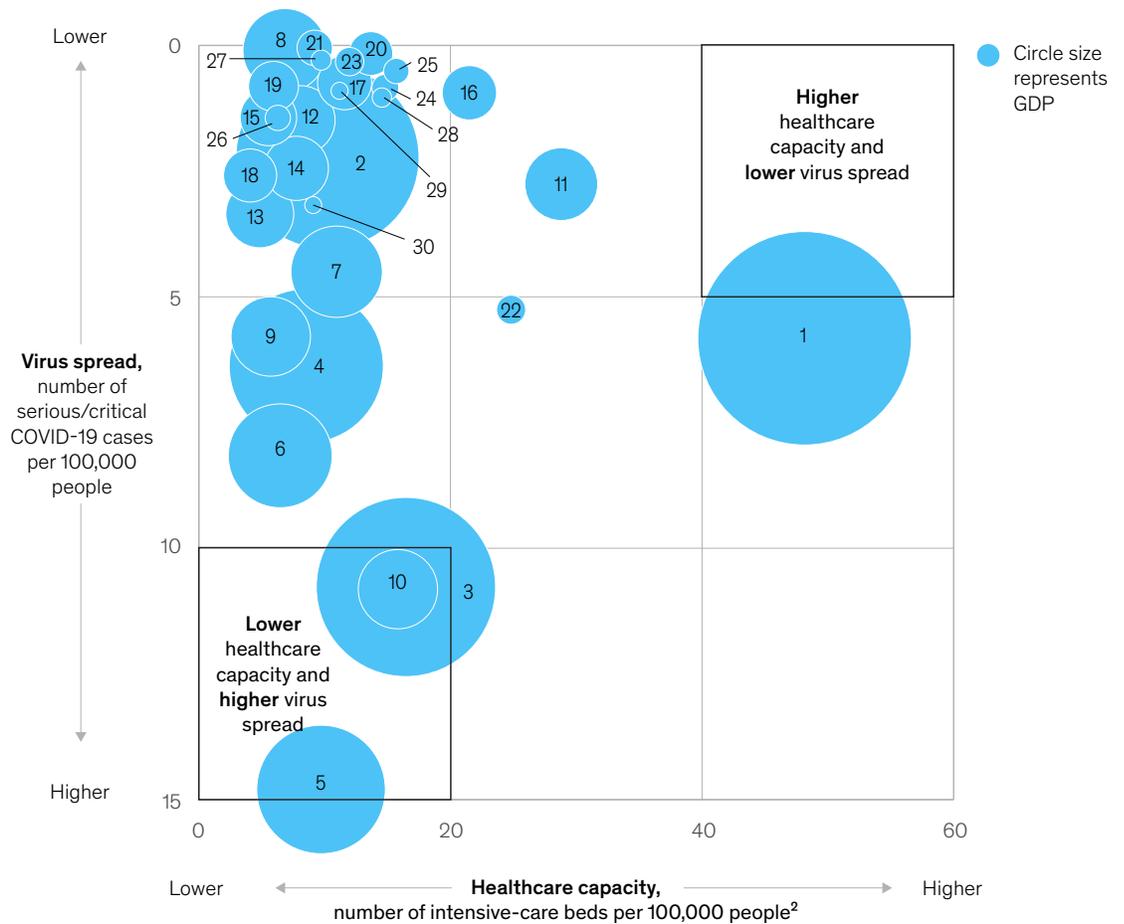
In taking these steps, they need to address three essentials to ensure that implementation is robust.

First, effective local-authority structures need to exist and to be ready to act. For example, in Italy, regions have operative competence in health matters. But at the beginning of the coronavirus crisis, the national government established, by law, measures for some parts of the country that were then extended nationwide. At the same time, the

Exhibit 2

A snapshot of 30 European countries shows that conditions surrounding COVID-19 are very different.

Serious and critical COVID-19 cases, by country,¹ numbered in order of GDP size



¹As of April 6, 2020. Differences in medical assessment of serious and critical COVID-19 cases may contribute to spread in numbers.

²Based on precrisis capacities and available data on expansions because of COVID-19 pandemic.

Source: "Beyond containment: Health systems responses to COVID-19 in the OECD," Organisation for Economic Co-operation and Development, March 25, 2020, read.oecd-ilibrary.org; Deutsche Krankenhausgesellschaft; Eurostat; A. Rhodes et al., "The variability of critical care bed numbers in Europe," *Intensive Care Medicine*, 2012, Volume 38, Number 10, pp. 1647–53, link.springer.com; Worldometer

regions were allowed to establish more stringent rules, based on their analyses of local conditions and the risk of spreading the infection. The regions of Lazio and Lombardy, for example, established “red zones” in specific areas or cities in which stricter lockdown rules were imposed.

Second, solutions and directives need to be clear and simple so that the public and businesses can understand them. This might require creating new communication channels for more localized and targeted communication—for example, via cell-phone messaging.

Third, measures need to be consistent. If the guidance one day is that shops can open to five people at a time for six hours a day and the next week to two people for eight hours, the results will

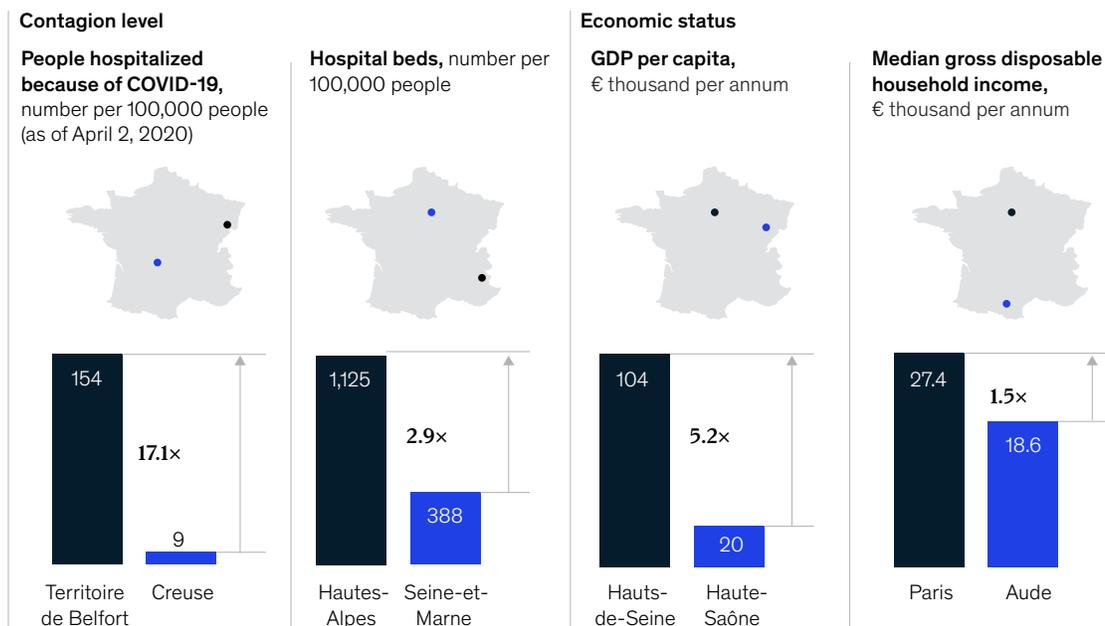
be irritation, noncompliance, and the erosion of trust in public authorities. Also, businesses often operate across multiple sites and countries; they need a degree of certainty and advance warning to begin to plan.

By preparing now, authorities will have at their disposal the full range of policy options when it becomes possible to loosen or leave lockdown. The local dimension is paramount as long as the main problem is lack of demand. When supply-side issues—meaning the reestablishment and strengthening of regional and international supply chains and addressing if issues related to international trade—become relatively more important than demand-side issues, national or European policies will become more important.

Exhibit 3

Because local conditions can differ widely, local steering may be the best approach to restart economies after the COVID-19 crisis.

Differences in contagion levels and economic status in France



Source: Eurostat; GÉODES, Géo données en santé publique, April 2, 2020, geodes.santepubliquefrance.fr; GHD; “Health facilities—2019 edition,” Ministère des Solidarités et de la Santé, March 7, 2019, drees.solidarites-sante.gouv.fr; “Household income and poverty in 2015,” June 19, 2018, “Localized social and tax revenue system,” April 7, 2020, and “Population estimate as of January 1, 2020,” January 14, 2020, all from Institut national de la statistique et des études économiques, insee.fr

In addition, authorities need to think through policies regarding other parts of public life. For reopening schools and childcare facilities, for example, leaders could adapt many workplace measures, such as staggering class schedules and play breaks and minimizing group work. Staff could also undergo COVID-19 testing regularly, and monitoring of the temperatures of children and staff could occur. For public transport, a return to confidence and more service will require strengthening of the cleaning and disinfection protocols; passengers might be asked to disinfect their hands when boarding, and staff and passengers might be asked to wear masks. For some time, it will continue to be important to minimize large concentrations of people. Extended or staggered working hours and a greater frequency of public transportation could spread out usage; there might also be limits on the number of passengers.

Public policy makers are beginning to equip themselves for this task in three ways:

- ***Compiling high-quality, detailed, and relevant local data on disease load, disease transmission, and compliance with existing public-health measures.*** Data compilation will depend on accelerating testing to a point that allows local-level early detection of growth in disease transmission and immunity by population group.
- ***Creating clear decision-making structures among different levels of government.*** Data availability, shared decision logic, and communication platforms among decision makers, from the federal to the local level, need to be established. Decision rights should be tailored to allow coordinated local steering.
- ***Building communication channels with residents and businesses.*** Each individual and every company needs to have a clear view of their specific pandemic regime at any point in time. Both traditional and new digital communication channels that allow tailored local messaging are thus key enablers for robust implementation of localized measures and should be implemented as soon as possible.

The business imperative: Preparing amid uncertainty

While access to epidemiological models and data on new infections and serious cases are important indicators about when leaders can begin to relax lockdowns, how that will happen is still very much a policy in progress. Moreover, authorities must always keep in mind the possibility of disease resurgence, at least in pockets. The COVID-19 situation will be dynamic until wide-scale vaccination is available. However, even though there is a high degree of uncertainty about the future, business leaders should begin to prepare now, considering the following elements, so that they are ready when the first relaxation measures take effect.

First, business leaders need to have plans for supply chains, facilities, governance, and management reporting in place so that they can react quickly as changing government guidelines allow increased economic activity. It is unlikely that implementation of lockdown-release measures will happen all at once—and in the same way—everywhere. Regional and international supply chains need to be ready, then, to function in a variety of scenarios.

Second, business leaders should prepare detailed physical-distancing and health protocols (Exhibit 4). Again, they might be able to learn from Asia's experience. In China, as manufacturing companies resume operations, they are dividing their workforces into groups with no physical interaction among them; an entire group undergoes quarantine if one member shows COVID-19 symptoms. Companies can also learn from their European peers. Among the practices being instituted—and that could continue as economic activity begins to accelerate—are registering all entrants to offices and factories, eliminating any overlap between shifts to reduce contact, staggering lunch and break times to reduce crowding, and installing no-touch trash bins.

Third, communication channels to public authorities need to be established; businesses need to know what is happening at all levels, from their local districts to national governments and all the way up

European companies are developing a range of safety and health protocols for COVID-19.

Safety and health protocols



Access control and quarantine

- Set clear policies for workplace access
- Measure body temperature at building entry
- Conduct random visual and temperature checks during workday
- Request employee quarantine when slightest COVID-19 symptom shows up
- Track and document all building entries and exits



Remote working

- Encourage remote work in all roles that do not require physical presence
- Provide webinars on remote-working and -leadership best practices



Work and shift planning

- Create differentiated shift plans and break times for minimum congestion on work premises
- Split shifts and disperse workplaces/desks to ensure minimum distance
- Identify and isolate critical employee groups
- Define contingency plans for workplace closures



Hygiene and health

- Set clear policies for physical distancing in workplace
- Establish daily disinfection procedures
- Promote mandatory health and hygiene protocols (eg, hand washing, mask use, glove use) for employees
- Stop elevator use whenever possible
- Discontinue use of shared items (eg, pens, phones)
- Provide critical supplies



Compliance and communication

- Communicate at least once per day about purpose and changes on measures in effect
- Perform random checks in all departments on full list of measures
- Report COVID-19 symptoms to relevant health authorities
- Clear all protocols with local authorities

to the European Commission and WHO. It is the joint responsibility of public authorities and businesses to create those communication platforms now to prepare for the next phase, whether that is the gradual opening of business and cross-border activity or even another wave of lockdowns.

In mid-March, as the pandemic was taking hundreds of lives a day, Italians went at the same time to their windows and balconies—and sang. They sang the

national anthem or beloved regional melodies, in an expression of hope and solidarity.

It is that kind of spirit that will see Europe through what may be its worst crisis since World War II. But resolve and resilience will not be enough. It is the imperative of leadership, both in the public and private sectors, to identify the policies and build the institutions needed to get the European economy moving again—as fast as humanly possible and as fast as humanity allows.

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Tackling COVID-19 in Africa

An unfolding health and economic crisis that demands bold action

by Kartik Jayaram, Acha Leke, Amandla Ooko-Ombaka, and Ying Sunny Sun

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.

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 3–8 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.

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*.¹

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

As of March 31st, 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 31st (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.

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

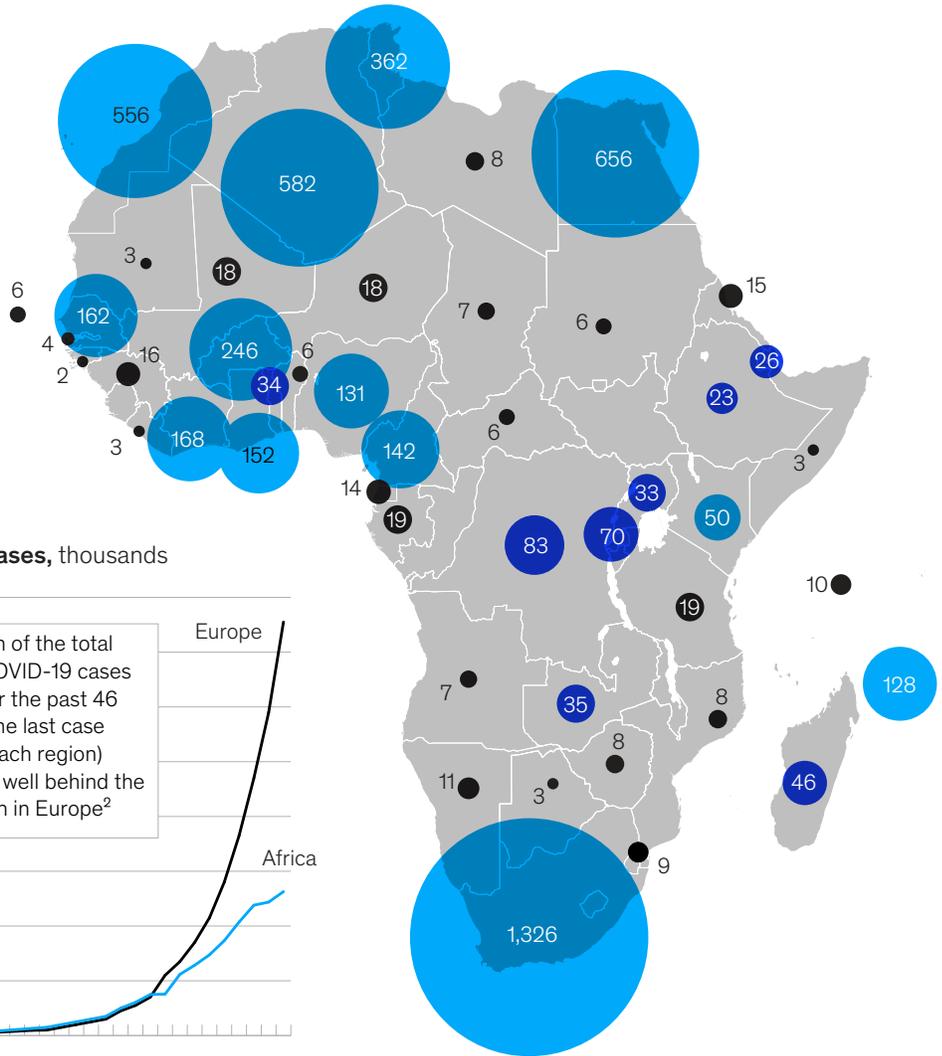
¹ Kevin Sneader and Shubham Singhal, "Beyond coronavirus: The path to the next normal," March 2020, McKinsey.com.

Exhibit 1

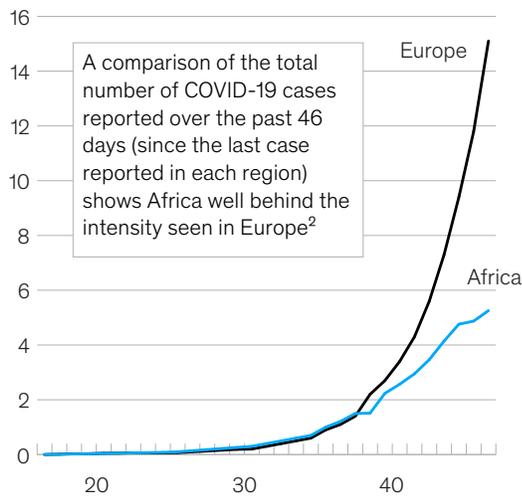
The number of confirmed COVID-19 cases in Africa is growing rapidly.

Confirmed cases of COVID-19 as of Mar 31, 2020,¹ number

- Isolated cases
- Small cluster
- Community transmission



Total COVID-19 cases, thousands



¹At 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.

²The 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

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.

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 economic impact of the spread of the virus within Africa, and of the measures that governments are taking to stem the pandemic.*

- *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.)

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 3–8 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.

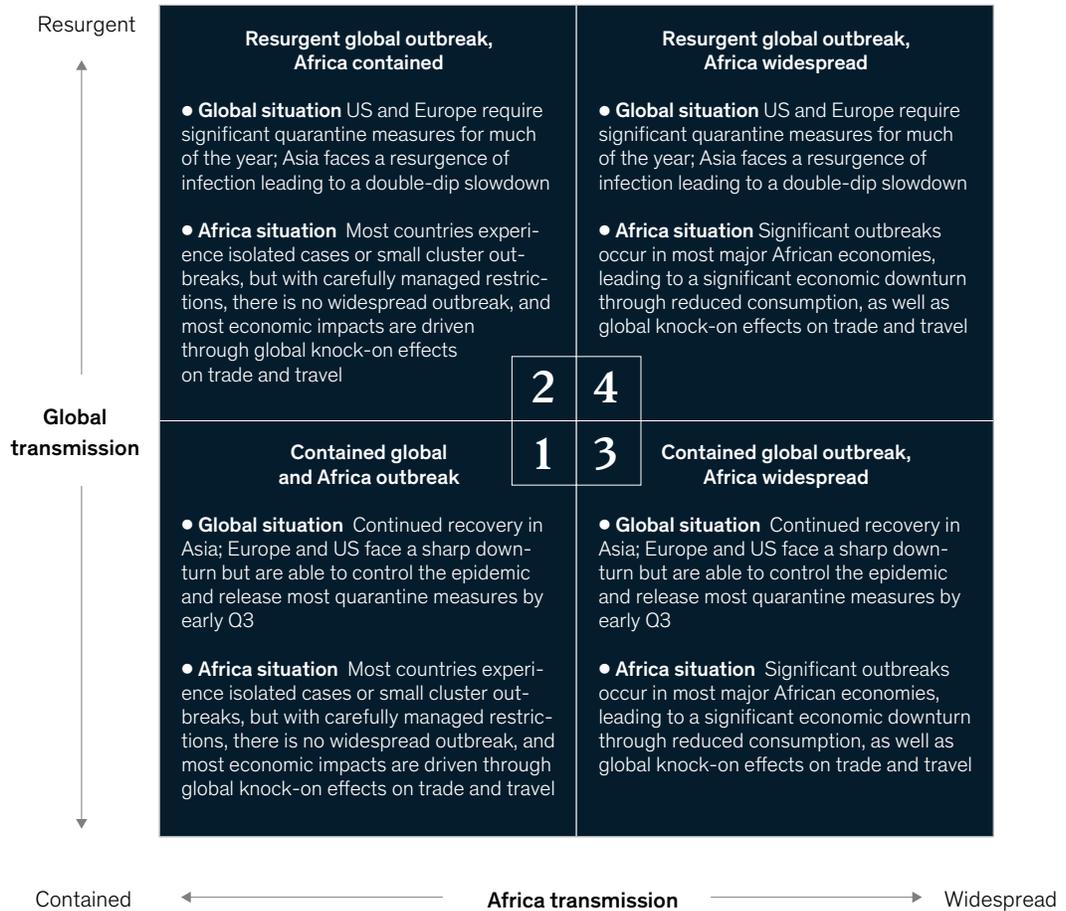
- **Scenario 4: Resurgent global outbreak, Africa widespread.** In this case, Africa's average GDP growth in 2020 would be cut by about eight percentage points, resulting in a negative growth rate of –3.9 percent. Globally, we assume that Europe and the United States continue to face significant outbreaks 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.

These scenarios do not take into account the potential effects of any fiscal stimulus packages that may be announced by African governments;

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)



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

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

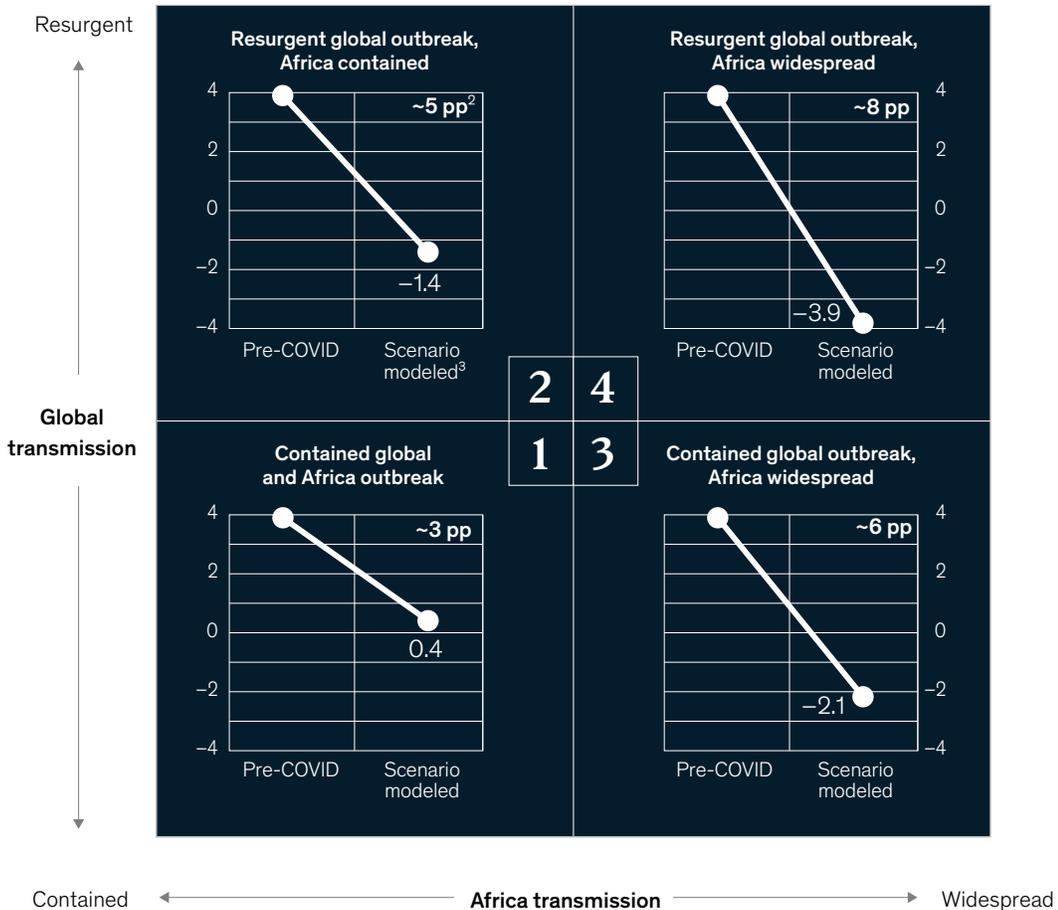
direct impact coming from oil-price effects, given Nigeria's status as a major oil exporter. In scenarios in which the outbreak is not contained, Nigeria's GDP growth rate could fall to -8.8 percent, representing a reduction in GDP of some \$40 billion. The biggest driver of this loss would be a reduction 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

Exhibit 3

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

2020 GDP¹ and projections according to the four COVID-19 transmission scenarios



¹Baseline 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).
²Percentage-point change.
³Disclaimer: 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

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.

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.

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

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.

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
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

² Mihir Mysore and Ophelia Usher, “Responding to coronavirus: The minimum viable nerve center,” March 2020, McKinsey.com.

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 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.

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.

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

<p>1 Set up a national nerve center</p> <ul style="list-style-type: none"> • Setup and operations • Digital tracking and monitoring • Proactive communication 			
<p>2 Anticipate and manage the health crisis</p>  <p>Contain the epidemic</p> <ul style="list-style-type: none"> Preventive measures Diagnostic, testing, and isolation <p>Prepare the healthcare ecosystem</p> <ul style="list-style-type: none"> Infrastructure Drugs and medical equipment Workforce 	<p>3 Secure food supply chain and essential services</p>  <p>Secure the food supply</p> <ul style="list-style-type: none"> Supply of priority products Pricing Tracking and monitoring <p>Maintain access to essential services</p> <ul style="list-style-type: none"> Health and education Telecoms Utilities 	<p>4 Ensure support for vulnerable populations</p>  <p>Protect jobs</p> <ul style="list-style-type: none"> Protecting jobs Retraining for crisis needs <p>Support most vulnerable populations</p> <ul style="list-style-type: none"> Social safety-net mechanisms and distribution 	<p>5 Anticipate and manage the impact on the economy</p>  <p>Manage economy</p> <ul style="list-style-type: none"> Scenario analysis Impact on economy and public finance <p>Short-term stimulus package</p> <ul style="list-style-type: none"> Financial stability Help companies survive <p>Preparation for recovery</p> <ul style="list-style-type: none"> Preparation for the “next normal”

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 co-ordinate 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.

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.

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.

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.

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

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.

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 re-structured 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.

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.
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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Finding Africa's path: Shaping bold solutions to save lives and livelihoods in the COVID-19 crisis

The impact of COVID-19 in Africa could be devastating, unless governments, development institutions, and the private sector act with extraordinary speed and agility in the weeks ahead.

by Kartik Jayaram, Acha Leke, Amandla Ooko-Ombaka, and Ying Sunny Sun

The number of recorded COVID-19 cases in Africa, at about 15,000 on April 14, is still relatively small, but it is growing fast. The continent has far fewer doctors, hospital beds, and ventilators per capita than any other region. A health crisis of significant proportions looms unless containment measures succeed *and* urgent action is taken to ramp up health-system resources.

On the economic front, the crisis in jobs and livelihoods could be even greater. After two decades of steady economic progress, the pandemic could tip Africa into its first recession in 25 years. By our analysis, as many as one-third of all jobs in Africa could be affected. Africa's high degree of informality and relatively low levels of social protection exacerbate the risk.

In this article, we present new analysis that underlines the urgency of action required to save lives and safeguard livelihoods in Africa. We also suggest specific approaches that governments, development institutions, and business can take to act decisively on both fronts. These insights build on our recent article "Tackling COVID-19 in Africa: An unfolding health and economic crisis that demands bold action".¹

We focus on three imperatives:

1. **Protecting lives.** We present new analysis showing that bold steps will be needed to strengthen Africa's health-system capacity over the next 100 days, at a potential cost of more than \$5 billion.
2. **Safeguarding livelihoods.** We show that the jobs or incomes of 150 million Africans are vulnerable in the crisis, and we share new analysis of the interventions required to mitigate the economic damage.

3. **Finding the right path.** We consider how governments can make optimal decisions on lockdowns, shutdowns, and shielding of people at the highest risk of contracting the virus, thereby achieving the best possible outcomes in protecting lives and safeguarding livelihoods.

Protecting lives: \$5 billion in 100 days to ramp up health-system capacity

Although Africa has fewer known COVID-19 cases than other regions, the number is growing fast. Epidemiological projections suggest that, in a worst case, there could be many millions of cases in Africa over the next 100 days if the spread of the virus is not contained. Such projections vary and are sensitive to assumptions, including the starting position and the number of people a single infected person will infect in a population. But they do shine a spotlight on the scale of the health risks facing Africa.

African health systems are ill prepared for a widespread outbreak. The entire continent may have just 20,000 beds in intensive-care units (ICUs), equivalent to 1.7 ICU beds per 100,000 people.² By comparison, China has an estimated 3.6 ICU beds per 100,000 people, while the United States has 29.4.³ And while there are shortages of ventilators in many parts of the world, that shortage is particularly acute in Africa. There are an estimated 20,000 ventilators across the continent, far too few to manage large numbers of COVID-19 cases; excluding North Africa and South Africa, the rest of sub-Saharan Africa might have as few as 3,500.⁴ By comparison, the United States, with one-third of Africa's population, has up to 160,000 ventilators.⁵

To gauge the ramp-up that might be needed, we assessed how the capacity of Africa's health systems would need to increase if the continent's infection rate were to reach 1 percent in the next

¹ Kartik Jayaram, Acha Leke, Amandla Ooko-Ombaka, and Ying Sunny Sun, "Tackling COVID-19 in Africa," April 2020, McKinsey.com.

² Niall McCarthy, "The countries with the most critical care beds per capita," *Forbes*, March 12, 2020, forbes.com.

³ "United States resource availability for COVID-19," Society of Critical Care Medicine blog, March 19, 2020, sccm.org. <https://sccm.org/Blog/March-2020/United-States-Resource-Availability-for-COVID-19>.

⁴ Aryn Baker, "Few doctors, fewer ventilators: African countries fear they are defenseless against inevitable spread of coronavirus," *Time*, April 7, 2020, time.com.

⁵ "United States resource availability for COVID-19," Society of Critical Care Medicine, March 19, 2020, sccm.org. <https://sccm.org/Blog/March-2020/United-States-Resource-Availability-for-COVID-19>. This figure includes both full-feature and older models.

100 days—equivalent to the infection rate in New York State after one month of the COVID-19 crisis. In such a scenario, we estimate that more than \$5 billion in additional funding would be needed to cover the cost of critical supplies for hospitals, including tests, masks, gloves, and ventilators. This sum excludes the cost of wider responses to the health crisis, such as building new hospital capacity, quarantining individuals, providing masks to the general population, or implementing a widespread testing strategy.

Even if containment efforts limit Africa's infection rate to 0.1 percent over the next 100 days (a third of Spain's official case rate after one month of the crisis), we estimate that the continent could require 35,000 ICU beds and ventilators for COVID-19 patients alone. Even in this less severe scenario, we estimate that at least 20 million masks will be required in the next 100 days for hospitals to be prepared to meet the COVID-19 caseload.

Likewise, whichever scenario the outbreak follows, a major ramp-up will be required in the number of COVID-19 tests available in Africa (Exhibit 1). At a minimum, we estimate that 5 million such kits will be required over the next 100 days in a scenario of robust containment. If the virus were to spread more rapidly and African governments were to adopt a strategy of broad testing similar to that used in South Korea, 80 million test kits could be needed in this short period. By our estimates, fewer than 500,000 such kits have been deployed across Africa to date.

Even if funding were secured to purchase these supplies and resources, the procurement and distribution logistics involved would be hugely challenging—as would be the effort to build up the capacity of healthcare providers to use the equipment. Private-sector capacity for production and distribution of medical supplies would need to be integrated into the effort. And thousands of community health workers would need to be trained

to support the medical response, given Africa's very low numbers of health workers per capita. As one illustration of this gap, consider the fact that Italy, whose hospital staffs have been overwhelmed in some cities, has a doctor for every 243 people, but Zambia has one for every 10,000 people.⁶

Across the continent, innovative, collaborative initiatives are under way to ramp up health-systems capacity. For example, in South Africa, where the government and private sector are collaborating on the health response, the National Ventilator Project seeks to produce 10,000 ventilators by the end of June with only locally sourced inputs.⁷ In Kenya, an apparel factory shifted to producing masks within one week and is now producing 30,000 masks per day. Development finance institutions, donors, and the private sector are supporting such projects with funding, guarantees, and expertise.

African countries have acted fast to contain the spread of this virus, and this has helped delay the course of the pandemic on the continent.⁸ But there is much uncertainty about how the outbreak will progress; case growth and severity will depend on many factors. It is not simply about the choice of policy measures implemented by governments. Outcomes will depend on policy adherence and efficacy. For example, robust isolation and physical distancing may be less implementable in the context of dense urban environments with high poverty rates. Other demographic and environmental factors also matter. Case severity in Africa could be positively affected by a younger population—the median age in Africa is 19.7 years—but negatively affected by higher rates of comorbidities, such as HIV, tuberculosis, and malnutrition. Evidence is still emerging on the impact of a wide range of environmental factors, from temperature and humidity to levels of *Bacillus Calmette–Guérin* (BCG) vaccination.

In short, it is critical that efforts be intensified to contain the COVID-19 outbreak in Africa. Bold

⁶“Zambia,” Global Health Workforce Alliance, World Health Organization, who.int. https://www.who.int/workforcealliance/countries/Zambia_En.pdf; Physicians (per 1,000 people), World Bank Open Data, data.worldbank.org. https://data.worldbank.org/indicator/sh.med.phys.zs?name_desc=false

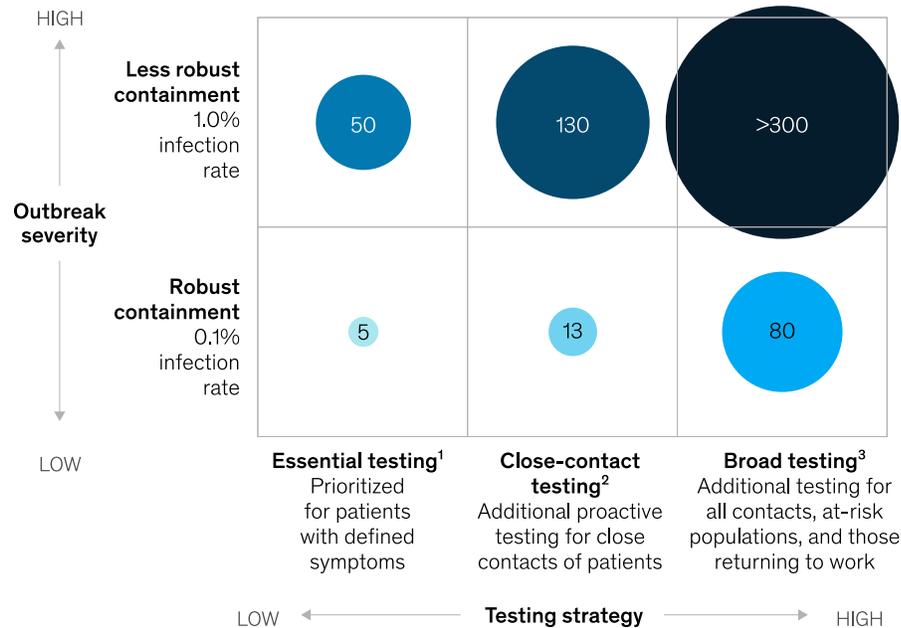
⁷ Ferial Hafferjee, “Stavros Nicolaou: South Africa's Mr Ventilator,” *Daily Maverick*, April 8, 2020, dailymaverick.co.za.

⁸“African countries move swiftly to head off coronavirus spread,” *Financial Times*, March 20, 2020, ft.com. <https://www.ft.com/content/4dc832dc-684f-11ea-800d-da70cff6e4d3>

Exhibit 1

The number of test kits required will depend on the outbreak severity and the testing strategy.

Test kits required across Africa, millions of tests



¹Assumes roughly 1 positive result for every 4 tests.
²Assumes roughly 1 positive result for every 10 tests.
³South Korea model. Assumes roughly 1 positive result for up to 60 tests.

measures must be taken, including a significant scaling up of testing, to prepare health systems for a scenario in which infection rates increase rapidly.

Safeguarding livelihoods: Large-scale, targeted stimulus to protect 150 million jobs

Alongside the urgent steps needed to strengthen health systems and protect lives, rapid, far-reaching action is needed to safeguard livelihoods. Our analysis shows that the jobs or incomes of 150 million Africans, across the formal and informal sectors, are vulnerable in the crisis; this is equivalent to one-third of the entire labor force. Moreover, our modeling suggests that the economic stimulus required to mitigate the economic damage will potentially be much larger than African governments have announced to date. Careful targeting of this stimulus could help protect the

economy and jobs—and provide urgent support to vulnerable households.

Jobs or incomes are vulnerable for one-third of the African workforce

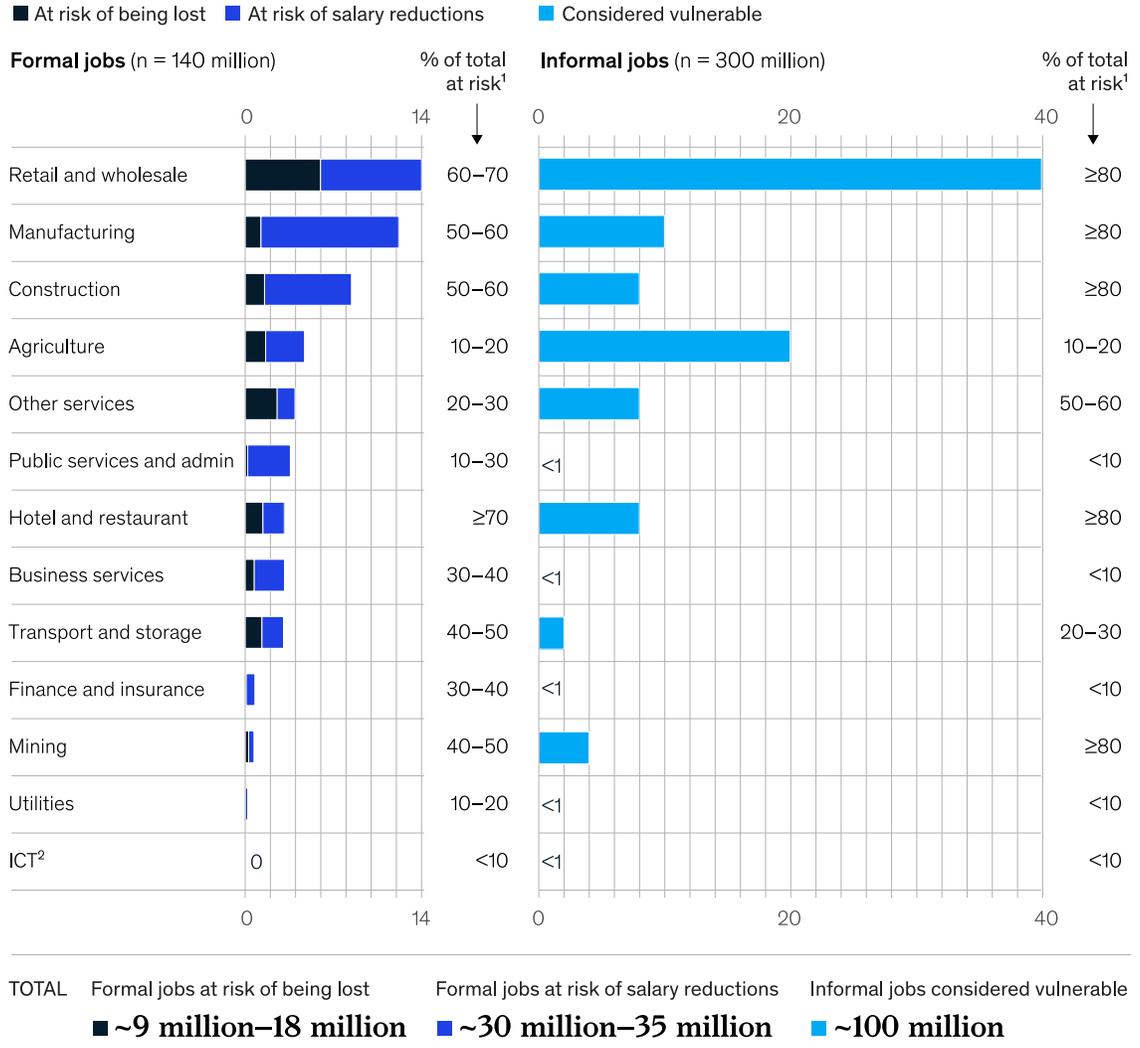
We assessed the risk posed by the COVID-19 pandemic to the livelihoods of African workers in both the formal and informal sectors (Exhibit 2). It is worth noting that, out of a total labor force of about 440 million people, Africa's formally employed workforce numbers about 140 million—less than a third of the total. The remainder of the workforce, totaling as much as 300 million people, is in informal employment.

Our analysis suggests that between 9 million and 18 million formal jobs in Africa could be lost or made redundant due to the COVID-19 crisis. We also find that a further 30 million to 35 million formal jobs are at risk of reductions in wage and working hours as a result of reduced demand and enforced lockdowns.

Exhibit 2

One-third of all jobs in Africa—formal and informal—could be affected by COVID-19.

Total jobs at risk by sector, millions of jobs



¹Percentage of total jobs in sector impacted or considered vulnerable.

²Information and communication technology.

Source: International Labour Organization; World Bank; McKinsey Global Institute analysis

This puts the jobs of one-third of Africa’s formal-sector workers at risk of significant impact. In major sectors such as manufacturing, retail and wholesale, tourism, and construction, the jobs of more than half the workforce could be affected.

In addition, our analysis shows that approximately 100 million informal jobs—again, one-third of the total—are in occupations and sectors that are

vulnerable to loss of income during the COVID-19 crisis. Most members of Africa’s informal-sector workforce are involved in subsistence agriculture, and fortunately they are less likely to be affected. But as many as 35 million informal sales and service jobs in the wholesale and retail sector are vulnerable, as are about 15 million casual craft, trade, and plant-operating jobs in the manufacturing and construction sectors.

Major additional stimulus may be required to mitigate damage to economies and livelihoods

Across the African continent, a range of initiatives has already been launched to help mitigate the impact of the COVID-19 crisis. In addition to these efforts, governments and development institutions might consider much larger stimulus packages than those implemented to date. To ensure that such stimulus helps safeguard the livelihoods at risk, it will be important to target it to support the most vulnerable households, reach small businesses, and protect both the economy and jobs.

Much greater stimulus may be needed. In our previous article in this series, we showed that the COVID-19 pandemic could reduce Africa's GDP growth by between 3 and 8 percentage points in 2020.⁹ Weighed against the potential downside, the stimulus measures announced to date by several African governments are relatively small, amounting to between 1 and 1.5 percent of GDP. In some cases, these measures have been matched with reductions in government spending of between 1 and 1.5 percent of GDP. Even with well-targeted fiscal-stimulus measures, which can have a multiplier effect on GDP, African countries could still be left with a gap of five percentage points of GDP growth to return to precrisis levels and one to two percentage points to avoid an economic contraction.

In this regard, it is worth comparing the stimulus packages announced by African governments with those announced by other governments in response to the pandemic (Exhibit 3). Some developing countries, including Colombia and Malaysia, have announced packages exceeding 3 percent of GDP, while China's stands at approximately 4 percent of GDP. The \$2 trillion stimulus package in the United States represents about 10 percent of GDP.

It is likely that African governments and their partners will need to mobilize substantial additional resources to mitigate the economic damage of COVID-19 and to safeguard livelihoods. African finance ministers have already called for the release of \$100 billion to \$150 billion in support for African

countries, while the International Monetary Fund and the World Bank have called on all official bilateral creditors to suspend debt payments from low-income countries.⁹ A group of prominent business and institutional leaders recently appointed as envoys of the African Union have called for a two-year standstill on all external-debt repayments by African countries, including those in respect of private and commercial debt.¹⁰

Targeting the stimulus: Secure basic incomes, safeguard jobs, support key institutions. As countries design their stimulus package in response to the COVID-19 crisis, they typically have three objectives in mind: (1) ensuring basic incomes and availability of essential products and services to individuals and households in need; (2) safeguarding small and medium-size enterprises (SMEs) and the jobs of the people who work for them; and (3) supporting key corporate institutions that are necessary for the health of the economy. Achieving these goals will require a combination of financial and operational support.

To support individuals and households, many governments are launching direct cash-transfer programs to reach vulnerable populations. One example is in Togo, where the government has acted swiftly to provide emergency financial support to households in Lome, the capital city, where economic activity has been sharply curtailed during a COVID-19 lockdown. The program, created in just one week, transfers small tranches of financial support to affected households each week, with women receiving more than men; at the time of writing it had registered more than 300,000 beneficiaries. It is using electoral cards, issued to nearly all adults ahead of a recent election, as the basis for the program.

Many countries in Africa unfortunately do not have comprehensive national databases that they can use. But we have found that in such cases there are still masses of existing data that they can leverage to design such programs quickly.

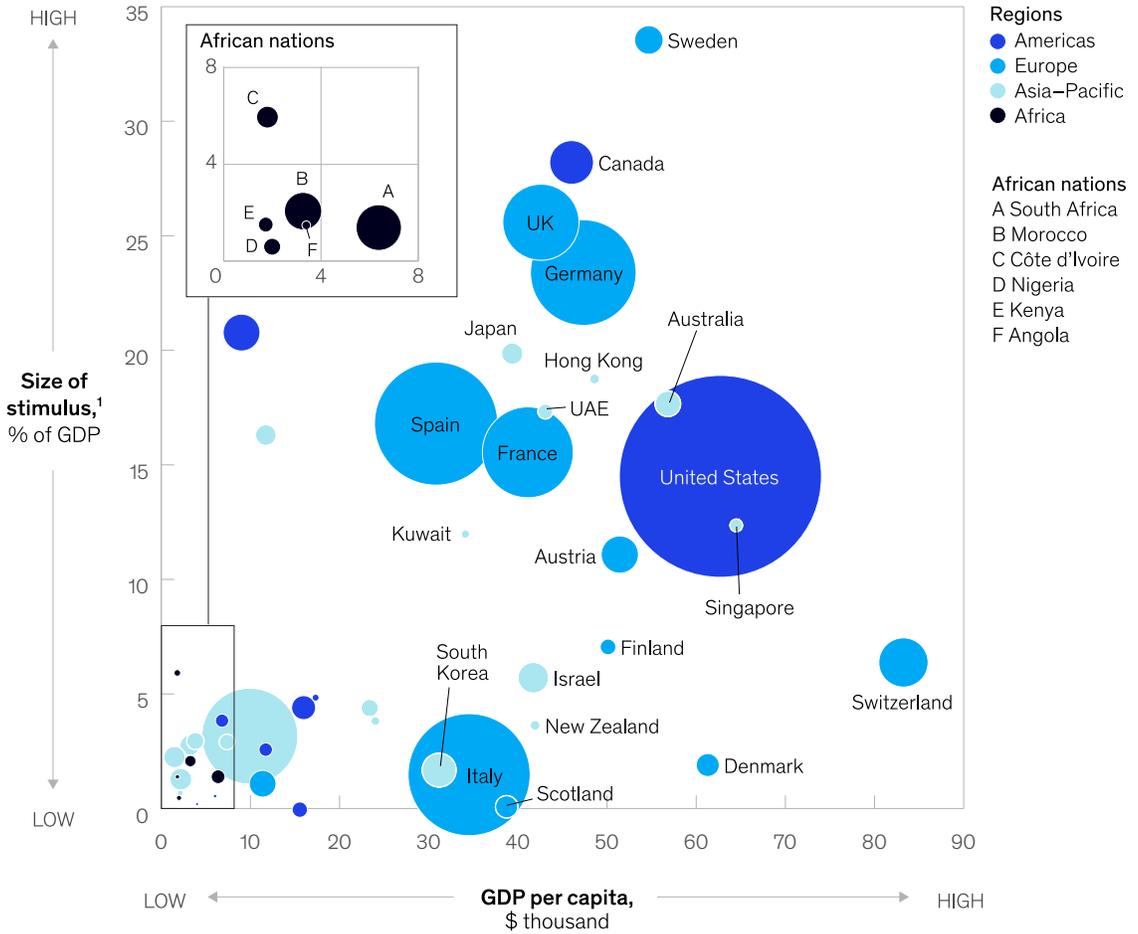
⁹ "Communiqué – African ministers of finance – Immediate call for \$100 billion support and agreement the crisis is deep and recovery will take much longer," United Nations Economic Commission for Africa, March 31, 2020, uneca.org.

¹⁰ Ngozi Okonjo-Iweala and Brahim Coulibaly, "Africa needs debt relief to fight COVID-19," *Project Syndicate*, April 9, 2020, project-syndicate.org.

Exhibit 3

African countries have typically announced fiscal stimulus packages of 1 to 1.5 percent of GDP.

Cases by country, number (circle size = relative number of cases as of April 9, 2020)



Note: Numbers as announced by governments; The fiscal multipliers (these are higher during a recession) and the actual impact on GDP will vary significantly depending on the source of the stimulus funding.
¹Size of stimulus response is the aggregate amount announced at that point in time.
²Number of cases recorded on the day of the stimulus announcement.
 Source: IHS Data for GDP; official government sources; WHO COVID-19 Dashboard

It is also important to **safeguard SMEs and the jobs of the people who work for them**. These firms typically have smaller balance sheets than their larger counterparts, putting their survival in the crisis under threat. Some of the steps that could be taken to safeguard these businesses are operational—for example, keeping the largest markets in the country open while ensuring that hygiene conditions are adhered to. In respect of financial support to SMEs, we suggest two key priorities for governments:

- *Ensure the survival of SMEs that provide essential goods and services*, such as pharmacies and traders. One option is to support these SMEs through larger players in their value chains, such as upstream suppliers or downstream buyers. Governments might provide easier liquidity and working-capital terms to the larger players in the value chain, which they would be expected to pass on to the SMEs in the value chain, with certain conditions attached (for example, on geographic coverage and access).

- **Ensure that jobs are retained through SMEs.**
In designing SME support funds, governments and development financiers can consider weighting support more heavily toward SMEs with larger workforces, as well as the sectors that are likely to recover faster from the crisis. To encourage banks to lend to SMEs, governments and financiers can consider providing certain risk guarantees or first-loss mechanisms while requiring banks to on-lend under the chosen set of criteria and guidelines.

For supporting key **corporate institutions**, two approaches might be considered. First, in a few very special situations, countries may designate certain institutions as “strategic” and develop support packages to ensure that these institutions survive the crisis. These packages can come in varying forms, such as debt-to-equity swaps, short-term loan deals, and payroll-support packages. The design of such packages could give preference to the customers, employees, and debtors, rather than the shareholders, of such institutions.

Moreover, most companies in the economy are trying to conserve cash during the crisis, and supporting those efforts across the economy can be very beneficial. Ideas adopted in some countries include lowering banks’ liquidity or capital-ratio requirements; reducing general corporate tax rates; deferring mandatory payments; and helping companies raise capital (for example through private-equity financing). Governments may require companies to maintain a minimum wage or payroll to avail themselves of such support, so that the overall objective of job retention remains at the forefront of these efforts.

Across all three of these dimensions—support to individuals, SMEs, and corporations—governments can create agile structures to convene key decision makers, surface and filter ideas, and guide implementation. One such structure is already in place in Kenya, where the Ministry of Industrialization, Trade and Enterprise Development (in partnership with UK Aid’s Manufacturing Africa program) has set up a Situation Room with the objective of reducing the economic and job-loss impact of COVID-19. The Situation

Room convenes companies and private-sector associations regularly to identify issues rapidly, conduct analyses, and propose solutions that can be discussed and approved by the full cabinet or Parliament or implemented directly. It has also set up a 24/7 hotline for inquiries and a system to unearth operational problems in different parts of the country and in different sectors. Finally, it is coordinating with the Ministry of Health, the Ministry of Agriculture, and security services to ensure joint implementation of ideas.

Finding the right path: The optimal response to protect lives and livelihoods

Although the COVID-19 virus poses a serious threat to lives and health across Africa, the continent’s 54 countries have faced differing rates and types of transmission. They also have widely differing levels of economic development, urbanization, formal employment, and social welfare. It should be no surprise, then, that African governments have adopted a very broad range of immediate responses to the pandemic. Consider the quite different approaches taken by three of the continent’s largest economies:

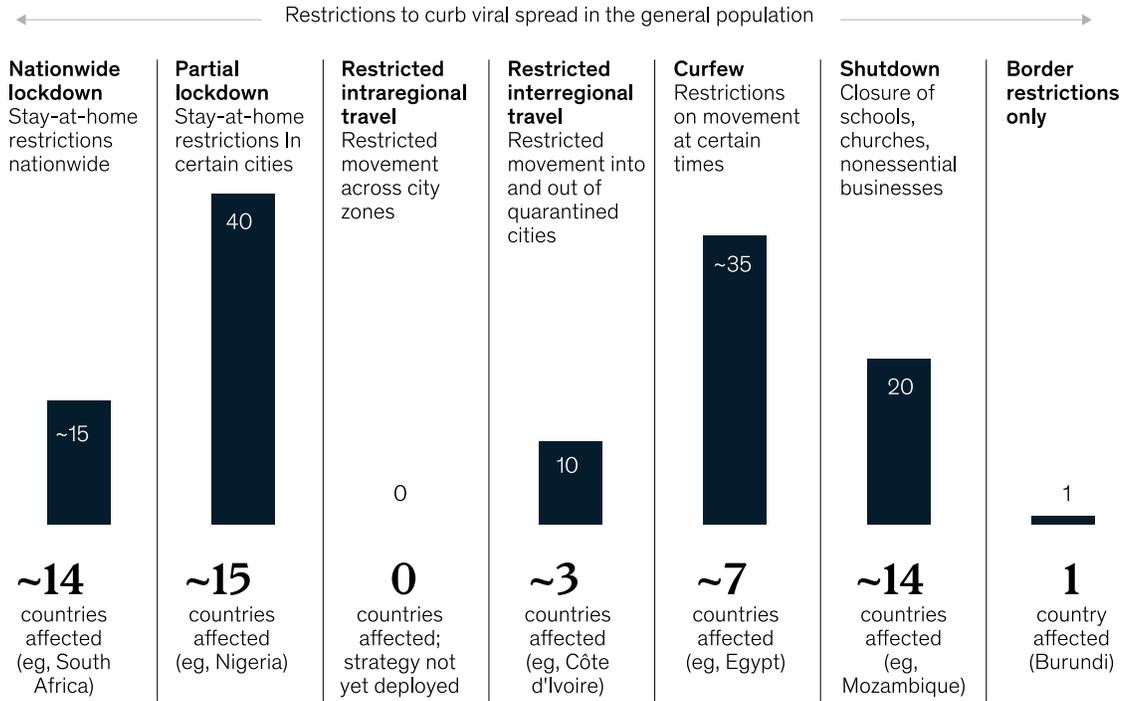
- South Africa implemented a nationwide lockdown on March 27 and instituted full border closure for the movement of people. Limited border points remain open to goods.
- Nigeria has implemented a partial lockdown in some parts of the country and instituted full border closure.
- Ethiopia has closed schools and universities, banned mass gatherings, closed public spaces, and placed limitations on prison and hospital visits, but it has not instituted a lockdown or curfew. It has closed its land borders but has remained open to air traffic.

When we analyzed the responses of each of Africa’s countries, we found a similar divergence across the continent: 53 out of 54 countries had implemented restrictions, but these ranged from full lockdowns to curfews to shutdowns of schools and businesses and restrictions on gatherings (Exhibit 4).

Exhibit 4

Half the countries in Africa have implemented partial or nationwide lockdowns, and almost all have restricted certain activities or movement.

Tally of countries by most restrictive policy deployed,¹ % of population affected (as of April 14, 2020)



¹Restrictive policies are not mutually exclusive (eg, countries have partial lockdowns and curfews), but we categorize countries only by the most restrictive policy implemented (ie, 1 policy per country).
Source: Africa Centres for Disease Control and Prevention; McKinsey analysis

In the coming days and weeks, governments across Africa will be considering critical, difficult decisions on whether and how to implement lockdowns, curfews, and other restrictions. The countries already in lockdown will be making equally tough decisions on how to manage, modulate, and emerge from their lockdowns. Every government, though, will face the same dual imperative in this decision-making process: how best to protect lives and safeguard livelihoods.

There is evidence that lockdowns are slowing the spread of the virus in the countries that have implemented them. As of April 7, African countries that have gone on full or partial lockdowns have seen their average daily growth of known cases decrease by more than 60 percent. However,

testing rates in most countries remain low. But lockdowns and curfews have also had a huge impact on economic activity. In South Africa, for instance, retail sales declined by two-thirds in the first two days of its lockdown. In addition, a recent McKinsey survey found that two-thirds of consumers in Nigeria and South Africa were cutting back their spending (Exhibit 5).

In deciding the most effective way forward, African governments need to consider the economic, geographic, and demographic aspects of lockdowns, curfews, and other restrictions alongside the crucial public-health dimensions. To help them do so, we suggest a framework for decision making: the matrix presented in Exhibit 6. The matrix depicts the various measures

governments may consider in curbing the spread of the virus while protecting those with higher risk of severe illness from COVID-19.

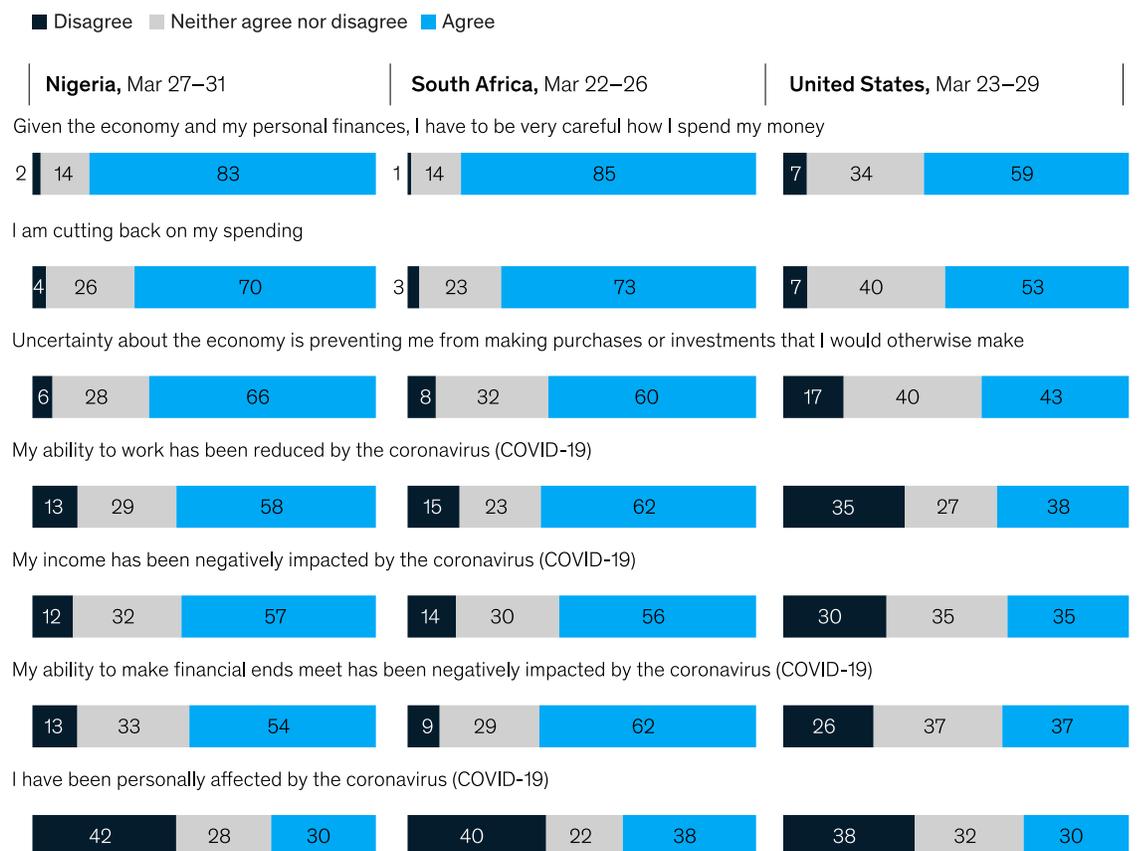
Along the y-axis of the matrix are measures that can be implemented to curb the spread of the virus in the general population, from mild measures such as closing schools and banning mass gatherings to more intensive measures like imposing curfews and shutting down economic activity in all or part of the country. As previously discussed, these are the measures that African governments have considered to date.

Along the x-axis of the matrix is a spectrum of options for “shielding” measures to achieve extra protection for those who are at higher risk of severe illness from COVID-19, including the elderly and those with underlying health conditions. These measures have not yet been widely used across the African continent. More stringent than physical-distancing measures issued for the general public, shielding measures aim to minimize or eliminate all interaction between those at higher risk and others. In most countries where shielding has been implemented, such as the United Kingdom, the measures have been on the least strict end of the

Exhibit 5

Consumers in Nigeria and South Africa are rapidly adjusting their behavior post-lockdown, with more than two-thirds cutting back on spending.

Overall sentiment in the general population in the country,¹ % of respondents



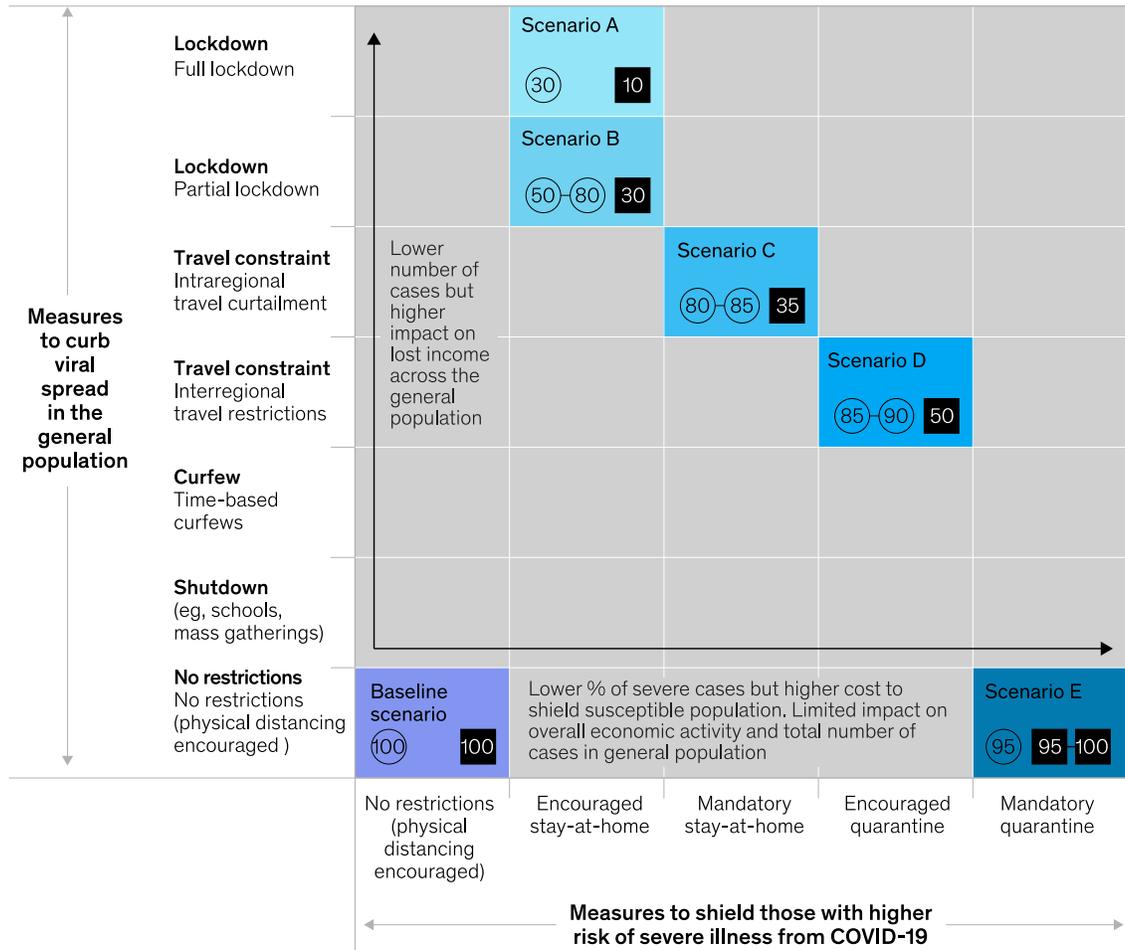
¹Q: Please indicate how strongly you agree or disagree with each of the following statements. Please select only one response for each statement. Source: McKinsey COVID-19 US Consumer Pulse Survey, Mar 23–Mar 29, 2020, n = 1,119, matched and weighted to US general population 18+ years based on American Community Survey 2016 of the US Census Bureau; McKinsey M&S COVID-19 Nigeria Consumer Pulse Survey, Mar 27–Mar 31, 2020, n = 531 sampled and weighted to match Nigeria general population 18+ years; McKinsey M&S COVID-19 South Africa Consumer Pulse Survey, Mar 24–Mar 26, 2020, n = 535 sampled and weighted to match South African general population 18+ years

Measures to curb viral spread and shield populations will set countries' trajectories of resilience and recovery through the crisis.

Illustrative options and scenarios for a country, over a 30-day period, relative impact of restrictions on GDP and the number of cases

⊖ Level of economic activity, % of baseline¹

■ Total number of cases, % of baseline¹



Scenario A: The government orders a full lockdown of all economic activity and movement across the entire country. This has the effect of curbing transmission of the virus in the general population but comes at great cost to its GDP.

Scenario E: The government simply provides guidelines to citizens about practicing safe physical distancing but strictly shields those most severely at risk of mortality. While the number of cases is higher, the proportion of severe cases may be low. There is significantly less impact to the economy overall.

¹Baseline refers to the cell in the bottom left corner of the matrix where economic activity continues, with no restrictions that curb the spread of the virus in either the general population or those at risk of severe illness from COVID-19. Economic activity refers to income-generating activities that contribute to GDP. Source: McKinsey analysis

spectrum: voluntary and limited to those who are extremely clinically vulnerable, such as cancer patients undergoing active chemotherapy or people with severe respiratory conditions. Other countries, such as Turkey, have applied stricter shielding measures.

The outcome of any shielding measures depends on many factors, including health and environment. Nonetheless, African countries could consider adopting stronger and broader shielding options, for three reasons:

- Shielding alleviates the most critical pressure point in healthcare systems and could be important given that almost all African countries have very low thresholds for dealing with critical and severe cases. As discussed earlier, numbers of ICU beds and ventilators are very low in many countries.
- Shielding protects the health and lives of those at greater risk of severe illness due to COVID-19. That is a key consideration, given that some African countries have significant numbers of people with compromised immune systems due to HIV, tuberculosis, and acute malnutrition, among other causes, despite having a generally young population.
- Shielding a small portion of the population is a potentially more practical strategy to adopt for a prolonged period of time, compared with strong physical distancing among the general public. This is all the more important given that millions of people across the continent live in dense urban areas with poor sanitation and rely on day-to-day earnings to survive.

How, then, can governments and their partners consider the appropriate approach to shielding in the African context? The starting point, we suggest, is to define the inclusion criteria for which people to shield based on a country's demographics and the presence of comorbidities. Individuals who meet these criteria can be identified by leveraging existing programs in place.

Once people who would benefit from shielding are identified, governments can create, communicate, and implement two options for shielding:

- **Stay at home.** For the stay-at-home option, governments and their partners can provide clear communication, incentives, and other support to those shielded and their families, to help them deal with practicalities such as preferential distribution of food and nonfood essentials.
- **Off-site quarantine.** In the case of an off-site quarantine, governments can design models

that are feasible to implement based on the local cultural context and physical environment. One idea is to create quarantine spaces directly within or adjacent to a community—"green zones" where high-risk groups are relocated temporarily to minimize contact with other residents.¹¹

Implementing such shielding measures will not be easy. In doing so, it will be important to give healthcare workers, local leaders, and community organizations central roles in identifying people for shielding and providing them with support. Governments can work with communities to gain acceptance for shielding and find appropriate ways to design and implement the model while avoiding the perception that shielding is an oppressive measure.¹²

We modeled the potential impact of shielding measures in one African country, as illustrated in Exhibit 6. The baseline for the modeling was a scenario in which no restrictions were in place beyond guidelines to practice safe physical distancing. We found that, in a scenario of full lockdown (Scenario A in the exhibit), the country would potentially reduce the number of COVID-19 cases to 10 percent of what would be expected in the baseline, but economic activity would be greatly curtailed, falling to 30 percent of the baseline. In contrast, in a shielding scenario (Scenario E), mandatory quarantine would be established for the people most at risk of mortality from the virus, while the general population would be subject to no restrictions beyond guidelines to practice safe physical distancing. In this scenario, the overall number of COVID-19 cases would be relatively high, but there would be relatively fewer severe cases, as susceptible and immune-compromised people would be shielded. Economic activity, at 95 percent of the baseline, would be far less affected.

For countries shaping strategies to emerge from current lockdown measures, shielding is one option to consider in the quest to minimize the risk of contagion while maximizing employment and economic activity. It could form a demographic dimension of the reopening strategy, alongside a geographic dimension (opening regions or cities

¹¹ *COVID-19 control in low-income settings and displaced populations: What can realistically be done?*, London School of Hygiene and Tropical Medicine, April 2, 2020, [lshtm.ac.uk](https://www.lshtm.ac.uk).

¹² *How to restart national economies during the coronavirus crisis*, April 2020, [McKinsey.com](https://www.mckinsey.com).

with low viral transmission rates and stronger public-health systems first) and an economic dimension (opening sectors with the lowest risk of contagion first).¹³

In Africa, the COVID-19 pandemic could have a devastating impact on both health and economies if it is not contained effectively. Governments and their partners need to act now to mobilize a large-scale ramp-up of health-system capacity and muster the resources needed to protect jobs and incomes across the continent. Tough choices lie ahead, but governments can adopt bold, innovative approaches to protect lives and safeguard livelihoods.

Methodology

This methodology note addresses our methods for estimating the impact of COVID-19 on GDP, employment, health, and the need for medical supplies.

Impact on GDP

Our approach in estimating the impact of COVID-19 on Africa's GDP follows the same approach as our previous article in this series, "Tackling COVID-19 in Africa: An unfolding health and economic crisis that demands bold action," where we estimated a decline in GDP growth of between three and eight percentage points (3.9 percent growth falling to 0.4 to -3.9 percent). However, we make three methodological revisions that, on aggregate, slightly revise the GDP outlook to a decline from 3.9 percent to between 0.8 and -4.2 percent before accounting for a fiscal stimulus.

1. **Expanded country base.** The countries for which we model economic impacts are expanded from Angola, Kenya, Morocco, Nigeria, and South Africa to those five countries plus Egypt and Ghana. On aggregate, these countries capture about 60 percent of Africa's total GDP. We then extrapolate the proportional impacts of these countries to the rest of Africa, assuming a lower intensity owing to the remaining economies being less susceptible to some of the modeled impacts (for example, oil prices and tourism).

2. **Continuous refinement.** We are keeping abreast of leading indicators that provide a sense of the impact being felt on the economy. We are continuously refining our assumptions and modeled impacts to reflect the evolving situation, both globally and in Africa. For example, this has led to our tracking economic disruptions more closely via the impact on reduced household consumption, rather than through supply-chain interruptions.

3. **Incorporation of fiscal stimulus.** While we previously modeled just the pure economic shock to the economy from COVID-19, we have now updated our view to account for economic responses and stimulus packages that have been announced by various African governments. Based on a case study of responses announced by Angola, Kenya, Nigeria, and South Africa, we estimate a positive impact of these responses equivalent to a 1 percent boost to GDP, based on a fiscal multiplier of 0.8 to 1.3 conservatively, though it is anticipated to be greater in a recession. As these countries provide further details regarding the source of financing for the stimulus, we can further refine the multipliers (for example, reduced government operating expenditure versus new borrowing or debt relief). Assuming that more governments will announce similar responses as the situation evolves, we extrapolate this GDP boost to Africa as a whole.

Impact on employment

Our approach to assessing the impact on Africa's labor force is split into modeling three distinct effects: job losses in formal employment, salary reductions in formal employment, and loss of activity in informal employment.

We make the important distinction between formal and informal employment, as the impact on each will be unique, given the structure of Africa's labor market. We combine the International Labour Organization's estimates of employment by sector (November 2019) with McKinsey Global Institute (MGI) estimates of formal versus informal employment to create our starting base. The following assumptions and

¹³ *How to restart national economies during the coronavirus crisis*, April 2020, McKinsey.com.

methodologies are considered when estimating each category of effects:

1. **Job losses in formal employment.** We model potential job losses in formal employment through the triangulation of three methods: the historical economic relationships between sector output and jobs (based on initial, direct, and indirect impacts), proportional losses to sector-specific GDP, and anecdotal evidence via business-sentiment surveys.
2. **Salary reductions in formal employment.** We assess the number of jobs that could be subject to salary reductions through a combination of business-sentiment surveys, consumer-sentiment surveys, and expert input based on the evolving situation on the ground by sector.
3. **Loss of activity in informal employment.** Given the complex nature of Africa's informal sector, assessing the employment impact is difficult because of the fluid state of activity (for example, many people may become underemployed rather than fully unemployed, or they switch their core trades and activities). We define informal employment as activity in own-account enterprises or as contributing family work. We therefore assess jobs that are "vulnerable" (at risk of furloughs, layoffs, or rendered unneeded), based on the type of occupation and sector.

Impact on health and need for medical supplies

Our approach to estimating the impact on health and the need for medical supplies is informed by proprietary 100-day projections of COVID-19 case growth for 50 countries in Africa.

1. **Case growth.** We present two simplified and stylized case-growth projections. In a "robust

containment" scenario, 0.1 percent of the continent's population (approximately 1.3 million) is infected after 100 days from today. In a "less effective containment" scenario, 1.0 percent of the population (13 million) is infected.

2. **Medical supplies for hospitalization.** We extrapolated hospital supply requirements from a case-growth projection based on the globally recommended supply forecasting inputs from the World Health Organization (WHO), which we adjusted for Africa. We focused on the minimum procurement of select critical hospital supplies—for example, N95 masks, surgical masks, gloves, and ventilators—to cover case-load projections in each scenario. Note that these projections are only for hospital supplies (for healthcare workers and patients), not for the population at large (such as masks for day-to-day protection).
3. **Test-kit supplies.** We extrapolated test-kit supply requirements from case-growth projections, using three testing strategy archetypes. The archetypes model different degrees of testing breadth, from testing only individuals with symptoms (or very close contact to confirmed cases) to testing a broader at-risk population, as modeled by South Korea.
4. **Cost of all medical supplies.** The cost of both hospital and test-kit supplies was estimated using triangulated price data points from WHO, Africa Centres for Disease Control and Prevention, press reports, and examples of one-off procurement in Africa. The cost will remain volatile because of the limited supply and could also change as new technology (for example, rapid-test kits) or production comes online.

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Could the next normal emerge from Asia?

The coronavirus pandemic is reshaping the global economy. Asia, the first part of the world affected by the crisis, is leading the way out of it.

by Oliver Tonby and Jonathan Woetzel

It is now clear that COVID-19 has presented the global economy with an unprecedented challenge. In the United States and Europe, efforts to control the virus through lockdowns are likely to lead to the largest decline in economic activity since the Great Depression in the US and Europe.¹ And while safeguarding human lives is imperative, the toll on human livelihoods will also undoubtedly be significant.

Asian nations, like others, are focused on this dual mission. In these early stages, it is difficult to quantify the economic impact. McKinsey simulations suggest that in some likely scenarios, real global GDP may decline by 4.9 percent to 6.2 percent from the fourth quarter of 2019 to the second quarter of 2020.² The World Bank's latest report paints a bleak picture: under a worst-case scenario, East Asian economies would contract by 0.5 percent, China's projected growth would slow to 0.1 percent, and 11 million people across the region would be forced into poverty.³

It's important to remember that this, above all, is a humanitarian challenge. Asia is home to 60 percent of the world's population—and to around 35 percent of the world's poorest people, according to 2019 World Bank data.⁴ Pandemics hit the most vulnerable hardest. Asia's emerging areas, particularly India and the nations of Southeast Asia, face unprecedented risks.

Yet as a region, Asia has come through crises before and emerged stronger from them. We have reason to believe it can do so again. In a postpandemic world, can Asia's nations and companies play a major role in defining the next normal?

Asia's resilience to disruption

In 2018, McKinsey Global Institute research on developing economies around the world singled out 18 long-term and recent outperformers. Asia figures prominently on the list, with all seven of the

economies that achieved or exceeded 3.5 percent real annual per capita GDP growth for the entire 50-year period of the study: mainland China, Hong Kong, Indonesia, Malaysia, Singapore, South Korea, and Thailand. Even countries hit hard by the 1997 Asian financial crisis returned to positive per capita GDP growth within a year or two. Having absorbed their lesson, they were better prepared for the 2008 global financial crisis.

In an increasingly volatile world, Asian companies have demonstrated dynamism, speed, and agility, which have all contributed to the region's macroeconomic stability. Asian companies have to be resilient: they operate in highly dynamic, fast-growing markets, against the same backdrop of digital disruption and rapidly evolving consumer demands that every organization currently faces. Today, 43 percent of the world's largest companies (by revenue) have their headquarters in Asia. The region's well-diversified, horizontally integrated conglomerates can pivot quickly in times of crisis.

The COVID-19 outbreak began in Asia—but so have early indications of containment, new protocols, and the resumption of economic activity. Although the risk of another outbreak remains, economic-activity indicators in China indicate that urban activities are returning to pre-outbreak levels. Traffic congestion and residential-property sales are close to where they stood in early January 2020, and air pollution and coal consumption have returned to 74 and 85 percent, respectively, of their levels on January 1.⁵ A recent McKinsey survey of 2,500 Chinese consumers indicates “cautious optimism”—a gradual regaining of confidence, which should increase spending.⁶ At this moment, strong public-health responses in China, Singapore, and South Korea appear to have been successful. Significant evidence indicates that the curve of cumulative confirmed COVID-19 patients in Asia is becoming flatter (exhibit).

¹ Kevin Buehler, Ezra Greenberg, Arvind Govindarajan, Martin Hirt, Susan Lund, and Sven Smit, “Safeguarding our lives and our livelihoods: The imperative of our time, March 2020, McKinsey.com.

² Ibid.

³ “East Asia and Pacific: Countries must act now to mitigate economic shock of COVID-19,” World Bank, March 30, 2020, worldbank.org.

⁴ “Year in review: 2019 in 14 charts,” World Bank, December 20, 2019, worldbank.org.

⁵ Matt Craven, Linda Liu, Mihir Mysore, Shubham Singhal, Sven Smit, and Matt Wilson, “COVID-19: Implications for business,” March 2020, McKinsey.com.

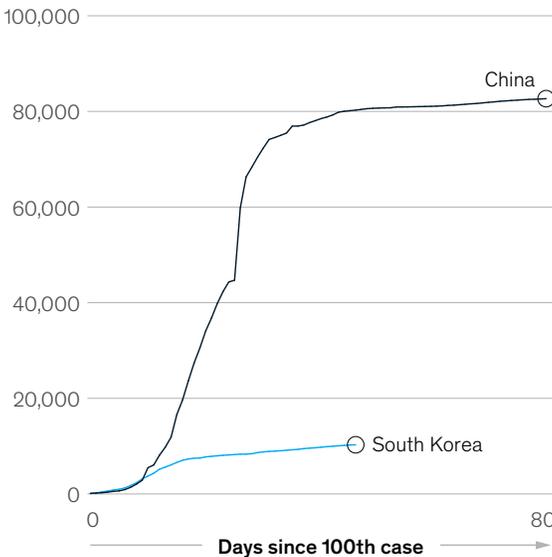
⁶ Johnny Ho, Daniel Hui, Aimee Kim, and Yuanyuan Zhang, “Cautiously optimistic: Chinese consumer behavior post-COVID-19,” March 2020, McKinsey.com.

Exhibit

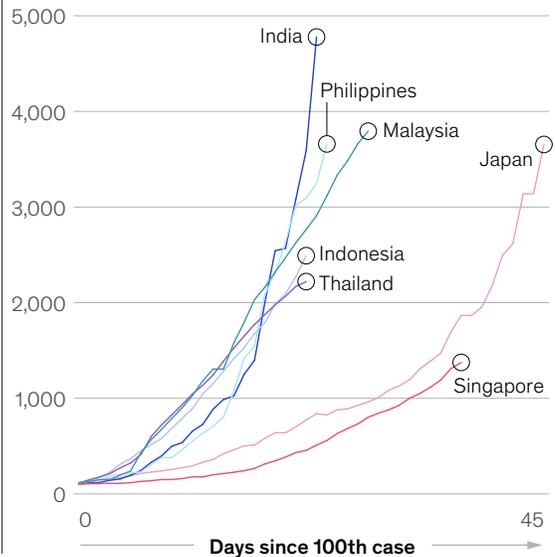
In Asia, the curve of COVID-19 cases has started to flatten.

Cumulative number of COVID-19 cases in Asia as of April 7, 2020, not exhaustive

China and South Korea



Other Asian countries



Source: WHO

Southeast Asia and India are still bracing for the full impact, and a resurgence of the virus remains a possibility. Nonetheless, it's time to ask if the next normal could be emerging in Asia.

businesses will have to reimagine themselves and prepare for reform. As companies in the region do so, they may be the world's first to shape the next normal. What will that look like? Here are four dimensions that could define it.

What will shape the next normal?

A shock of this magnitude will change business, society, and the global economic order in many ways. Contactless commerce, for example, could become the permanent norm for consumers as enforced behavioral change becomes an everyday habit. Supply chains may be reconfigured to remove vulnerabilities that have been exposed by the pandemic. Across all aspects of business performance, the crisis will reveal both weaknesses and opportunities to improve.

As our colleagues wrote recently, this "black swan" event will first test the resolve and resilience of all businesses. Some will become more productive and better able to deliver for customers. As Asia's corporate sector continues to mature and push ahead with digital innovation, we expect that Asia's

1. Rethinking social contracts

In times of crisis, the state plays an essential role in protecting people and prioritizing a nation's resources for the response. People and businesses must adapt to change very quickly. This power shift transforms the implicit, long-held expectations of the roles that individuals and institutions play in society. Concerns about digital and personal privacy, which continue to vary widely across the world, may yield, in some societies, to the usefulness of surveillance and medical data to monitor outbreak clusters. In Hong Kong, phone apps track movement to enforce quarantines. Mainland China's national health-code system records who is safe to be exempted from them.⁷

Meanwhile, collaboration has increased not only between the public and private sectors but also across the private sector itself. Governments are

⁷"The state in the time of covid-19," *Economist*, March 26, 2020, economist.com.

In times of crisis, the state plays an essential role in protecting people and prioritizing a nation's resources for the response.

trying levers to sustain consumer and business confidence. Companies take greater responsibility for keeping people employed or for redeploying labor when possible.

In Australia, the supermarket leader Woolworths is working with Qantas to provide up to 20,000 new jobs for airline employees laid off during the grounding of the airline industry, as well as other retail and hospitality workers.⁸ Woolworths has also been given the go-ahead to coordinate its supply chain efforts with its biggest rivals, Coles and Aldi, to ensure a fair distribution of fresh food and other groceries and household essentials to Australian consumers.⁹

In Singapore, the leading consumer bank DBS offered complimentary insurance coverage and home-loan-payment relief for employees in affected industries as well as support packages for small and midsize enterprises. The bank's free insurance policy for COVID-19 hospital cash recorded more than 52,000 sign-ups a day at its peak.¹⁰ Special services such as online consultations with doctors and online video lessons for children have proved popular.

2. Defining the future of work and consumption

The crisis has created an imperative to escalate the adoption of new technology across all aspects of life, from e-commerce to remote working and learning tools. In China, the adoption of Alibaba's DingTalk, WeChat Work, and Tencent

Meeting to connect physically distanced teams and friends has increased rapidly. DingTalk had to add 20,000 cloud servers to support the traffic.¹¹ China's Ministry of Education deployed a national cloud-based classroom platform to support remote learning for 50 million students simultaneously. Digital consumption has taken off as well. In South Korea, the online retailer Coupang shipped a record high 3.3 million items on January 28, and SSG.com's food-delivery sales rose by 98 percent.¹² Sales of the delivery business of China's Meituan soared by 400 percent during the outbreak.

Many brands increased their online promotions during the crisis to capture demand. In China, Tsingtao recruited more than 40,000 employees and consumers as "Tsingtao social distributors," who promote products on their own social networks. Tsingtao's WeChat store sales subsequently surged by a factor of three. In a recent virtual roundtable, many executives based in China shared their expectation that consumers will now move, even faster than expected, to digital and e-commerce.¹³

These new practices will probably become a permanent fixture of the next normal, raising interesting questions for organizations. How far can they flex their operations without losing productivity? Could they scale up their commercial or retail footprints in the next normal?

⁸ Sharon Masige, "Woolworths is hiring 20,000 more workers, offering mostly casual, temporary positions to retail and airline staff who have lost their jobs," *Business Insider Australia*, March 27, 2020, [businessinsider.com.au](https://www.businessinsider.com.au).

⁹ Coles and Woolworths collaborate to guarantee grocery supply," *Food and Beverage Industry News*, March 27, 2020, [foodmag.com.au](https://www.foodmag.com.au).

¹⁰ Jacob Dahl, Vito Giudici, Sameer Kumar, Vishal Patwari, and Gabriele Vigo, "Lessons from Asian banks on their coronavirus response," March 2020, [McKinsey.com](https://www.mckinsey.com).

¹¹ Guannan Lu, "Lessons from enterprise collaboration experiments in China in the wake of COVID-19," Forrester Research, March 12, 2020, [go.forrester.com](https://www.forrester.com).

¹² Young Bae, "Covid-19 changes consumption patterns in Korea," *Retail in Asia*, March 2020, [retailinasia.com](https://www.retailinasia.com).

¹³ Xin Huang, Alex Sawaya, and Daniel Zipser, "How China's consumer companies managed through the COVID-19 crisis: A virtual roundtable," March 2020, [McKinsey.com](https://www.mckinsey.com).

3. Mobilizing resources at speed and scale

Governments have had to implement policies quickly. The ability to direct resources to healthcare systems has been paramount: within weeks, China mobilized tens of thousands of doctors and added tens of thousands of hospital beds to help Wuhan.¹⁴ It also released 1 trillion renminbi (around \$142 billion)—1 percent of GDP—to build public infrastructure and redeployed the labor affected by the demand destruction that the containment measures caused.¹⁵

Rather than focusing on lockdowns, South Korea emphasized a test, track, and isolate model: widespread testing and monitoring to reduce the risk of transmission. To leverage data, other Asian governments have also invested in the digital ecosystem, mapping clusters and controlling transmission through apps such as Singapore's TraceTogether, South Korea's Corona 100m, and India's MyGov Corona Helpdesk chatbot. Governments around the world have also implemented other extraordinary fiscal and monetary measures. Australia just announced a 130 billion Australian dollars (around \$80 billion) wage subsidy, part of a total stimulus package equal to 16.4 percent of GDP.¹⁶ Singapore provided two stimulus packages of \$38 billion in all—11 percent of GDP.¹⁷

Asia has a proven ability to mobilize grassroots resources from the bottom up, as well as the top down. During the Asian financial crisis, for example, South Korea's sense of national unity spurred its citizens to collect and donate household gold, such as jewelry and medals, to pay the country's foreign debt. In just two months, more than \$2.2 billion was collected.¹⁸

4. From globalization to regionalization

The current crisis has shown that the world's dependence on global supply chains is a weak link, especially for commodities with a concentration around what now seem to be vulnerable nodes. China, for example, accounts for about 50 to 70 percent of global demand for copper, iron ore, metallurgical coal, and nickel.

We could see a massive restructuring of supply chains: production and sourcing may move closer to end users, and companies could localize or regionalize their supply chains. This change is likely to become especially prominent in Asia, where a growing middle class creates its own demand for production. Intraregional trade, which has already driven Asian trade for the past decade, accounts for almost as much of the total in Asia as in Europe.¹⁹

Going forward, companies may accelerate their supply-chain transition from China to other parts of Asia.²⁰ According to a 2019 AmCham survey, about 17 percent of companies have considered or actively relocated their supply chains away from China. In some sectors, such as textiles, this has already been happening, and the supply-side impact of the coronavirus could accelerate this change.²¹ Japan's automakers and South Korea's electronics players have indicated that they may accelerate the diversification of the manufacturing footprint beyond China.²²

Meanwhile, regional collaboration is already under way in response to the spread of the coronavirus; economies in South Asia, for instance, are sharing best practices and

¹⁴ "CGTN: How China mobilizes whole country to contain coronavirus disease 2019 (COVID-19)," Business Wire, February 28, 2020, [businesswire.com](https://www.businesswire.com).

¹⁵ Nick Leung, Gordon Orr, and Jonathan Woetzel, "The state of the Chinese economy," March 2020, [McKinsey.com](https://www.mckinsey.com).

¹⁶ Michelle Grattan, "\$1,500 a fortnight Job Keeper wage subsidy in massive \$130 billion program," *Conversation US*, March 30, 2020, [theconversation.com](https://www.theconversation.com).

¹⁷ Yen Nee Lee, "Singapore plans a massive \$33.2 billion package to tide its economy through the coronavirus outbreak," CBNC, March 26, 2020, [cnn.com](https://www.cnn.com).

¹⁸ Frank Holmes, "How gold rode to the rescue of South Korea," *Forbes*, September 27, 2016, [forbes.com](https://www.forbes.com).

¹⁹ "The future of Asia: Asian flows and networks are defining the next phase of globalization," McKinsey Global Institute, September 2019, [McKinsey.com](https://www.mckinsey.com).

²⁰ "China and the world: Inside the dynamics of a changing relationship," McKinsey Global Institute, July 2019, [McKinsey.com](https://www.mckinsey.com).

²¹ *Ibid.*

²² Ovais Subhani, "Epidemic may speed up supply chain move from China to Asean," *Straits Times*, February 22, 2020, [straitstimes.com](https://www.straitstimes.com).

protocols.²³ In the past, Asian responses to crises also brought about a similar kind of coordination—for example, China stepped up as a regional aid donor after the Aceh tsunami.

Regional collaboration within the Association of Southeast Asian Nations (ASEAN) is also evident in efforts to deal with increasing pressure from Southeast Asia's rapid urbanization, which led to the launch of the ASEAN Smart Cities Network (ASCN) in 2018. ASCN aims to facilitate cooperation on the development of smart cities, to catalyze projects between the public and private sectors, and to secure funding and support from ASEAN's external partners.²⁴

The future global story starts in Asia

In 2019, we observed that the Future of Asia is now, and we still anticipate a strong long-term growth trajectory in the region. By 2040, Asia is expected to represent 40 percent of global consumption and 52 percent of GDP.²⁵ We may look back on this pandemic as the tipping point when the Asian Century truly began.

This is certainly the year that will challenge every assumption we held in the past. Structural change will inevitably follow a major world shock like this. The decisions leaders make today will not only influence how quickly organizations and nations emerge from the current crisis but also define how they adapt to the next normal.

²³ *End poverty in South Asia*, "South Asia shows new spirit of collaboration to fight COVID-19 (coronavirus) pandemic," blog entry by Cecile Fruman and Mandakini Kaul, March 31, 2020, blogs.worldbank.org.

²⁴ ASEAN Smart Cities Network, Association of Southeast Asian Nations, asean.org.

²⁵ "The future of Asia: Asian flows and networks are defining the next phase of globalization," McKinsey Global Institute, September 2019, [McKinsey.com](https://www.mckinsey.com).

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Getting ahead of coronavirus: Saving lives and livelihoods in India

To understand probable economic outcomes and possible interventions related to COVID-19, McKinsey spoke with some 600 business leaders, economists, financial-market analysts, and policy makers.

by Rajat Gupta and Anu Madgavkar

The COVID-19 pandemic is the defining global health crisis of our time and the greatest global humanitarian challenge the world has faced since World War II. The virus has spread widely, and the number of cases is rising daily as governments work to slow its spread. India has moved quickly, implementing a proactive, nationwide, 21-day lockdown, with the goal of flattening the curve and using the time to plan and resource responses adequately.

Along with an unprecedented human toll, COVID-19 has triggered a deep economic crisis. The global economic impact could be broader than any that we have seen since the Great Depression.¹ To understand the probable economic outcomes and possible interventions, McKinsey spoke with more than 600 leaders, including senior economists, financial-market experts, and policy makers, in 100 companies across multiple sectors. Based on these inputs, we modeled estimates for three economic scenarios in India (Exhibit 1).²

In scenario 1, the economy could contract by about 10 percent in the first quarter of fiscal year 2021, with GDP growth of 1 to 2 percent in fiscal year 2021. In this scenario, the lockdown would be relaxed after April 15, 2020 (when the 21-day deadline is due to expire), with appropriate protocols put in place for the movement of goods and people after that. Our economic modeling suggests that even in this scenario of relatively quick rebound, the livelihoods of eight million workers, including many who are in the informal workforce, could be affected. In other words, eight million people could have their ability to subsist and afford basic necessities, such as food, housing, and clothing, put at severe risk. And with corporate and micro-, small-, and medium-size-enterprise (MSME) failure, nonperforming loans (NPLs) in the financial system could rise by three to four percentage points of loans. The amount

of government spending required to protect and revive households, companies, and lenders could therefore be in the region of 6 lakh crore Indian rupees (around \$79 billion), or 3 percent of GDP.

In scenario 2, the economy could contract sharply by around 20 percent in the first quarter of fiscal year 2021, with -2 to -3 percent growth for fiscal year 2021. Here, the lockdown would continue in roughly its current form until mid-May 2020, followed by a very gradual restarting of supply chains. This could put 32 million livelihoods at risk and swell NPLs by seven percentage points. The cost of stabilizing and protecting households, companies, and lenders could exceed 10 lakh crore Indian rupees (exceeding \$130 billion), or more than 5 percent of GDP.

Scenario 3 could mean an even deeper economic contraction of around 8 to 10 percent for fiscal year 2021. This could occur if the virus flares up a few times over the rest of the year, necessitating more lockdowns, causing even greater reluctance among migrants to resume work, and ensuring a much slower rate of recovery.

Robust measures to stabilize and support households, businesses, and the financial system

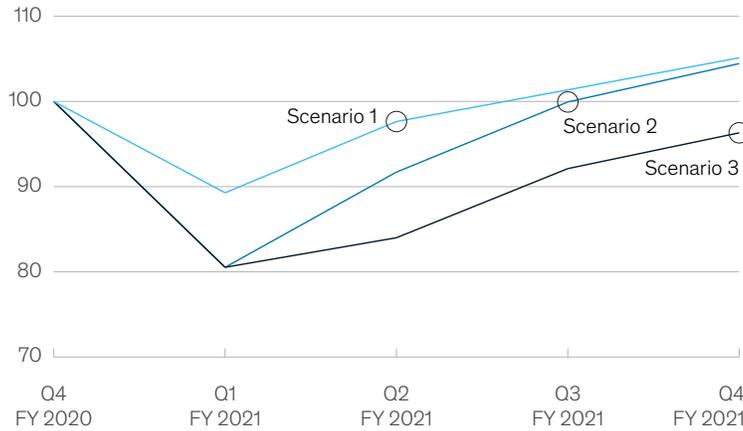
Assuming scenario 2 plays out, the potential economic loss in India would vary by sector, with current-quarter output drops that are large in sectors such as aviation and lower in sectors such as IT-enabled services and pharmaceuticals (Exhibit 2). Current-quarter consumption could drop by more than 30 percent in discretionary categories, such as clothing and furnishings, and by up to 10 percent in areas such as food and utilities. Strained debt-service-coverage ratios would be anticipated in the travel, transport, and logistics; textiles; power; and hotel and entertainment sectors.

¹In the full briefing materials accompanying Matt Craven, Linda Liu, Mihir Mysore, Shubham Singhal, Sven Smit, and Matt Wilson, "COVID-19: Implications for business," March 2020, on McKinsey.com, McKinsey's estimates of the global economic impact of COVID-19 suggest that global GDP in 2020 could contract at 1.8 percent and 5.7 percent in scenarios A3 and A1, respectively. This means that India will face a corresponding shrinkage in global demand for its exports in addition to its domestic-production and -consumption challenges.

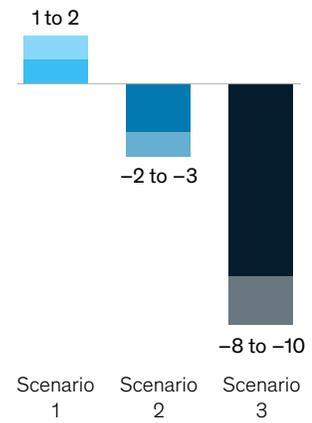
²The economic scenarios for India are broadly based on McKinsey's global scenarios in "COVID-19: Implications for business," March 2020, tailored to the Indian situation. All estimates are directional rather than accurate projections or forecasts, and they will evolve over time with new data, inputs, and analysis.

Three economic scenarios model India GDP estimates.

Real India GDP, index (pre-COVID-19 projection for Q4 FY 2020 = 100)



Approximate India GDP growth, FY 2021 over FY 2020, %¹



Scenario 1

- Nationwide lockdown lifted on Apr 15, 2020 (end of 21-day deadline); prior relaxation for select areas (eg, logistics)
- Back to work in “save lives and livelihoods” mode, with strong protection protocols
- Support to households, corporations, and banking system with fiscal and monetary stimuli (some measures already announced)

Scenario 2

- Lockdown continues until mid-May 2020; moderate relaxation after Apr 15, 2020 (end of 21-day deadline); restarting supply chains and normalizing production and consumption takes 3–4 months
- Stabilization and stimulus package, broader than in scenario 1

Scenario 3

- Lockdown as in scenario 2, with additional 2–3 week lockdowns in Q2 and Q4 FY 2021 because of virus resurgence
- Low labor availability because of limited reverse migration
- Stabilization and stimulus package even broader than in scenario 2

¹Forecasts will be dynamically revised with new inputs across sectors.

Source: India Ministry of Statistics & Programme Implementation; National Accounts Statistics; press search; McKinsey analysis

There could be solvency risk within the Indian financial system, as almost 25 percent of MSME and small- and medium-size-enterprise (SME) loans could slip into default, compared with 6 percent in the corporate sector (although the rate could be much higher in aviation, textiles, power, and construction) and 3 percent in the retail segment (mainly in personal loans for self-employed workers and small businesses). Liquidity risk would also need urgent attention as payments begin freezing in the corporate and SME supply chains. Attention will need to be given to the liquidity needs of banks and nonbanks with stretched liquidity-coverage ratios to ensure depositor confidence.

Given the magnitude of potential unemployment, business failure, and financial-system risk, a comprehensive package of fiscal and monetary interventions may need to be planned, keeping scenario 2 in mind. This might be triggered progressively as situations evolve and as actions are taken to move to the more favorable scenario 1 through effective public-health measures and graded lockdowns.

Further fiscal-, monetary-, and structural-measure possibilities

Several measures have already been announced to provide liquidity, limit the immediate NPL impact,

Exhibit 2

The economic impact of COVID-19 in India will vary by sector.

Scenario 2 (lockdown continues until mid-May 2020): Potential impact on key sectors

	Output change Q1 FY 2021 vs Q4 FY 2020, ¹ %	GDP share, %	Bank credit FY 2019, % ⁴	Employment FY 2018, millions
Airlines and hotels	-70 to -75	2	1 ⁵	8 ⁷
Auto and advanced industries	-50 to -60	2	1	
Construction and real estate	-50	8	11	54
Textiles	-50	2	3	
Freight and logistics	-40 to -45	8	2 ⁶	22 ⁶
Metals and mining	-35 to -40	7	7	
Oil and gas	-20 to -25		2	
Power	-20 to -25	2	9	3 ⁸
Consumer and retail	-20 to -25	11	11	47
Chemicals	-15 to -20	2	1	
Agriculture	-15 ²	15	18	205
IT services	-10 to -15	5	0	4
Pharmaceuticals	-10 to -15	1	1	
Telecommunications	0 to -5	2	2	1 ⁹
Total		67³	69	402¹⁰

Manufacturing
56

Note: GDP share, bank credit, and employment estimates are rounded up.

¹Pre-COVID-19 Q4 FY 2020 estimates used; output compression dynamically revised with new inputs. ²Q1 FY 2021 vs Q1 FY 2020, given seasonality. ³Remaining sector share of GDP mapped to related NAS sectors; separate assumptions made for sectors such as community, social, and personal services. ⁴100% = non-retail bank. ⁵Only hotels, restaurants, and entertainment. ⁶Includes airlines. ⁷Only hotels and restaurants. ⁸Includes power and other utilities. ⁹Includes media and entertainment. ¹⁰Does not include employment in financial services, public administration, other professional services, education, healthcare, and others.

Source: Expert interviews; Indian Ministry of Statistics & Programme Implementation; National Account Statistics; PLFS 2018; RBI; press search; McKinsey survey of >600 senior executives in 100 companies operating across a variety of sectors in India; McKinsey analysis

and ease personal distress for needy households in India. These amount to around 0.8 percent of GDP. Additional measures could be considered to the tune of 10 lakh crore Indian rupees, or more than 5 percent of GDP in fiscal year 2021. All the estimated requirements may not necessarily be reflected in the fiscal deficit of the current year—for example, some support may be structured as contingent liabilities that only get reflected when they devolve. However, a package of this order of magnitude may be essential in supporting those dealing with the possible steep declines in aggregate demand and in protecting the financial system from the possible solvency and liquidity risks arising from stressed companies if scenario 2 or scenario 3 plays out.

Household demand could then be boosted beyond the support provided to needy households that the Indian government has already announced. Consideration could be given to an income-support

program in which the government both pays for a share of the payroll for the 60 million informal contractual and permanent workers linked to companies and provides direct income support for the 135 million informal workers who are not on any form of company payroll. India’s foundational digital-identity infrastructure, Aadhaar, enables effective mechanisms for direct support, including through the Pradhan Mantri Jan-Dhan Yojana (PMJDY) and Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) programs and to landless Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) beneficiaries. Concessions for home buyers, such as tax rebates for a time-bound period, could stimulate the housing market and unlock the job multiplier.

For bankruptcy protection and liquidity support, MSMEs could receive liquidity lines from their banks, refinanced by the Reserve Bank of India

and a loan program for first-time borrowers could be administered through SIDBI.³ Substantial credit backstops from the government could be instituted for likely new NPLs. Timely payments to MSMEs by large companies and governments could be encouraged by promoting bill discounting on existing platforms.

For large corporations, banks could be allowed to restructure the debt on their balance sheets, and procedural requirements for raising capital could be made less onerous. The Indian government could consider infusing capital through a temporary Troubled Asset Relief (TARP)-type program (such as through preferred equity) in a few distressed sectors (such as travel, logistics, auto, textiles, construction, and power), with appropriate conditions to safeguard workers and MSMEs in their value chains. Banks and nonbanks may also require similar measures to help strengthen their capital, along with measures to step up their liquidity and the liquidity in corporate-bond and government-securities markets.

To manage the macroeconomic consequences of a large stabilization package, the government would also need to consider clearly communicating to the markets and population that these measures are deep but temporary. Given that India's fiscal resources are constrained, the Reserve Bank of India may need to finance a portion of such incremental government spending. The spending could be tracked as a COVID-19 portion of the budget to boost transparency. The inflationary effects may be low, as lockdowns severely constrict demand and the fiscal support provided would be a substitute for expenditure rather than additional stimulus. Price increases could, however, occur in some sectors, such as food, so appropriate steps would be needed to maintain harvests and keep the food supply chain operating smoothly.

Overall, devising a credible, systemwide, stabilization package would benefit from being executed in a timely fashion so it can influence the pace of recovery and help avoid severe damage to livelihoods, the economy, the financial sector, and

society. Many global economies are also facing these issues and having to put in place their own stabilization packages, with similar intent.

Following the first wave of stabilization measures, attention could shift to implementing the structural reforms needed to increase investment and productivity, create jobs quickly, and improve fiscal health. This could mean introducing further reforms in infrastructure and construction and accelerating investments in health, affordable housing, and other urban infrastructure. States could accelerate spending, and institutions such as NIIF⁴ could deploy domestic and long-term foreign capital faster. Such reforms could also enable Make in India sectors to become globally competitive and boost exports (such as electronics, textiles, electric vehicles, and food processing), strengthen the financial sector, deepen household financial savings and capital markets, and accelerate asset monetization and privatization to raise resources.

Emergence from lockdown, safeguarding both lives and livelihoods

Countries that are experiencing COVID-19 have adopted different approaches to slow the spread of the virus. Some have tested extensively, carried out contact tracing, limited travel and large gatherings, encouraged physical distancing, and quarantined citizens. Others have implemented full lockdowns in cities with high infection rates and partial lockdowns in other regions, with strict protocols in place to prevent infections.

The pace and scale of opening up from lockdown for India may depend on the availability of the crucial testing capabilities that will be required to get a better handle on the spread of the virus, granular data and technology to track and trace infections, and the build-up of healthcare facilities to treat patients (such as hospital beds by district). In parallel, protection protocols, cocreated with industry, could be designed for different settings (such as *mandis* [rural markets], construction sites, factories, business-process-outsourcing [BPO] companies, urban transit, and rural–urban labor

³Small Industries Development Bank of India.

⁴National Investment and Infrastructure Fund.

movement). As an example, industrial areas (such as Baddi, Vapi, and Tirupur) could be ring-fenced and made safe, with local dormitories set up for the labor force and minimal, controlled movement in and out of the site allowed. There could be on-site testing at factories and staggered shifts for workers. While the principles may be the same for construction sites and BPO companies, the specifics would differ.

A geographic lens could be overlaid to determine how quickly the lockdown could be lifted when new protection protocols are in place. Red, yellow, and green zones could be earmarked based on unambiguous criteria, with clear rules for economic activity, entry, and exit. The classification of areas could be updated frequently as the situation evolves. The definition of a “zone” would need to be granular (such as by ward, colony, and building cluster) to allow as much economic activity as is safely possible while targeting infection as accurately as possible. Since there is a very real possibility of the virus lingering on through the year, this microtargeting approach could help decelerate its spread while keeping livelihoods going.

The alternative approach of opening up select industry chains would be less feasible, given that sectors are tightly intertwined. A textile-export factory, for instance, would require chemicals for processing, paper and plastic for packaging, spare parts for its sewing machines, and consumables such as thread. Segregating industrial establishments by size would also be difficult, since smaller suppliers are often bound to the larger manufacturers.

Actions would need to be implemented locally, with different approaches for districts based on their characteristics (such as rural versus urban,

industrial versus service oriented, strong versus weak healthcare infrastructure, and heavily infected versus not infected yet). India could consider using the last week of the current lockdown to gear up for local execution, equipping more than 700 of the most appropriate government officers with insights gained from across the world and from ongoing efforts in cities such as Mumbai and states such as Kerala, which are currently fighting the pandemic.

As part of a set of options to consider, based on prior lessons learned in India from repurposing and redeployment of needed skills and expertise for nationwide efforts, such as after floods and natural calamities, these officers could potentially be deputed to work with the district magistrates (DMs) in each district. They could cooperate in dynamically developing and helping execute locally tailored healthcare-expansion efforts, local- or state-level lockdown timetables, and back-to-work protocols. The DMs and deputized officers in districts could potentially be supported by cross-functional centers of excellence (COEs) in states or at the center. These COEs would have medical, administrative, social, economic, and business experts using their considerable knowledge to collect best practices, conduct rapid analysis, and provide valuable suggestions and recommendations to the districts to ensure high-quality implementation.

It is imperative that society preserve both lives and livelihoods. To do so, India can consider a concerted set of fiscal, monetary, and structural measures and explore ways to return from the lockdown that reflect its situation and respect that most important of tenets: the sanctity of human life.

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Survey: Asian consumer sentiment during the COVID-19 crisis

Consumers remain resilient even as they expect an impending hit to their personal finances.

By Johnny Ho, Aimee Kim, and Naomi Yamakawa

Asian countries are absorbing the COVID-19 pandemic at markedly different rates, with the impact just beginning to bite in India and Indonesia even as China sees new cases stabilize and local transmission is contained (Exhibit 1).

Over the last month, McKinsey has twice taken pulse surveys of consumer sentiment in China, first on February 21-24 and again on March 23-30, when we also conducted initial surveys in India, Indonesia, Japan, and South Korea. Sample sizes varied from 582 people in India to more than 1,000 in China.

Consumers across these markets demonstrate varying degrees of confidence in the prospects

for economic recovery, with those in earlier or later stages of the outbreak significantly more optimistic. These sentiments are likely influenced both by their awareness of the disease, recently announced government contingency measures such as movement restrictions and business rescue plans, and other news events (Exhibit 2). In China, consumer confidence has stabilized, with optimism that the economy will rebound in two-three months rising to 47 percent of respondents in late March from 43 percent the previous month. For the remaining four countries, we will refresh responses on a regular basis to track how consumer sentiment evolves.

Exhibit 1

Snapshot of COVID-19 infections across five Asian countries

The depth and rate of COVID-19 infection varies greatly across Asia

As of March 30 2020

	China	India	Indonesia	Japan	South Korea
Total cases	82,544	1,071	1,414	1,866	9,661
Cases per million people	59	1	5	15	186
Average new cases per day¹	106	34	40	50	230

¹ Past 30 days, Mar 1-30

Source: WHO, World Bank (2019 population figures), COVID-19 cases as at March 30 2020

Key government announcements / actions that might impact consumer sentiment during this pulse survey period (March 23-30)

China: Partially lifted travel restrictions in Hubei province, where the COVID-19 outbreak originated. Barred almost all foreigners from entering, even those with residence visas.

South Korea: Imposed mandatory quarantine for all overseas arrivals.

Japan: Banned entry to foreign nationals who had visited the United States, China, South Korea, and most European countries within the past 14 days.

Indonesia: Announced a potential lockdown of the capital, Jakarta, and surrounding areas.

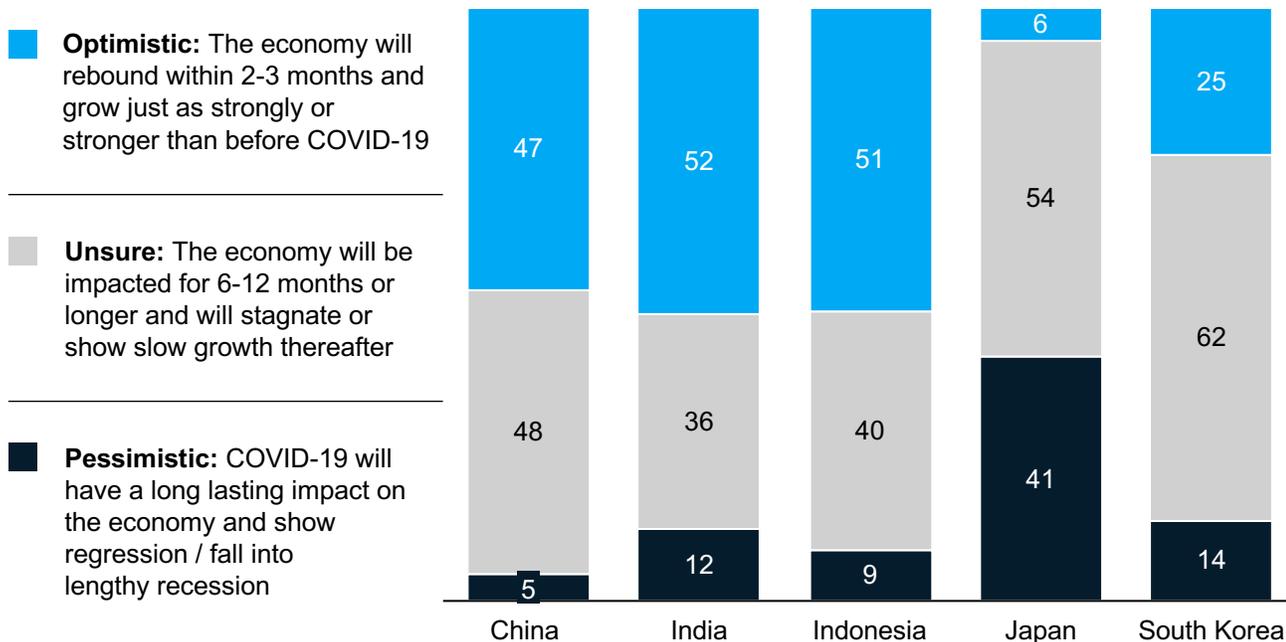
India: Unveiled a stimulus package worth 1.7 trillion rupees (\$22.5 billion), earmarked for dispersal through food security measures and direct cash transfers.

Exhibit 2

Consumer sentiment by country

Consumer optimism likely tracks the stage of COVID progression, recently publicized government measures, and news events

Confidence in own country's economic recovery after COVID-19¹, % of respondents



1. Q: What is your overall confidence level regarding economic conditions after the COVID-19 outbreak? Rated from 1 very optimistic to 6 very pessimistic

Source: McKinsey & Company COVID-19 Consumer Pulse Surveys (China 3/23-3/30/2020 N = 1,048; South Korea 3/28-3/29/2020 N = 600; Japan 3/28-3/29/2020 N = 600; Indonesia 3/28-3/29/2020 N = 691; India 3/27-3/30/2020 N = 582)

According to our research, most consumers expect their routines and personal/household finances to be impacted over the next two-to-six months. The

exception is Japan, where a significant proportion expect the impact to last for more than seven months (Exhibit 3).

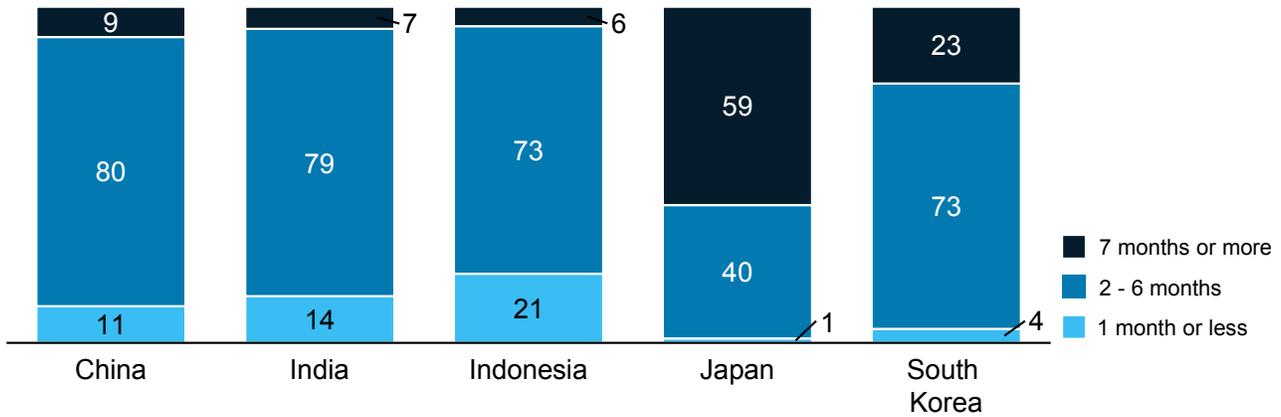
Exhibit 3

Financial impacts of COVID-19

Most countries believe COVID-19 will impact their routines and finances for 2-6 months

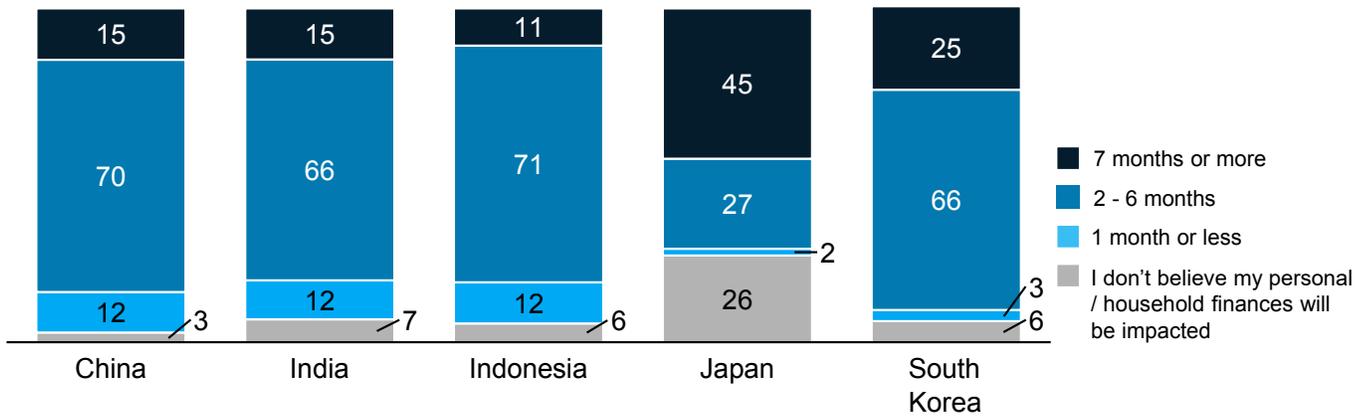
Adjustments to routines¹

% of respondents



Impact to personal/household finances²

% of respondents



1 Q: How long do you believe you need to adjust your routines, given the current coronavirus (COVID-19) situation, before things return back to normal in your country (e.g., government lifts restrictions on events / travel)?

2 Q: How long do you believe your personal / household finances will be impacted by the coronavirus (COVID-19) situation?

Source: McKinsey & Company COVID-19 Consumer Pulse Surveys (China 3/23-3/30/2020 N = 1,048; South Korea 3/28-3/29/2020 N = 600; Japan 3/28-3/29/2020 N = 600; Indonesia 3/28-3/29/2020 N = 691; India 3/27-3/30/2020 N = 582)

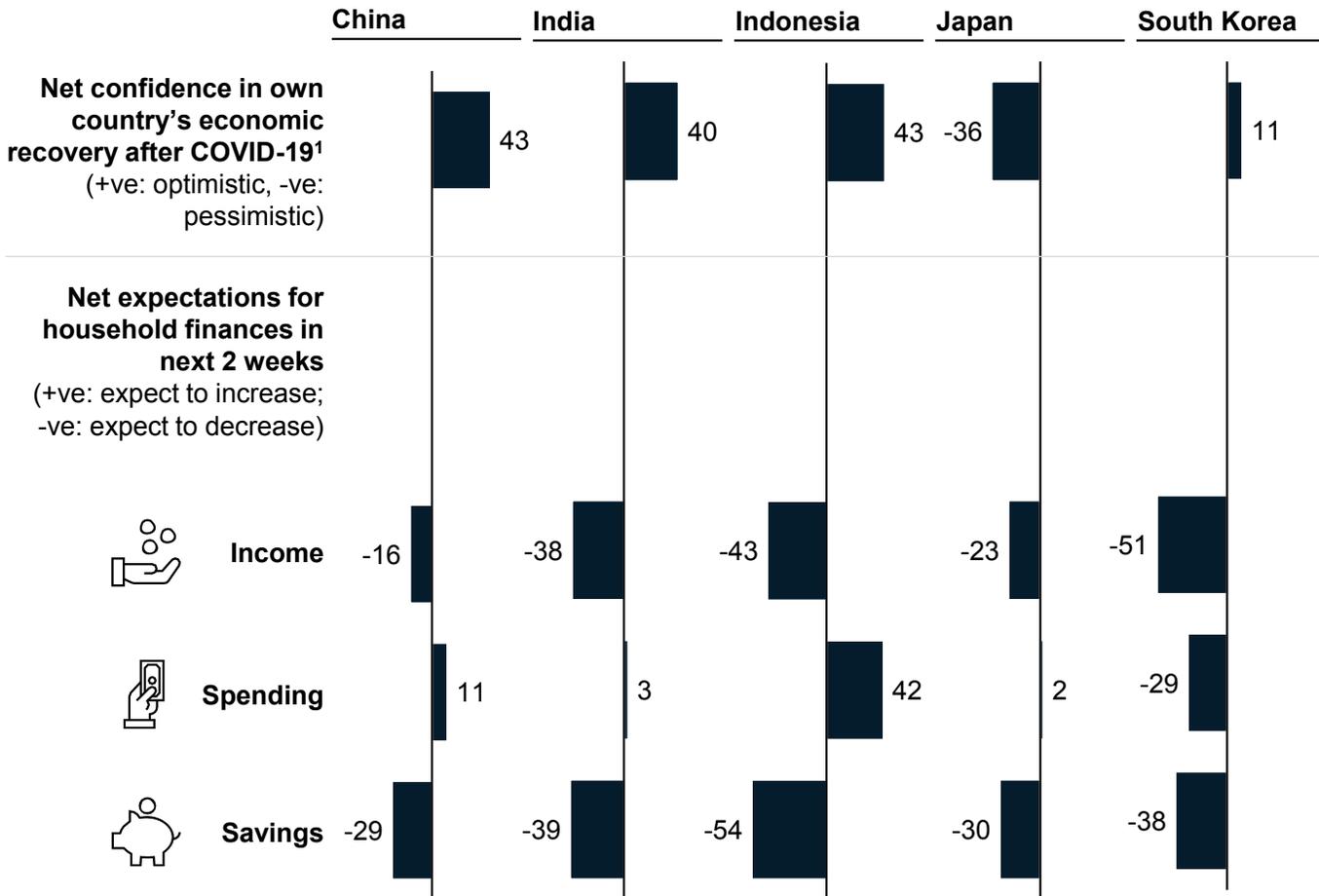
Interestingly, when asked how they expect to manage their household finances over the next two weeks, consumers in all surveyed markets said they expect both their income and savings to decrease, regardless of their expectations for economic

recovery. Korean consumers were most pessimistic about the prospects for their income, while Indonesian consumers led in terms of expectations for decreased savings (Exhibit 4).

Exhibit 4

COVID-19 impact on household finances

In the short term, most consumers expect income and savings to decrease, regardless of their outlook on the economy



1 Q: What is your overall confidence level as regards economic conditions after the COVID-19 outbreak? Rated from 1 very optimistic to 6 very pessimistic;

Source: McKinsey & Company COVID-19 Consumer Pulse Surveys (China 3/23-3/30/2020 N = 1,048; South Korea 3/28-3/29/2020 N = 600; Japan 3/28-3/29/2020 N = 600; Indonesia 3/28-3/29/2020 N = 691; India 3/27-3/30/2020 N = 582)

The safety of family and overall public health are primary concerns, especially in India and Indonesia, while fears over economic stability and not knowing

how long the crisis will last feature more prominently in Japan, South Korea, and China (Exhibit 5).

Leading COVID-19 concerns

Consumers concerned about public and personal/family health, the economy, and how long the crisis will last

Top 5 concerns related to coronavirus (COVID-19)¹



¹ Q: What concerns you most about the coronavirus (COVID-19) situation? (not a concern; minimally concerned; somewhat concerned; very concerned; extremely concerned)

Source: McKinsey & Company COVID-19 Consumer Pulse Surveys (China 3/23-3/30/2020 N = 1,048; South Korea 3/28-3/29/2020 N = 600; Japan 3/28-3/29/2020 N = 600; Indonesia 3/28-3/29/2020 N = 691; India 3/27-3/30/2020 N = 582)

Consequently, most consumers are doubling down on essentials such as groceries, household supplies, and in-home entertainment (for those countries with movement controls or shelter-at-home policies in place), while discretionary categories like eating out, apparel, consumer electronics, and hospitality are likely to see significantly decreased spend in the next two weeks (Exhibit 6).

In Korea, the net intent to avoid quick-service restaurants is as high as 74 percent, compared with

22 percent in China. For consumer electronics, the net intent to reduce spend is about 40-60 percent in all markets apart from China.

Meanwhile, most consumers expect to spend more time engaging with live TV and news broadcasts, online news, and entertainment, whereas print news consumption is set to fall across the board (Exhibit 7).

Exhibit 6

Expected spend per category

Consumers are ramping up spend on groceries, household supplies and in-home entertainment

Expected spend per category over the next 2 weeks compared to usual¹

Net intent²

	China	India	Indonesia	Japan	South Korea
Groceries	+13	+32	+47	+14	+19
In-home entertainment	-3	+34	+24	-1	+53
Household supplies	+25	+19	+46	-1	+6
Skincare & make-up	+9	-24	-24	-15	-22
Apparel	-1	-51	-49	-34	-52
Consumer electronics	-8	-48	-64	-38	-44
Quick-service restaurant	-22	-69	-68	-45	-74
Hotel/resort stays	-49	-71	-81	-71	-90

1 Q: Over the next 2 weeks, do you expect that you will spend more, about the same, or less money on these categories than usual?

2 Net intent is calculated by subtracting the % of respondents stating they expect to decrease spend from the % of respondents stating to increase spend

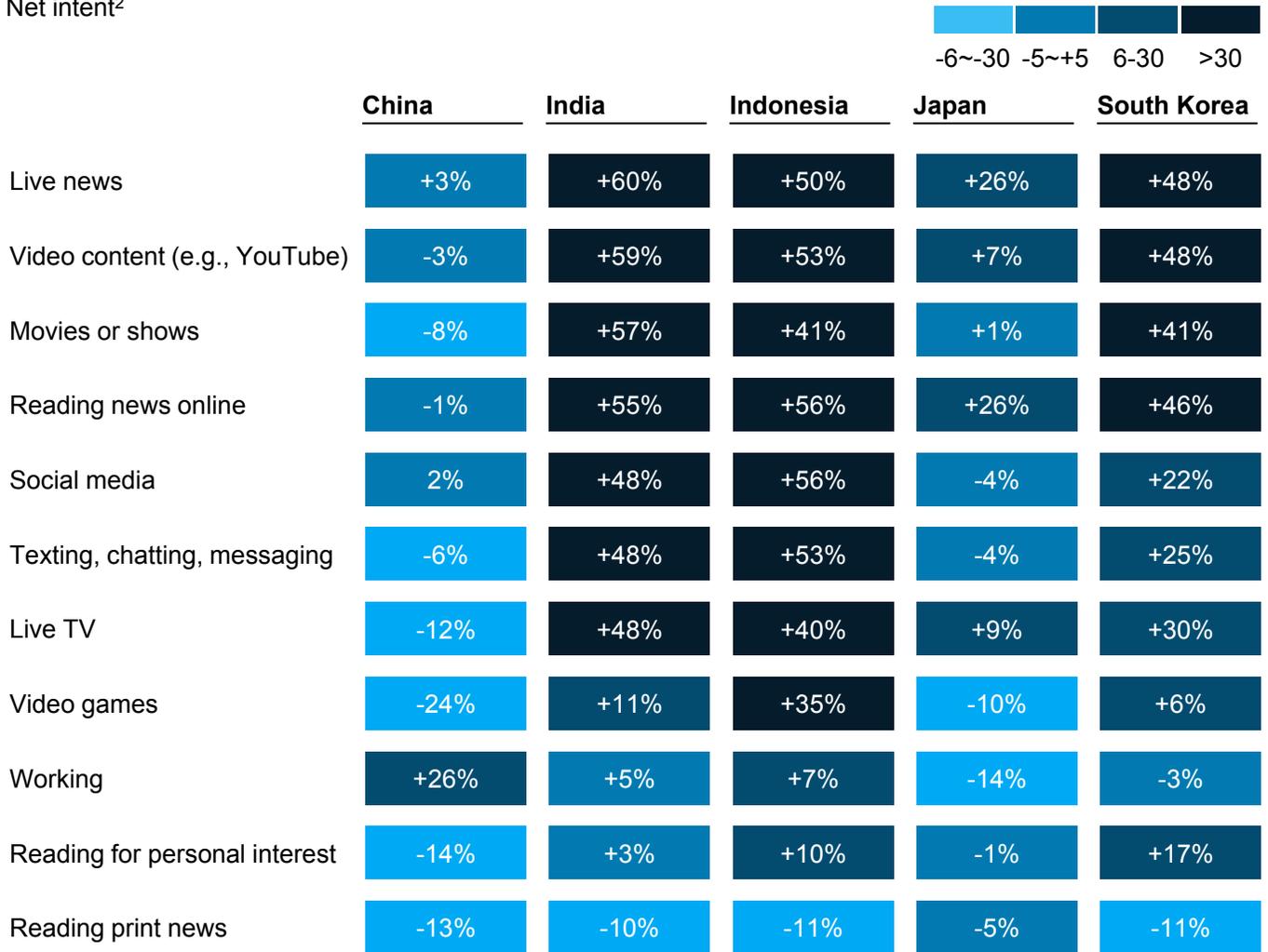
Source: McKinsey & Company COVID-19 Consumer Pulse Surveys (China 3/23-3/30/2020 N = 1,048; South Korea 3/28-3/29/2020 N = 600; Japan 3/28-3/29/2020 N = 600; Indonesia 3/28-3/29/2020 N = 691; India 3/27-3/30/2020 N = 582)

Expected change in time allocation over the next two weeks

Consumers are spending more time on TV, news, online & social media

Expected change to time allocation over the next two weeks¹

Net intent²



1 Q: Over the next 2 weeks, how much time do you expect to spend on these activities compared to how much time you normally spend on them?

2 Net intent is calculated by subtracting the % of respondents stating they expect to decrease time spent from the % of respondents stating to increase time spent

Source: McKinsey & Company COVID-19 Consumer Pulse Surveys (China 3/23-3/30/2020 N = 1,048; South Korea 3/28-3/29/2020 N = 600; Japan 3/28-3/29/2020 N = 600; Indonesia 3/28-3/29/2020 N = 691; India 3/27-3/30/2020 N = 582)

The COVID-19 pandemic is evolving rapidly, deepening the uncertainty for consumers and the economies they sustain. Consumer mindsets will continue to shift as governments and central banks introduce unprecedented countermeasures and stimulus packages to mitigate potential impacts.

Keep pace with the latest McKinsey perspectives on the impacts of COVID-19 on McKinsey.com.

Johnny Ho is an associate partner in McKinsey's Shanghai office; **Aimee Kim** is a senior partner in McKinsey's Seoul office; **Naomi Yamakawa** is a partner in McKinsey's Tokyo office.

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Cautiously optimistic: Chinese consumer behavior post-COVID-19

Chinese consumers are gradually regaining their confidence after the peak of the COVID-19 outbreak.

Johnny Ho, Daniel Hui, Aimee Kim, Yuanyuan Zhang

Chinese consumers are gradually regaining their confidence as the COVID-19 crisis subsides, suggesting the majority will resume higher levels of spending 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, skin care, 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

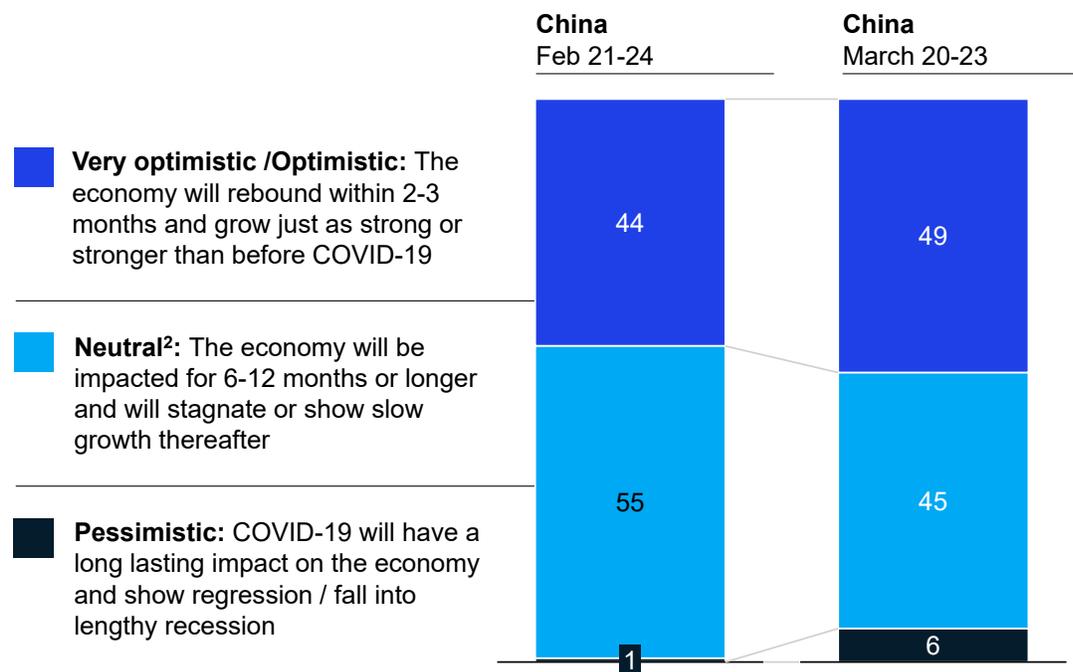
Exhibit 1

Chinese consumers are slightly more optimistic about the economy

Confidence in own country's economic conditions post-COVID-19¹

Percent of respondents

China Consumer Pulse Survey conducted Feb 21-24 & March 20-23, 2020



1. Q: How is your overall confidence level on economic conditions after the COVID-19 situation?
2. Includes consumers who are classified as 'somewhat optimistic' and 'somewhat pessimistic'

Source: McKinsey & Company M&S COVID-19 China Consumer Pulse Survey 2/21-2/24/2020 N = 1,250 including Hubei province; 3/20-2/23/2020 N = 1,250 including Hubei province Sampled and weighted to match China demographic characteristics

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.

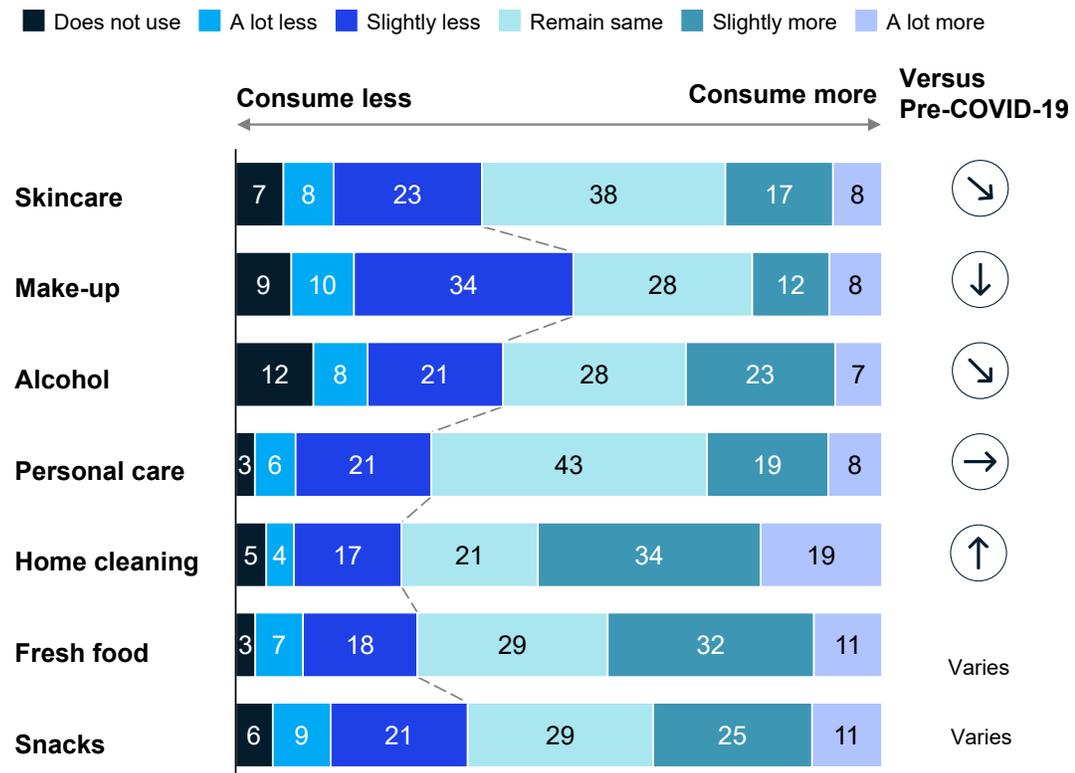
Still, in the latest survey we also see signs of increasing polarity. While more people are

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 post-crisis 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 impacted

How has the coronavirus situation impacted your family's overall consumption in the following categories?
(% of respondents, N=1250)



Source: McKinsey & Company M&S COVID-19 China Consumer Pulse Survey 3/20-2/23/2020 N = 1,250 including Hubei province Sampled and weighted to match China demographic characteristics

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 pre-crisis 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

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.

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 livestreaming 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.

Local brands tended to react fastest in the online space, reflecting digital capabilities that are often more mature than those of international brands.

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 2019.¹ 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.

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

Both Chinese and multinational brands responded effectively to the crisis, and in many cases showed they were prepared to plan for a “new normal.”

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.

¹ McKinsey iConsumer Survey 2019 and Euromonitor

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