



February Tech Brief

Feb. 2020

Executive Summary

The coronavirus outbreak has hit strategic emerging industries and the tech sector hard already, with an aftershock approaching as infections rise in countries both up and downstream the value chain. But it is also poised to help drive transformation of the tech sector, as virus control measures drive online-offline integration and force businesses to digitalize.

Tech firms are also receiving a significant boost from the state. While direct support measures like subsidies have thus far provided more of a cushion to traditional industries, the outbreak is proving a boon for many firms, with smart logistics providers like JD working closely with governments to maintain circulation of goods, Tencent and Alibaba health services being integrated with virus control efforts, and entertainment companies like Bytedance and iQiyi enjoying a massive spike in users as millions stay at home and consumption moves increasingly online.

Table of Contents

Executive Summary

Policy

In Brief

Unpacked

Tech Platforms, Coronavirus Governance and Economic Recovery

NDRC Autonomous Vehicle Plan Pushes Target Back by Years

5G Networks to Be Ready Months Ahead of Schedule

Court Gives Guidance on Coronavirus Force Majeure

Automation Initiatives Continue Apace

Signal Receiver

Personnel:

In Depth

From Epidemic to Opportunity: Impact of the Coronavirus on China's Emerging Industries

Note: this brief is based on primary source research, so all links are to original sources in Chinese unless noted otherwise.

Policy

In Brief

Ministry of Industry and IT

- [notice](#) on facilitating epidemic control and accelerating resumption of work calls for broad support of internet platforms and IT companies (see below)
 - followed by a range of notices on specific applications, such as [online education](#)
- [notice](#) on industrial big data rolls out guidelines for handling and sharing big data, answering questions on defining, grading, sharing and regulating industry data with a three-tier classification system encouraging sharing of low-risk data and tighter security for high-risk

National Development and Reform Commission

- new smart car innovation development [strategy](#) released in coordination with 11 agencies emphasises interministerial and cross-sector cooperative development of intelligent vehicles, with a new 2025 target for scaled production of conditionally autonomous vehicles (see below)
- [guiding opinions](#) on developing smart coal mining

China Securities Regulatory Commission

- long-awaited [draft policy](#) for public comment on National Equities Exchange and Quotations listed companies converting to listings on the Sci-tech Innovation Board (STAR Market) or Growth Enterprise Market Board (GEM), expected to come into effect 2022 for STAR and 2023 for GEM assuming no bumps in the road
- [special provisions](#) loosening restrictions on venture capital and PE investment, including cancelling 5-year lock-in periods
- [requirement](#) for pending IPO companies and sponsors to produce additional disclosures regarding the impact of Covid-19 on their business, requiring updated applications, financial forecasts, and audits. No formal announcement has been made but multiple investment banks have confirmed the news

National Information Security Standardization Technical Committee

- released numerous [data security standards](#) including a revision of personal data standards that clarify legal boundaries and strengthen protections

Courts

- Beijing No. 1 Intermediate People's Court released a [whitepaper](#) on handling force majeure scenarios, with details on loan & bond repayments and VAM (see below)

China Pharmaceutical Innovation and Research Development Association

- released [recommendations](#) to mitigate the impact of Covid-19, calling to delay the next round of centralized drug procurement as many active pharmaceutical ingredient (API) producers are operating at minimal capacity (China produces about 20% of the world's APIs, and Global Data Pharm Source says Hubei province alone has 44 API makers recognized by US and EU regulators)

Cyberspace Administration of China

- “online ecosystem governance” [regulations](#) originally released in December came into effect March 1, ushering in tighter-than-ever control of the Chinese internet, with statutes going so far as to regulate placement of “encouraged content” in prominent locations on apps and websites

Unpacked

Tech Platforms, Coronavirus Governance and Economic Recovery

The Ministry of Industry and IT (MIIT) issued a notice on facilitating epidemic control and accelerating resumption of work with next-gen technology on Feb. 19, instructing its local bureaus to roll out measures supporting internet platforms and IT companies.

MIIT called to support use of big data, cloud computing, AI, and other tools for both direct work on epidemic monitoring and analysis, as well as for economic recovery. That includes solutions like Ali Health's big data-powered infection tracker, remote work and videoconferencing platforms, and e-commerce.

One prominent example of coronavirus tech applications has been over 800 new WeChat mini-programs that have cropped up to help medical personnel and patients manage amid the outbreak. Local governments have endorsed WeChat mini-programs as a way to facilitate virus control, providing a boost to Tencent's ecosystem.

Some of the apps bring routine administrative affairs online to prevent spread of the virus in offices, some are designed to help track recent travel history, and others generate digital health certificates.

Alibaba and Tencent's 'health code' systems, integrated into WeChat and Alipay, are also receiving strong state backing. The functions help administrators, officials and companies track individuals' health based on user location history and self-reported data, and their use is being rolled out nationwide following State Council and National Development and Reform Commission endorsements.

Takeaway: Although the 'health code' systems and mini-programs can help in disease control, they have also brought privacy concerns. Providers claim they're only using tracking data for statistical purposes and personal information is protected, but rollout of programs tracking individuals will draw more attention to digital privacy, and it's not just consumers that are concerned. Luo Junjie, an MIIT department head, reminded in a March 4 press conference that while such apps are convenient, MIIT will be strictly enforcing data security and personal privacy protection laws, and guarding against data leaks and abuse.

At the intersection of the virtual and material worlds, supply chain management and e-commerce platforms are set to receive a boost from Covid-19, as they are critical to maintaining circulation of goods and keeping the economy going as much of the country works remotely and spends less time and money in brick-and-mortar businesses. Hubei, for example, is cooperating directly with JD to help manage logistics amid the outbreak.

NDRC Autonomous Vehicle Plan Pushes Target Back by Years

China aims to achieve mass production of vehicles with "conditional" self-driving capabilities by 2025, according to a development plan jointly released on Feb. 24 by the country's National Development and Reform Commission (NDRC) and several other government agencies.

The Society of Automotive Engineers (SAE) divides autonomous driving technology into six levels from 0 to 5. "Conditional" driving automation refers to Level 3 technology which allows a car to drive itself only under certain circumstances in which a human driver is ready

to take control in case of an emergency.

Takeaway: The target set by the development plan is a significant step down from a 2018 NDRC draft policy which suggested that intelligent cars would already account for 50% of all new vehicles sold in China by this year.

5G Networks to Be Ready Months Ahead of Schedule

China's major telecom operators, undeterred by the ongoing Covid-19 outbreak, don't expect to change their plans to finish building 5G infrastructure this year, and may complete construction ahead of schedule.

China Unicom and China Telecom, two of the country's top three mobile carriers, planned to finish setting up 100,000 5G network base stations in 47 cities in the first six months of this year.

Takeaway: 5G infrastructure buildup is accelerating in part because it is believed to be the easiest way to lever up the whole technology sector. (See also: March 4 Politburo meeting mentioned above.) Huge traffic in video and teleconferences during the epidemic is also driving demand for faster and more reliable service.

Court Gives Guidance on Coronavirus Force Majeure

The Beijing No. 1 Intermediate People's Court released a whitepaper March 4 to provide guidance on handling situations like companies breaking a contract or failing to repay loans or bonds due to the coronavirus outbreak.

The court told affected parties that they can declare Force Majeure per Article 117 of the Contract Law, and negotiate for reductions or exemption from violation penalties.

In situations where the outbreak affects loan repayment, bond repayment and Valuation Adjustment Mechanism (VAM), the court suggested extending deadlines and encouraged companies to seek refinancing via financial relief programs.

Takeaways: Although the epidemic can trigger Force Majeure, companies should still be cautious, as there is a high burden of proof to claim it.

Automation Initiatives Continue Apace

The National Development and Reform Commission, in coordination with a choir of other ministries, released a new policy supporting automation of industrial production on March 2. The document focused on building "smart coal mines", which includes automating more of the work in mines. The document laid out a roadmap, including a target for key underground work posts in China's smart mines to be manned by robots by 2025.

Takeaways: Coal mining is dangerous, labor-intensive work, perfect for automation. This plan also fits into larger agendas for industry upgrading, set to help modernize and clean up one of China's most traditional and environmentally impactful sectors.

Signal Receiver

The Politburo Standing Committee [met March 4](#) to discuss epidemic control and socioeconomic stabilization, sending strong signals on a range of tech-related issues, including an explicit commitment to accelerate construction of new infrastructure like 5G

networks and data centers.

However, former vice president of the State Council Development Research Center Liu Shijin was quick to remind [on March 11](#) that given the technological nature of new infrastructure like data centers and industrial internet, businesses should lead investment; the government can't just set up development and investment companies like it could to build a railroad.

Resumption of work remains a top priority, as highlighted in Li Keqiang's remarks at the [March 11](#) State Council meeting, where he stressed the importance of giving full play to financial policies like special refinancing loans and rediscounting, opening up supply chains with enhanced interministerial coordination, and further advancing tech initiatives like Internet + and the mass entrepreneurship and innovation campaign.

Personnel:

Li Guohua (李国华), general manager of China Unicom, retired on March 11 at the standard retirement age of 60, after less than two years in the role. Li's successor hasn't been announced, and the company's chairman, Wang Xiaochu, now 62, is approaching the retirement limit.

Zhao Zeliang (赵泽良) was made a vice-chairman of the Cyberspace Administration of China on Feb. 21. Zhao has been the Chief Engineer of the Cyberspace Administration since 2018.

Tian Yulong (田玉龙) has been made the Chief Engineer of MIIT on Jan. 31. Tian is a fellow of the International Academy of Astronautics and a veteran administrator of astronautic engineers; he served as the secretary general of China National Space Administration from 2013 to 2018.

In Depth

From Epidemic to Opportunity: Impact of the Coronavirus on China's Emerging Industries

The key to China's success coming out of the coronavirus outbreak will not just be whether it can maintain baseline economic growth, but also whether or not the epidemic breaks future growth trends. In the longer term, the rise or fall of China's emerging industries will be the defining factor.

In the short term, the outbreak will impact the supply side in two ways: by pressuring resumption of work and clogging the industrial chain. Some emerging industry clusters have been hit hard already, as with display manufacturing, for example. But in the long run, positive factors on the demand side and capital side will outweigh the short-term downside and open up development space for China's emerging industries, fueling China's consumption upgrading and indigenous tech innovation, and maintaining China's long-term growth advantage globally.

Right now, we are in the throes of the first short-term impact, with slow resumption of work

putting heavy pressure on many companies. While supportive policies will cushion some of the blow over time, emerging industries face a tougher challenge than more traditional manufacturing, as their industry chain is more fragmented and their products far more complex, requiring a full ecosystem to support production. Delays of resumption of work in low-end manufacturing can disrupt supply of intermediate products, making it difficult for emerging industries to "cook rice without water" so to speak. Second, strategic emerging industries are driven by core tech IP and are highly concentrated geographically, magnifying the impact of outbreaks in any given region. Third, unicorns are high input, high risk, low cash flow companies, making them very fragile if external investment is disrupted.

The second shock has not yet hit, but will soon as the outbreak spreads overseas. Rising infections in Japan and South Korea are poised to distort the whole emerging industrial chain in East Asia; 24.7% of China's electrical machinery imports in 2019 came from those two countries. As the epidemic intensifies, it will disrupt the upstream supply of China's emerging industries. And on the other hand, China's attractiveness to global unicorn companies may slip as they diversify their supply chains due to concerns about supply chain stability.

In terms of the first shock, three notable characteristics have emerged so far. First, resumption of work is slower than average; dividing 66 national strategic emerging industry clusters into 20 categories, 8 of them have been relatively slow to resume work; only intelligent manufacturing and AI companies have done better than the national average. (This is perhaps unsurprising.)

Second, there are stark differences between the ten categories' recovery, with speed to resume work putting them into roughly three tiers. Third, the effects of the outbreak are highly concentrated - there are 7 strategic emerging industry clusters in Hubei and Zhejiang province (including small display panels, memory chips, graphene, optical films, and others) and they are suffering much worse than others.

2020年春节后中国“新兴产业×集群区域”的复工进度矩阵

	产业集群										区域复工率 (%)	
	智能制造	人工智能	信息服务	节能环保	轨道交通	装备	生物医药	新材料	集成电路	下一代信息		新型显示
辽宁	1		1									65
广东	2	1				1					1	61
贵州			1					1				61
上海		1	1			1		1				59
四川	1			1		1						58
云南						1						57
黑龙江							1					52
重庆						1						49
北京		1				2		1				48
安徽		1						1	1		1	48
江苏	2					1						47
天津						1					1	47
湖南	2						2					47
河北						1						47
河南			1	1			1			1		45
山东			1	1	1	2	2					45
福建						2	3					44
江西							1			1		43
新疆							1					41
陕西							1	1				40
浙江			1			1	1					39
海南			1									37
湖北						1		1	1	1		18
产业复工率 (%)	54	54	50	49	45	44	43	43	35	32		全国均值 52

注: 1) 数据截至2020年2月25日; 2) 蓝色区域数字为产业集群数量

资料来源: 百度大数据及我们的测算

But in the long-term, as the outbreak subsides, it will put wind into SEIs' sails. The outbreak will not disrupt consumption upgrading, and instead stands to strengthen it, as it systematically reshapes consumer habits and business models helping increase digitalization and online-offline integration. It will also fuel demand for online services and healthcare connected industries, and help change the social outlook with a renewed emphasis on well-being and respect for individual needs.

Additionally, the epidemic will help catalyze optimization of financial support to SEIs. Investors' confidence in China's market has remained resilient and will grow, Chinese firms' vitality and long-term potential will grow more prominent as the epidemic hits other countries, and financial policy measures responding to the epidemic will help encourage China's financial system to better serve the needs of SEI firms.

In the short term, dampening the shock will be key. Timely, well-targeted macro policy responses should help SEIs recover from the first impact and cushion against the second. MIIT's epidemic control and economic recovery policy is a good example, as is support from industrial investment funds in Guangdong, Anhui and other regions.

In the long run, thorough development of SEIs will pay dividends, as epidemic pressure turns into a development driver. While overseas outbreaks will continue to create turbulence in global markets and may have ripple effects on the Chinese financial system, the long-term trends of supply-side optimization, consumption upgrading and indigenous development of core tech will not change, and will maintain China's growth advantage well into the future.

[Adapted from a Caixin column by](#) Cheng Shi, Managing Director and Research Head of ICBC International.