



COVID-19 Outlook and Future of Workforce

YKKD Event

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Your team today



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Today's Agenda



Epidemic Progression and Potential Scenarios



Economic and Business Impact



Defining Future People Priorities

Summary snapshot

As of 02 Nov 2020

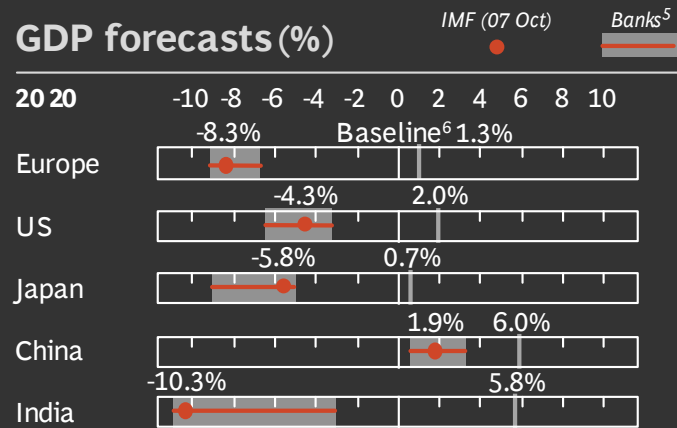
Epidemic Progression

Global epidemic snapshot

		46.8M	488K	11.9M	1.2M
		# of cases	# of daily cases ¹	# of active cases	# of fatalities
Month-on-month growth of new cases ²	Americas	1.7x	1.0x	0.8x	1.1x
	Europe	1.0x	1.7x	1.9x	2.8x
	Asia ³	1.7x	1.4x	1.3x	0.9x

Economic Impact

GDP forecasts (%)



Consumer Activity

Mobility

		Jul	Aug	Sep
Mobility ⁷ (month vs. Jan '20)	US	-19%	-19%	-20%
	Europe	-17%	-17%	-14%
	Japan	-13%	-14%	-11%
Domestic air travel tickets booking ⁸ (YoY)	US	-76%	-68%	-64%
	UK	-86%	-86%	-84%
	China	-27%	-8%	-1%

Sales

		Jul	Aug	Sep
Retail goods sales ⁹ (excl. auto & fuel, YoY)	US	9%	8%	10%
	UK	3%	4%	-
	China	-2%	-1%	2%
Passenger vehicle sales ¹⁰ (YoY)	US	-19%	-27%	-4%
	Europe	0%	-2%	-
	China	9%	6%	8%
Hotel occupancy ¹¹ (YoY)	US	-36%	-32%	-28%
	Europe	-66%	-45%	-52%
	China	-19%	-12%	-

Business Impact

Stock market performance

	Month end vs. 02 Jan '20	Jul	Aug	Sep
S&P500	0%	7%	3%	
FTSE100	-22%	-22%	-23%	
CHN SSE	7%	10%	4%	
Volatility Index (S&P500) ¹²	2.0x	2.1x	2.1x	

International trade

		Jul	Aug	Sep
Trade value ¹³ (YoY)	US	-11%	-11%	-8%
	UK	-19%	-16%	-8%
	China	3%	3%	4%

Industrial production

		Jul	Aug	Sep
Purchasing manager's index ¹⁴ (base = 50)	US	51	53	53
	EU	52	52	54
	China	51	51	51
Steel production (YoY) ¹⁵	-3%	0%	3%	

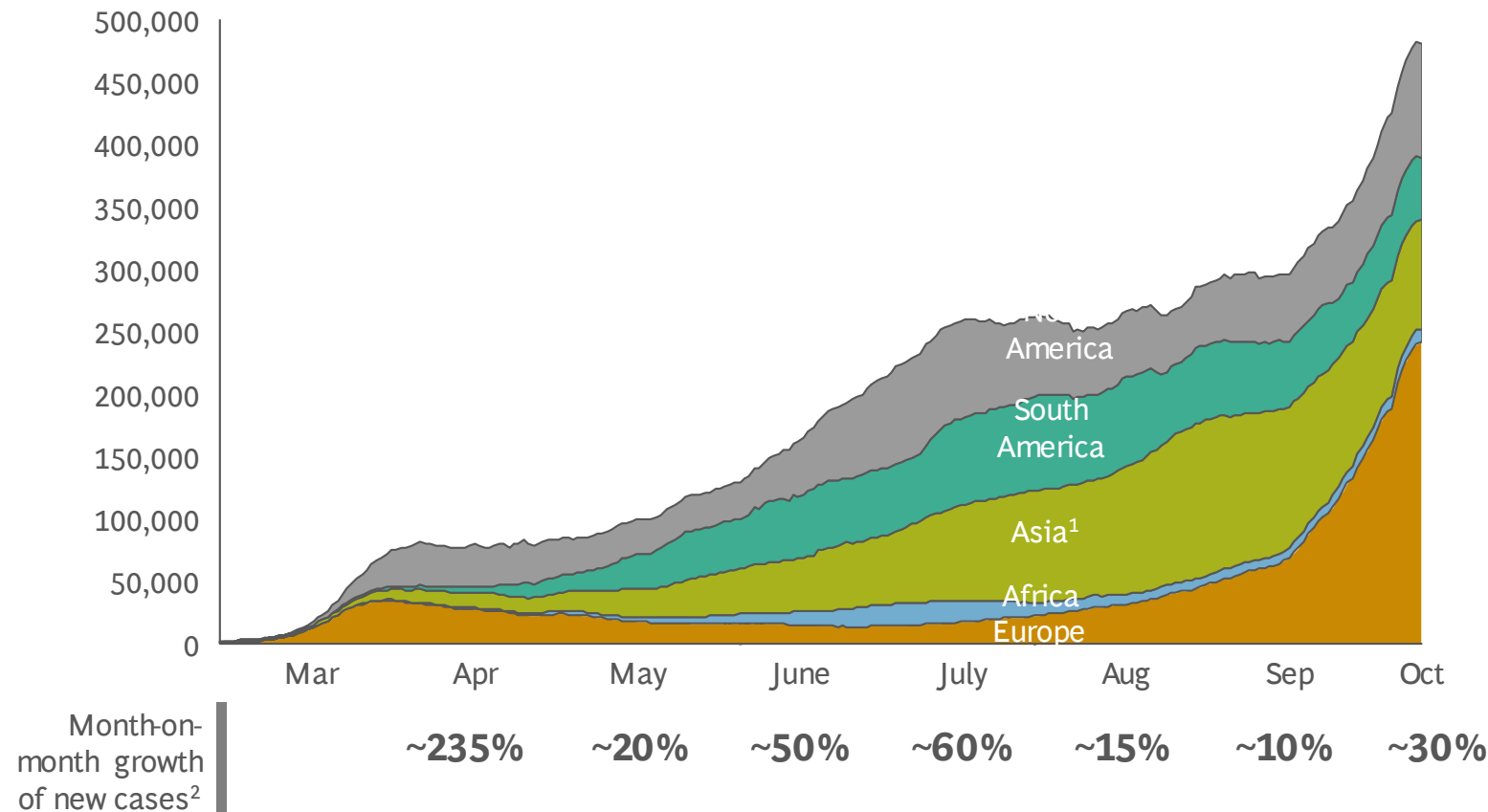
To be updated in forthcoming editions

1. Calculated as 7-day rolling average; 2. Calculated as monthly average of daily cases vs. previous month; 3. Includes Middle East and Oceania; 4. As of 26 October 2020; 5. For India, forecast is for financial year; for others, it is for calendar year; YoY forecasts; range from forecasts (where available) of World Bank; International Monetary Fund; JP Morgan Chase; Morgan Stanley; Bank of America; Fitch Solutions; Credit Suisse; Danske Bank; ING Group; HSBC; as of reports dated 08 June 2020 to 16 Oct 2020; for India's GDP forecast, World Bank's 2020 forecast from 08 June provides the upper bound of the forecast range; 6. IMF Jan 2020 forecast; 7. Mobility values are calculated as the average of mean monthly mobilities in workplace, public transit, retail & recreation, and grocery & pharmacy and compared to a baseline from 03 Jan - 06 Feb 2020; Europe mobility values are calculated as the average of Germany, France, UK, Spain, and Italy; 8. Calculated as change in last 14 days rolling average value as compared to same period last year; 9. Retail goods sales include online & offline sales and comprise food & beverages, apparel, cosmetics & personal care, home appliances, general merchandise, building material; do not include auto, fuel & food services; 10. Figures represent passenger vehicle (including sedan, hatchback, SUV, MPV, van and pickup) sales data for 2020 over same month in 2019; Europe value calculated as cumulative sales in Germany, France, UK, Spain, and Italy; 11. Calculated as average occupancy rates compared to same month of previous year; 12. Underlying data is from Chicago Board Options Exchange Volatility Index (VIX); Volatility Index is a real-time market index that represents the market's expectation of 30-day forward-looking volatility and provides a measure of market risk and investors' sentiments; 13. Calculated as sum of imports and exports, measured in USD and compared to previous year period; 14. PMI (Purchasing Manager's Index) is a diffusion index that summarizes whether market conditions, as viewed by purchasing managers, are expanding (>50), staying the same (50), or contracting (<50); 15. Data corresponds to G-20 countries (minus Indonesia). Sources: JHU CSSE; OurWorldInData; WHO; World Bank; IMF; Bloomberg; Google Mobility; US Census Bureau; Eurostat; PRC National Bureau of Statistics; ACEA actuals; Marklines; ARC ticketing data; STR; Statista; CBOE; OECD; BFA; GACC (customs) China; ONS; BCG

Epidemic progression | We are in the middle of second wave

As of 02 Nov 2020

Daily new cases (7-day rolling average)



Key observations

46.8M
of confirmed cases

11.9M (25%)
of active cases
(% of confirmed cases)

1.2M
of fatalities

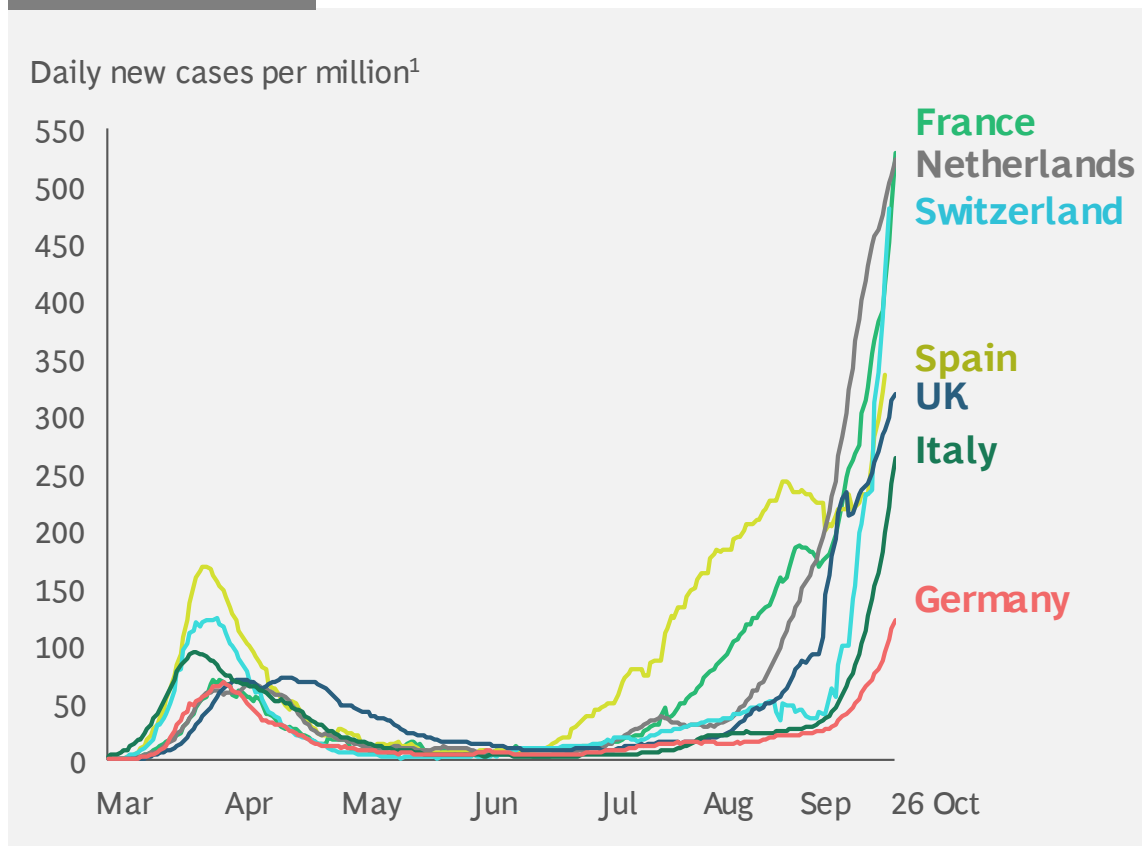
1. Includes Oceania (Australia, New Zealand, Papua New Guinea and surrounding island nations of the Pacific ocean); 2. Calculated as growth in monthly average of daily cases as compared to previous month;
Source: Johns Hopkins CSSE; Our World in Data; BCG

Many countries across the world witnessing resurgence

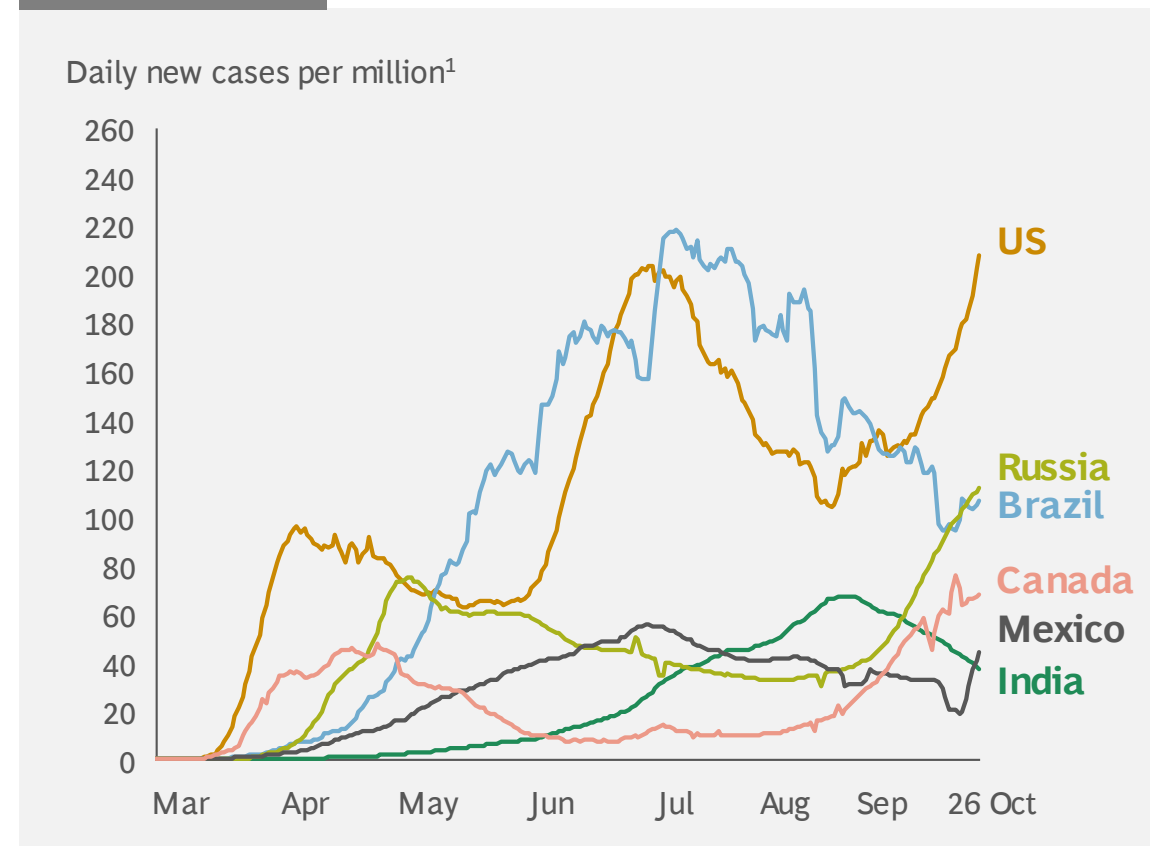
As of 26 Oct 2020

Data shown only for top 20 countries (by GDP) with >30 daily new cases per million¹

Europe: Most countries witnessing resurgence, with cases exceeding previous case peaks



US, Russia and Canada facing resurgence; Brazil and India showing decline compared to peak case levels



Note: Page shows de-averaged view of top 20 countries (by GDP), of which 13 have daily cases/M >30; other 7 countries have <30 daily cases/M (Turkey (24), Indonesia(15), Saudi Arabia (11), Japan (4), South Korea (2), Australia (1), China (0)); 1. Calculated as a 7-day rolling average; Source: Our World in Data; BCG

Combination of contagiousness, fatality rate and incubation period make this virus "impossible to contain" without a vaccine

	SARS	H1N1	Ebola (2014)	COVID-19
Spread	27 countries & regions	>200 countries & regions	10 countries & regions	Global
Cases	~8K	~70-140M	~28K	>46M
Deaths	~800	~150-570K	~11,000	>1,205,000
Case fatality rate	10%	0.03% ¹	~50% ²	0.2-7.7% ³
Contagiousness	3.0	1.5	2.0	2.4-3.3 ³
Incubation time (median)	2-7 days (4-6)	1-4 days (2)	2-21 days (8-10) ⁴	1-14 days (5-6) ⁵



COVID-19 is highly contagious, has a relatively low fatality rate and a high incubation period - plus a high number of asymptomatic spreaders

This makes the pandemic hard to contain without drastic measures

Natural herd immunity cannot be reached – this would either overwhelm ICUs or take decades

The only "way out" is a vaccine

1. ~2% in Mexico in early outbreak: 3892 confirmed cases and 75 deaths in Mexico, according to data released by WHO on May 21; 2. ~50% on average, with fatality rates ranging from 25-90% across regions, according to WHO; 3. According to the German RKI, actual fatality is expected to be significantly lower as only known infections are used to calculate the case fatality rate and dark figures are high (assumption: "true" lethality of 0.3%-2%); 4. People are not contagious until onset of symptoms; 5. It is assumed that large number of infections occur before onset of symptoms

Best-case timelines as of 19 Oct 2020

Vaccines

44

candidates currently in clinical trials

10

candidates currently in Phase III;
in race for EUA^{1,2} starting Q4'20,
contingent on safety and efficacy profiles

Q2'21

expected start of broader distribution
(beyond targeted population segments)³
in the best-case scenario⁴

Therapeutics

257

candidates currently in clinical trials

4

key candidates currently under EUA^{1,5} in select
countries; ensuring broad clinical trials, safety,
and efficacy key for further approvals

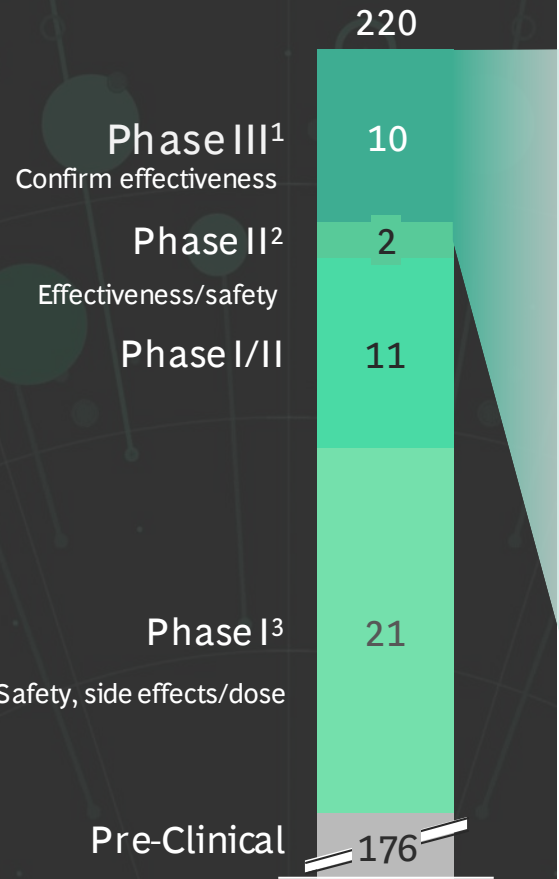
Q4'20

expected broader availability⁶

1. Emergency Use Authorization; nomenclature may differ across geographies; 2. Estimated timelines for grant of EUA: BioNTech/Pfizer, Moderna, Sinopharm/BIPB and Sinopharm/WIPB by Q4 '20, Oxford University/AstraZeneca between Q4 '20 & Q1 '21; Janssen (J&J), Novavax, Sinovac and CanSino by Q1 '21; Gamaleya Research Institute to be ascertained; 3. Healthy adults (beyond initial target population segments) able to access vaccine; 4. Estimated for the US; will be subject to a set of preconditions including phase 3 results, manufacturing & distribution setup and scale-up, etc.; 5. EUA for Remdesivir in the US, Japan, Australia (non-exhaustive), Convalescent plasma therapy in the US (non-exhaustive); Dexamethasone in UK, Japan (non-exhaustive); Favipiravir in India, Russia, China (non-exhaustive); 6. First few million doses; Gilead to ramp up availability of Remdesivir to 2M by Dec 2020; the US has secured 500k already and pre-booked 90% of the September 2020 capacity; Additionally, availability basis prescription has started in select geographies like India, Japan, European Union, etc; Gilead has also signed non-exclusive voluntary licensing agreements with generic pharmaceutical manufacturers based in Egypt, India and Pakistan; Dexamethasone widely available but used generally in severe patients requiring supplemental oxygen support; Source: FDA; WHO; Milken Institute; Biocentury; Company websites; BCG

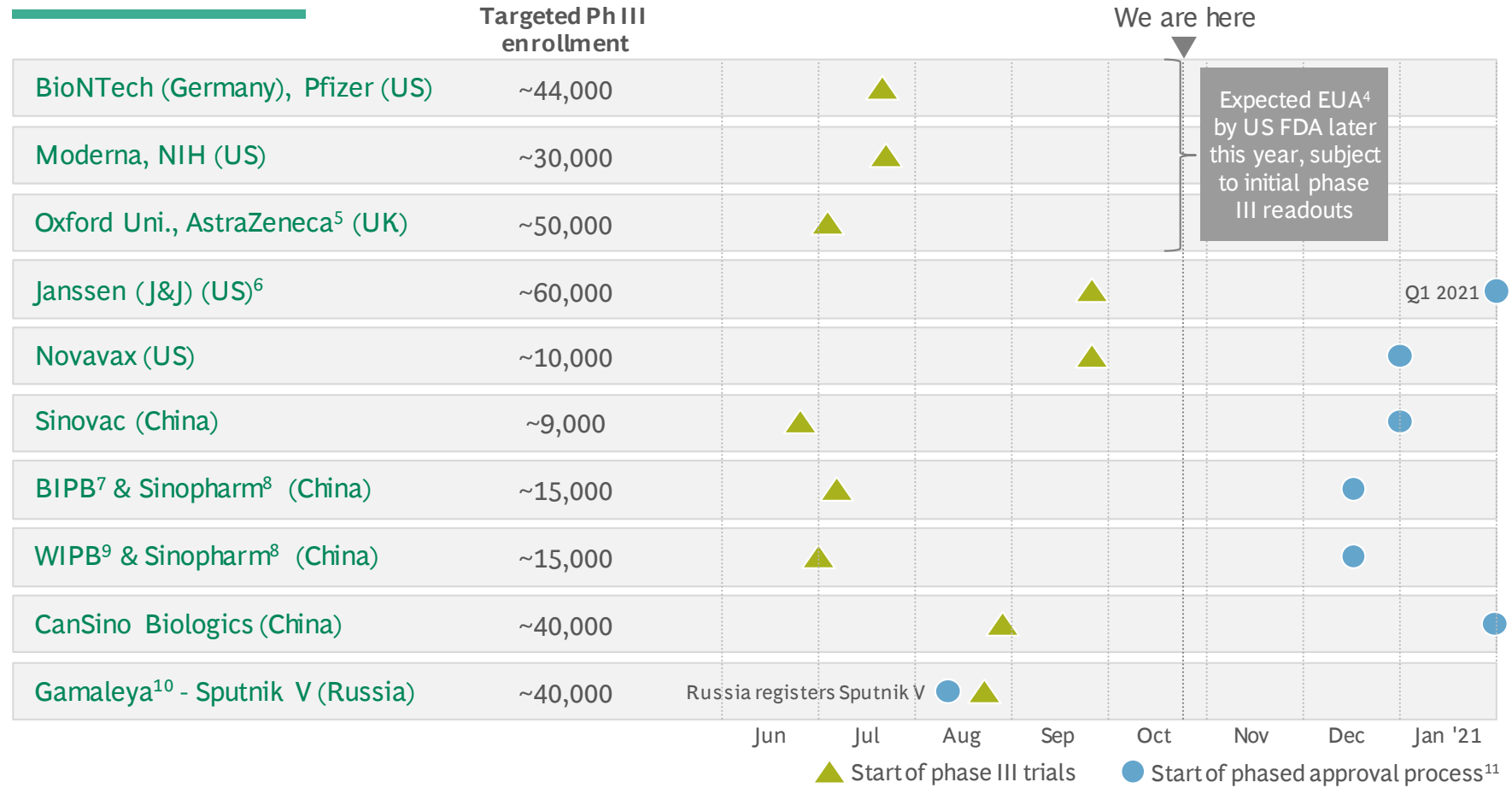
10 vaccine candidates in Phase III – end of Q1 2021 targeted

Vaccine candidates across development phases







As of 19 Oct 2020

Potential timelines for candidates currently in Phase III



Note: The timeline represented is highly dependent on Phase III vaccine results including safety and efficacy data and, hence, is subject to change; 1. Ph III trials involve large number of volunteers (e.g., 10s of 1000s) to test efficacy & safety of vaccine; 2. Phase II studies involve small number of volunteers (e.g., 100-1000) & intended to provide preliminary information about vaccine's ability to produce desired effect; 3. Phase I clinical studies involve initial testing in very small number of volunteers (e.g., 20-100) to test safety profile; 4. Emergency Use Authorization; 5. Oxford University/AstraZeneca voluntarily paused Ph. III trials to reviews safety event on a UK patient; trials resumed in UK, India but suspended in other countries, including US; 6. J&J paused trials due to an unexplained illness in a study participant; 7. Beijing Institute of Biological Products; 8. EUA granted for high-risk groups in China & UAE, conditional regulatory approval for general public use expected by end of year; 9. Wuhan Institute of Biological Products; 10. Gamaleya Research Institute; 11. Trials expected to continue till 2021 & 2022 for different candidates, per WHO, clinicaltrials.gov. Companies expected to start approval applications with initial phase III results. Source: Guggenheim, Wells Fargo, Bloomberg, FT, Cowen, NYT, Milken Institute, Morgan Stanley, NIH, clinicaltrials.gov, WHO, Press Search, BCG

Four potential scenarios emerging...

Fast Recovery	Cautious Confidence	False Euphoria	Prolonged Drought
 <ul style="list-style-type: none">• Phased vaccine approvals• Strong governmental response and a well-coordinated supply chain needed for rapid adoption & speedy recovery• Leading economies access to vaccine in 2021 Q3	 <ul style="list-style-type: none">• Vaccines' demonstrated benefits in healthy adults• NPIs¹ linger as society and businesses continue to safely and selectively reopen• By 2021 Q4, case volumes declined but only gradually	 <ul style="list-style-type: none">• Minor successes in vaccines and therapeutics• The misplaced euphoria of fully immune leads to a sudden drop in NPIs¹• Local case flare-ups & several geographic areas witness resurgence in 2021	 <ul style="list-style-type: none">• Low efficacy (<50%) in early vaccine candidates & only few therapeutics impact the morale of the populace• Adoption of altered lives with social distancing embedded and localized lockdowns becoming a norm

1. Non-pharmaceutical interventions like social distancing, masks, tracking, tracing, etc.
Source: BCG

Today's Agenda



Epidemic Progression and Potential Scenarios



Economic and Business Impact

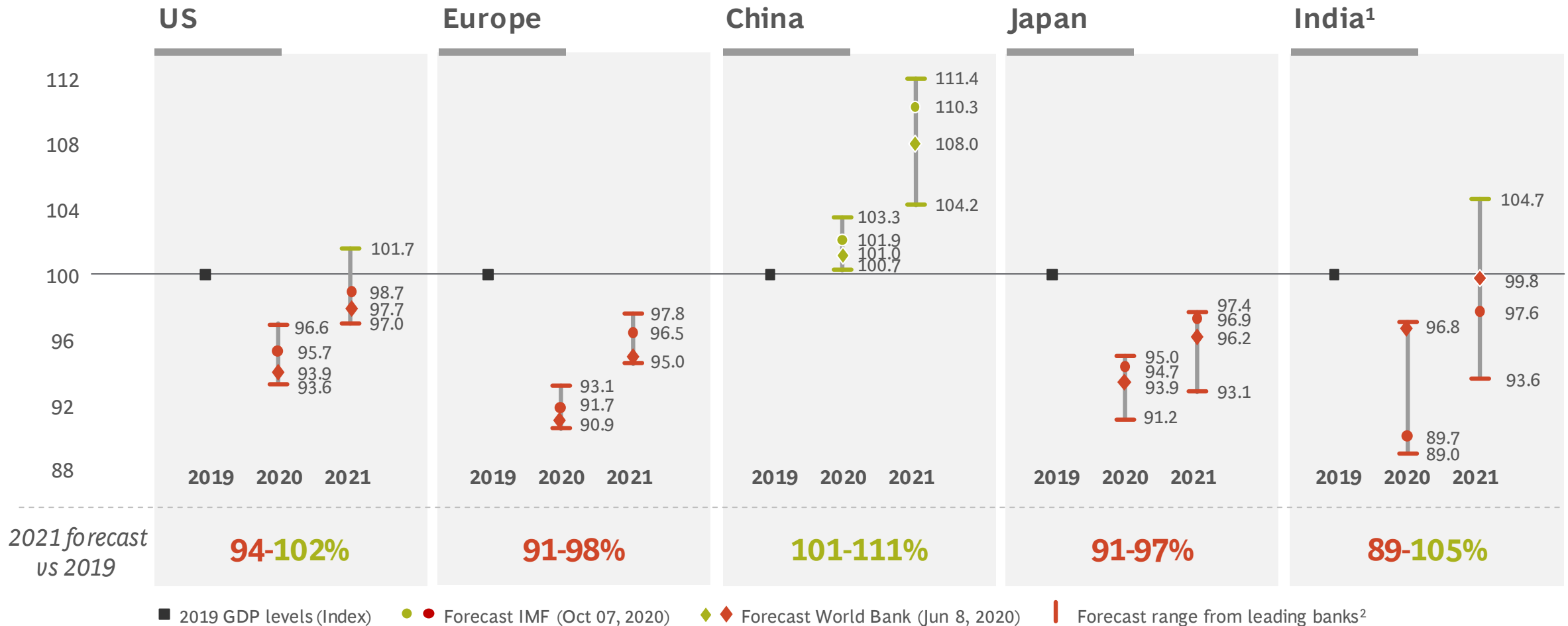


Defining Future People Priorities

We are experiencing a severe downturn in 2020; most countries expected to rebound to 2019 GDP levels, earliest by the end of 2021

As of 16 Oct 2020

GDP forecast levels indexed to 2019 value (Base: 100)

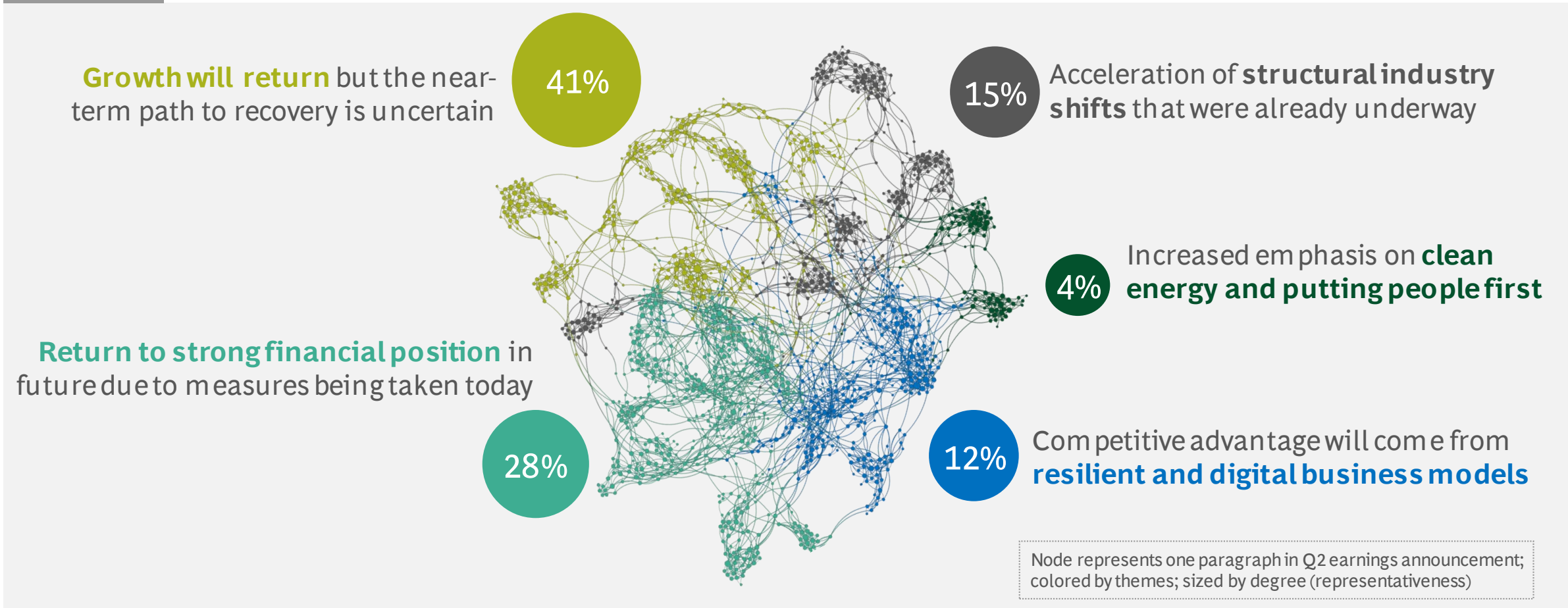


Note: As of reports dated 08 June 2020 to 16 Oct 2020, YoY forecasts; 1. For India, forecast is for financial year; for other countries, the forecast is for calendar year; 2. Range from forecasts (where available) of JPMorgan Chase; Morgan Stanley; Bank of America; Fitch Solutions; Credit Suisse; Danske Bank; ING Group; HSBC; Source: Bloomberg; World Bank; IMF; BCG

Global companies expressing optimism for a return to growth but significant uncertainty around the shape of the return

Distribution of views on post-COVID-19 future mentioned in Q2'20 earnings transcripts¹ of 903 S&P Global 1200 companies

BCG Center for Growth & Innovation Analytics



Note: ~11.7K paragraphs of future-looking commentary sourced from Q2-2020 earnings call transcripts of 903 top global companies from S&P 1200 with English language transcripts were analyzed/clustered in Quid. 12% of data could not be analyzed/clustered in Quid and is not considered in the analysis

1. Only select clusters are shown in network visualization; remaining are hidden; Source: ThomsonOne; Quid; BCG Center for Growth & Innovation Analytics

5 sectors currently above pre-crisis levels in terms of Total Shareholder Returns (TSR), 6 sectors with significant risk¹

As of 23 Oct 2020

Categories based on TSR and net debt/enterprise value²

Based on top S&P Global 1200 companies

		TSR performance ³			Companies with probability of default >15% ⁴		
		21 Feb 2020 - 20 Mar 2020	21 Feb 2020 - 23 Oct 2020	09 Oct 2020 - 23 Oct 2020	21 Feb 2020	23 Oct 2020	09 Oct 2020 - 23 Oct 2020
Healthier sectors	Semiconductors	-30%	20%	→	0%	0%	→
	Retailing	-40%	11%	→	0%	35%	→
	Materials	-32%	7%	→	5%	9%	↗
	Household Products	-16%	3%	→	0%	0%	→
	Health Equipment	-31%	0%	↗	0%	0%	→
Pressured sectors	Tech Hardware	-26%	-1%	→	0%	0%	→
	Capital Goods	-35%	-1%	→	2%	5%	→
	Pharma	-20%	-1%	↘	0%	0%	→
	Media	-36%	-2%	→	0%	0%	→
	Software	-30%	-3%	↘	9%	0%	→
	Food/staples Retail	-10%	-3%	→	0%	0%	→
	Durable Goods	-39%	-3%	→	0%	0%	→
	Prof. Services	-30%	-5%	→	0%	0%	→
	Auto	-41%	-7%	→	0%	14%	→
	Utilities	-30%	-9%	→	0%	0%	→
Vulnerable sectors	Financials	-35%	-9%	→	0%	0%	→
	Food & Beverage	-23%	-11%	↘	0%	0%	→
	Telecom	-17%	-16%	↘	0%	8%	→
	Transport	-34%	-18%	→	0%	28%	→
	Hospitality	-44%	-19%	→	8%	31%	↘
	Insurance	-39%	-21%	→	0%	0%	→
	Banks	-39%	-23%	↗	0%	4%	→
	Real Estate	-39%	-28%	↘	0%	13%	→
	Energy	-52%	-42%	↘	0%	21%	↘

Note: Based on top S&P Global 1200 companies; Sectors are based on GICS definitions; 1. Retailing, Auto, Transport, Hospitality, Real estate and Energy are sectors with > 10% of companies with a probability of default > 15%; 2. Net debt & enterprise value from latest available balance sheet; Categories defined based on comparison with S&P Global 1200 median: healthy = TSR & debt/EV > median, pressured = TSR or debt/EV < median, vulnerable = TSR & debt/EV < median; 3. Performance is tracked for two periods, first from 21 February 2020 (before international acceleration of outbreak) to 20 March 2020 (trough of the market) and from 21 February 2020 through 23 Oct 2020 based on median; 4. Implied by 5-year credit default swap based on median; Source: S&P Capital IQ, BCG ValueScience Center, BCG

↗ Pos. trend ≥ 2%
→ No sig. change
↘ Neg. trend ≥ 2%

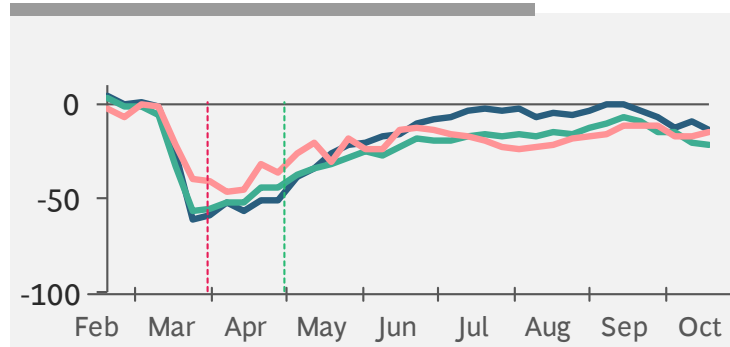
Retail & recreation mobility declining after attaining baseline levels; lower recovery of workplace mobility

As of 20 Oct 2020

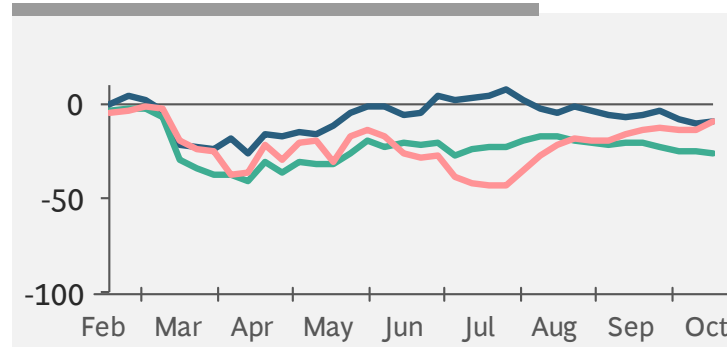
No n-exhaustive

Workplace¹, public transit,² and retail & recreation³ mobility compared to baseline of January to mid-February 2020

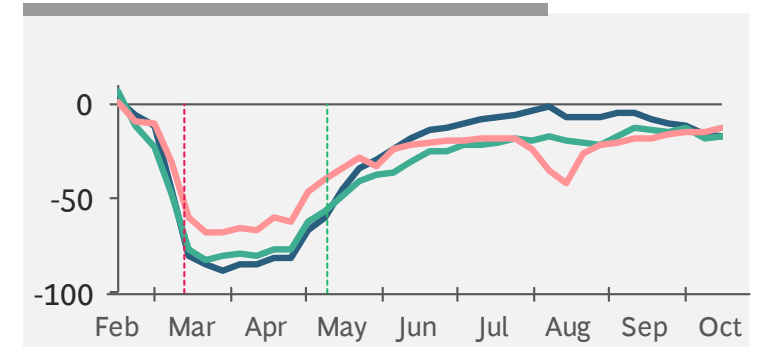
Germany



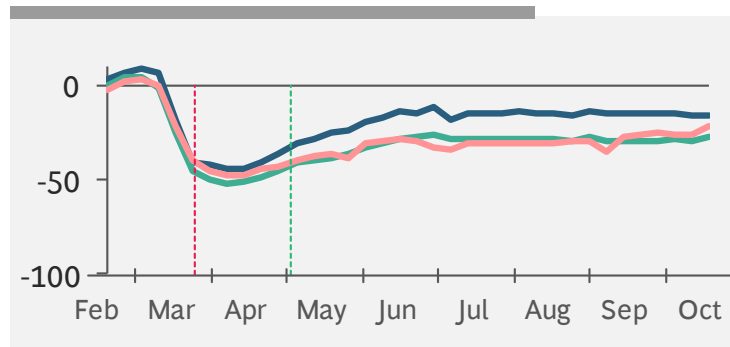
Sweden



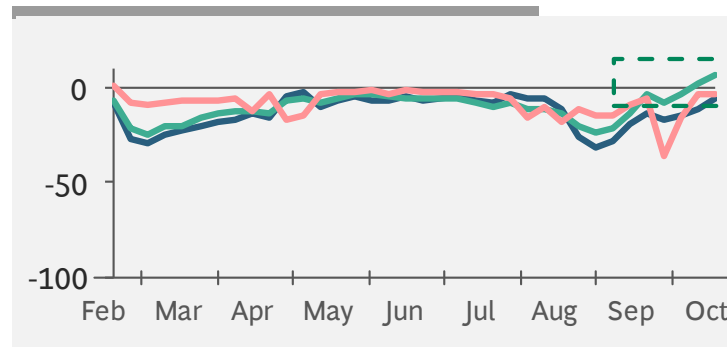
Italy



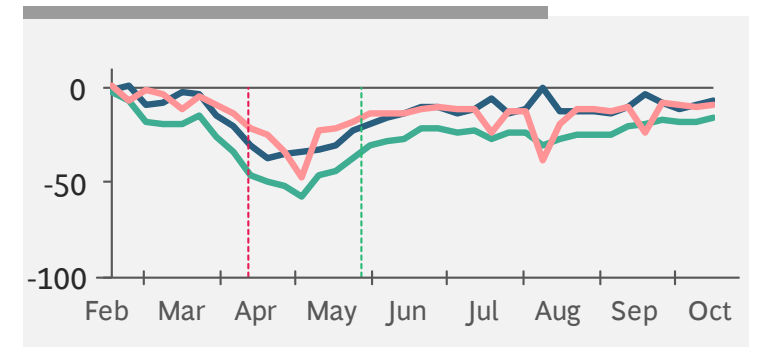
US



South Korea



Japan



--- Lockdown started⁴
--- Lockdown easing⁴
— Workplace mobility
 — Public transit mobility
 — Retail & recreation
 Mobility rebounded to baseline levels

Note: Data taken as weekly average compared with baseline (average of all daily values of respective weeks during Feb 15–Oct 20, 2020); 1. Tracked as changes in visits to workplaces; 2. Tracked as changes in visits to public transport hubs, such as underground, bus and train stations; 3. Tracked as changes for restaurants, cafés, shopping centers, theme parks, museums, libraries and cinemas; 4. Refers to average lockdown start and easing dates; Source: Google LLC "Google COVID-19 Community Mobility Reports". <https://www.google.com/covid19/mobility/> Accessed: 26 Oct 2020; Press search; BCG

Today's Agenda



Epidemic Progression and Potential Scenarios



Economic and Business Impact



Defining Future People Priorities

After COVID-19, the world will be different. People responses to the COVID-19 crisis have paved the way for a **"New Normal"**

Future of Workforce will be leaner, more resilient, more digital with lower cost, greater skills and more flexibility



COVID-19 has accelerated the transformation of People management from multiple different angles



Remote working

Home office, virtual collaboration and accommodating tools



Worksite & operating model changes

Off- and onsite teams, spatial restrictions, real estate reductions



Localization and mobility restriction

Travel bans, transportation difficulties, relocation strategies



Reskilling workforce

New skills (e.g. digital, AI), imbalance in talent supply & demand



Companies under cost pressure

Uncertainty among consumers, supply chain under distress

"Future of Work" is now "the" top priority for the Post COVID-19 era

Topics	% of media
Future of work	17%
Post-pandemic retail	16%
Economic recovery	14%
Digital transformation & tech solutions	9.7%
Healthcare & medicine	7.2%
Sustainability & climate change	6.0%
Real estate & WFH ¹	5.8%
Food supply & security	5.4%
Legislation & legal systems	3.5%
Education	3.2%
Automobile industry	2.8%
Air travel post-covid	2.7%
Urban planning & mobility	2.6%
Contactless payments & digital banking	1.9%
Tourism	0.85%



- **Node:** each node represents a news/blog article published between May 01, and June 26, 2020 by Top Tier sources; nodes are sized by degree of relevance to respective clusters
- **Link:** semantic similarities in article title and body
- **%:** of total articles in each cluster

1. WFH: Working from home. Note: ~3.7K English-language news articles related to the business and consumer environment post COVID-19 were discovered using Quid. Articles are clustered based on similarities in language. Source: Quid, [BCG Center for Growth & Innovation Analytics](#)

We conducted multiple discussions and surveys with global clients with clear themes for the "New Reality" ahead of us

Remote Work Growth

Companies expect remote work to stay long-term ...

40%

Of employees are expected to be working in a remote working model in the New Reality

47%

Anticipate hybrid FTEs (e.g. combination of at-home and remote work) to make up more than 25%¹ of the future workforce

Footprint Reductions

... and plan to reduce office space and people related costs...

72%

Foresee a reduction in real estate footprint. 28% expect the decrease to be >20%

44%

Expect a decrease in headcount. 6% expect the decrease to be >20% of headcount

Digital/Tech Investment

... while investing in digital/tech infrastructure and roles...

67%

Identified data and technology as a priority for new hiring moving forward

87%

Anticipate investing in technology and digital infrastructure to enable the future workforce

Outsourcing Resilience

... and adjusting outsourcing engagement methods to boost resilience

67%

Plan to evaluate cyber security infrastructure and policies of their outsourcing partners

60%

Expect to assess outsourcing partners' worksite safety/health measures to validate resilience

1. Hybrid remote (combination of in person and remote working) is considered to be one of the remote working models included within the stat: "40% of employees are expected to be working in a remote working model in the New Reality."

7 core people priorities will shape successful companies



Future People Priorities

AI = Artificial Intelligence
Source: BCG

- 1 Smart work (more remote, lower cost)**
 - 1-1: Accommodate virtual collaboration and remote work at scale
 - 1-2: Try a new approach that balances remote and on-site work
 - 1-3: Set up smart workspaces
 - 1-4: Realize the cost upsides
- 2 Physical and mental health**
 - 2-1: Cultivate physical health capabilities
 - 2-2: Make mental health and mindfulness matter
 - 2-3: Promote wellbeing and resilience
- 3 Flexible workforce**
 - 3-1: Make your workforce, cost, and skill-planning dynamic
 - 3-2: Tailor working models for employees
 - 3-3: Institute new performance, rewards, and compensation systems
- 4 New talent and skill paradigm**
 - 4-1: Create an adaptive learning ecosystem
 - 4-2: Upskill and reskill by building digital capabilities at scale
 - 4-3: Refocus and enable talent programs and platforms
- 5 Leadership with head, heart, and hands**
 - 5-1: Lead with empathy, and direction
 - 5-2: Enable and empower frontline leaders
 - 5-3: Develop a continuous, two-way communication platform
- 6 Purpose-driven organization and culture**
 - 6-1: Foster a culture of resilience
 - 6-2: Align purpose, vision, and values
 - 6-3: Commit to sustainability and social impact at a higher level

- 7 Resilient and Bionic Organization**
 - 7-1: Simplify your operating model
 - 7-2: Harness data and digital platforms
 - 7-3: Use AI and algorithms to complement humans
 - 7-4: Adopt agile at scale

Companies across industries already structurally moving to new ways of working – Selected examples

Non-exhaustive

SIEMENS

Siemens is enabling 140,000 out of 240,000 employees to work from home two to three days per week

Line manager and employee need to agree on remote working model

Siemens is considering less single offices and more spaces for collaboration, team work or innovation

HITACHI

Hitachi announced that it will aim to make working-from-home the new normal from April 2021

The goal is to have 70% of the workforce (~23,000 employees) work remotely for two or three days a week

Hitachi plans to help employees pay for certain home office improvements



TOYOTA

Toyota will expand its teleworking program to cover not only all office workers but also certain skilled workers



RWE had positive experiences with remote working and exclusively virtual meetings over the last weeks

This will lead to less business travel and more remote work



Novartis is offering every employee to decide self-dependent how, where and when they want to work



Bayer is successfully running a pilot to determine that working from home is feasible for lab technicians as well



Allianz wants to implement a hybrid working model with most of its employees including its CEO increasing home office days

The company assumes that it can reduce a third of its office space



Nationwide

Nationwide Insurance announced that it plans to downsize from 20 physical offices to just 4 following the pandemic

The majority of the company's employees will continue to work from home permanently



Barclays is rethinking their real estate mix based on the positive experience with remote work

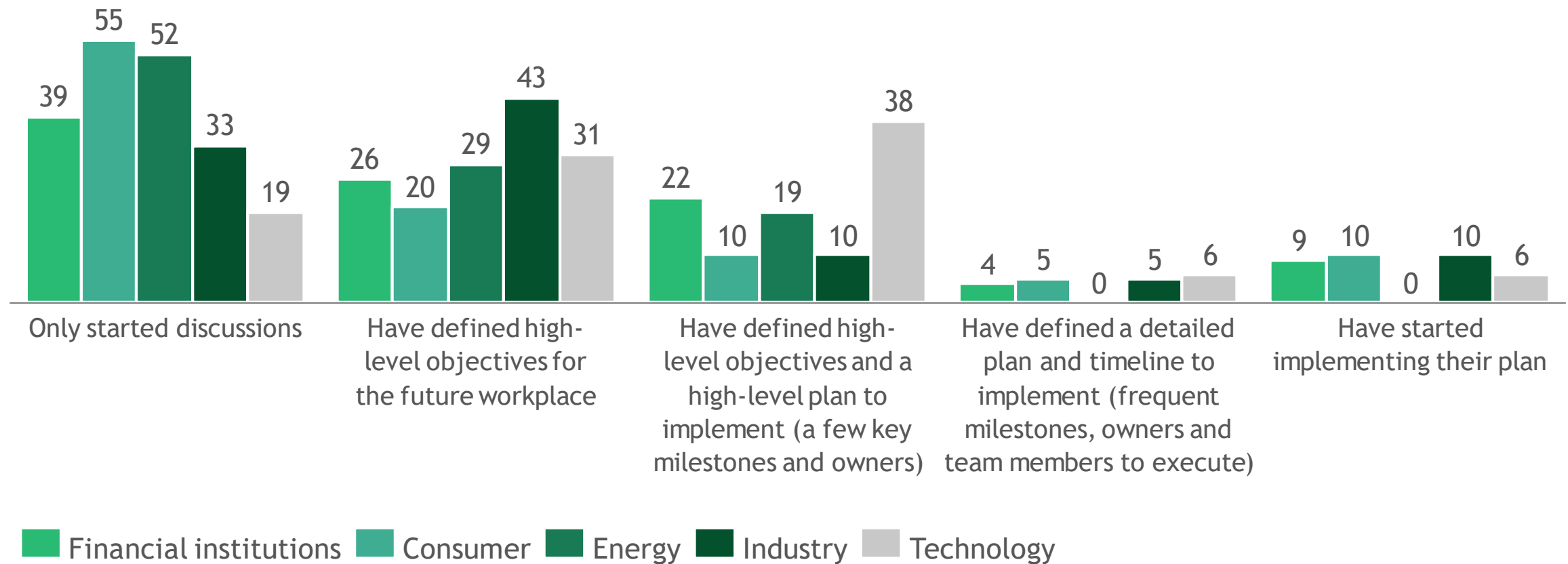


The company wants to keep up remote work and plans on significantly increasing the former target rate of 10% of employees working regularly from home

Yet, many are at the beginning of a their transformation journey

How far along are you in the implementation process? (% of respondents)

BCG Survey launched across 150 companies around the world





Where are you in this journey?
Which topics are most important for you?

COVID-19 Disclaimer

The situation surrounding COVID-19 is dynamic and rapidly evolving, on a daily basis. Although we have taken great care prior to producing this presentation, it represents BCG's view at a particular point in time. This presentation is not intended to: (i) constitute medical or safety advice, nor be a substitute for the same; nor (ii) be seen as a formal endorsement or recommendation of a particular response. As such you are advised to make your own assessment as to the appropriate course of action to take, using this presentation as guidance. Please carefully consider local laws and guidance in your area, particularly the most recent advice issued by your local (and national) health authorities, before making any decision.

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