McKinsey & Company

COVID-19: Briefing materials

Global health and crisis response

Updated: April 24, 2020

Current as of April 24, 2020

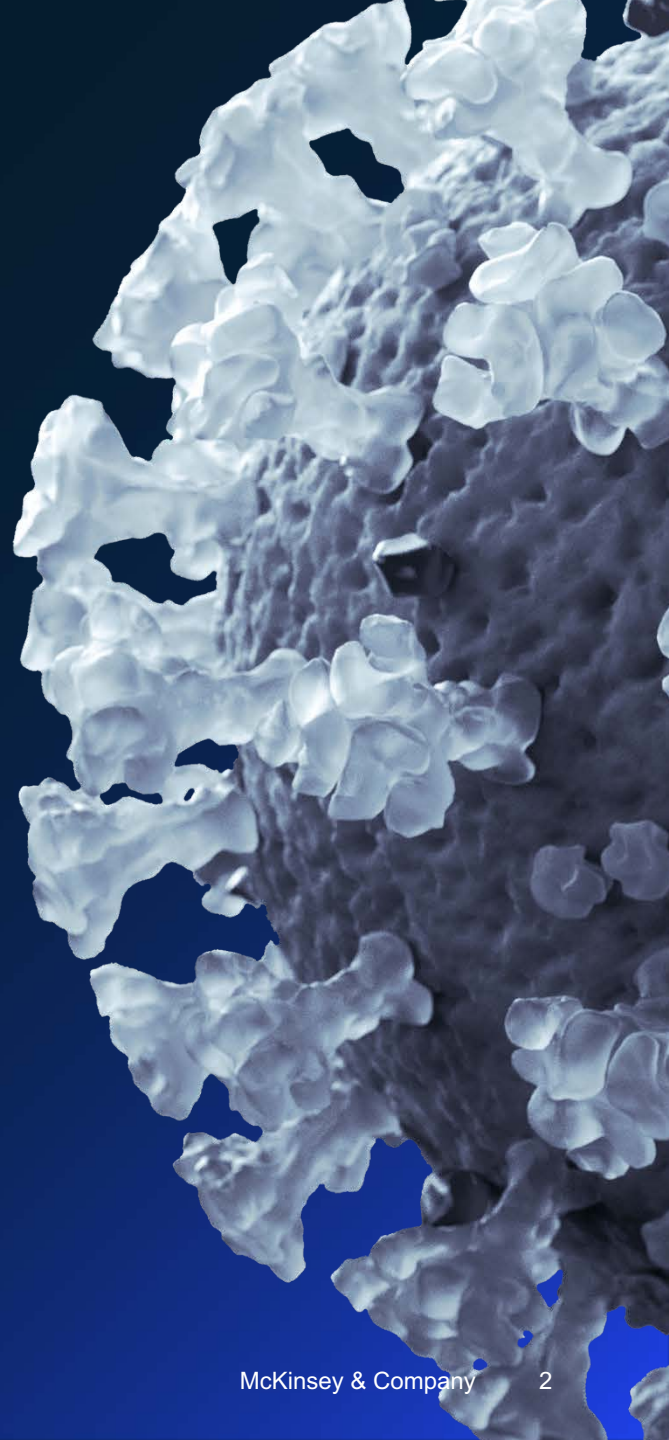
COVID-19 is, first and foremost, a global humanitarian challenge.

Thousands of health professionals are heroically battling the virus, putting their own lives at risk. Governments and industry are working together to understand and address the challenge, support victims and their families and communities, and search for treatments and a vaccine.

Companies around the world need to act promptly.

This document is meant to help senior leaders understand the COVID-19 situation and how it may unfold, and take steps to protect their employees, customers, supply chains, and financial results.

Read more on McKinsey.com



Executive summary

The situation now

At the time of writing, COVID-19 cases have exceeded 2.6 million and are increasing quickly around the world, with concerns that a 15% hospitalization rate could drive hospital system overload.

To reduce growth in cases, governments have moved to stricter social distancing, with “shelter in place” orders in many areas in the U.S., Europe, India, and other countries. This has driven rapid demand declines and fears of recessions, which governments are trying to meet through bailouts and other fiscal measures.

Some Asian countries, such as China, have kept incremental cases low, and are restarting economies. So far, there is little evidence of a resurgence in infections, though reinfection from travel abroad is being reported.

How the situation may evolve

There is a limited window for governments to drive adequate public-health responses and meet demand drawdowns with proportionate economic interventions. Without this, the possibility of a deeper effect on lives and livelihoods is more likely.

Scaled-up testing could clarify the extent and distribution of spread in the U.S., and Europe. There continues to be concern about the extent of spread and its consequences in countries with large populations and higher population densities.

Learnings from other countries and recent innovations (strict social distancing rules, drive through testing, off-the-shelf drugs that can address mild cases, telemedicine enabled home care) could provide basis for a restart.

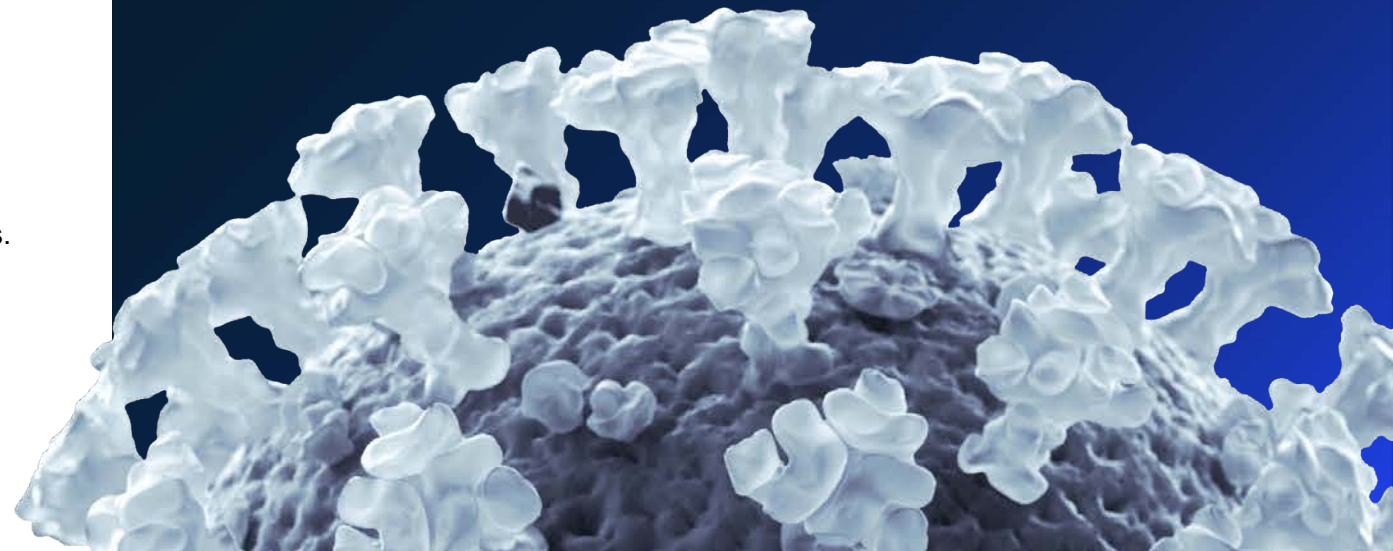
Actions that institutions can take

Having invested in setting up a basic structure to drive basic Resolve and Resilience planning, public and private sector institutions around the world are engaged in continuing protection of people (including workforce and customers), stabilizing supply chain (esp. PPE), as well as ensuring adequate cash and liquidity on hand.

For many governments and companies, focus is now shifting to what a gradual reopening and Return to work may look like with the end of shelter-in-place provisions.

Re-openings are being proposed in a wide variety of contexts, with some geographies considering opening after cases have plateaued, while others are seeking additional verifications, such as adequate hospital and testing capacity.

An effective Return depends on a number of factors – from ensuring that the local region has adequate readiness for a restart from a public health standpoint, to estimating timing for a return of demand, and other factors.



Contents

The global spread is accelerating with more reports of local transmission

Latest as of April 24 2020

Impact to date

>2.64M
Reported confirmed cases

>184,600
Deaths

>212
Countries or territories with reported cases[1]

>180
Countries or territories with evidence of local transmission[2]

81
Countries or territories with more than 1000 reported cases[1]

~36%
US share of new reported cases
April 16 – April 22

~43%
Europe share of new reported cases
April 16 – April 22

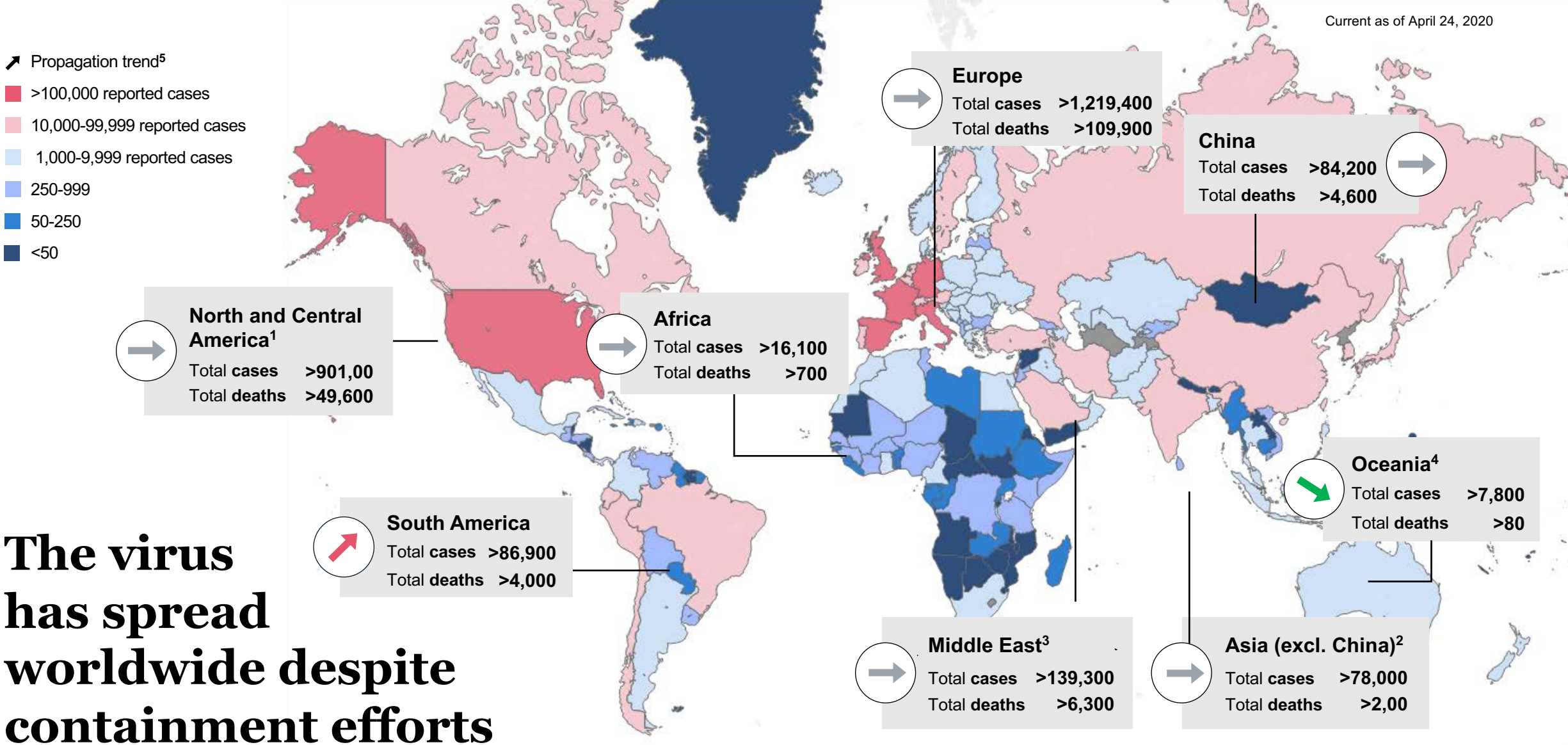
~6%
South America share of new reported cases
April 16 – April 22

<1%
Africa share of new reported cases
April 16 – April 22

1.Previously counted only countries; now aligned with WHO reports to include territories and dependencies; excluding cruise ship
2.Previously noted as community transmission in McKinsey documents; now aligned with WHO definition

Source: World Health Organization, John Hopkins University, CDC, news reports

Current as of April 24, 2020



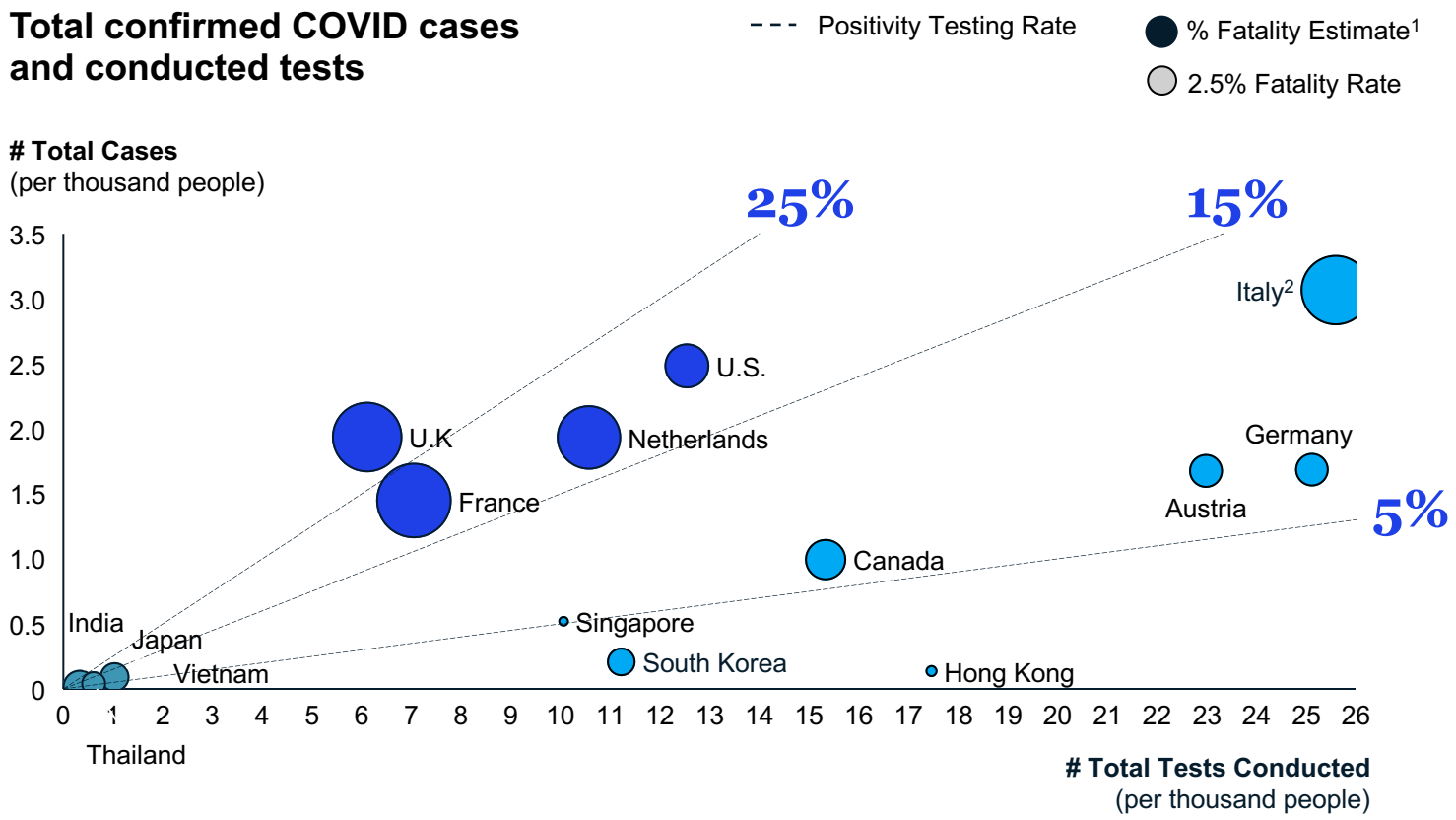
The virus has spread worldwide despite containment efforts

1. Johns Hopkins data used for U.S., all other North America countries reporting from WHO
2. Includes Western Pacific and South–East Asia WHO regions; excludes China; note that South Korea incremental cases are declining, however other countries are increasing
3. Eastern-Mediterranean WHO region
4. Includes Australia, New Zealand, Fiji, French Polynesia, New Caledonia, Papua New Guinea
5. Increasing: > 5% average daily case increase over 7 days; stabilizing: -5% ~ 5% average daily case increase over 7 days; decreasing: < -5% average daily case increase over 7 days

Source: World Health Organization, Johns Hopkins University, McKinsey analysis

Countries with the widest testing tend to have the fewest cases per 1,000 people

Total confirmed COVID cases and conducted tests



1. Number of deaths / confirmed cases
2. Significantly more testing recently occurred, which helped Italy to move from category 2 to category 3

Sources: WHO situation reports, Johns Hopkins University, Our World In Data, The Government of the Hong Kong Special Administrative Region, The Singapore Government

3 Archetypes of testing approaches

Countries with limited testing

Low volumes of testing lead to few confirmed positive cases

Countries with moderate testing approach

Some countries test only (or predominantly) those with significant symptoms. Since milder cases are more likely to be missed, the Case Fatality Rate appears higher

Countries with broad testing approach

Countries that have taken broad testing strategies tend to be those that have had success in limiting the number of new cases

Sweden seems to be pursuing accelerated herd immunity but it is too early to say if this strategy will be successful

Most countries are trying to minimize new cases through packages of strict public health measures…

- Implement travel restriction to prevent resurgence
- Plan selective/phased approach to cautiously reopen parts of economy
- Establish legal measures (e.g., fines) to enforce new regulations

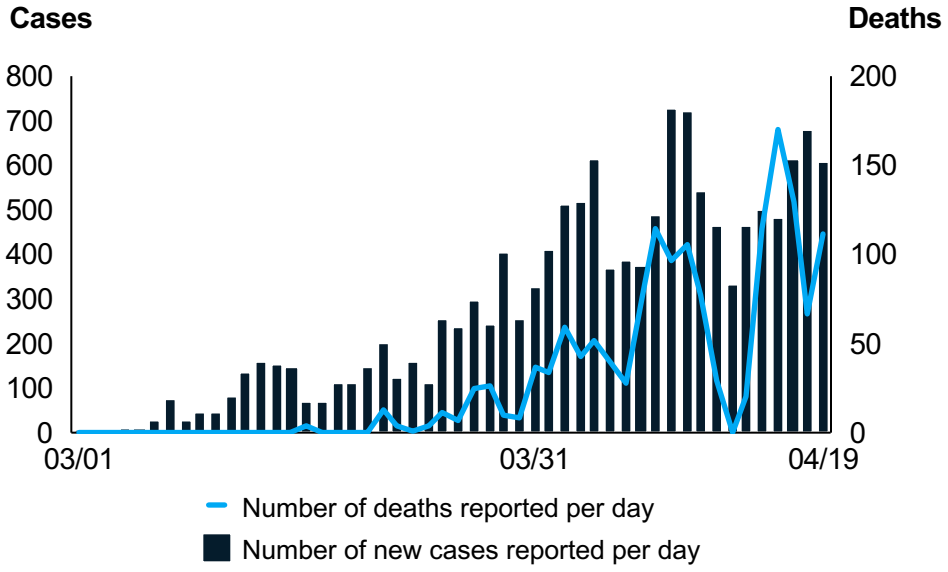
…however few locations are trying to manage infections with the goal of early herd immunity, with relaxed measures focused on

- Preventing health systems being overwhelmed
- Providing special attention to protect high-risk groups

Sweden

- Kept its businesses open throughout the spread of pandemic, while urging individual responsibility
- Maintained surplus of medical equipment and hospital capacity
- No border control measures were implemented

Sweden Incremental COVID-19 cases and deaths
Counts per day



We are starting to see so many immune people in the population in Stockholm that it is starting to have an effect on the spread of the infection. […]

Our models point to some time in May

– Anders Tegnell, current state epidemiologist of Sweden,
Apr. 19th 2020

To date, COVID-19 deaths per million people in Sweden are mid-pack relative to other European countries. Other countries are watching the Swedish experience closely

Source: Bloomberg, Forbes, NPR, WHO Situation Reports, nydailynews

Pillars of non-pharmaceutical public health interventions: Latest evidence on COVID-19

A

Distancing

Physical distancing measures have had a significant impact on reducing the transmission of COVID-19

There is a correlation between mobility reduction during a lockdown and reduction of transmission

Other methods of distancing – e.g., temporal distancing – are also used by regions to complement physical distancing measures

B

Travel restrictions

Some regions are seeing resurgence of cases driven by imported cases (people traveling in)

Regions use a variety of measures to contain spread from contact tracing and ensuring self isolation of travelers to reinstituting travel restrictions

C

Testing and tracking

Broad early testing has enabled some regions to contain the spread of COVID-19

Contact tracing for those tested positive is a key lever being used across regions; however its impact on transmission in high-prevalence settings is unproven

Antibody testing has the potential to identify individuals previously exposed; however widespread access to accurate tests will take time and we do not yet know to what extent exposure to the virus confers long term immunity

Syndromic surveillance (i.e. real-time or near real-time collection and analysis of health-related data, such as wastewater analysis, to identify potential health threats) can enable public health officials to take proactive measures to contain the spread of the virus

D

PPE & cleaning

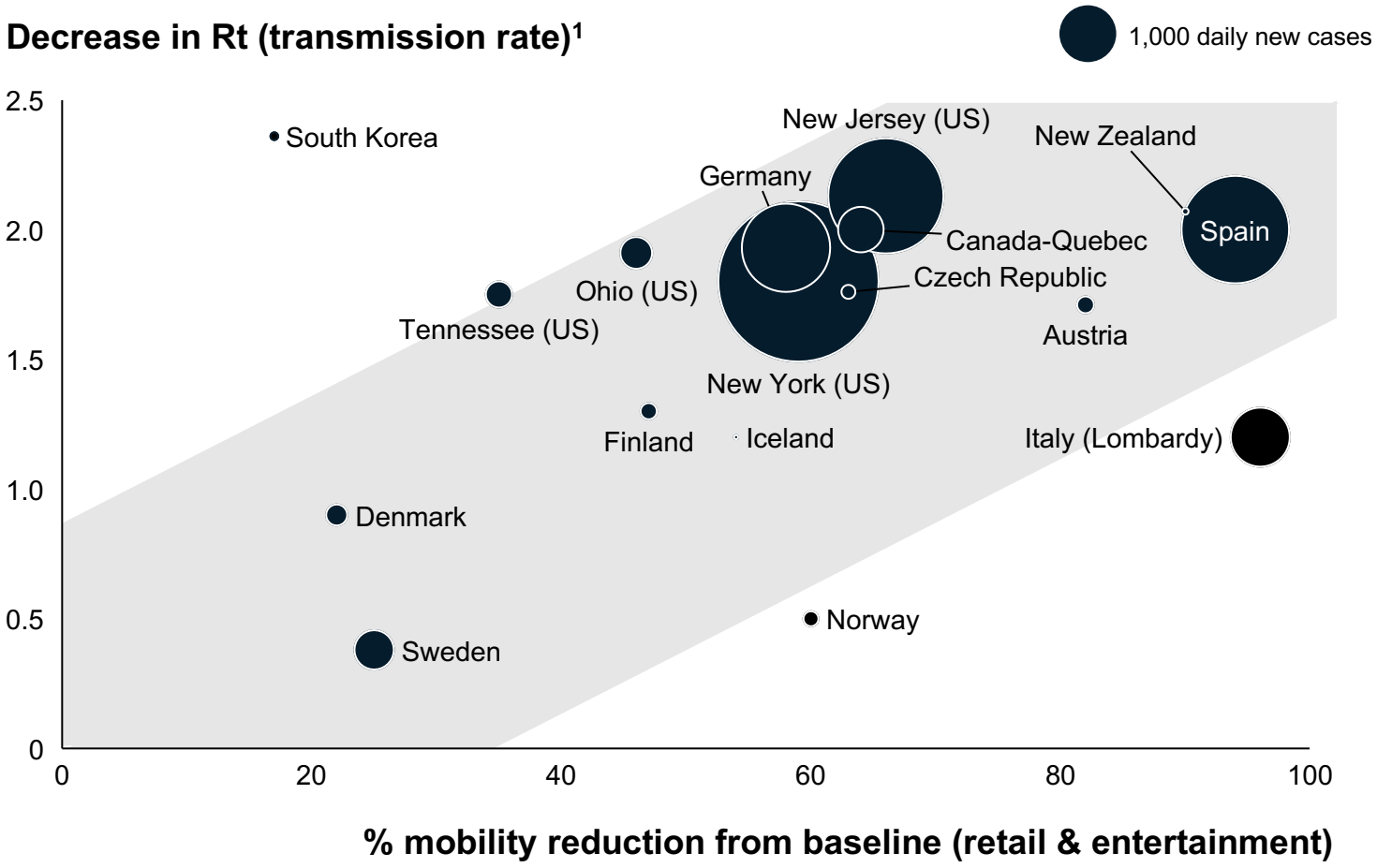
Early evidence in recent studies suggest surgical masks catch both large and small droplets (coughed, sneezed, or exhaled by an infected individual), suggesting widespread use of masks is a worthwhile tool

Current evidence suggests that SARS-CoV-2 may remain viable for hours to days on surfaces and hours in the air

Cleaning of surfaces and disinfection is a best practice measure for prevention of COVID-19 and requires to consider factors such as the size of the room and the ventilation system design

Source: https://www.nejm.org/doi/full/10.1056/NEJMc2004973, https://www.nytimes.com/2020/03/17/health/coronavirus-surfaces-aerosols.html?auth=login-email&login=email; CDC

A. Mobility reduction during lockdowns is roughly correlated with reductions in transmission



In general, implementation of public health measures leading to reduced mobility (e.g., closure of public spaces, lock downs, closure of schools) have successfully reduced COVID-19 transmission

In select geographies, other factors have led to higher or lower than expected changes in transmission

South Korea: Primarily relied on robust testing and tracing rather than reduction in mobility. Targeted city- and region-wide lockdowns implemented as needed

Lombardy, Italy: Large portion of population was infected before lockdown measures were enforced, making transmission more difficult to control even after lockdown

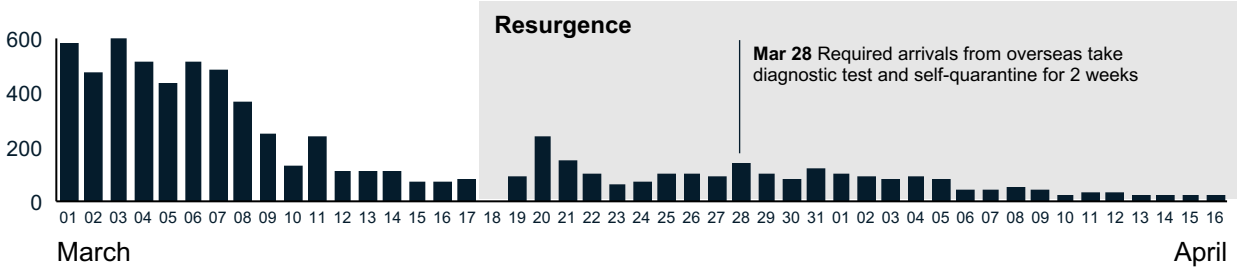
Norway: Geographical and environmental factors contribute to naturally low rates of spread, despite limited control measures. The seemingly low drop in Rt corresponds to a 40% decrease from baseline

1. Disease spread parameters are determined from confirmed case volume by fitting a simulation to the empirical data using a sum of least squares

Source: Google mobility reports, JHU COVID-19 tracking tool, USA facts

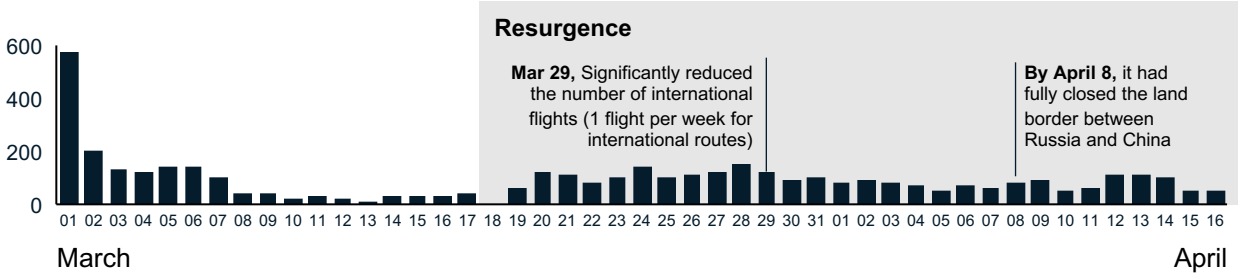
B. Some Asian countries implemented targeted travel restrictions to counter case resurgence

South Korea
Incremental cases per day



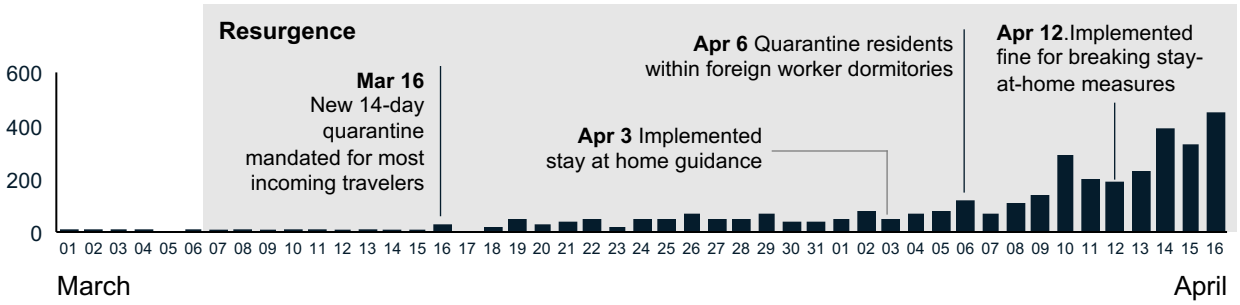
Imposed new travel restrictions, including requiring overseas visitors to self-quarantine supplemented by track-and trace programs as cases rise from foreign travelers

China
Incremental cases per day



Implemented strong border control policies (limiting int'l flights, closing down land borders) to reduce the number of imported cases

Singapore
Incremental cases per day



Targeted travel restriction and quarantine measures to counter increase in cases from foreign travelers and workers

As cases continue rise, implemented stricter stay-at-home rules

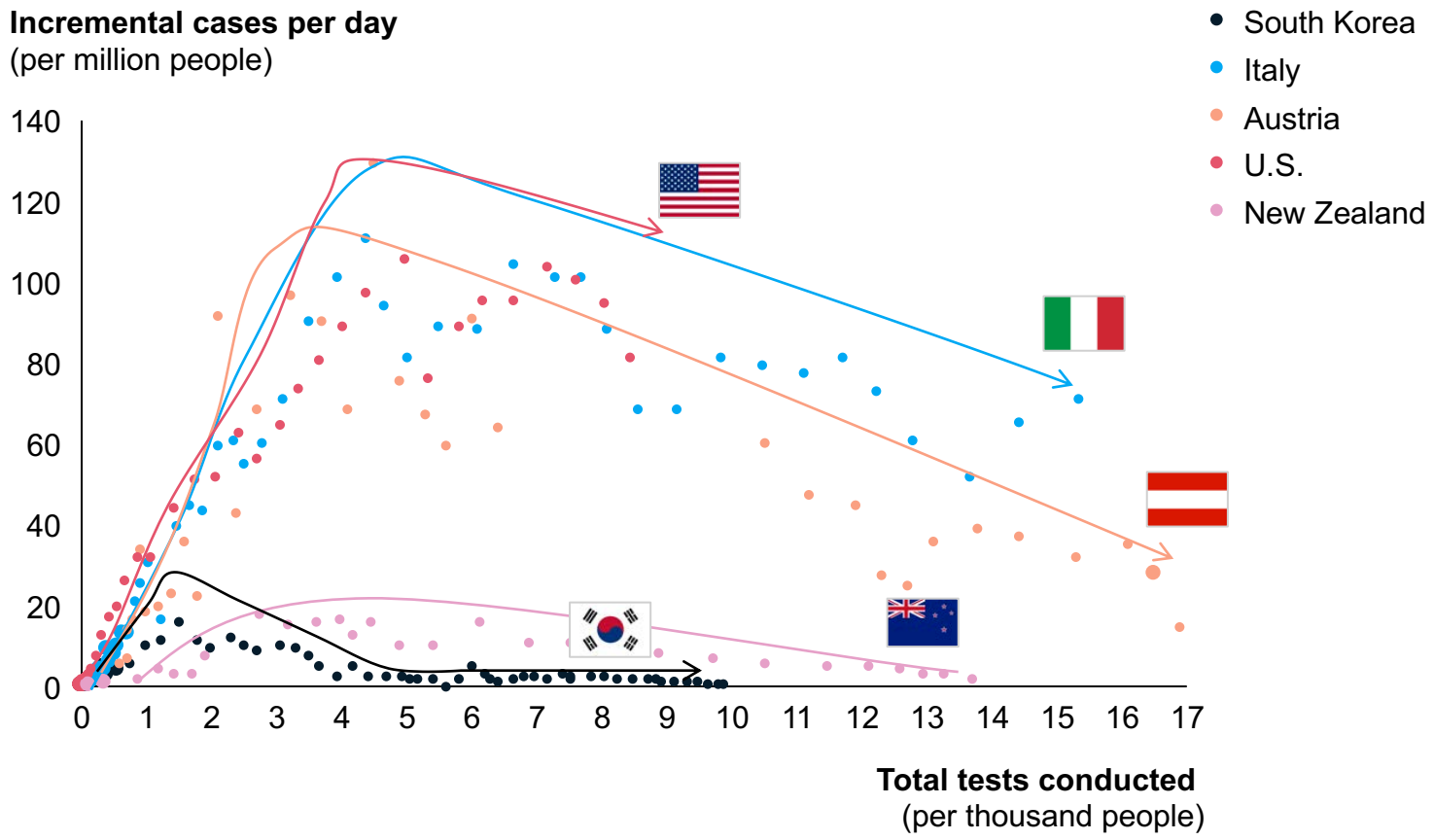
Countries acted to contain imported cases via travel restrictions without national shutdown.

However, incremental cases were not contained after initial travel restrictions and resulted in more widespread measures

Source: WHO, KCDC, Singapore Government, The Government of the Hong Kong Special Administrative Region

C. Early testing and tracking capacity has enabled some countries to contain incremental cases

Incremental COVID cases and conducted tests



Observations

US & Italy

Steep rate of growth followed by plateau (then decline in the case of Italy) as countries expand testing access

Austria

Rapid shift to downward trend in incremental cases as the country expanded to a mass testing approach

South Korea & New Zealand

Aggressive early testing contained the rate of new infections; testing capacity continuously expanded as incremental cases are contained

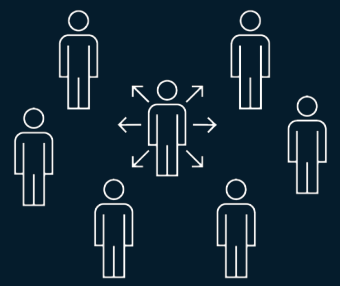
Source: WHO Situation Reports, Johns Hopkins University COVID-19 Data, Our World In Data

C. Contact tracing involves the identification of individuals with potential exposure for targeted quarantining or other interventions

Contact identification

Once an individual is diagnosed, contacts are identified by determining the person's activities and the activities and roles of the people around them since onset of illness

Contact listing



All individuals who have been potentially exposed to the infected person are listed as contacts

Contacts are notified of their status, implications, and next steps (e.g., how to find care)

In some cases, quarantining or isolation is required for high risk contacts

Contact follow-up

Regular follow-up conducted with all contacts to monitor for symptoms and continue to test for infection

This information is used to determine most appropriate intervention for contact (e.g., quarantining)

Although elements of contact tracing are consistent, specific approaches to contact tracing differ significantly in terms of technological sophistication (e.g., traditional contact tracing via phone and in-person contact vs. tech-based tracing through GPS or Bluetooth-enabled apps)

Source: WHO

C. Countries have used varying approaches for contact tracing

Evidence of effectiveness is limited for COVID in high prevalence settings

Emerging tech example:

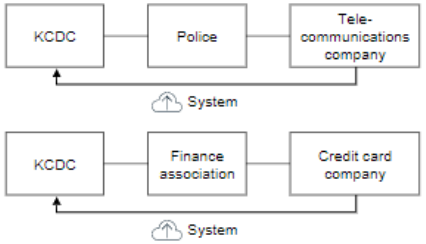
Nigeria leveraged its existing National Emergency Operations Centers, originally developed to deal with previous outbreaks

1,000+ Surveillance Officers conduct manual contact tracing (e.g., interviewing individuals to determine who may have been exposed), utilizing existing surveillance and outbreak monitoring system that allows individuals conducting surveillance to capture information about contacts in a common mobile app platform

Higher tech example:

The Korea Centers for Disease Control and Prevention, in collaboration with other government agencies[1] and 3 telecommunications and 22 credit card companies, launched a COVID-19 data platform

With automatic data-sharing of both location data and purchasing data, the platform has shortened the time to complete contact tracing from 1 day to 10 minutes



1. Ministry of Land, Infrastructure, and Transportation (MOLIT) and Ministry of Science and ICT (MSIT)

Source: Path; WHO; Tech Crunch; MLex Market Insight

Current as of April 24, 2020

Types of high tech tracing systems

Centralized system:	Location tracking data are stored and processed centrally; data of all users is shared
Decentralized system – GPS:	GPS location tracking data are stored and processed locally (on the phone of the user); only location data for diagnosed patients are shared
Decentralized system – Bluetooth:	No location data are captured. Instead, devices detect proximity to each other within a certain range. If an individual is diagnosed, a list of their recent contacts is generated

Apple and Google have announced updates to their smartphone operating systems that will use Bluetooth signals to track potential cases

While a centralized approach can raise data privacy concerns, a decentralized system anonymizes users using random IDs, thus limiting privacy risks, as well as potential re-appropriation of data for other purposes.

However, not all solutions are appropriate for all contexts; McKinsey does not endorse any specific approach

C. Leveraging serological testing to determine immunity will require a full understanding of immunity

Serological testing: Assessment of community exposure and immunity based on antibody detection

Examples of serological testing to date

In California, serological test of ~3k people suggests prevalence of 50-85-fold more than the number of confirmed cases

In Colorado (US), United Biomedical provided testing for 6K residents of San Miguel County

Netherlands began >10k blood donation samples weekly, where preliminary evidence suggests 3% of donors have developed antibodies

Randomized sample of 1,000 residents in Gangelt showed 14% of population were carrying antibodies against COVID-19 while 2% of residents currently had the virus

The Helmholtz Centre for Infection Research (HZI) has begun a study of 100K individuals evaluating the level of antibodies over time

Challenges associated with widespread roll-out and use of serological testing

Variable sensitivity/specificity: There is significant variation in methodology and sensitivity/specificity of serological tests currently available (90+ available in the US). High rates of false negatives or positives could limit usefulness of testing as a tool to assess immunity and facilitate reopening

Limited regulatory approvals: Only 3 serological tests are currently approved by the FDA for emergency use

Challenging logistics: Serological testing will need to be significantly scaled up and broadly administered to significant portions of the population, creating major logistical hurdles

Unclear immunity profile: Even if sensitivity/specificity and logistical challenges are overcome, the degree to which serological testing is clinically (as a result of duration of immunity) useful remains unclear

Details on next page

Source: Politico; Kaiser Health News; Germany Federal Ministry of Education and Research ; CNN; MedRxiv; WIR IN NRW; Reuters

C. Immunity to COVID-19 is a major driver for the "next normal", yet it largely remains unknown

		While some early studies suggest potential longer term immunity similar to SARS-CoV1….	…Specific incidents of patients retesting positive could suggest shorter term immunity
Implications		Accelerated transition is possible based on serological testing providing criteria for economic restarts	Transition to "new normal" is contingent upon vaccine development Vaccines may not work or require frequent booster-shots
Supporting Data	**SARS-CoV2 evidence**	No reinfection observed in primate animal model A Chinese study reports immune response to S-protein in 100% patients (n=16) > 14 days post-symptom onset	A Chinese study reports 30% of patients (n=175) with mild symptoms developed low or no detectable antibody response
	Indirect evidence	Immunity to SARS-CoV1, which shares 79% genetic identity, persists for 1-3 years in recovered patients Reported reinfection may be described by flare-up of old infection that had temporarily subsided and then re-emerged	South Korean patients tested positive again for those who had been infected with SARS-CoV-2 and tested negative (may represent reactivation rather than reinfection) Immunity to seasonal coronaviruses (e.g., common colds) starts declining a couple of weeks after infection

Source: Lancet, Journal of Immunology, Journal of Infectious Disease, Scientific American, BioRxiv, MedRxiv, NYTimes, Epidemiology & Infection

Implications

Durable immunity following exposure or immunization is a pre-requisite for herd immunity

Serologic testing will be an impactful lever if immunity is of longer duration

Required frequency of vaccines / booster shots required will depend on duration of immunity

C. Syndromic surveillance has the potential to serve as an early warning sign of COVID resurgence

Syndromic surveillance

Real-time or near real-time collection, analysis, interpretation, and dissemination of non-individualized data for the early identification of potential health threats (before confirmed diagnosis) within the jurisdictional laws

Examples of syndromic surveillance for COVID

A research team at the Netherlands National Institute for Public Health and the Environment detected traces of SARS-CoV-2 in wastewater at Schiphol Airport 4 days after the Netherlands confirmed its first case of COVID-19 using clinical testing. It also found genetic material in the city of Amersfoort before clinically diagnosed infections had been reported

The team plans to expand sampling to the capitals of all 12 provinces in the Netherlands and 12 other sites that have not had any confirmed cases

The US has leveraged national infrastructure to conduct real-time monitoring of influenza-like illness (ILI) tracking non-individual data flows such as flu-like symptoms reported in US hospitals

These symptoms may also provide leading indicators of COVID-19

Benefits and drawbacks of syndromic surveillance

- ⊕ Rapid to implement, and can serve as an early warning sign for potential outbreaks
- ⊕ Informs allocation of resources to high priority areas (e.g., rapid diagnostic testing)
- ⊕ High sensitivity because laboratory confirmation is not needed
- ⊕ Possible deployment in low-income / low-resource countries
- ⊕ Does not fringe patient privacy as it utilizes non-individualized health data
- ⊖ Efficiency depends on pathogens and patient characteristics
- ⊖ Lack of human and technological resources can affect data collection, management, timeliness, and sharing
- ⊖ Low specificity

Source: International Journal of Infectious Diseases ; CNBC; CDC NSSP; J Public Health Manag Pract; gov.uk; CDC NSSP overview; ; MedRxiv; Nature

D. Early evidence suggests use of masks reduce transmission

Reduced transmission

There is robust evidence to support the use of masks in healthcare settings to reduce transmission rates[1]

For other respiratory viruses (e.g. H1N1) there is evidence of reduced transmission rates in enclosed setting like airplanes[2]

There is indirect evidence that the masks reduce transmissions in the community setting

- One meta-analyses on community based usages of masks showed reduced viral transmission[3], however others site a lack of high quality studies to draw from[1]
- There are very few high quality trials and only one randomized control trial

Evidence for reduced droplets

Experimental evidence suggests surgical masks can reduce the spread of both larger droplets and small aerosols of COVID-19[4] which are thought to be the main drivers of transmission[5]

- This evidence drives both the CDC and the WHO support the use of masks for infected individuals1,5

In locations with large scale testing such as Iceland, S. Korea and the Diamond Princess have shown significant rates of asymptomatic COVID-19 cases suggesting decreasing rate of droplet production from the general public will reduce the number of infected particles in the environment capable of spreading infection

As of now, there is weak evidence masks are effective in the community setting; proper evidence is a good topic to be researched

1 CEBM, 2 Emerging Infectious Diseases, 3 BMJ, 4 Nature Medicine, 5 CDC

Key Takeaway

Given the evidence of reduced transmission in controlled settings for respiratory viruses and the evidence of significant rates of asymptomatic infection, general community mask wearing in combination with other measures can be an effective tool to reduce transmission

Wearing a medical mask is one of the prevention measures that can limit the spread of certain respiratory viral diseases, including COVID-19

– WHO, Apr. 6th 2020

Contents

The Imperative of our Time

"Timeboxing" the Virus and the Economic Shock

Imperatives

1

Safeguard our lives

1a. **Suppress the virus** as fast as possible

1b. **Expand testing, quarantining and treatment** capacity

1c. **Find "cures";** treatment, drugs, vaccines

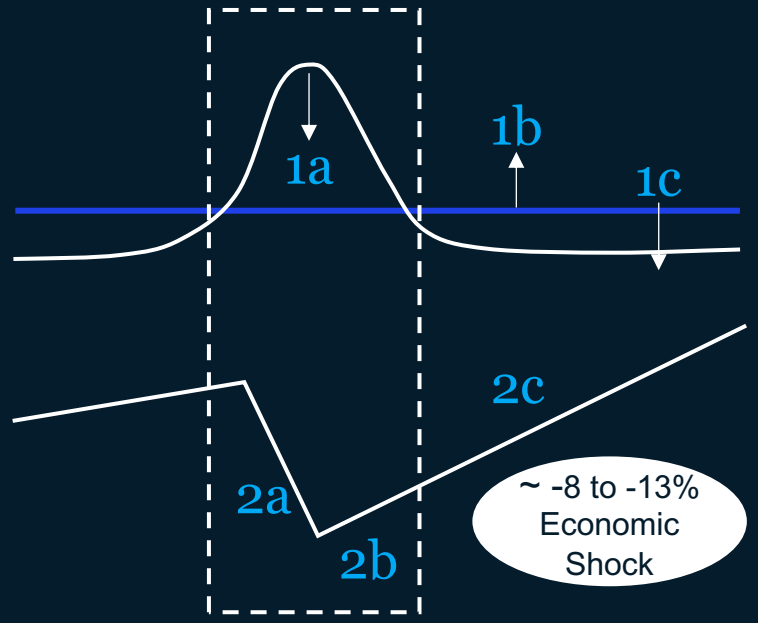
2

Safeguard our livelihoods

2a. **Support people and businesses** affected by lockdowns

2b. **Prepare to get back to work safely** when the virus abates

2c. **Prepare to scale the recovery** away from a -8 to -13% trough



Source: McKinsey analysis, in partnership with Oxford Economics

Scenarios for the Economic Impact of the COVID-19 Crisis

GDP Impact of COVID-19 Spread, Public Health Response, and Economic Policies

Virus Spread & Public Health Response

Effectiveness of the public health response in controlling the spread and human impact of COVID-19

Rapid and effective control of virus spread

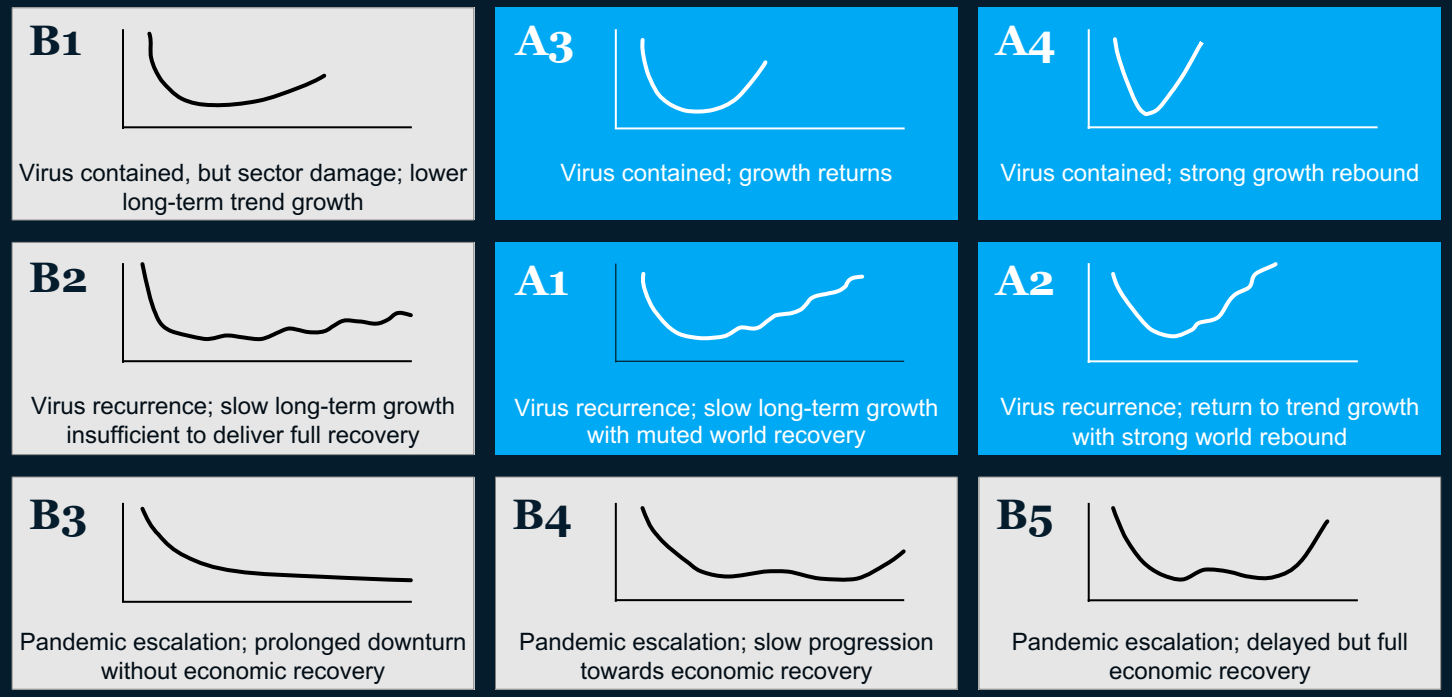
Strong public health response succeeds in controlling spread in each country within 2-3 months

Effective response, but (regional) virus recurrence

Initial response succeeds but is insufficient to prevent localized recurrences; local social distancing restrictions are periodically reintroduced

Broad failure of public health interventions

Public health response fails to control the spread of the virus for an extended period of time (e.g., until vaccines are available)



Ineffective interventions

Self-reinforcing recession dynamics kick-in; widespread bankruptcies and credit defaults; potential banking crisis

Partially effective interventions

Policy responses partially offset economic damage; banking crisis is avoided; recovery levels muted

Highly effective interventions

Strong policy responses prevent structural damage; recovery to pre-crisis fundamentals and momentum

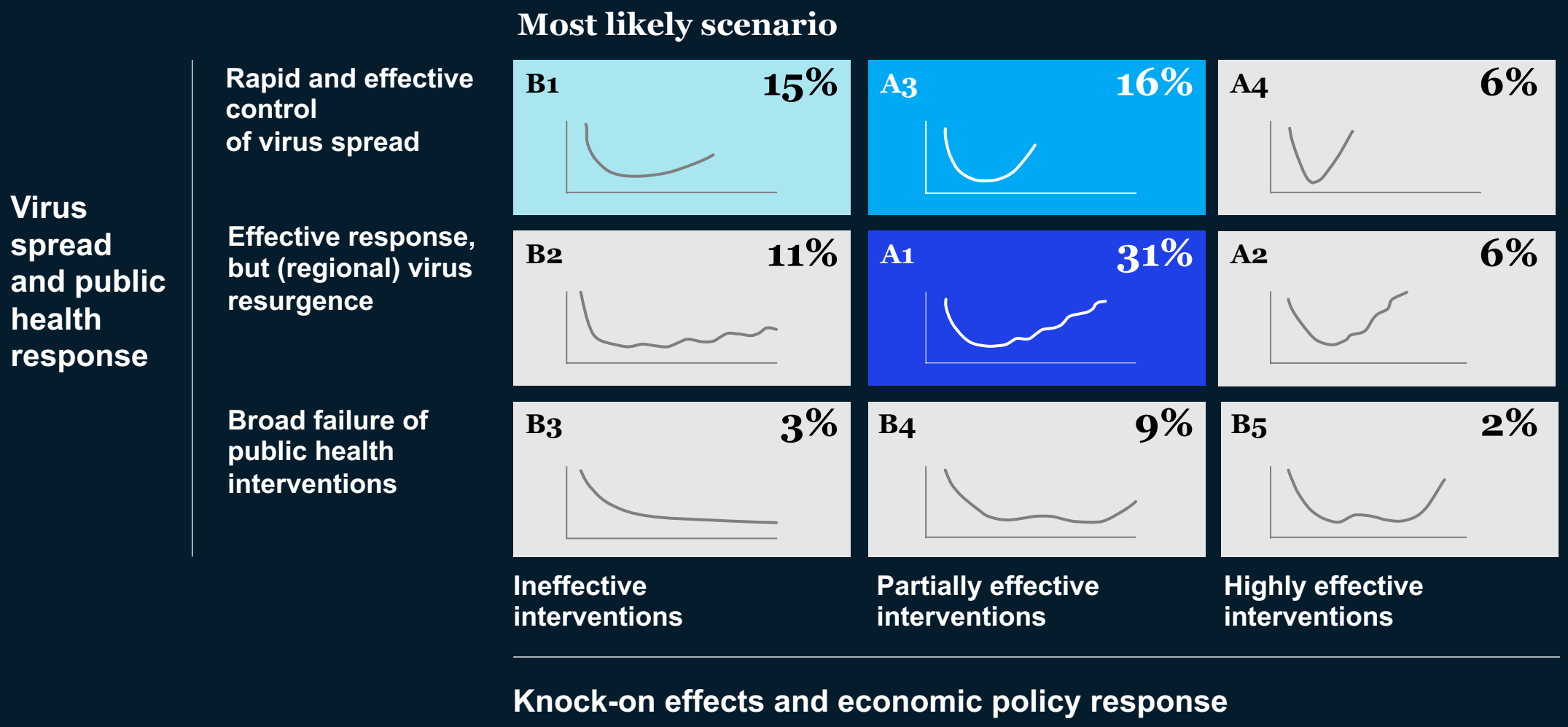
Knock-on Effects & Economic Policy Response

Speed and strength of recovery depends on whether policy moves can mitigate self-reinforcing recessionary dynamics (e.g., corporate defaults, credit crunch)

Source: "Safeguarding our lives and our livelihoods: The imperative of our time,"; available online at https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/safeguarding-our-lives-and-our-livelihoods-the-imperative-of-our-time

Executive expectations about the shape of coronavirus crisis in the World

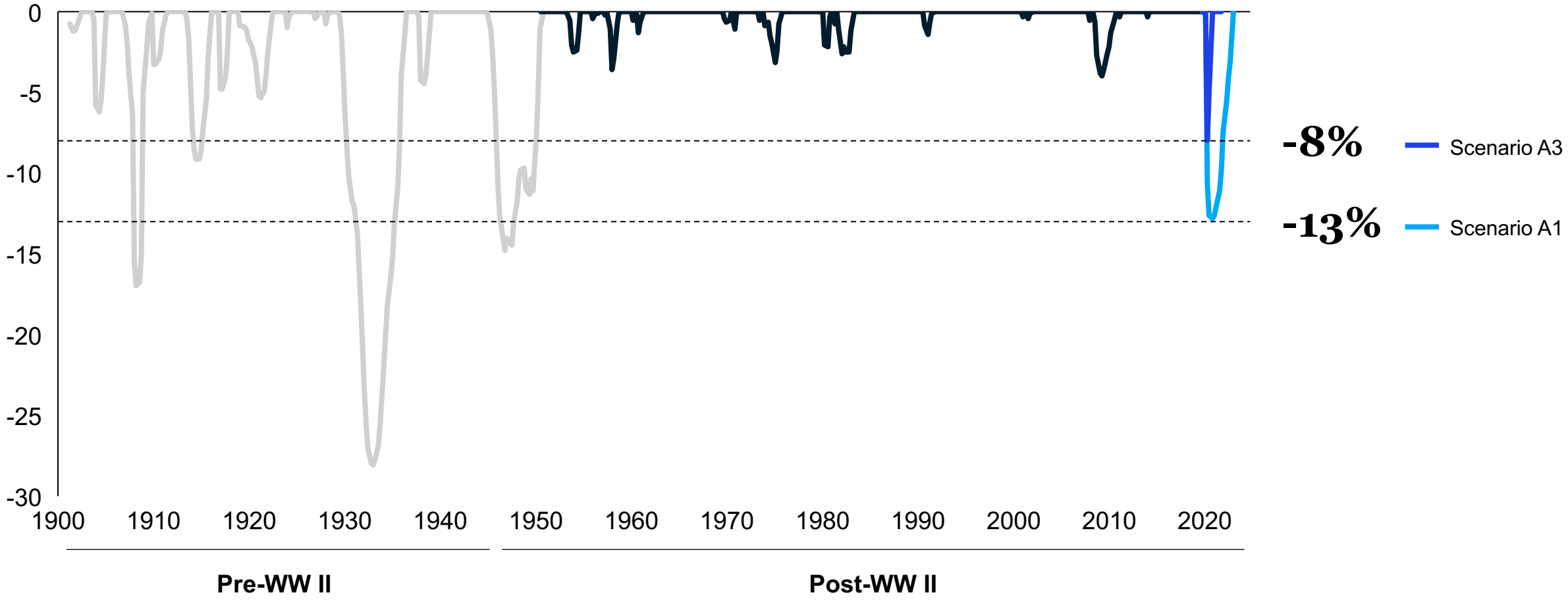
Survey of 2,079 global executives; % of respondents



Source: "In the tunnel: Executive expectations about the shape of the coronavirus crisis"; available online at https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/in-the-tunnel-executive-expectations-about-the-shape-of-the-coronavirus-crisis; McKinsey survey of global executives, April 2–April 10, 2020, N=2,079

COVID-19 U.S. impact could exceed anything since the end of WWII

United States real GDP
%, total draw-down from previous peak



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

Scenario A3: Virus contained

The virus continues to spread across the Middle East, Europe and the U.S. until mid Q2, when virus seasonality combined with a stronger public health response drives case load reduction

Epidemiological scenario

China and East Asian countries continue their current recovery and control the virus by early Q2 2020

Virus in Europe and the United States would be controlled effectively with between two to three months of economic shutdown; new case counts peak by end April and declines by June with stronger public health response and seasonality of virus

Economic impacts

China will undergo a sharp but brief slowdown and relatively quickly rebound to pre-crisis levels of activity. China's annual GDP growth for 2020 would end up roughly flat

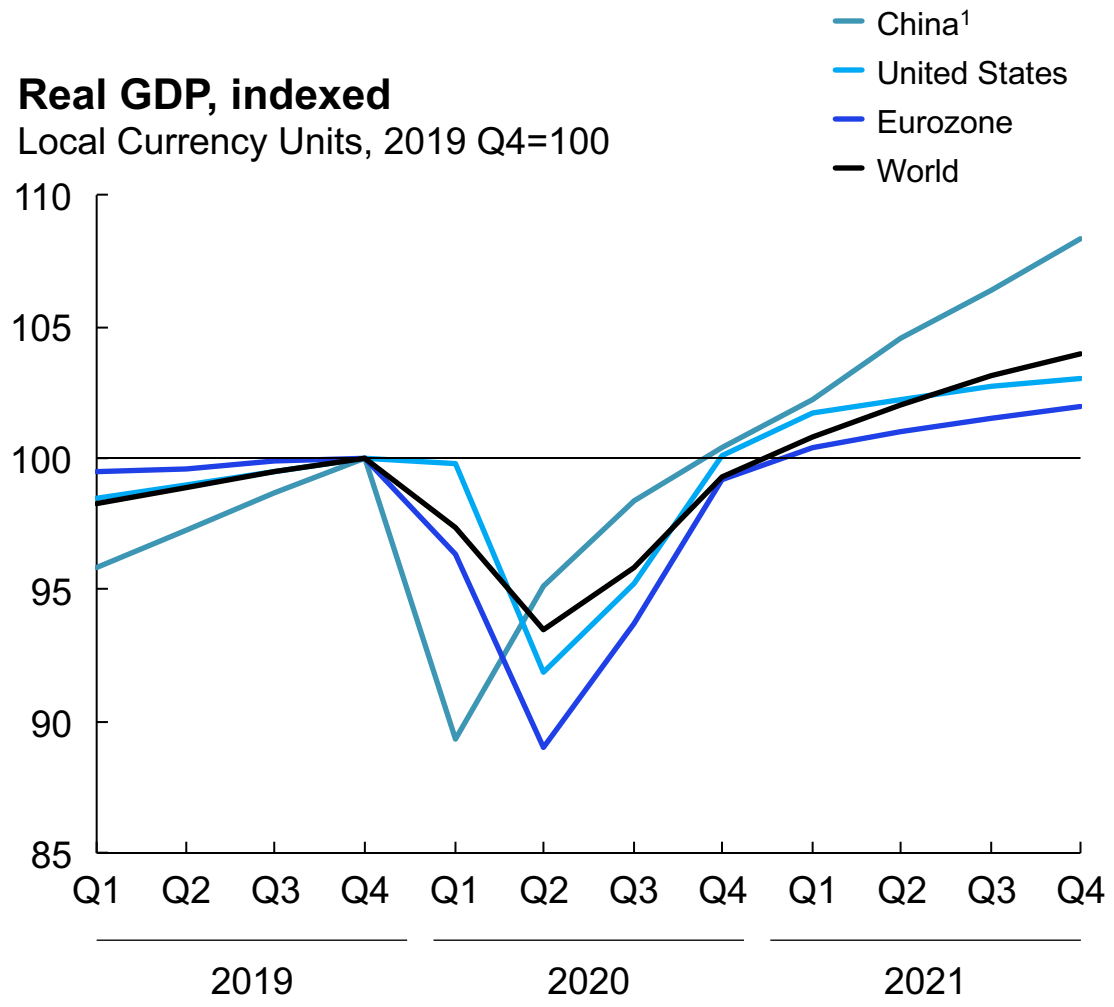
In Europe and the U.S., monetary and fiscal policy would mitigate some of the economic damage with some delays in transmission, so that a strong rebound could begin after the virus was contained at the end of Q2 2020

Most countries are expected to experience sharp GDP declines in Q2, which would be unprecedented in the post WWII era

Scenario A3: virus contained, growth returns

Large economies

Current as of April 24, 2020



	Real GDP Drop 2019Q4-2020Q2 % Change	2020 GDP Growth % Change	Return to Pre-Crisis Level Quarter (+/- 1Q)
China	-4.9%	-2.0%	2020 Q4
United States	-8.1%	-2.5%	2020 Q4
Eurozone	-11.0%	-5.2%	2021 Q1
World	-6.5%	-2.7%	2021 Q1

1. Seasonally adjusted by Oxford Economics

Source: McKinsey analysis, in partnership with Oxford Economics

Scenario A1: Muted world recovery

The virus spreads globally without a seasonal decline. Health systems are overwhelmed in many countries, especially the poorest, with large-scale human and economic impact

Epidemiological scenario

China would need to clamp down on regional recurrences of the virus

The United States and Europe would fail to contain the virus within one quarter and be forced to implement some form of physical distancing and quarantines throughout the summer

Economic impacts

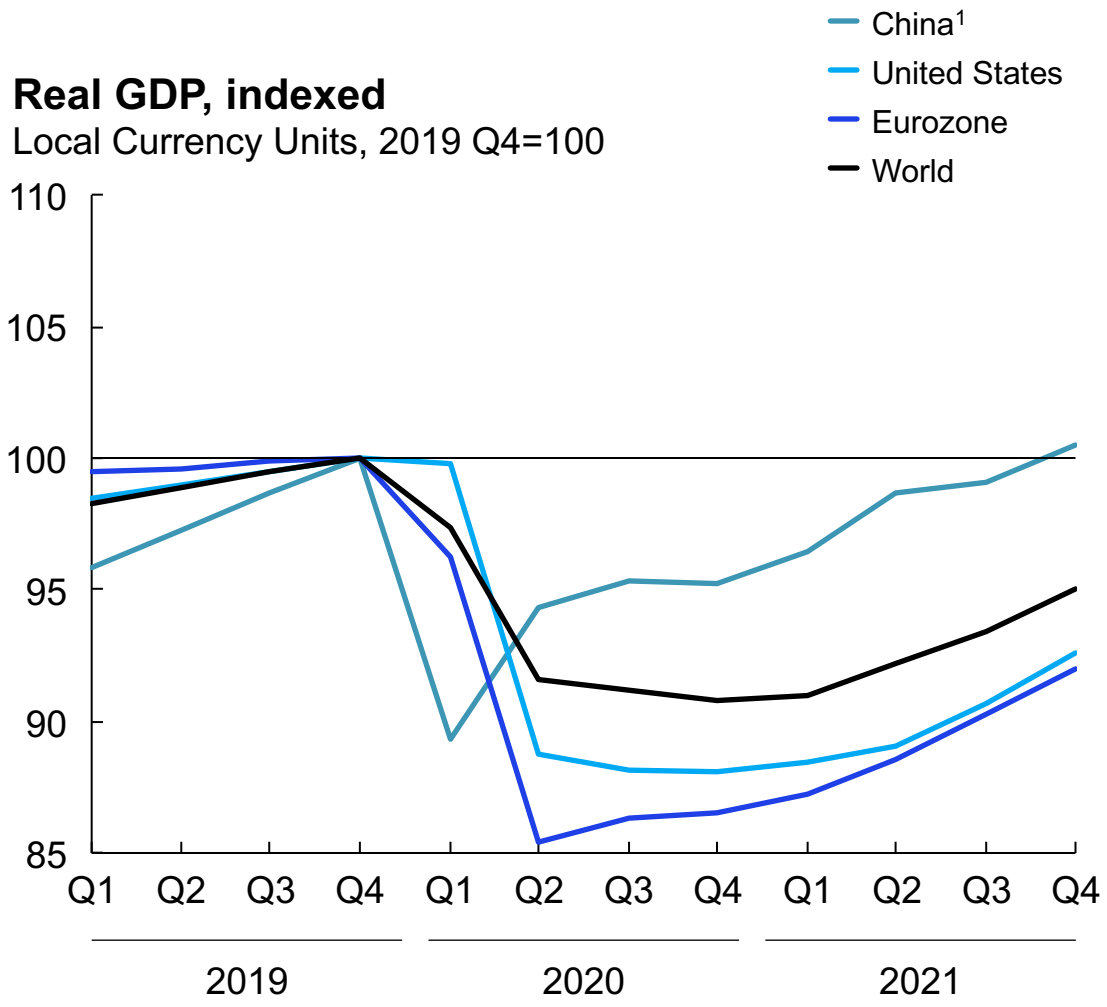
China would recover more slowly and would also be hurt by falling exports to the rest of the world. Its economy could face a potentially unprecedented contraction

The United States and Europe would face a GDP decline of 35 to 40 percent at an annualized rate 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

Most countries would take more than two years to recover to pre-virus levels of GDP

Scenario A1: virus recurrence, with muted recovery

Large economies



	Real GDP Drop 2019Q4-2020Q2 % Change	2020 GDP Growth % Change	Return to Pre-Crisis Level Quarter (+/- 1Q)
China	-5.7%	-4.4%	2021 Q4
United States	-11.2%	-8.1%	2023 Q1
Eurozone	-14.6%	-11.1%	2023 Q3
World	-8.4%	-6.5%	2022 Q3

1. Seasonally adjusted by Oxford Economics

Source: McKinsey analysis, in partnership with Oxford Economics

What business leaders should look for in coming weeks

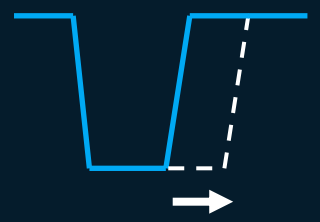
There are three questions business leaders are asking, and a small number of indicators that can give clues

Depth of disruption

How deep are the demand reductions?

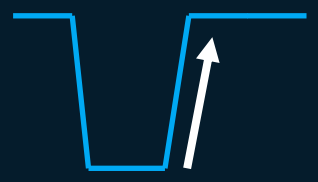
Length of disruption

How long could the disruption last?



Shape of recovery

What shape could recovery take?



Indicators

Epidemiological

- Time to implement social distancing after community transmission confirmed
- Number of cases – absolute (expect surge as testing expands)
- Geographic distribution of cases relative to economic contribution

- Rate of change of cases
- Evidence of virus seasonality
- Test count per million people
- % of cases treated at home
- % utilization of hospital beds (overstretched system recovers slower)
- Availability of therapies
- Case fatality ratio vs. other countries

- Effective integration of public health measures with economic activity (e.g. rapid testing as pre-requisite for flying)
- Potential for different disease characteristics over time (e.g. mutation, reinfection)

Economic

- Cuts in spending on durable goods (e.g., cars, appliances)
- Extent of behavior shift (e.g., restaurant spend, gym activity)
- Extent of travel reduction (% flight cancellations, travel bans)

- Late payments/credit defaults
- Stock market & volatility indexes
- Purchasing managers index
- Initial claims for unemployment

- Bounce-back in economic activity in countries that were exposed early in pandemic
- Early private and public sector actions during the pandemic to ensure economic restart

Contents

The phase of Return is in sight

But rapid Return comes with higher risk, and a new reality

Weeks of shelter-in-place provisions globally have caused a deep economic challenge, straining governments' ability to save lives while safeguarding livelihoods

Governments are now considering options and timing for a gradual re-opening, with the US being the most recent announcement.

Many of these re-openings are occurring in very different environments. Some geographies are considering opening after they have plateaued, while others are seeking to return after additional verifications are complete (e.g., hospital capacity, testing capacity, other)

These variations are driving concerns within businesses around risks associated with a return-to-work, and whether these risks can be adequately managed

Additionally, COVID-19 has changed many realities for businesses. Remote first may be a goal achievable in months, consumers have structurally adopted digital channels, and the prospect of the largest economic recession since the second World War could quickly challenge the business

Phases of Return

Epidemiological uncertainty could contribute to lack of pre COVID-19 demand

Phase	Active Growth	Post-Plateau	Pre-Vaccine/ Immunity	Post-Vaccine/ Immunity
Public health risk[1]				
Econ. demand (discretionary)	Decline	Uncertain	Initial recovery	High growth

- Case plateau

- Cases low vs. peak
- Widespread testing
- Contact tracing
- High hospital availability

- Vaccine available OR
- Herd immunity reached

Return for different regions will vary across these phases, driving differences in ingoing risks for businesses

1. Chances of a resurgence remain elevated until the post-Vaccine phase

Questions that businesses are asking now

What

can post plateau look like?

My near-term demand may move to digital. How do I pivot quickly?

I am facing a deep financial trough. How do I preserve the business?

Who

should return & in what way?

Many in my workforce like working from home, and productivity is up. Why come back?

When

should return occur?

I know I can bring the business back, but how do I know when it's safe to do so, and how might the business be affected if something goes wrong?

How

should return occur?

What would high-restriction operations look like in reality?

What measures have other companies taken that have worked (versus measures that cause disruption without proportionate benefit)?

AACT now: the four dimensions of Return planning

Accelerate
structural workforce shifts by segment

Adapt
the business to a post-plateau world

Craft
stage-based return plans that protect workforce and customers

Time
the transition given the local environment

AACT: Four dimensions of effective Return planning

Current as of April 24, 2020

1 **Adapt** the business to a post-plateau world	Little fundamental change	Structural shift to digital	Deep recessionary impact	Multi-front disruption
2 **Accelerate** structural workforce shifts by segment	Onsite critical	Onsite flexible	Virtual	Other
3 **Craft** operational plans for workforce safety	High Restriction Ops	Partial Restriction Ops	Next Normal Ops	
4 **Time** the transition given local environment	Shortly after S-i-P lifts	Post low risk verification	Post vaccine availability	

Current as of April 24, 2020

Adapt

the business to a post-plateau restart

COVID-19 will leave business leaders, workers and customers uncertain about how the world will step back into normalcy in a scenario where the number of cases is not known accurately, where people across age-groups appear to be getting more severe forms of the virus, and where virus-free environments cannot reliably be created

Vaccines that can lay many of these fears to rest are unlikely to be available before 2021

Few businesses that seek to re-open in this world, especially ones that rely on discretionary spend, can simply carry on as they did in the pre-COVID normal

Customers may defer spending, either because they are conserving finances in a recessionary environment, or because they are worried about health

Business therefore need to refresh their assumptions about what demand may look like, and define ways to boost it. In many cases, they may amount to a near-term reshaping of the business (e.g., shifting consumer interfaces to digital)

Current as of April 21, 2020

Outlook – to Adapt successfully, consider a Plan Ahead team

Nerve Center focus shift

Present focus

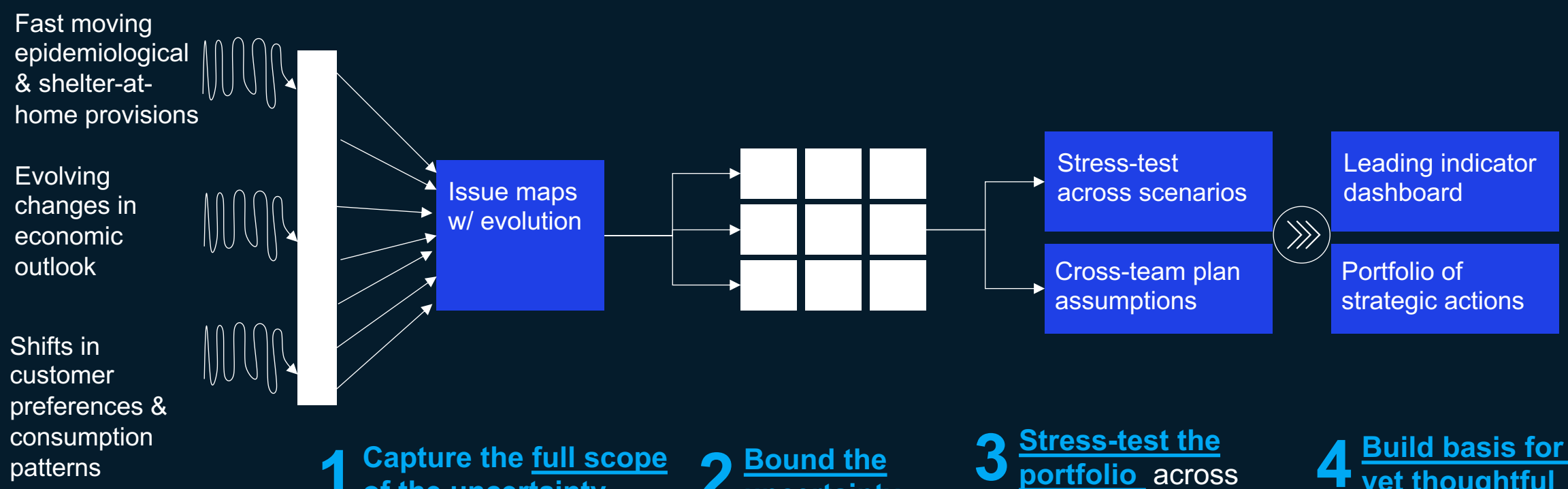
- Employee protection
- Customer management
- Supply chain
- Cash

Plan Ahead team[1]

- Economic scenario in post-plateau Return environment
- Structural business shifts needed in near-term to drive demand or protect workforce
- Detailed plan for Return
- New strategy for the 'next normal' - Reimagination & Reform

1. https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/getting-ahead-of-the-next-stage-of-the-coronavirus-crisis

Adapting the business to a post-plateau restart phase



1 **Capture the full scope of the uncertainty** through issue maps that emphasize future evolution, not just facts about the past

2 **Bound the uncertainty** through tangible scenarios that include 2nd order effects

3 **Stress-test the portfolio** across multiple scenarios & ensure delivery teams have appropriate planning assumptions

4 **Build basis for rapid yet thoughtful actions** by building a leading indicator dashboard & portfolio of strategic actions

Accelerate

structural workforce shifts by segment

COVID-19 related shutdowns have meant a new experience of working from home for many in the workforce who are able to, and an updated working environment for those in the workforce who are on-site critical.

Businesses have experienced that many people who are experiencing work from home are demonstrating higher productivity

Many CHROs and other executives, therefore, are asking the question whether it would make sense to continue current remote work arrangements, and whether such arrangements are compatible with the need to maintain a sense of belonging to the organization.

Another alternative being explored is whether a move to a more hybrid team model where remote work is mixed with in-person interactions could provide the most optimal balance of productivity, morale, and connectivity

Finally, companies are also exploring what the impact of a changed economic scenario means for the workforce, and the right way to provide alternative opportunities or reskilling while preserving the company's future

Who to consider transitioning: Four categories of workforce for the immediate post-shelter-at-home environment

VIRTUAL/ REMOTE
Maintain remote work, while increasing flexibility

- Focus on remote support, productivity, connectivity, health
- Shift contracts where needed & possible towards flexible arrangements

ONSITE FLEXIBLE
Define plan for staged return based on local context

- Identify milestones for starting a safe return to work process (e.g., local public health system readiness, government return to work guidelines)
- Develop detailed plan for return to work based on key considerations: virus spread, guidance from public health authorities, workforce readiness to return to work, legal liability

ONSITE CRITICAL
Return to work with increased work flexibility

- Define plan for return to work, including staggered shifts and slower ramp-ups
- Re-train to move to more flexible skill sets
- Shift contracts where needed & towards flexible arrangements

OTHER
Transparency, reskilling, preserve company's future

- Provide transparency into reality of situation facing company
- Re-train or seek opportunities to shift focus
- Other actions to preserve future of company

COVID risk factors need to be considered during segmentation

Detail follows

Level of risk	Segmentation of roles	COVID risk factors	Adjustments required to mitigate Covid-19 risk factors (*not exhaustive*)
High	**In-person floating:** Physical interaction with more than one team or stakeholder group **E.g.,** Plant supervisor, medical practitioner, general manager	May spread infection, could impact multiple points in system	Adapt ways of working to minimize the number of human interactions required (e.g., certain stakeholder groups to only engage virtually) Eliminate communal spaces (e.g., break or supply rooms) to reduce cross-contamination
	In-person collaborative: Physical work, completed within / with close proximity to one stakeholder group **E.g.,** Pilot, assembly-line worker	May infect team-members, likely will not spread infection through system	Structure teams into discrete "pods"
	In-person isolated: Physical work, completed in isolation **E.g.,** Artisan, switcher, landscaper	May become infected in transit, may infect external parties	Mandate the use of PPE Physically isolate team member in dedicated space (e.g., no desk-sharing)
Low	**Remote:** Work is not reliant on a physical space and may be effectively completed remotely **E.g.,** Call center operator, computer programmer	Minimal	Adhere to CDC and applicable public health guidelines, together with workforce-wide protocols Delay return to in-person work to maximize safety

Risk factors aggregate across levels of risk

Roles with the highest level of risk should only restart where critical to deliver near term back-to-work priorities

Certain workforce protection protocols should apply workforce-wide until Covid-19 risk factors are largely eliminated (per CDC guidance), e.g., hygiene practices, sanitization, checks

Understanding the availability and limitations of your workforce is the next step in determining your approach

Current as of April 24, 2020

Workforce segment | Actions | Approach for deployment [2]

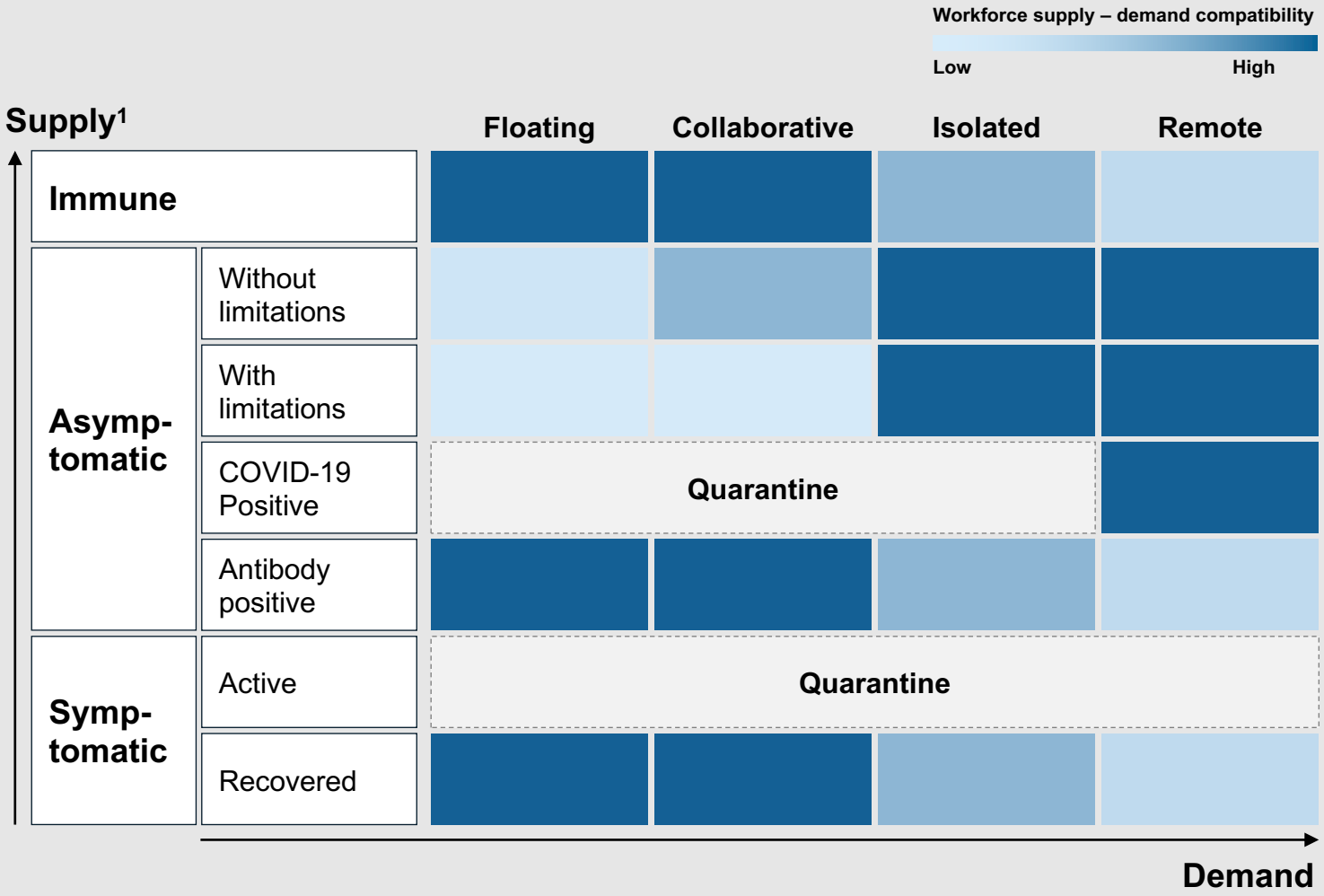
Workforce segment	Actions				Approach for deployment [2]
Immune Confirmed immune via antibody testing or recovered post positive COVID-19 testing	Determine the most critical role(s) that employee is currently qualified for / can be quickly trained to fill				Prioritize deployment to higher risk in-person roles
Asymptomatic Have not had and are not currently exhibiting symptoms of COVID-19	If possible, test employee for virus and/or antibodies[1]	Employee not tested / test is pending / test is negative	Understand any limitations (e.g., high-risk dependents, personal risk factors)	Without limitations	Prioritize deployment to isolated or remote roles Deploy with caution to collaborative roles Avoid deployment to floating roles
				With limitations	Deploy only to in-person isolated or remote roles
		COVID-19 positive	Quarantine employee and proximate contacts per CDC guidelines		Deploy in remote roles ONLY or utilize PPE until virus cleared; then consider immune
		Antibody positive			Consider immune and deploy accordingly
Symptomatic or exposed Employee is or is caring for someone who is exhibiting symptoms of COVID 19	Quarantine employee and proximate contacts per CDC guidelines				Follow CDC guidelines to confirm recovery and ability to return to work. Once recovered, employee can be considered immune and deployed accordingly
	Monitor recovery of employee				
	Provide testing to all employees who made contact with infected individual				

Assess individual capacity and willingness

1. Availability and accuracy of tests continue to evolve, so testing may or may not be possible, additionally employees may choose not to be tested or not to disclose their results, in these cases employees should be treated as a negative test result to minimize potential risk 2.Due to the evolving nature of COVID 19 and the availability of testing and supplies recommended approaches are subject to change and should be checked against the latest CDC guidelines

Source: https://www.cdc.gov/coronavirus/2019-ncov/hcp/return-to-work.html; https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html; https://www.osha.gov/Publications/OSHA3990.pdf

Demand segments and supply segments can then be matched based on risk compatibility



1. Post assessment of individual capacity and willingness to join workforce

Isolation can be a persistent challenge in a remote environment

Personality	Certain personality traits (e.g., conscientiousness, agreeableness) can contribute to positive outcomes in a remote work environment
Time to complete	Any complex task that requires > 1 hour to complete causes a sense of isolation
Physical distance	The further an employee is physically from the “center of gravity”, the more likely they are to experience isolation
Clarity of communicating	Managers that are good at communicating clear expectations have teams that are less likely to experience isolation
Expressiveness	Very few workers (~25%) share how they feel regarding isolation
Employee expectations	Employees hired directly into a remote work environment are more mentally prepared than employees whose work arrangements shift after the fact

Current as of April 24, 2020

Craft

stage-based return plans that protect workforce and customers

Federal governments around the world are starting to give guidance around what a return to work may look like as shelter-at-home provisions start to get lifted, with more specific guidance also coming from regulators as well as local governments

These operational plans are likely to vary significantly by region, as differences in local COVID-19 situation, pre-existing practices (e.g., use of public transportation), healthcare capacity, and other factors impact these plans

In addition to complying with such provisions, companies are trying to craft operating best practices around return to work that are informed by experiences of companies that are operating in similar environments around the world

How to consider transition – Ensuring protection across workforce journey

Pre-entry

- Pre-return comms and screening
- Public, employer-sponsored and individual transport
- Entrance controls

At work

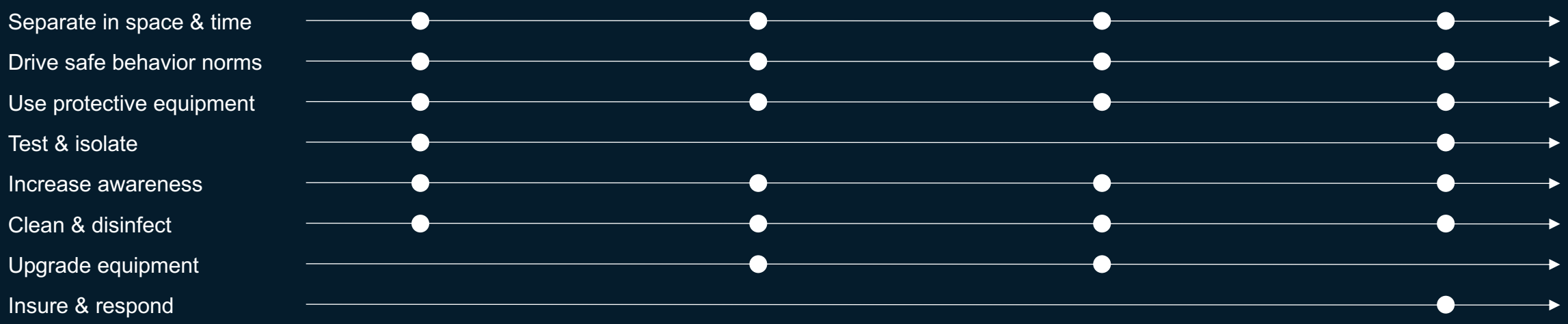
- Manufacturing environment
- Office environment
- Retail environment
- Field environment

Common spaces

- Meeting rooms
- Break rooms
- Hallways
- Restrooms
- Other

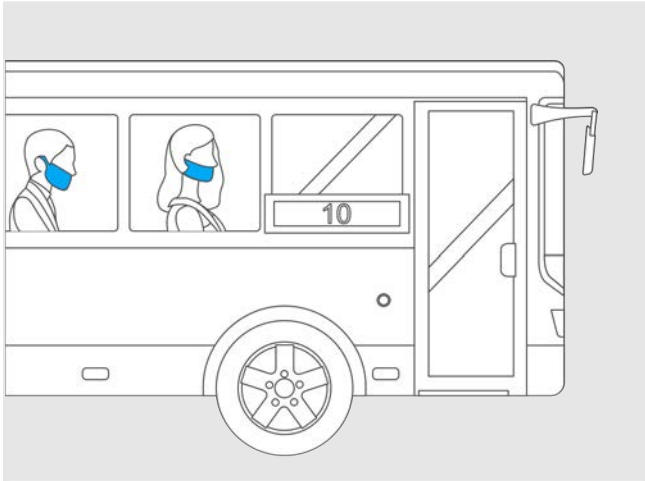
Post-infection

- Isolation
- Tracing & isolation
- Facility response
- Insurance
- Liability

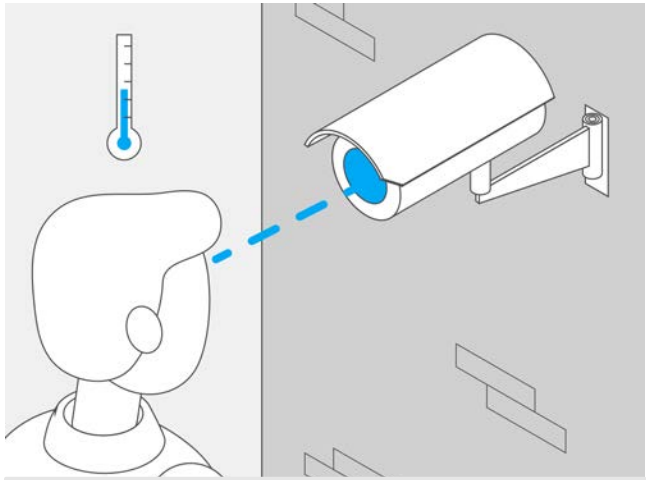


Sample journey: Manufacturing environment

Travel to work and pre-entry



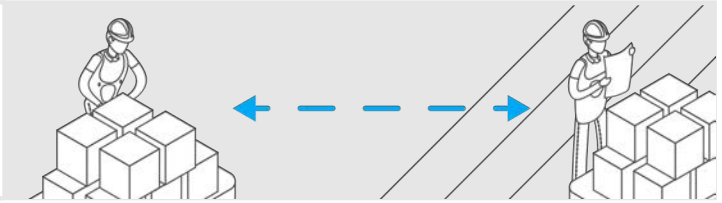
Use of masks required during employee commutes

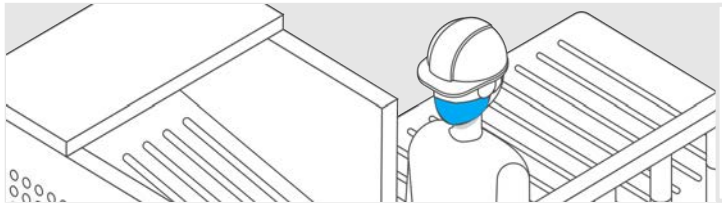


Temperature checks

At Work

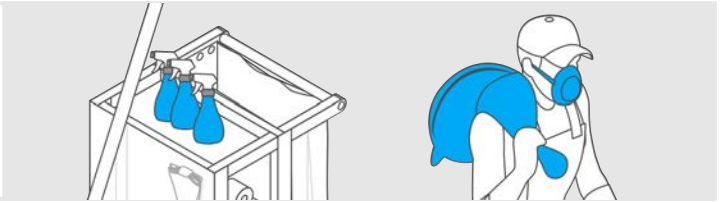
Modularized spaces, with limited interaction across spaces

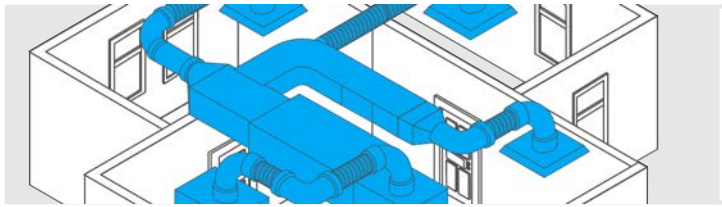




Masks and other appropriate PPE required at all times

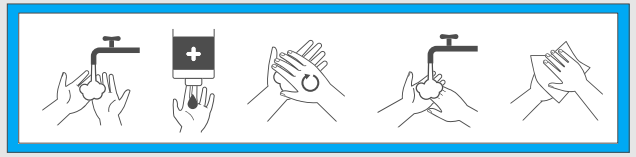
High-frequency cleaning of high-touch surfaces and spaces



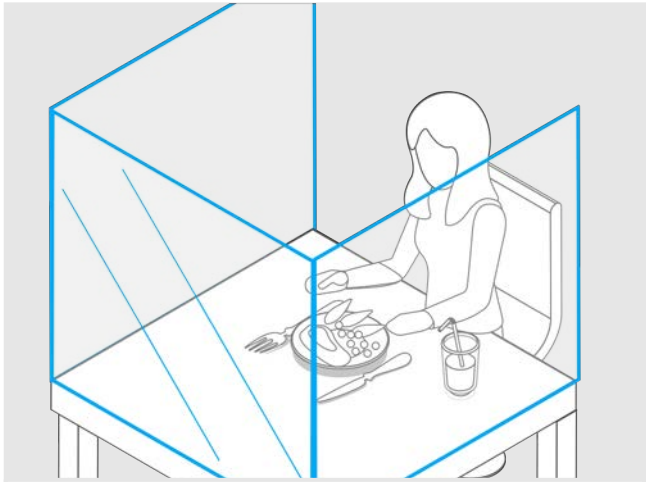


Improved air filtration/ ventilation

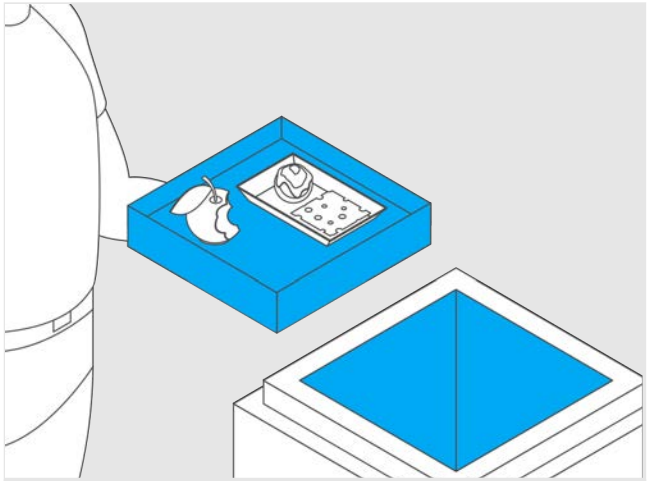
Clear posters on safety guidance and sickness protocols



Common space use



Separated lunch seating with dividers on dining tables



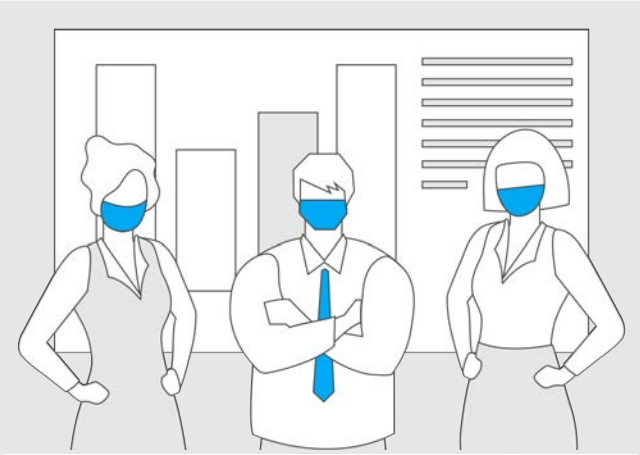
Use of non-reusable dishes at cafeterias

Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client

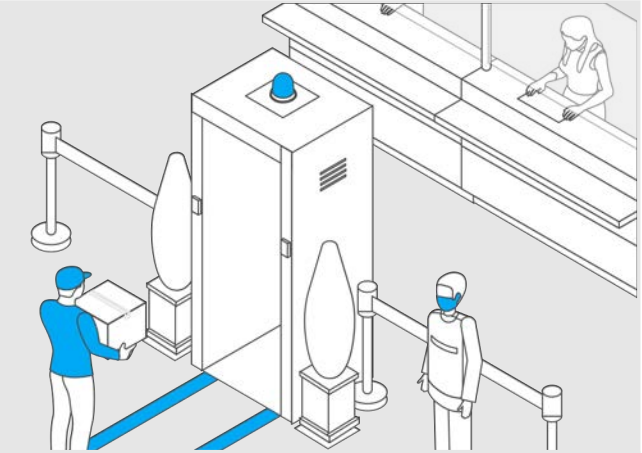
Source: Expert interviews, press search, client surveys

Sample journey: Office environment

Travel to work and pre-entry



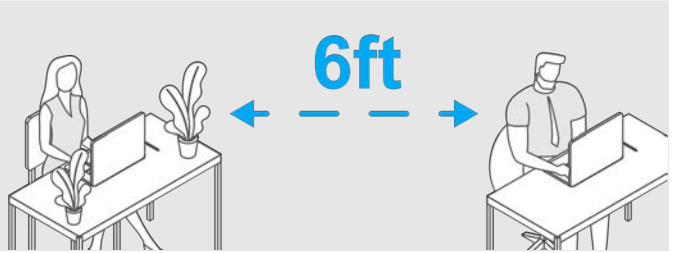
Masks required and provided for employees

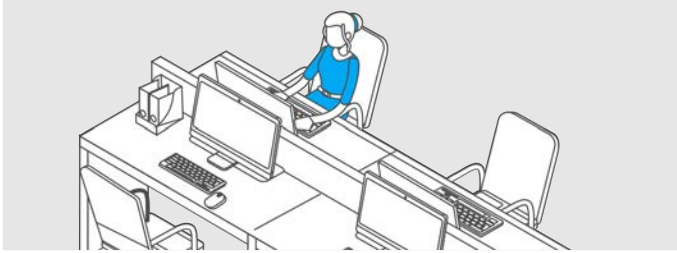


Limited entrance for non-employees

At Work

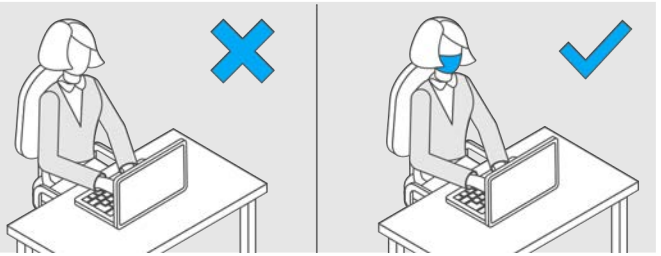
Reorganized seating (6 feet apart)

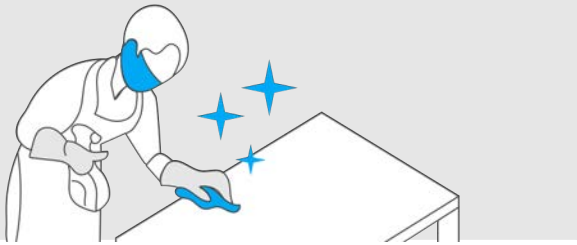




Headcount limited below fire code limit (e.g. limiting number of entries by shifts)

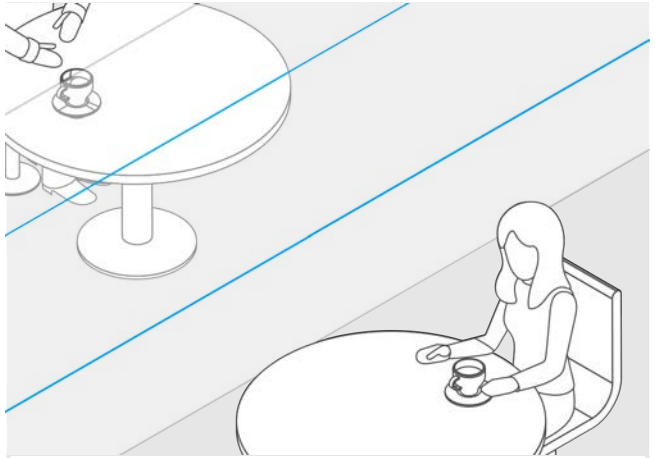
Masks required at all times (Except when working individually more than 6 feet apart)





Increased frequency of cleaning of high-touch surfaces

Common space use



Separated lunch seating

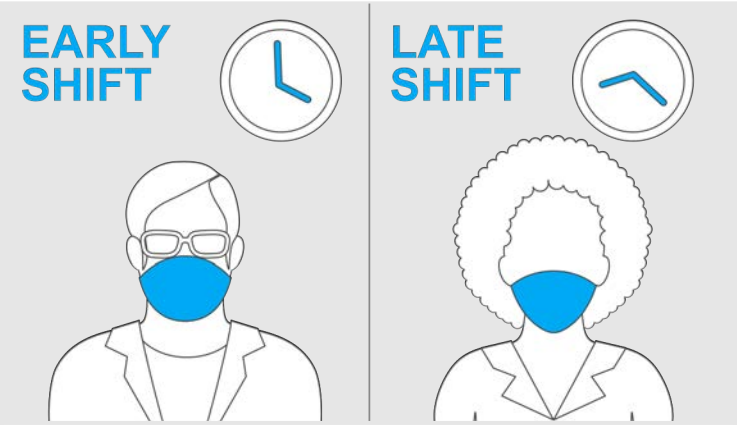
Increased frequency cleaning with visibly monitored cleaning schedules

Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client

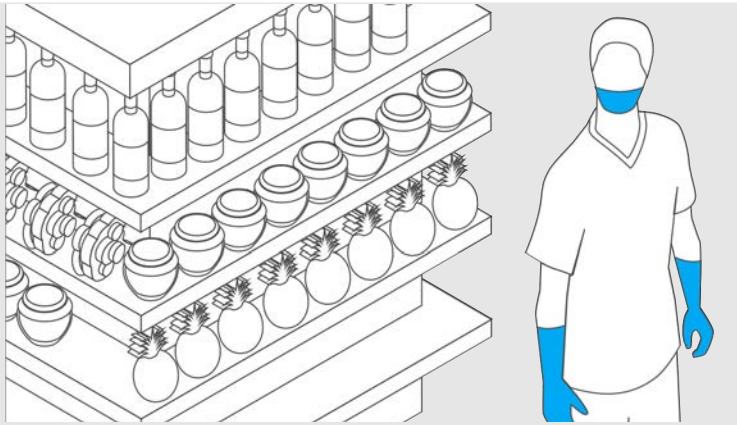
Source: Expert interviews, press search, client surveys

Sample journey: Retail environment

Travel to work and pre-entry



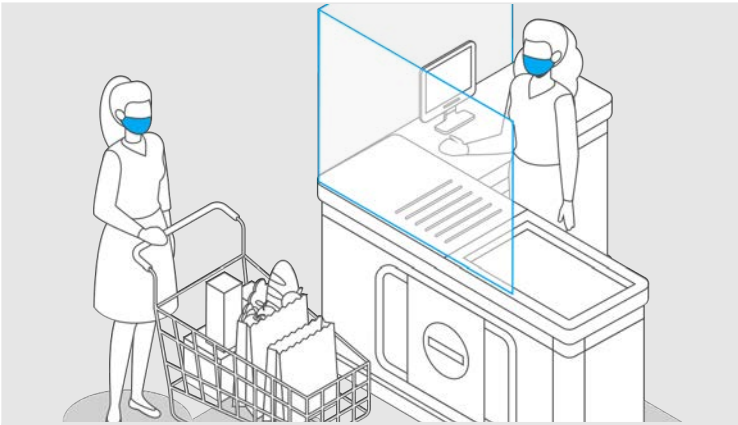
Staggered entry and work shifts



Upgraded PPE encouraged, required and/or provided

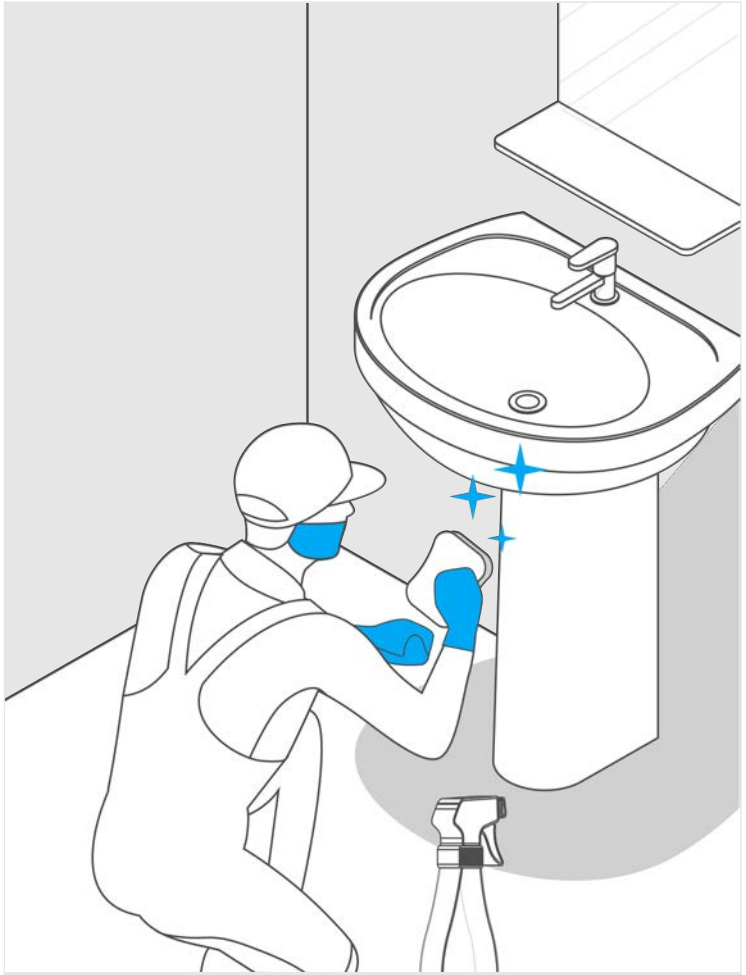
At Work

Guidance on no-questions-asked sick leave



Plexiglass shields installed at cash registers

Common space use



Increased cleaning of high-touch surfaces and spaces (e.g., Bathrooms)

Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client

Source: Expert interviews, press search, client surveys

Example: Use prominent displays highlighting new processes and policies

Informational materials in displays and advertising

Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client

Source: Expert interviews, press search, client surveys

Pre-entry | **At Work** | **Common areas** | Post-infection

Increase awareness

Office | Manufacturing | Retail

Description of potential intervention

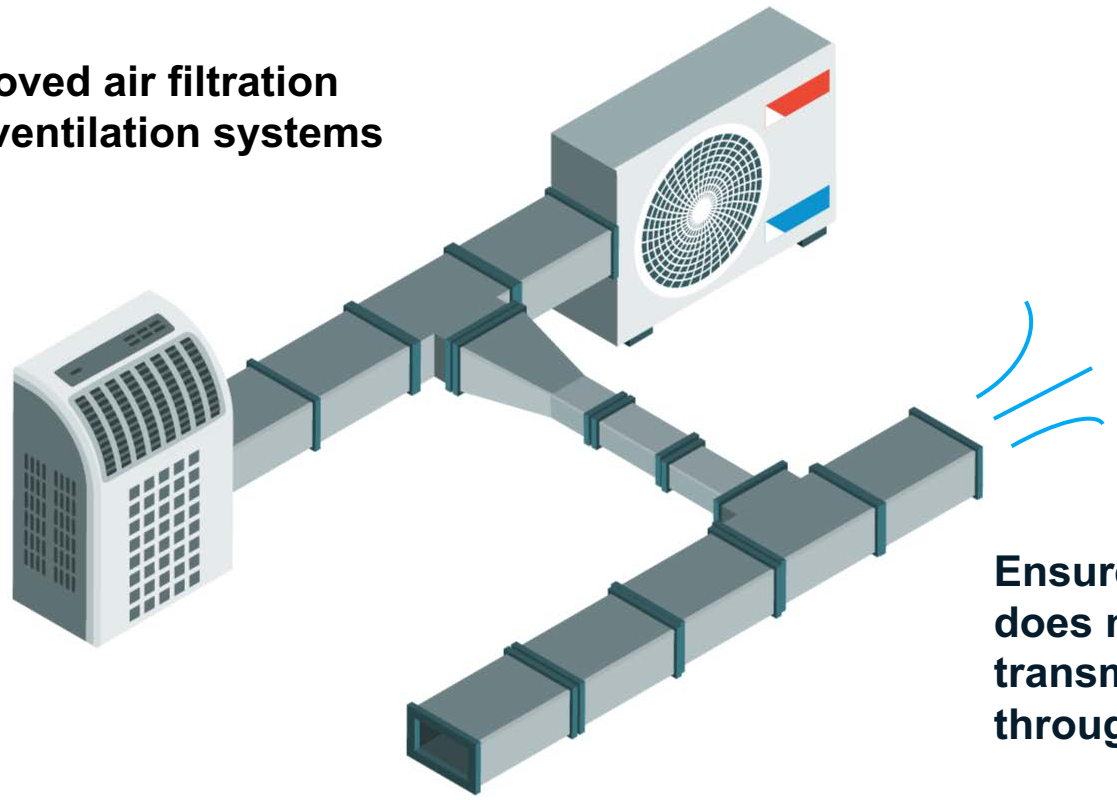
Display large format posters or digital displays providing prominent, frequent reminders to employees of the new workplace situation, protocols and (crucially) the rationale behind it

Leverage media and advertising to create awareness among employees and customers

Where this has been done

Several multinational retail brands have used advertising to promote social distancing

Example: Improve air filtration / ventilation to remove aerial antigens



Does not reflect McKinsey guidance customized to individual client needs - should be vetted against applicable legal and business requirements before application to a specific client

Source: Expert interviews, press search, client surveys

Pre-entry | **At Work** | **Common areas** | Post-infection

Upgrade equipment

Office | Manufacturing | Retail

Description of potential intervention

Install high-efficiency air filters and increase ventilation rates in the work environment

Avoid using central air conditioning and heating systems where possible

Where this has been done

Multinational automotive manufacturer in S. Korea heightened ventilation requirements beyond government guidelines

Current as of April 24, 2020

Most businesses will be considering a stage-based return

Many governments, including the US, have drafted a template for what this could look like

Example staging based on US[1] plan

	Stage 1	Stage 2	Stage 3
	High Restriction Operations	Partial Restriction Operations	Next Normal Operations
Vulnerable populations	Special accommodation	Special accommodation	No restrictions
Virtual or site flexible	Encourage telework, but begin return to work	Encourage telework, but scale up return to work	
Site critical workforce	Close common areas; follow strict social distancing	Close common areas; follow moderate social distancing	
Travel	Minimize non-essential	Resume non-essential	

1. Based on the White House, Guidelines for Opening Up America Again approach

Time

the transition given the local environment

As different regions enter the return phase, there will be significant differences between them. Some of them will enter the return phase with high levels of hospital capacity (ICU, Medical, Surgical), widespread testing and contact tracing sophistication, and with case count that is far below the peak. Others will enter the phase with cases plateauing, but with continued uncertainty on the extent of transmission in the local environment.

Given such uncertainties, businesses are still evaluating the right timing for a return. Specifically, they will need to balance considerations on extent of impact on the business, pace of demand rebound, workforce safety, customer safety, insurance coverage, legal liability and other considerations.

When to consider transition

For major markets

Shelter at home provisions are removed

+

Local public health situation recovers

+

Demand within region is starting to return (in case the region is a market)

For remote-possible workforce locations

← Transition can occur at self-determined timeline →

For on-site critical workforce locations

Shelter at home provisions are removed

+

Local public health situation recovers

Leading indicators are an important tool to ensure timing around transition is picked correctly

When to transition: An effective leading indicator dashboard can help determine timing of recovery

ILLUSTRATIVE DASHBOARD

Indicates progress toward recovery

US Region: All

State: Multiple selections

Data Not Avaliable

		Milestones	Arizona	California	Florida	Nebraska	New Hampshire	New York
Shelter-in-place		Shelter-in-place orders lifted						
Return to work readiness	Health system capacity	ICU beds per 10,000 adults						
		Hospital beds per 10,000 adults						
	Case progression	Rate of new cases						
		% population that is currently sick						
	Testing and tracing	% tests that return positive results						
		Mortality rate						
		% population immune (via vaccine, recovery, or tested immunity)						
Economic Recovery readiness	Demand return	Traffic as % of 2019 level						
	Corporate confidence	Unemployment rate						
	Consumer confidence	% of rental payments on-time						
		Restaurant spend increasing for two weeks						
		Retail foot-traffic as % of pre-crisis level						

Approach for effective return planning

Adapt
the business

- Use issue maps & scenarios to define the major strategic shifts that could occur in the post-plateau & pre-vaccine periods. Ensure that this includes any major market shifts (e.g., consumer behavior changes) that could reveal themselves
- Stress-test the financials to assess extent of impact on P&L, balance sheet and cash flow
- Define portfolio of strategic actions with appropriate trigger points

Accelerate
structural workforce shifts

- Segment employees into multiple categories based on whether they can remain remote, whether they may need special accommodation, and other factors
- Examine benefits and costs of each structural change that may be needed (e.g., raid shift to virtual)
- Survey each part of the workforce to use as input to planning

Craft
stage-based return plan

- Define what each stage of the return will look like for each operating region and employee segment (from high restriction to next normal operations)
- Define interventions and performance management to improve safety and reduce transmission potential

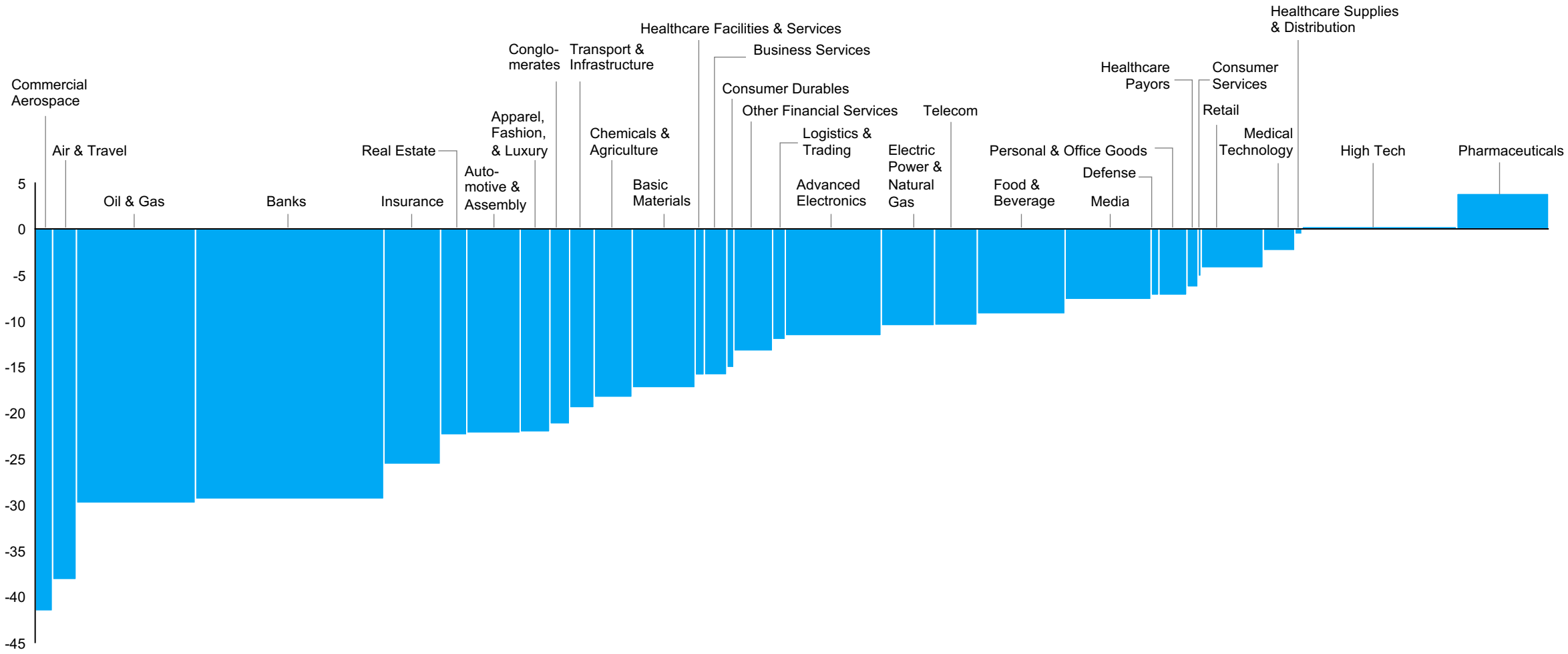
Time
the transition

- Define milestones and leading indicators for the restarting return
- Define key stages of operations, with the milestones and external conditions that will separate each

Contents

Market capitalization has declined across sectors, with significant variation to the extent of the decline

Weighted average year-to-date local currency shareholder returns by industry in percent[1]. Width of bars is starting market cap in $



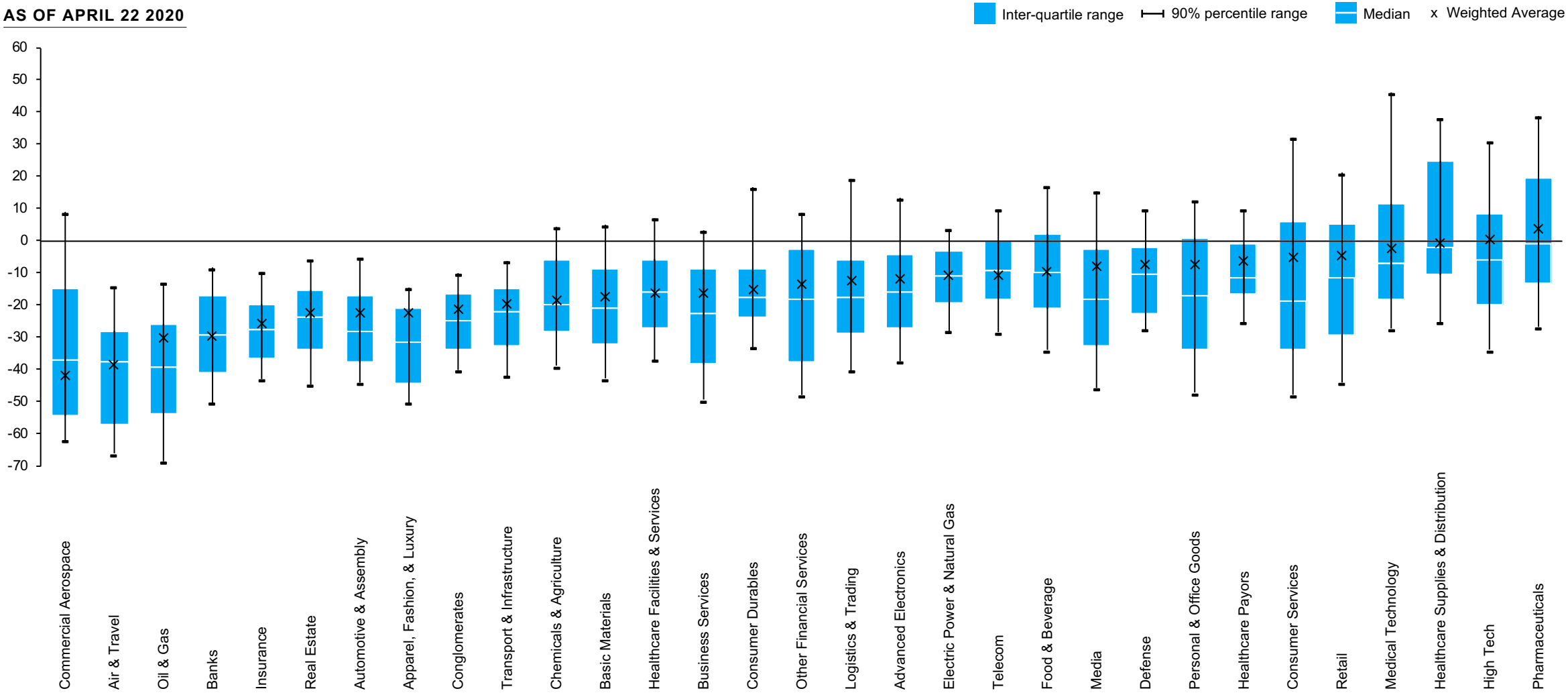
1. Data set includes global top 5000 companies by market cap in 2019, excluding some subsidiaries, holding companies and companies who have delisted since

Source: Corporate Performance Analytics, S&CF Insights, S&P

And there is significant variance within each industry

Distribution of year-to-date total shareholder returns by industry percent[1]

AS OF APRIL 22 2020



1. Data set includes global top 5000 companies by market cap in 2019, excluding some subsidiaries, holding companies and companies who have delisted since

Source: Corporate Performance Analytics, S&CF Insights, S&P

Preliminary views of some of the hardest hit sectors

Based on the partially effective scenario

	Commercial Aerospace	Air & Travel	Oil & Gas	Insurance Carriers	Automotive
Avg. stock price change[1]	-42%	-38%	-30%	-26%	-22%
Industry specific examples	Preexisting industry conditions, challenges with airlines' balance sheet resilience, and high fixed costs cause **near-term cash flow issues and long-term growth uncertainty**. It may take years to recover from production and supply chain stoppages, due to critical vendors located in areas impacted by the virus and liquidity challenges especially amongst Tier 3 suppliers. Long order backlogs mitigate some concerns, especially on narrowbody aircraft, though widebody demand could be structurally impacted in the near-term	**Deep, immediate demand shock 5-6x greater than Sept 11**; ~70-80% near-term demand erosion due to int'l travel bans & quarantines now prevalent in 130+ nations N. Hemisphere summer travel peak season deeply impacted since pandemic fears coincide with peak booking period US gov't is providing both grants and loans to the travel industry as part of a broader package; **analysts estimate grants will last major carriers ~2-6 months** **Domestic travel is likely to recover faster** than Int'l travel. **Leisure and VFR customers may exhibit a W shaped recovery pattern** post crisis. Structural changes to business travel likely	**Oil price decline** driven by both short-term demand impact and supply overhang from OPEC+ decision to increase production in February-April **Oversupply expected to remain in the market even after demand recovery**, and post 2020, unless OPEC+ implements the latest output cut deal in full and demand recovers quicker than expected **Erosion of gas demand driven by reduced power and industrial activity**, combined with **historically high storage levels**, puts downward pressure on overall gas price levels. **Cash cost gas price economics expected in the next 1-2 years**, with potential volatility in the 2023-2024 horizon	**US insurers have been strongly affected**, especially reinsurers and life & health insurers **Reduced interest rates** and investment performance **impacting returns – esp. in Life and for longer-tail lines** **Disruptions expected in new business and underwriting processes** due to dependence on paper applications and medical underwriting, **as well as in distribution of Life products,** traditional done face to face **Lock-downs** around the world **forced insurers to extend grace period for renewing the policies** from 15 to 30+ days that will lead to drop in premiums in 2020	**Existing vulnerabilities** (e.g., trade tensions, declining sales) **amplified by acute decline in global demand** Mar. 26 Survey of US auto consumers indicates 70% of car buyers are deferring by ~6 mo. or no longer intending to purchase; **~15% of Chinese light vehicle volume loss in 2020** under current recovery trend, and **~25-30% in EU and US markets** Despite ongoing Chinese economic restart, where most Chinese factories open again with production ramping up, there is **continued supply chain and production disruption** as majority of EU and US OEMs have temporarily closed plants until mid-to-late April

1. In last 30 days for selected sector indices

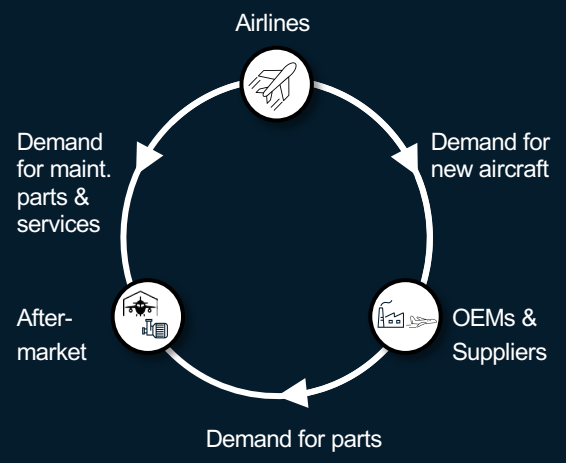
Source: IHS Market, McKinsey Global Institute, Subject matter experts, press reports, Corporate Performance Analytics, S&CF Insights, S&P Capital IQ

Commercial Aerospace

Gross orders | Cancelled orders | Wide body aircraft | Narrow body aircraft | Years: Wide body | Years: Narrow body

Current Impact

The underlying drivers for commercial aircraft equipment and services is driven by airlines; Airlines have significantly reduced capacity and grounded fleets

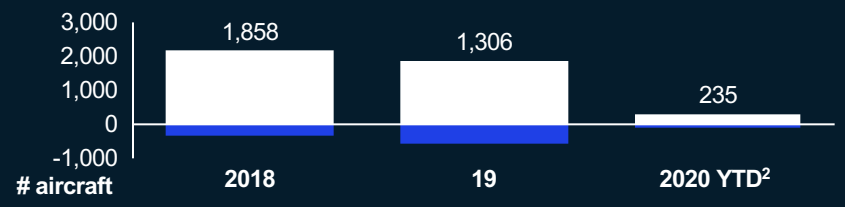


1. Narrow body orders declined 21% and wide body orders declined 18% from 2017 – 19. Narrow body cancellations grew 4% and wide body cancellations grew 5% during the same period
2. Boeing reported 18 gross wide body orders in Feb. and 43 737 MAX (narrow body) cancellations. Airbus reported 287 total gross orders and 13 cancellations as of 3/15
3. Assumes 2020 YTD backlog = '19 backlog – '20 cancellations YTD (56 cancellations YTD from Boeing and Airbus)
4. 2020 backlog years figures assume 2020 deliveries remain at 2019 levels
5. Calculates backlog years assuming no dip in 2019 and 2020 deliveries (deliveries remain at 2018 levels)
6. Actual backlog is 14.6 years (backlog shown in chart assumes no dip to deliveries in 2019)

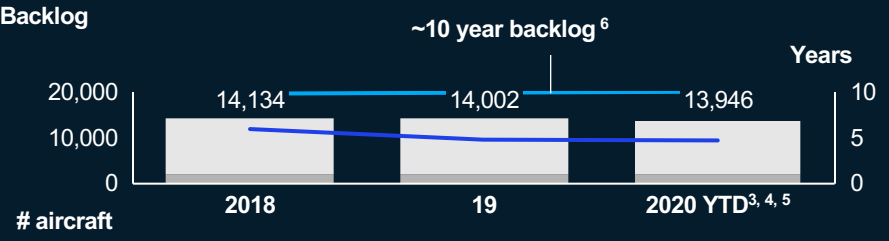
Medium-term expectations (through 2020)

19-20YTD commercial aircraft orders, backlog, backlog years & deliveries

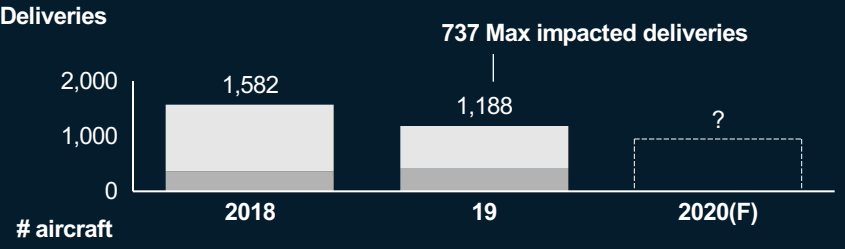
Net orders[1]



Backlog



Deliveries



Early thoughts on evolution post-COVID

Intrinsic demand for aircraft likely disappears in 2020

Airline balance sheet concerns will lead to restructuring of order books; cash conservation efforts at airlines constrain capital set aside for delivery payments

Low fuel price expectations for the short-term could extend life of older assets, but not into major heavy maintenance check cycles

Government intervention may mitigate near-term risk of employee furloughs and supply chain insolvencies

Source: Cirium

Air & Travel

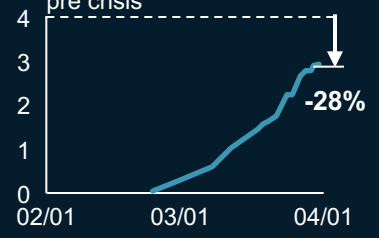
Current Impact

There are **promising signs of a recovery in China**, as the government has opened up a majority of major tourist attractions. Urban transit use returning to pre-crisis levels

Travellers below 30 are leading the recovery trend and hotel booking lead time is shortening

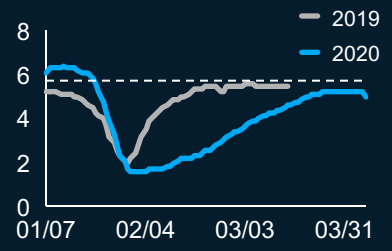
1. Tourist attractions

Total attractions opened pre crisis



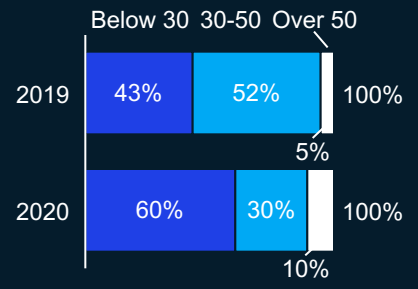
2. City transport

First tier cities commute index[1]



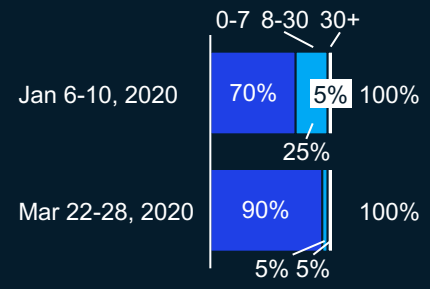
3. Holiday travel by age

Tomb Sweep Day, bookings by age, %



4. Hotel booking lead time

Days between booking date and arrival date, %

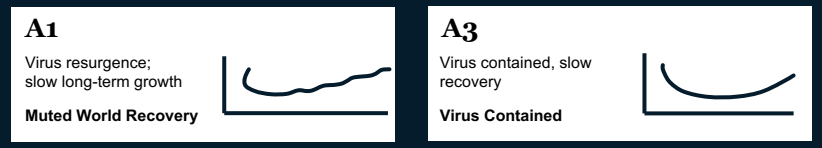


1. Commute index is calculated based on the population commute and total working population in that city. Shanghai used as representative of first tier cities in China, 7-day trailing average shown

Source: STR, Airlines Reporting Corporation, Baidu Map, Ctrip, ShijiGroup

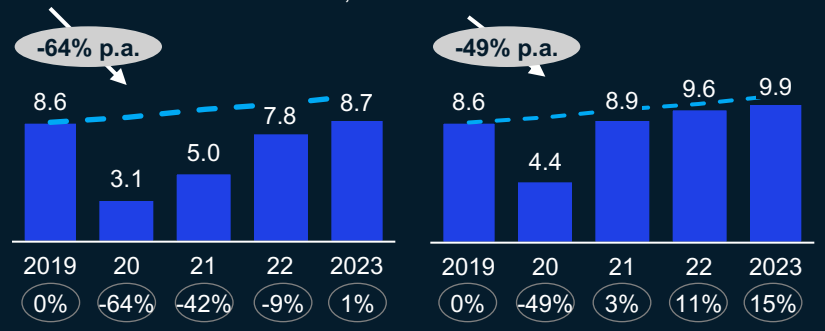
Medium-term expectations

49%-64% reduction in airline travel demand is estimated in the two most likely scenarios, **returning to pre-crisis status quo over a 1-3 year period**

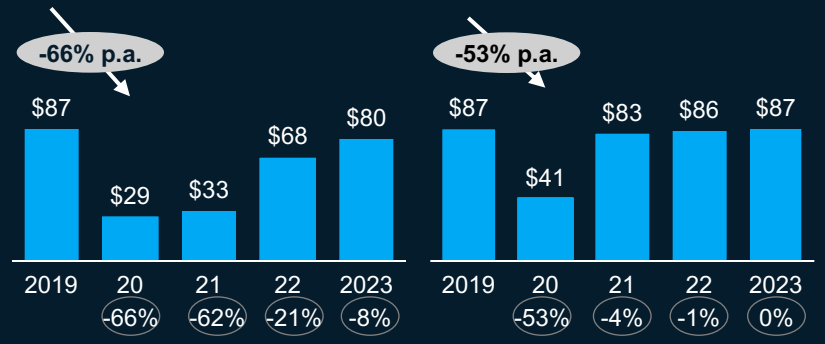


A3 scenario estimates recovery in 2021; more conservative A1 scenario estimates near-recovery by 2023

Airline travel demand estimates, Trillions RPKs



US Hotel RevPAR, nominal US dollars



Four efforts will drive return of demand

1. **Travel restrictions:** government issued shelter-in-place and travel bans at an unprecedented level
2. **Economic downturn:** significant downturn reducing business activity and discretionary consumer spending
3. **Emotional reluctance to travel:** emotional / fear based reaction to the virus, reducing willingness /excitement to travel for some time
4. **Structural changes to travel:** fundamental shifts tin travel behavior (e.g., video-conferencing)

Early thoughts on evolution post-COVID

Convergence of remote work technologies, biosecurity issues, and sustainability concerns could structurally shift demand curves downward

Government intervention though a stimulus package, to ensure there is not a liquidity crisis, may have implications for industry structure as increasingly involved interventions may impact strategy and operations (e.g. equity stakes, conditions for support)

Given low oil price expectations for the short-term, operating costs may be reduced but could also impact aircraft leading market

Oil & Gas

Current Impact

LNG

COVID-19 has affected regions that account for over 80% of global LNG demand; Chinese LNG imports (17% of global imports) fell by 7% yoy Jan-Mar 2020; buyers have triggered Force Majeure, cancelled cargoes and engage in contract renegotiations

Oil

Demand decline due to COVID-19 (6.7-13mbd for 2020 under A3 & A1 scenarios) and OPEC+ increase in production in February-April pushed oil prices under $30/ bbl.

Short term demand destruction (potential to be 20mbd for April) **started to result in storage constraints and regional prices to fall even sharper,** while US drilling activity has already been cut >25%.

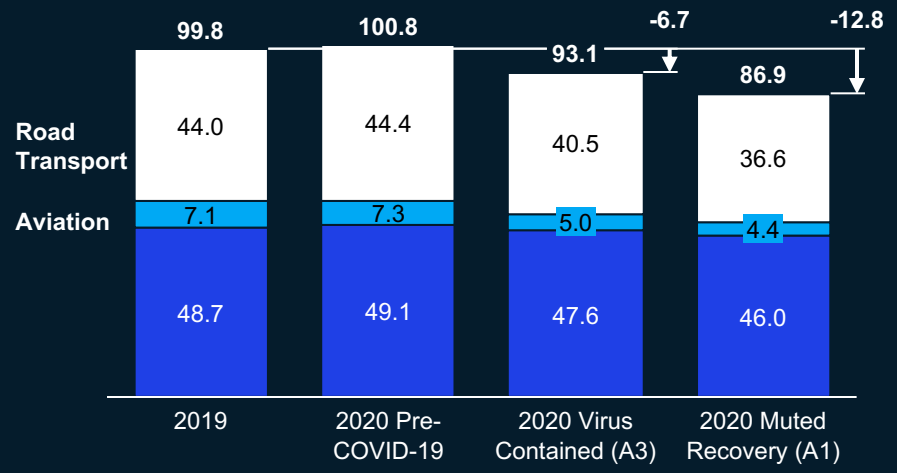
Medium-term expectations (through 2020)

Based on our global COVID-19 scenarios**, LNG demand will decline by 3-10% compared with pre-COVID-19 case** to 320-350mtpa (compared with 380mtpa supply capacity). Near-term LNG prices will be driven by cash cost economics (with gas prices in Europe and Asia at $1-2/mmbtu premium to US gas prices)

Global oil demand substantially reduced due to restrictions in road transport and **capacity declines in airlines** across the world through Q3 2020

Low short-term oil prices are expected to continue for most of 2020 even if OPEC+ implements the latest output deal in full. Production shut-ins could start to materialize in 2020 and help to balance the market as inventory storage levels approach maximum levels

Oil demand, Mbd

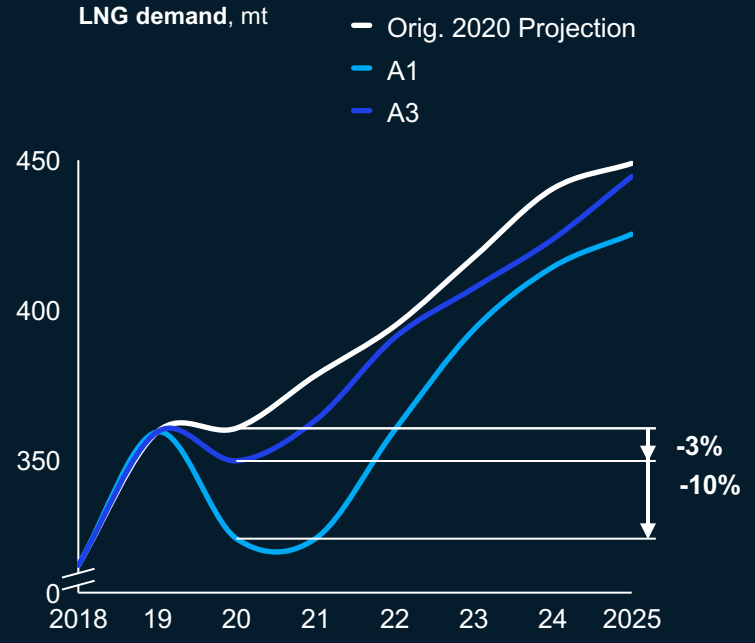


Early thoughts on evolution post-COVID

Following the sharp oversupply, volatility in the market in the 2023-2025 horizon with sporadic tightness, followed by a period of oversupply (given 80+mtpa LNG capacity taking FID in the last 2 years)

Oversupply expected to remain in the market even after demand recovery, which could keep a lid on prices through to 2022-23

LNG demand, mt



Source: Bloomberg, press search, McKinsey Energy Insights Global Energy Perspective, McKinsey analysis

McKinsey
& Company