COVID-19 BCG Perspectives

Facts, scenarios, and actions for leaders

Future of Work

19 November 2020

COVID-19 BCG Perspectives

Objectives of this document

COVID-19 is a global societal crisis

We at BCG believe that the COVID-19 outbreak is first and foremost a societal crisis, threatening lives and the well-being of our global community. Society now, more than ever, needs to collaborate to protect people's lives and health, manage midterm implications, and search for lasting solutions.

Leaders need to drive an integrated response to navigate the crisis

It is the duty of health, political, societal, and business leaders to navigate through this crisis. A complex interplay of epidemic progression, medical response, government action, sector impact, and company action is playing out. This document intends to help leaders find answers and shape opinions to navigate the crisis in their own environments. It encourages thinking across the multiple time horizons over which we see the crisis manifesting itself. The COVID-19 recovery will be driven by disease progression, de-averaged economic impact, government policies, and business and public responses

Flatten	Fight	Future			
Typically in the initial phase after a pandemic outbreak, the goal is to urgently limit the number of new cases , especially critical care	Finding paths to collectively fight the virus, restart the economy, and support society in balancing lives and livelihood	Disease controlled through vaccine/cure/ herd immunity and treatment within sustainable medical capacities possible			
Social distancing (lockdown) and partial business closures lead to economic recession with a large employment impact	Increasing economic activity with recovering GDP, some business reopenings, and social distancing on a sustainable level	Reactivated economy with strong business rebound and job growth, social restrictions limited or completely suspended			
	1. Disease progression, healthcare system capacity, a	and response			
	2. Government policies and economic stimulus				
	3. Economic scenarios				
	4. Business engagement and response				
	5. Public engagement and response				

All of the above five factors result in specific economic and social outcomes in each phase

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. Updated 19 November 2020 Version 19.

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Summary snapshot | Restart progression at a glance

As of 17 Nov 2020

Epidemic Progression											
Global epidemic snapshot											
55M580K18.3M1.3M# of# of# of# ofcasesdaily cases1active casesfatalities											
		July	Aug	Sep	Oct						
Month-on-	Americas	1.7x	1.0x	0.8x	1.1x						
growth of	Europe	1.0x	1.7x	1.9x	3.2x						
new cases ²	Asia ³	1.7x	1.4x	1.3x	0.8x						



Consumer Activity									
Mobility									
Mobility ⁶ (month vs. Jan '20)	US Europe Japan	 	Aug -19% -17% -14%	Sep -20% -14% -11%	Oct -19% -17% -8%				
Domestic air travel tickets booking ⁷ (YoY)	US UK China	 	-68% -86% -8%	-64% -84% -1%	-63% -88% -11%				
Retail goods sales ⁸ (excl. auto & fuel, YoY)	US UK China	 	10% 4% -1%	11% 6% 2%	12% 1%				
Passenger vehicle sales ⁹ (YoY)	US Europe China	 	-27% -14% 6%	<mark>-4%</mark> 0% 8%	-6%				
Hotel occupancy ¹⁰ (YoY)	US Europe China	 	-32% -45% -12%	-28% -52%					

Business Impact Stock market performance Month end vs. 02 Jan '20 Aug Sep Oct S&P500 3% 0% FTSE100 -22% -23% -27% CHN SSE 8% 10% Volatility Index (S&P500)¹¹ 2.1x 2.1x 3.0x International trade Trade value¹² US -8% -5% (YoY) UK -8% -10% China **4%** 11% 8%

Industrial production

Purchasing manager's index ¹³ (base = 50)	US EU China		53 52 51	53 54 52	53 55 51
Steel production (YoY) ¹⁴	I	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. For India's GDP forecast; for others, it is for calendar year; YOY forecasts; range from forecasts; be parked as monthly average of daily cases vs. previous month; 3. Includes Middle East and Oceania; 4. For India's GDP forecast; for others, it is for calendar year; YOY forecasts; range from forecasts; be parked as monthly average of daily cases vs. previous month; 3. Includes Middle East and Oceania; 4. For India's GDP forecast; for 08 June provides the upper bound of the forecast range; 5. INF jal 2020 forecast; 6. Morage Case; 6.

Executive Summary | COVID-19 BCG Perspectives

The way we work has changed forever; leaders have the opportunity now to fundamentally reimagine work models and drive competitive advantage

- The global COVID-19 pandemic has fueled and turbo-charged profound changes in the way we work; many of these changes are here to stay
- The Future of Work presents both opportunities and risks, often in the same dimension (e.g., productivity gain/loss, strengthened/weakened company culture); companies and leaders need to thoughtfully design new models to balance these
- Customer and employee preferences are changing; work and interaction models of the future will vary between "fully in-person" and "remote & asynchronous"
- Leaders need to take an intentional and holistic approach when designing the Future of Work, including (i) customer relationships and employee work models, (ii) leadership and culture, (iii) organization models and (iv) smart environments; the time to act is now

Strong resurgence of COVID-19 cases, especially in Europe and the US; promising recent developments for various vaccine candidates

- Several European countries and the United States are witnessing strong resurgence of cases since Sept. '20 with unprecedented peaks of daily new cases
- 11 vaccine candidates already in Phase III; interim efficacy of ~95% announced for BioNTech/Pfizer vaccine and Moderna/NIH vaccine
- For most leading economies, forecasts indicate a rebound to 2019 GDP levels only by end of 2021
- Retail and recreation mobility declining in select countries in Q4 of 2020; continued lower recovery of workplace mobility
- 11 (out of 24) sectors² are currently above pre-crisis TSR³ levels; 4 sectors have a significant share⁴ of companies with >15% default risk

We believe during this crisis leaders need to think along two dimensions: Taking an integrated perspective on health/medical progression, governmental responses, societal reactions, and economic implications to understand business/sector impacts Thinking multitimescale in a Flatten-Fight-Future logic

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Guide for Leaders

Understand the dynamics changing work Intentionally design new models

Updated Analyses and Impact

Epidemic progression and virus monitoring Economic and business impact Work has remained mostly unchanged since the Industrial Revolution, when people needed to work in close proximity to coordinate, collaborate and co-create COVID-19 has created a leadership imperative to shape the future of work, breaking the constraints of time and place to unleash a new wave of human ingenuity and productivity

Key questions on the minds of business leaders

How we work Embrace disruption

How we lead Empower and inspire

How we organize Responsive yet resilient

What we need Smart environments

• How have customer interactions changed, and how do we serve customers better?

- Are our employees as productive remotely as in the office?
- What revenue is at risk if productivity or customer intimacy drops?
- Should we be a leader in our industry or wait to follow others?
- How can we support the wellbeing of our employees?
- How can we maintain our company culture?
- How do we drive affiliation, community and mentorship virtually?
- What new ways of working will support a range of work models?
- What will be the impact on our talent strategy?
- Can we leverage location-agnostic, new talent models?
- As competition for key talent increases, how will we manage retention?
- What should our real estate footprint look like?
- What technology and tools are needed to support the physical and virtual workspace?
- How should the workspace of the future be designed?
- Are our employees equipped with the right skills to adapt to the new reality?

The Future of Work presents both opportunities and risks, often in the same dimension; companies need to thoughtfully design models to balance these

+	Productivity gains, employee satisfaction "New ways of working would boost employee flexibility, satisfaction, productivity"	_	Loss in productivity in certain roles "Remote/flex work might challenge the productivity of teams that rely on collaboration, innovation and creatively solving problems in real time"
+	Talent strategy, become a talent magnet "New ways of working would allow us to attract the best talent globally"	-	Decline in apprenticeship & personal development "Co-location is critical for onboarding , learning and mentorship "
+	Renewed purpose and strengthened culture "We now have opportunities to build a culture of inclusivity "	_	Weakened company culture "The major risk of remote work is a decline in people relationships and losing a sense of community, belonging and purpose"
+	Strengthened sustainability agenda "We have the opportunity to become net carbon neutral"	_	Decline in personal wellbeing and sustainability "Remote work has meant working longer hours. It makes it tough to disconnect from work and separate work from your personal life"
+	Increased customer intimacy "As my customers have moved more online, I am finding new	—	Revenue risk from drop in direct customer interaction "My customers no longer want to see me in person. I am worried about how I

ways to interact with them 1:1"

Copyri§

can maintain my relationships virtually, and hit my sales targets"

Customer and employee preferences are changing; leaders must define new work models to create competitive advantage

Customer preferences



drop in US in-store consumer spending (**16% increase** in online)¹



of B2B business leaders have already identified new digital sales channels²



of B2B customers are now comfortable going fully virtual with their sales reps³

Employee preferences

~40%

of employees want flexibility in where and/or when they work going forward; **'when'** matters more than **'where'**⁴

~50%

of employees say they are at least as productive as prior to the pandemic⁴

~2x

increased likelihood of being at least as productive⁵ as pre-pandemic if they have strong relationships with colleagues⁴

Use digital to deliver on these preferences



1. BCG COVID-19 consumer sentiment snapshot (Aug 2020); 2. BCG survey in association with SAMA, April - May 2020 (N=96); 3. BCG case experience; 4. Preliminary results of BCG COVID-19 Employee Sentiment Survey, November 2020 (N= 2,790) – early view, includes data from employees in the US and Germany only; 5. Productivity defined as "ability to do the same or better quality work remotely in the same amount of time or less as in my office/workplace pre-COVID-19"

Companies have already started adopting a variety of new work models



Value is at stake across a broad set of parameters

Non-Exhaustive



SIGNIFICANT OPPORTUNITY COST OF INACTION

Leaders need to take an intentional and holistic approach when designing the Future of Work

HOW WE WORK Embrace disruption

1.1 Reimagined Customer Relationships

Build virtual go-to-market methods Rethink personalized relationships Remove friction; create convenience

1.2 Employee Work Models

Develop new work models Support remote readiness: asynchronous, location-agnostic Balance employee and team needs

| 2.2 Cohesive Culture

HOW WE LEAD

Train leaders for remote

Empower the frontline

management

Empower and inspire

2.1 Empowering Leadership

Promote adaptation and empathy

Articulate and evolve culture Build affiliation and mentorship in virtual environments **HOW WE ORGANIZE** Responsive yet resilient

3.1 Ways of Working

Embrace agile, iterative teaming Focus on alignment and autonomy Foster virtual collaboration Conduct shorter, effective meetings

WHAT WE NEED Smart environments

4.1 Space, Design, Location

Right-size real estate footprint Create safe and smart workspaces Design a human-centered workplace

3.2 Adaptive Organization

Prioritize employee wellbeing & wellness Adopt flexible operating models Update governance and policies

4.2 Tools & Technology

Implement virtual workspace design Adopt collaboration and remote tools Strengthen cybersecurity & data privacy

1.3 Productivity & Value

Prioritize what matters; remove waste; return time to employees Automate, digitize, deploy AI Remodel SG&A/opex

2.3 Societal Leadership

Reduce carbon footprint Create inclusion, access, and equality

3.3 New Talent Models

Digitize the talent journey Access skills via new talent models Increase access to diverse talent Manage attrition of top talent

4.3 Learning Organization

Promote digital learning and upskilling Meet future skills requirements Embrace remote apprenticeship

1.1

Reimagined Customer Relationships

Take advantage of virtual environment to fundamentally rethink sales approach

Assess changes in customer preferences

Identify top sellers in remote setting, codify & scale their best practices

Invest in coaching and new capability building

Example | Major insurer enabled its salesforce to adapt to remote selling

Understand what differentiates top sellers	Top performers are more productive in a remote work environment because they "work smarter" and know how to generate leads
Leverage data analytics for lead generation	Pass "warm leads" researched and developed by a dedicated team of analysts to struggling agents
Coach virtual selling	Invest in coaching for average performers on remote-selling best practices and ways to spend more time on fewer accounts
Equip with digital tools	Equip sales force with digital tools, set up data foundation, encourage disciplined tool usage and data collection
Impact Interventions lea	d to improvement in remote selling by average performers

3.5x sales opportunity from interventions to teach average performers (50th percentile) to operate like top performers (80th percentile)



1.2

Employee Work Models

Determine new work models based on:

- Remote readiness of the work activities
- Employee preferences
- Team needs & organization guardrails

Design specific, flexible models tailored to each employee persona group

Example | Major healthcare company developed persona-based hybrid work models



Cohesive Culture

Culture is transmitted and built when we:

- Observe and embrace behaviors
- See and participate in decisions being made
- Communicate ideas and knowledge to newer members
- Sense and adopt rhythms and routines that are important

Meaningful social connection and cultural learning are challenging in virtual settings ...

Social cohesion builds trust and understanding, fosters more efficient, productive collaboration

New employees onboarded virtually may have difficulty understanding shared cultural norms

In addition, there may be fewer "spontaneous" interactions with colleagues outside of teams

... yet it is critical not just for employee morale, but also for productivity



increased likelihood of employees being as or more productive if satisfied with social connectivity to colleagues¹

LEADERS MUST BUILD NEW MUSCLES TO FOSTER CONNECTIONS AND BUILD CULTURE

Articulate



Discuss and document culture (behaviors, norms, routines, etc.) and how it is manifested in day-to-day

Use this not only in onboarding new hires, but as an opportunity to build a more purposeful culture for the entire company

Activate



Walk the talk: Individuals follow what they see if manifested in leader actions

Find frequent and consistent opportunities to role model aspirational culture in day-today work and engagements



Identify and address what gets in the way of living the desired culture / demonstrating the right behaviors including:

- Performance management
- People processes
- Operating model
- Specific leaders

Ways of Working

Engage the workforce to understand their expectations and needs

Holistically assess requirements for change

Refine concepts through "Test and Learn"

Launch integrated pilot in re-opened office, scale if successful Example | A natural resources player defined an ambition for the Future of Work, team norms and guardrails as key inputs to developing new work models

L Solve for the team

Both individual and team needs to be balanced to achieve both productivity and employee wellbeing

Open communication is key

Purposeful collaboration with teams and managers when deciding where to work, regular routines, rhythms, etc.

3

Embed and sustain change

Take experimental approach with pilots and continuous learning; start in select sites and scale what works

Impact | Value across team effectiveness, employee value proposition, real estate



Greater team effectiveness

Support for teams and leaders to work in new ways improves employee engagement and overall effectiveness



Enhanced employee value proposition

Remote work allows access to new talent pools; leading flexibility enhances employee value proposition - in line with greater market demand for flexible work



Optimized footprint

Opportunity to reduce property portfolio by up to 30% (mid case) to 50% (high case) through shift to remote work

New Talent Models

Assess existing skill levels and employment models

Identify and adopt new talent models for sourcing high skill talent

Drive business model innovation through new talent models

Harvard

Review

Business

Further reading:

Rethinking the On-Demand Workforce



Approach | Models to source new talent and drive business model innovation

4.1

Space, Design, Location

Optimize and right-size real estate based on needs and workforce models:

- Create activity-based zones for focus, collaboration, wellness and affiliation
- Leverage hybrid workforce to reduce space requirements
- Be thoughtful about how space is repurposed

Approach | An activity-based workplace will provide purpose-built zones to support employees as they move between tasks and work modes





Embrace the new reality

Many customer and employee behaviors that took root during the pandemic will become desirable and even permanent even after vaccines and herd immunity



Be holistic to create competitive advantage

Smart companies will be holistic in how they embrace business models changes that the pandemic drives

They will take advantage of this time to expand their ambitions and create competitive advantage



Start with the customer

When designing new work models, companies should think like their customers and anticipate how the work will change



Elevate your employees

Purposely create culture and connection

Build all employees' capabilities to thrive today and in future work models

Balance organization, team and employee needs



Act now

Companies that delay will find that their competitors have not stood still

The key is to embrace experimentation and then scale what works

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Leaders have an obligation to reshape the way we work

Work has remained mostly unchanged since the Industrial Revolution, when people **needed to work in close proximity** to coordinate, collaborate and co-create.

The factories and offices mass-produced products of increasingly high quality for a larger and larger number of customers. Customer needs were met. **Companies led and customers followed.**

From this need, the current work-model was born. Individuals too thrived in the social atmosphere, and creativity was fostered through hallway interactions. This collective space, which still lives at the heart of our work today, allowed companies the ability to direct and manage employees. The COVID-19 crisis has accelerated changes in how we work. **The Future of Work has arrived** in the present.

As customers' needs become more differentiated, personalized and virtualized, we must respond with new solutions and innovate faster. Today, **customers lead, and companies have to follow**.

Yet, **employees are mobile**, **expect flexibility** and the workplace is becoming fragmented. We need to **create the right work environment and lead with empathy**.

COVID-19 has created a leadership imperative to shape the future of work, **breaking the constraints of time and place** to unleash a new wave of human ingenuity and productivity.

Guide for Leaders

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Updated Analyses and Impact

Epidemic progression and virus monitoring Economic and business impact Epidemic progression | Daily case growth rapidly increasing again, led primarily by resurgence in Europe & North America

EPIDEMIC PROGRESSION & VIRUS MONITORING

Key observations

As of 16 Nov 2020

Daily new cases (7-day rolling average)



^{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

De-averaged view | Several countries across the world witnessed strong resurgence

As of 16 Nov 2020

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

Europe: Most countries witnessed resurgence; some countries show signs of recovery



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 14 have daily cases/M >30; other 6 countries have <30 daily cases/M (Indonesia (15), Saudi Arabia (11), Japan (10), South Korea (3), Australia (0), China (0)); 1. Calculated as a 7-day rolling average; Source: Our World in Data; BCG

Vaccine fast movers | 11 vaccine candidates already in Phase III

EPIDEMIC PROGRESSION & VIRUS MONITORING

Vaccine candid	ates across	As of 18 Nov 2020							WHO P	hase III cl	assifica	tion
development pl	hases	Potential timelines	for candid Targeted Ph III enrollment	lates curi Interim efficac announced	r ently i	n Phas	eIII			We are he	re	
	242	BioNTech (Germany), Pfizer (US)	~44,000	95%								
Phase III ¹	11	Moderna, NIH (US)	~30,000	94.5%								
Confirm effectiveness		😭 Oxford Uni., AstraZeneca (UK)	~43,750		_							
Phase II ² Effectiveness/safety	4	Janssen (J&J) (US)	~60,000								Ç	Q1 2021
Phase I/II 13		Novavax (US)	~30,000								(Q1 2021
	Sinovac (China)	~27,000				E	UA in China f	or high-risk g	roups			
		BIPB ⁴ & Sinopharm (China)	~18,000						UA in China	and UAE		
//* .		WIPB ⁵ & Sinopharm (China)	~21,600					e	UA in China	and UAE		
Phase I ³	20	CanSino Biologics (China)	~40,500		EUA	in China for m	ilitary 🔺					
Safety, side effects/dose		Gamaleya - Sputnik V (Russia)	~40,000	92%	Russia reg	isters Sputnik	v •					
		Bharat (India)	~25,800									
Pre-Clinical		Start of Phase III trials Start of phase	d approval process ⁶		Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan'21
		Note: The timeline represented is highly depe	endent on Phase III vac of vaccine: 2 Phase II	ccine results includ	ling safety, eff	icacy data an	a hence, subject a 100-1000) &	ct to change; & are intende	1. Ph III tria d to provide	is involve a lar	je number o formation at	t volunteers

vaccine's ability to produce its desired effect; 3. Phase I clinical studies involve initial testing in very small number of volunteers (e.g., 20-100) to test the safety profile; 4. Beijing Institute of Biological Products; 5. Wuhan Institute of Biological Products; 6. Trials are expected to continue till 2021 & 2022 for different candidates, as per WHO, clinicaltrials.gov. However, companies are expected to start approval applications with initial Phase III results. 24

Source: Guggenheim, Wells Fargo, Bloomberg, FT, Cowen, NYT, JPMorgan, Milken institute, Morgan Stanley, NIH, clinicaltrials. Gov, WHO, press search



(WHO, Milken Institute)

Vaccine fast movers | For 2 vaccines, efficacy of ~95% has already been announced by their creators

As of 18 Nov 2020

	BIONTECH Prizer	Moderno NIH National Institutes of Health
	BioNTech, Pfizer	Moderna, NIH
Country of origin	Germany US	US
Announced efficacy ¹ (date)	95% (18 November)	94.5% (16 November)
Vaccine technology	mRNA: Genetic instructions that trigger cells to produce antibodies	mRNA: Genetic instructions that trigger cells to produce antibodies
Planned production volume (doses)	2020: 50M 2021: 1,300M	2020: 20M 2021: 500-1,000M
Key governmental agreements (doses)	US: 100M , option of add'l 500M EU: 300M	US: 100M , option of add'l 400M Japan: 50M
Expected start of vaccination	US: December 2020 ² EU: Q1'2021	US: Q4'2020 Japan: First half of 2021

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EPIDEMIC PROGRESSION & VIRUS MONITORING

Therapeutics | Multiple therapeutic candidates at various stages of clinical trials



(BioCentury)

1. Remdesivir and plasma therapy granted Emergency Use Authorization; US Health and Human Services included dexamethasone in COVID-19 treatment guideline; 2. Patients requiring supplemental oxygen support; 3. 7-day mortality rate; 4. Emergency Use Authorization; 5. Initial EUA restricted use to patients with severe conditions (e.g., patients requiring supplemental oxygen support); 6. EUA granted despite no to limited randomized clinical trial involving a placebo group to estimate actual impact of the plasma treatment

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Economic forecasts point toward a severe downturn in 2020; most countries expected to rebound to 2019 GDP only by end of 2021

As of 16 Nov 2020

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



Note: As of reports dated 08 June 2020 to 16 Nov 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

ECONOMIC & BUSINESS IMPACT

Manufacturing PMI recovery globally indicates positive momentum

ECONOMIC & BUSINESS IMPACT

As of 12 Nov 2020

Manufacturing PMI before, during, and after the crisis



Note: PMI (Purchasing Manager's Index) is a diffusion index that summarizes whether market conditions, as viewed by purchasing managers, are expanding, staying the same, or contracting. 50 is neutral, >50 is considered to be positive sentiment and <50 is considered to be negative sentiment. 1. Lockdown dates are pertaining only to Hubei province; Source: Markit South Korea Manufacturing PMI SA; Jibun Bank Japan Manufacturing PMI SA; China Manufacturing PMI SA; Swedbank Sweden PMI SA; Markit/BME Germany Manufacturing PMI SA; Markit Italy Manufacturing PMI SA; Markit US Manufacturing PMI SA; Bloomberg

Retail & recreation mobility declining after attaining baseline levels for select countries; continued lower recovery of workplace mobility

As of 13 Nov 2020

Non-Exhaustive

ECONOMIC & BUSINESS IMPACT

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



Note: Data taken as weekly average compared with baseline (average of all daily values of respective weeks during Feb 15–Nov 13, 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: 17 Nov 2020; Press search; BCG

Passenger vehicle sales see limited rebound

TRENDS IN MOBILITY & CONSUMER ACTIVITY

As of 16 Nov 2020

≤ -30%

Lockdown started

-29% to -15%

-14% to 0%

Lockdown easing

> 0%

Monthly passenger vehicle¹ sales, YOY % change vs 2019

US¹



Germany



Italy



Jan Feb Mar Apr May Jun Jul Aug Sep Oct

Sweden



China²



South Korea³



Japan



1. Passenger vehicle sales include data on, where available, hatchback, MPV, pickup, sedan, SUV, and vans; 2. Stimulus policies: Launched subsidies for car purchases in 10 cities, lessened purchase restriction in high tier cities and extended NEV subsidies; 3. South Korea's growth in auto sales from Mar through June 2020 is supported by recent tax cuts for individual consumption goods (e.g., cars), several carmakers (e.g. Audi, VW) launching new models and the increased appreciation by the Koreans of cars as a safe mode of transport and as a travel alternative for camping during COVID-19, supported by recently passed legislation to allow a variety of different cars to be modified into 'camping cars'. Source: Marklines; BCG

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Retail goods sales (excl. auto and fuel) have rebounded to pre-COVID-19 levels across most of the countries

As of 18 Nov 2020

Growth of total retail goods sales (excl. auto & fuel)¹, YOY % change vs 2019

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

	Jan	Feb	Mar	Apr	Мау	June	July	Aug	Sep	Oct
China²	-1	6%	-12%	-6%	-1%	2%	-2%	-1%	2%	1%
Japan	0%	2%	1%	-6%	-1%	10%	7%	7%	-3%	
US	3%	4%	7%	-6%	3%	8%	9%	10%	11%	11%
UK	1%	0%	-4%	-19%	-11%	1%	3%	4%	6%	
Italy	1%	2%	-18%	-27%	-11%	-1%	-11%	1%	0%	
Sweden	3%	5%	2%	-3%	2%	3%	3%	3%	4%	
Belgium	2%	1%	-4%	-10%	2%	6%	3%	10%	5%	
≤ -30%	-29% to	-15%	-14% to 0%	>	0%					

Retail goods sales have currently **rebounded** to pre-COVID-19 levels, with China, US, UK, Sweden and Belgium showing

TRENDS IN MOBILITY & CONSUMER ACTIVITY

In **Italy**, year-on-year retail goods sales growth was **slightly lower in Sep** than in Jan

higher growth levels than in Jan

Sweden hasn't shown a significant impact of COVID-19 on retail goods sales

Further reading
<u>Reigniting Retail Demand</u>

1. Retail goods sales categorization may be different across countries; seasonally adjusted values taken; 2. For China, combined value of Jan & Feb is available; Source: US Census Bureau; PRC National Bureau of Statistics; Eurostat; Ministry of Economy Japan

Note: For US, share in retail store sales in Q4 2019: F&B ~25%, personal care & cosmetics ~12%, apparel ~6%, home appliances ~3%, general merchandising ~25% and building material & gardening equipment ~13%. Sector classification & mix may be different across countries; 1. For China, Feb data includes both Jan & Feb, Food & beverages category only includes food & grains; 2. Includes clothing accessories, shoes, etc.; 3. Includes audio video & home appliances stores; 3 Source: US Census Bureau; PRC National Bureau of Statistics; Eurostat; Ministry of Economy Japan

De-averaged view | Retail store sales in China have rebounded across categories; apparel sales continue to be impacted in other countries

As of 18 Nov 2020

Retail store sales breakdown by category, YoY % change vs 2019

Food & beverage stores

	Мау	June	Jul	Aug	Sep	Oct
China ¹	11%	11%	7%	2%	5%	5%
Japan	2%	3%	1%	2%	1%	
US	15%	12%	11%	10%	11%	10%
UK	6%	4%	1%	1%	2%	
Italy	1%	-1%	-2%	1%	1%	
Sweden	0%	1%	0%	3%	3%	
Belgium	12%	7%	6%	5%	3%	

Apparel stores²

	May	June	Jul	Aug	Sep	Oct
China ¹	-1%	0%	-3%	2%	6%	10%
Japan	-35%	-6%	-19%	-18%	-24%	
US	-62%	-24%	-23%	-20%	-9%	-13%
UK	-60%	-33%	-25%	-15%	-13%	
Italy	-43%	-18%	-41%	0%	-1%	
Sweden	-30%	-22%	-20%	-17%	-13%	
Belgium	-31%	-13%	-28%	14%	-12%	

≤ -30% -29% to -15% -14% to 0% > 0%

Personal care & cosmetics stores

	May	June	Jul	Aug	Sep	Oct
China ¹	13%	21%	9%	22%	16%	20%
Japan	-3%	3%	1%	2%	-7%	
US	-8%	-1%	4%	4%	6%	4%
UK	-30%	-5%	1%	2%	20%	
Italy	-13%	-9%	-5%	-1%	-3%	
Sweden	-5%	3%	1%	3%	3%	
Belgium	-8%	0%	1%	2%	7%	

Home appliance stores³

	Мау	June	Jul	Aug	Sep	Oct
China1	4%	10%	-2%	4%	-3%	1%
Japan	9%	26%	12%	10%	-29%	
US	-42%	-20%	-6%	-4%	-6%	-4%
UK	-29%	2%	12%	12%	12%	
Italy	-14%	1%	0%	2%	2%	
Sweden	15%	15%	17%	9%	11%	
Belgium	2%	14%	2%	24%	20%	

China's sales (except Home Appliances) have rebounded to year-ago run rates

Retail store sales recovery driven by **F&B** across all countries

Personal care & cosmetics category sales have rebounded to last year levels except in Italy and Japan

Apparel category saw the largest decline; far from recovery across countries except China, Italy

Home appliances sales with mixed development; strong sales growth in Belgium

TRENDS IN MOBILITY & CONSUMER ACTIVITY

11 sectors currently above pre-crisis TSR levels; 4 sectors with significant share¹ of companies with >15% default risk

TSR nerformance³

As of 13 Nov 2020

Based on top S&P Global 1200 companies

Pos. trend ≥ 2%

 \rightarrow No sig. change

Meg. trend ≥ 2%

Companies with probability of default >15%⁴

ECONOMIC & BUSINESS IMPACT

Categories based on TSR and net debt/enterprise value²

		21 Feb 2020 - 20 Mar 2020	21 Feb 2020 - 13 November 2020	30 October 2020 - 13 November 2020	21 Feb 2020	13 November 2020	30 October 2020 - 13 November 2020	
Healthier sectors	Semiconductors	-30%	26%	7	0%	0%	\rightarrow	
	Retailing	-40%	11%	7	0%	24%	7	
	Materials	-32%	11%	7	5%	4%	7	
	Tech Hardware	-26%	8%	7	0%	0%	\rightarrow	
	Household Products	-16%	7%	7	0%	0%	\rightarrow	
Pressured sectors	Capital Goods	-35%	6%	7	2%	5%	\rightarrow	
	Media	-36%	5%	7	0%	0%	\rightarrow	
	Health Equipment	-31%	5%	7	0%	0%	\rightarrow	
	Prof. Services	-30%	4%	7	0%	0%	\rightarrow	
	Pharma	-20%	2%	7	0%	0%	7	
	Auto	-41%	1%	7	0%	5%		
	Software	-30%	0%	7	0%	0%	\rightarrow	
	Food/staples Retail	-10%	-3%	7	0%	0%	\rightarrow	
	Durable Goods	-39%	-3%	7	0%	0%	\rightarrow	
	Food & Beverage	-23%	-4%	7	0%	0%	\rightarrow	
Vulnerable sectors	Financials	-35%	-5%	7	0%	0%	\rightarrow	
	Utilities	-30%	-7%	7	0%	0%	\rightarrow	
	Telecom	-17%	-10%	7	0%	8%		
	Transport	-34%	-12%	7	0%	24%		
	Insurance	-39%	-12%	7	0%	0%	\rightarrow	
	Hospitality	-44%	-13%	7	8%	23%		
	Banks	-39%	-17%	7	0%	2%	~	
	Real Estate	-39%	-20%	7	0%	4%		
	Energy	-52%	-35%	7	0%	21%	\rightarrow	

Note: Based on top S&P Global 1200 companies; Sectors are based on GICS definitions; 1. Retailing, Transport, Hospitality, 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 13 Nov 2020 based on median; 4. Implied by 5-year credit default swap based on median. Source: S&P Capital IQ; BCG ValueScience Center; BCG

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Additional perspectives on COVID-19



Edition #18 Future of Cities



EDENNE CHARTER ALEXANDER

Galvanizing Nations for

Edition #13 Global Restart: Key Dynamics



Edition #17 Advantage in Adversity



Edition #12 Ensuring an Inclusive Recovery



Edition #7 Sensing Consumer Behavior and Seizing Demand Shifts



Edition #16 Vaccines & Therapeutics Outlook Part II: Scenarios and Implications



Edition #11 Accelerating Climate Actions in the New Reality



Edition #6 Restructuring Costs, and Managing Cash and Liquidity



Edition #15 Vaccine & Therapeutics Outlook - Part I: Timelines and Success Factors



Edition #10 Value Protection and Acceleration Roadmap to Win in the New Reality



Edition #5 Revamping Organizations for the New Reality



Edition #14 US: Current Dynamics and How to Win the Fight



Edition #9 Future of Global Trade and Supply Chains



Edition #4 Accelerating Digital & Technology Transformation

Edition #8

the New Reality

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