

technode editors' choice

BEST OF 2020

TechNode's 10 best articles of the year

COVID-19 · EV industry · Ant Group · Semiconductors · Huawei ·
Second landlord platforms · Remote work · Bilibili and more

Editor's note

Here's a tough one: what's the biggest thing that happened to China tech in 2020? In January 2020, when we were all about five years younger, we were looking at a wave of Hong Kong IPOs and asking ourselves if "capital winter" was finally over.

The year quickly changed directions. By the Chinese New Year, we were focused on what was then, quaintly, merely a national epidemic. Our reporters took on the challenge and brought in innovative coverage. They pieced together how tech-based quarantine systems like the "Health Code" worked, asked how tech companies were responding to the challenge and documented life under lockdown in work like Shi Jiayi's series of [video shorts](#) and Lavender Au's on-the-ground [bulletins](#) from Shiyuan, Hubei. Nearly a year into Covid-19, we're still missing staff who got stuck overseas. Chris Udemans and Carolyn Surh are still working strange hours in distant time zones. Other friends and colleagues left the company during this difficult year.

But China's already highly digital society adapted quickly to lockdown conditions. The country's truck and delivery drivers, in particular, took risks outdoors to make it possible for people to stay indoors for weeks on end, allowing China to adopt an extreme, but short-lived lockdown policy that led to controlled re-opening within weeks.

That's not to say there haven't been big changes. E-commerce livestreaming has made a [28-year-old man](#) in lipstick as identifiable a symbol of consumerism as Santa Claus. Growth-at-all-costs businesses like Luckin Coffee and Danke Apartment have come apart at the seams. Skepticism of the power of big tech has also taken hold among both the public and regulators—as Ant Group, most dramatically, has learned. And #techwar continued to escalate, battering telecoms giant Huawei and driving a renewed push for semiconductor manufacturing in China.

Here at TechNode, we'll be doing all we can to explain China tech, and to find the markets that are emerging in China's always dynamic tech sector. We're looking forward to exploring emerging fields like cleantech, SaaS, and health and med tech. As ever, we thank you. Your enthusiasm, feedback, and tips are invaluable to our reporting. And to our members: Your support makes it possible for us to do sustainable journalism. Thanks for sticking with us. To all our readers, here's to a happier, healthier new year!

Best regards,

David Cohen
Acting Editor-in-Chief
TechNode



CONTENTS

1. CHINA VOICES | 'BILIBILI IS BECOMING CHINESE YOUTUBE'

– Low-budget creators make Bilibili more vibrant than rival video and streaming sites

pg. 4

2. HOW CHINA IS USING QR CODE APPS TO CONTAIN COVID-19

– China's QR code quarantines rely on low-tech implementation

pg. 10

3. TESLA'S APPRENTICE: IS TESLA BULLYING ITS OWN BIGGEST FAN?

– Tesla is accusing Chinese EV maker Xpeng of theft—but is it just competition?

pg. 18

4. INSIGHTS | WHO OWNS 'INTERNET LITERATURE'?

– A few internet lit authors hit it big and turn pro, most are hobbyists

pg. 27

5. INSIGHTS | 'SECOND LANDLORD' PLATFORMS GET TENANTS IN DEBT TO FUND GROWTH

– Businesses thrive easily in good times. It's the bad times that reveal the cracks under their surface

pg. 33

6. 996 IN YOUR LIVING ROOM

– What the pandemic changed—and didn't change—about working in China tech

pg. 41

7. HSMC PROMISED CHINA'S FIRST 7 NM CHIPS. IT DIDN'T GO WELL.

– HSMC promised China's first 7 nm chips. Now it's gone bust, leaving only a half-built headquarters

pg. 47

8. NIO, XPENG, LI AUTO: YOUR CHEAT SHEET TO CHINA'S LISTED TESLA RIVALS

– Chinese premium EV makers listed in US stock markets

pg. 52

9. CHINA VOICES | THE UNSIGNED OP-EDS THAT FORESHADOWED ANT GROUP IPO SUSPENSION

– Articles in influential media called Ant Group "too big to fail" and a "systemic risk"

pg. 60

10. HOW HUAWEI HOOKED GREEK TELCOS

– Where there's a telco network, there's a battleground

pg. 67



NO. 1

CHINA VOICES | 'Bilibili is becoming Chinese Youtube'

JAN 14, 2020 | BY JORDAN SCHNEIDER AND ERIK STAHL



China Voices is TechNode's biweekly translation column. This translation is abridged, and was made by permission of the author. TechNode has not independently verified the claims made by this article.

Most longform video content is pretty cookie-cutter in China. Leading streaming video websites Youku, Iqiyi, and Tencent Video have the same middle-market target customers, and in turn, produce boatloads of lowest-common-denominator content. Hemmed in by regulations and conservative producers, original content for these platforms tends to stick to tired tropes like cop procedurals and gaokao dramas (the Chinese equivalent of Adam Sandler Netflix movies and *The Kissing Booth*). One new hit show—like the past few years' hip hop, dance, and pop star competitions — instantly spawns copycats across the other two platforms.

By contrast, the Bilibili video community has a distinct personality. Founded in 2010, it initially functioned as a platform filled with pirate videos of Japanese anime.

But Liu Yan Fei, a Shanghai-based product manager, author, and consultant, writes that it has blossomed into a home for user-generated medium- and long-form content—what he calls the Youtube of China. Today, on Bilibili, you can learn to cook, watch Chinese stand up and beatboxing, and even study with Coursera-style lectures on continental philosophy. Liu writes that its low-budget sensibility encourages people to experiment—and creates an environment in which a high school teacher with a chalkboard can be a star.

If you speak Chinese and want a taste of the Bilibili sensibility (outside of its core anime offerings), check out this hysterical low-budget “The Office”-style show called “Building C, Office 802.” Another favorite of mine is down to earth chef Wang Gang available, here on Bilibili or in English on Youtube (just turn on closed captioning). The cinematography takes its time—think *The Great British Bake-Off* if it was set in rural Sichuan. His videos with his uncle butchering pigs and cooking bamboo rats are priceless, and I trust the man’s views on the future of Beyond Meat in China.

Bilibili still books over half of its revenue from a single grindy mobile card game called Fate/Grand Order and hasn't allowed video content creators to monetize like they can on Youtube. But unlike TikTok, Bilibili has a user base intensely loyal to its platform and provides creators with more reliable view counts than other Chinese user-generated content platforms.

With so much of Chinese culture run by norms of "enforced normalcy," Bilibili is the rare platform where sarcasm, nonconformist niches, and ever so slightly edgy content has a home.

Bilibili is becoming Chinese YouTube

Liu Yan Fei Yu, Dec. 18, 2019

These past few years, Bilibili has become a representative zone for otaku, as well as Gen Z. It's like HuPu for exercise lovers, DouBan for literature and art lovers, and Zhihu... you get the point. Bilibili's current changes are open for all to see.

Thinking back to the most recent news I have heard about Bilibili, this made me notice an important point:

- While people are telling others to watch professional user-generated content (PUGC) no one is talking about the three large Netflix-like sites [which themselves have UGC channels] (iQiyi, Youku, Tencent Video); they are all links to Bilibili.

This tells us that Bilibili has already been successful in breaking into the circle of other media groups.

Bilibili's expansion is coming from two different dimensions (pictured above). The first is a growing user community, where is attracting an older audience (as shown in the image above). Other than using new topics and content to attract older users, the more important point is adapting content to original users, which are beginning to enter middle age and changing their content preferences.



The second is subject expansion. Anime, music, dance routines, autotune remix, vlogs... this is all material that young people like, which can make it difficult to switch to more serious content. However, in these past two years, Bilibili has put out endless new content, and it has a huge number of viewers to boot. I have seen many bullet comments stating, "I'm unexpectedly on Bilibili to study!"

I believe that this has a lot to do with Bilibili's PUGC environment. The three major sites have lots of copyrighted and self-produced, large-scale content that compete against each other, while most people on Douyin, Kuaishou, and even Taobao live-streaming battle in short-form content. Creators of videos in between these two major types have ended up putting their content on Bilibili.

Bilibili's creation bonus

For content creators, Bilibili has some pretty significant pluses:

Low production costs

The low barrier to entry for short video content cannot go unnoticed as a factor in Douyin's fast expansion. In fact, as Douyin's name implies, it was originally a music platform, due to the extremely low barriers to creating content. Funnier and more

entertaining content is something that needs time and a greater understanding of viewer demand to produce, something that can only be learned day by day. Bilibili's video content is generally of much higher quality than that of Douyin, as videos are a bit longer. However, the easiest tool for creating Bilibili content is also a phone. (To make the video a quality a bit higher, one can also run it through the computer first.)

[Translator: Bilibili also produces its own television shows, which of late have been some of the most novel and innovative on offer in China.] "Life on a Skewer" [a Bilibili-produced show available here on Youtube—it's a wonderfully produced paean to kebabs across China] is a show which many of the main sites were unwilling to invest in. They saw it as too crude, and that the food was too low-class. Only Bilibili dared to invest—and in the end viewers dared to watch, even enjoying it very much! This is a great illustration of the gap in consumer expectations.

Of course, performance arts still need a production cast, and the very popular "Necromancer Financial" is typical of PUGC. The imagery of the show is a hodge-podge of images and videos collected from the internet. However, the core content is not the imagery, but it is rather the text information. This is essentially similar to the "PowerPoint-ization" of video explanations and WeChat public account articles.



Consider the videos from famous teacher Li Yongle, where the whole video is just writing on a blackboard, sometimes even without any sound. Of course, this makes the production costs even cheaper. However, users don't seem to care at all about this. I did not see a single person asking why this video is not the same quality as a BBC documentary. On the contrary, most people commenting said that this video brought them fond memories of high school.

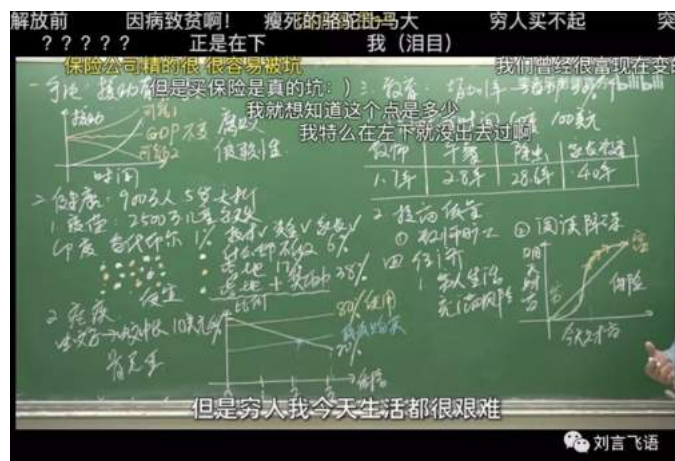
The leniency of users' expectations for production content gives creators more leeway to try things with lower costs.

Lastly, I recently spoke with a friend about why not as much professional user-generated content has become popular. We felt that one point was the most important: In the past, users were watching videos on their computers, where large screens and comfortable watching environments set the expectations for videos high. However, today almost everyone is watching videos on their phones. With this comes smaller screens, more fragmented viewing periods, and shorter attention spans. Therefore, viewers' expectations for quality has declined.

Healthy communities

When speaking of health, one has no choice but to bring up Zhihu [the Chinese Quora equivalent].

In my own point of view, content communities suffer from an impossible trinity: the platform earning a lot of money, having satisfied users, and



For low production values, it's hard to beat Bilibili star teacher Li Yongle. (Image credit: Liu Yan Fei Yu)

top creators getting appropriately compensated. These three are very difficult to balance.

Zhihu's situation is not that they are only missing one of these three points, but rather, that they are missing all three of these. Essentially, due to differences between users, creators, and leaders at Zhihu itself, none of these are able to link. And at the same time, the company is not able to earn money. It really is curious.

By comparison, Bilibili's environment has many friendly relationships. First, the relationship between the company and its creators is quite good.

Next, the relationship between creators and users is usually rather good. There is a high amount of stickiness for users, and mean-spirited bullet comments are amongst the lowest level on the entire internet [but not always—consider the harassment of Fang Kecheng for alleged Hong Kong independence sympathies].

Another point is user stickiness.

Why does Kuaishou have more commercialization opportunities than Douyin among live streaming platforms? This is because Kuaishou focuses on people, while Douyin focuses much more on content. Looking at user stickiness, Kuaishou blows Douyin out of the water.

Although the production cost of longer videos is much higher, user stickiness is absolutely essential for short video production.

The sea of serious content

There are many successful examples of Copy to China. However, most of the products copying Youtube were not successful. I don't think it's because the products weren't good: for example, Tudou is still excellent to this day. The important issue is that the market wasn't mature enough, and the habit of watching serious content on PC hadn't been cultivated yet.

Today Bilibili has a large amount of serious content, whether it is finance or science, there are videos being put up all the time. Although the reasons behind the market changes are numerous and unclear, the dream of "YouTube of China" is being realized today by Bilibili.

Why bring up YouTube? If you ask our friends at YouTube you will then know, as most of the popular topics on Bilibili had already achieved success on YouTube. Even the cover page for creators' pages is the same.

As Yujun, a famous adviser to Didi Chuxing, has always said, users are a mass of demands. The meaning here is, when you acquire a consumer, you have actually only acquired a portion of the user's demand. Therefore, when using this point of view in customer acquisition, you find a new way to define value. Even if your user numbers don't change, if you satisfy more of customers' demands, you are still creating value for the company.

On this point, Bilibili is a model case.

In the beginning, users only wanted cartoon video content, but Bilibili produced lifestyle content, then entertainment, and even serious video content from the start. However, I believe the current amount of video content will not be able to keep up with the huge potential for user demand growth. While users may only currently have one topic of interest on Bilibili, in the future it could easily become five; demand growth is exponential. Even with so many topics, the excellent content you can find will not come close to that of YouTube.





NO.2

How China is using QR code apps to contain Covid-19

FEB 25, 2019 | BY NICOLE JAO, DAVID COHEN, AND CHRIS UDEMANS



As China goes back to work after weeks of epidemic lockdown, it's betting on high-tech QR code quarantines to keep the virus from spreading.

In the eastern Chinese city of Hangzhou, scanning a QR code at a checkpoint with Alipay has become a routine part of daily life. It's essentially a health passport for the city. A mini-app embedded in Alipay or WeChat rates people as red, yellow, or green risks. To enter an apartment complex or a market, residents must scan a QR code at a manned checkpoint, letting the system know where they are and producing a one-time color code pass to show the guard.

Hangzhou, the capital of Zhejiang province, became the first to adopt the QR code system on Feb. 11, although lockdown continued for most residents until Feb. 15. Alipay announced on Feb. 16 that it was ramping up development support for a national

health code system that assesses individuals for self-quarantine based on basic health information and travel history, which it is preparing to launch this week under the guidance of the State Council, China's cabinet.

In a statement provided after publication of this article, Alibaba said that ratings are provided by government, not the company, using Alipay as a platform. Referring to widespread references in Chinese media to an "Alipay health code," the company said: "It is the marketing language used for promoting usage. In reality, these are not Alipay-issued health codes, but rather are issued by governments."

By Feb. 20, Alipay boasted that platforms it had helped develop were already in use in over 100 cities, including all cities in Zhejiang, Sichuan, and Hainan, as well as Chongqing.

According to our observations, there is no place that enforces the health passport system as rigorously as in Zhejiang.

But national implementation doesn't mean a unified national system—instead, each participating city is launching a local version of the system, creating a fragmented landscape resembling local social credit system pilots. Some have versions of Alipay's system, some have local apps—and others have both. While online tracking ended Hangzhou's total lockdown, many other cities have not revised quarantine rules to reflect new online systems.

How QR code systems work

As of Feb. 25, sources on the ground described very limited implementation outside Alipay's home province of Zhejiang, ranging from paper-based lockdown in Shanghai to laxly enforced digital checkpoints in Shenzhen. Talking to locals in cities that have adopted health passport systems, TechNode saw its limits: the app alone does nothing without human-based enforcement and public compliance, and few cities outside Zhejiang have overcome these human challenges.

The system shows both how much is possible with high-tech surveillance—and how much human input is required to make such systems work.

To register, individuals provide their name, ID number, phone number. The health-rating platform, asks a series of questions, including physical health condition and whether the individual has traveled to virus-hit areas or has come into contact with infected cases, to produce an initial rating. These ratings are reported to change, likely informed by where the user has checked in and new reports of infections.

According to Hangzhou rules, residents with a green code are allowed to move around the city freely. Yellow means a seven-day quarantine is required, and red requires a 14-day quarantine. Some versions adopt a slightly different color-coding system, but the general idea is the same—to track mobility and regulate it based on risk assessments. Though the questionnaires record self-reported information, public data is used for verification purposes.



Internet users have questioned the way the system analyzes health and travel data. In numerous accounts on microblogging platform Weibo, netizens said people living in the same household were given different color codes even though they had been isolated together for weeks.

Others have expressed frustration with unpredictability, saying they were initially given a green code only to have it change to red after a few days. The colors are dynamic, and some people taking what they believe to be adequate measures to protect themselves while outdoors have had their mobility limited after their code changed color.

While Alipay's version is associated with a State Council project, local governments are not required to adopt it. WeChat operator Tencent is working with the State Information Center to develop similar QR code-passed health passports.

Tencent's version, called "Tencent Healthcare Code," is already available in provinces including Guangdong, Sichuan, and Yunnan.

While the system has the potential to bring a semblance of normal life back to places that have been locked down for weeks due to the outbreak, to create a surveillance system capable of tracking 1.4 billion people everywhere they go comes at great challenges and costs.

To enter market, scan QR code

Uny Cao, a resident of Hangzhou, says that he scans twice a day—once when he goes to the

vegetable market, and once when he returns home. Getting on the subway, riding a bus, or going to a park would mean more scans, so he's chosen to limit these behaviors. Many also avoid borrowing share bikes, reasoning that the apps may share data with the Health Code:

"A few days ago, they found a new case in City North. Rumor spread that if you have rented a shared bike in that region, your code might get a downgrade," he said. "So for those few days, I avoided renting shared bikes, in case they discover a new patient in my area."

According to our observations, there is no place that enforces the health passport system as rigorously as in Zhejiang.

Regular scans both track and shape behavior. Sources told TechNode that citizens are required to show their code to be scanned when entering supermarkets and residential areas as well as getting on the subway and buses.



For Hangzhou residents, the inconveniences are a small price for something like normal life—for the ten days before the app launched, the city was forced to stay indoors except for short trips to buy food every other day. Since the code system came in, residents have been allowed to leave their homes and even to drive to other cities.

Even here, enthusiasm has its limits: While apartment buildings and food markets appear to be rigorously enforcing the rules, TechNode correspondents have walked into banks past napping checkpoint guards. Restaurants and smaller shops are starting to re-open without check-in systems.

The Hangzhou version of the mini-app, which the national version will reportedly be based on, allows non-Hangzhou residents and foreigners to register. Other places such as Shanghai and Shenzhen's platform only allows residents to apply for a pass. The Hangzhou health passport works for long-distance travel. When a TechNode correspondent traveled from Shanghai to Hangzhou, train station staff checked travelers' health codes and wrote down their ID numbers. Travelers who had applied for codes outside of Hangzhou had no problems entering the city.

Mileage may vary

Beyond Hangzhou, enforcement can be more lax. In Jinhua, a city in Zhejiang 180 kilometers south of Hangzhou, a 25-year-old city resident told TechNode that she only needs to use the system



when taking public transport. Her local supermarkets and residential community do not check the color of her QR code when she leaves her apartment. The system is enforced more stringently for out-of-towners, she said.

In a rural area, quarantine guards suggested a TechNode correspondent write down an ID number on a piece of paper to save time registering with a local version of the color codes mini-app.

But other cities can enforce non-app limits far more strictly, suggesting that they do not fully trust the app: A resident in the eastern Chinese city of Ningbo says there are checkpoints set up at community complexes and supermarkets. People are being asked to show, but not scan, their QR code at public places. On top of enforcing the new health code system at the community level, the previous lockdown rules still apply, the Ningbo resident said. In her apartment compound, residents are required to show the QR code at the entrance of the complex and still adhere to the rule that every household can only send one person out every two days.



A security guard checks someone's temperature and health code before allowing them to enter the compound. (Image credit: TechNode/Shi Jiayi)

The source also said her relative purposely left out the fact that he just came back from Wuhan when filling out the questionnaire. The police called days later and ask why he didn't report it. They found the license plate under his name had been in Wuhan recently.

For people that have returned to their work, they have to show the QR code when leaving the apartment complex and also show a document from their employer that permits them to return to work.

Active but unused

TechNode sources described health passport systems that were implemented either spottily or not at all. In some places, including Shanghai, Beijing, and central China's Hubei, the worst-hit province in the country, apps were superseded by strict offline measures; in others, such as Guangdong, quarantine appears to be lax.

More than a week after launching a track-everything health code system, Shanghai is still very much relying on paper records to enforce a 14-day quarantine on all new arrivals. Shanghai launched health passports as a new feature within its pre-existing "Health Cloud" mini-app on Feb. 17, accessible on Alipay and WeChat. But TechNode correspondents could not find a place to scan the app inside the city, finding checkpoints at office buildings and apartment complexes relying on paper records and paper cards or stickers to identify approved residents or workers.

In Shenzhen, the headquarter of internet giant Tencent, sources say that the health code system has been mostly ignored as the city hurries to get back to work.

Henk Werner, head of Shenzhen-based hardware incubator Trouble Maker, told TechNode that he and his friends had not bothered to register for the local

version unless they wanted to take the subway. Residents are being asked to show QR codes at places like the parking lot of an apartment complex, but found it possible to bypass the checkpoint. Another source in Shenzhen says she hasn't bothered to register—and that she's going to work by taxi every day with a paper pass.

The central city of Xi'an has used a more limited pass system that requires scan check-ins but does not display a color code for about a week. Graduate student Liu Weiqi and TechNode editor Wang Boyuan both described checkpoints at the entrances to apartment compounds, but saw mixed use of the app. While Wang saw people using the app to enter his apartment compound, Liu made a trip to the market by bus on Feb. 25, and found that in practice he was registered on paper records everywhere but the market. On Feb. 25, the city announced that it is adopting a version of Alipay's color code-based pass app.

A source in Chengdu said even though the city implemented a health passport on Feb. 21, it's not enforced. Residents can go out without being asked to show the code. She said it's probably because the area she lives in is mostly locals rather than out-of-towners, who are seen as being a higher risk.

At the epicenter of the outbreak, attempts to roll out the health check system have also had limited effect, simply because no one is going out to be checked. Earlier this week Wuhan, the city at the epicenter of the Covid-19 outbreak, launched a Tencent version of the health passport. The local government now recommends residents who need to leave their apartment complex for valid reasons to apply for the pass.

Wu Chuan, a 26-year-old resident of Yichang, a city in Hubei that is approximately a four-hour drive from Wuhan, told TechNode he hasn't stepped out of his home for close to a month and wasn't aware of any health passport platform in Hubei.

The city has a strictly enforced health-reporting system that requires citizens to fill out an application if they plan to leave the community complex. Without official approval, they're forbidden to do so. Wu said the health passport system does not seem to have much use in his city because, unlike Hangzhou and other metropolises that actually allow people out and go about their usual activities, it is still under lockdown.

Suizhou, a city 180 kilometers northeast of Wuhan, has also begun implementing a health passport system. People with green codes will need to have their temperatures checked before being allowed through checkpoints. Those with yellow and red codes will not be permitted to pass. The system is not yet mandatory and a resident of the city told TechNode that she is still not allowed to leave her residential community.

Big data, huge payroll

It is unclear whether the implementation will improve after the launch of the national version of the health code this week. Although it is a standardized system across the country, according to Alipay, local governments have the liberty to decide whether they want to adopt the version of not.

In order for the system to work, cities need to deploy checkpoints on highways and roads, on public transportation, and apartment complexes—

which requires tremendous manpower to operate. Then they need to supervise these guards closely enough to make sure they do the work.

Hangzhou under the watchful eye of an app shows us what an extreme version of mass surveillance might look like. But it also shows how far we are from that world—it takes a lot more than the click of a button to know where people are.



Surveillance cameras watch closely as visitors walk around the Bund in Shanghai, China on April 4, 2019. (Image Credit: TechNode/Eugene Tang)



NO. 3

Tesla's apprentice: Is Tesla bullying its own biggest fan?

MAY 14, 2020 | BY JILL SHEN, CHRIS UDEMANS AND DAVID COHEN



Chinese electric vehicle startup Xpeng has never been shy about its Tesla fandom.

“One of the reasons Xpeng was founded was because Elon Musk made Tesla’s patents available. It was so exciting,” He Xiaopeng, the company’s CEO, told Quartz in 2018. These words would return to haunt him.

Back in June of 2014, Tesla invited competitors to learn from its work on EVs by open-sourcing approximately 200 of its patents. In a blog post, Elon Musk wrote that he hoped a “common, rapidly-evolving technology platform” would encourage more companies to make electric cars—and that patent protections often “stifle progress.”

Xpeng founder Henry Xia took Musk up on his offer. That same month, he and two friends started their own autoworks in Guangzhou.

Tesla v. Cao

Today, Tesla’s attitude has changed. It argues that Xpeng crossed the line from imitation to theft. Tesla

is suing its former employee Cao Guangzhi, alleging that the engineer misappropriated code for its Autopilot driving assistance function before leaving to take a job at Xmotors, Xpeng’s US-based sister company. At stake is Xpeng’s reputation, the limits of competition, and the ability of Chinese companies to hire leading engineers from Silicon Valley.

As TechNode wrote last week, Tesla is using the case against a former employee to justify a broad hunt through a competitor’s files to find proof of its IP theft suspicions.

Neither Xpeng nor Xmotors has been named in the lawsuit, but Xmotors has been listed as a third party in the proceedings. The company has argued that Tesla’s moves are aimed at “bullying and disrupting” it.

In 2014, Musk wrote that gasoline-fueled vehicles were the company’s main competitors, not rival EV companies.

Tesla has asked a San Francisco court to allow it access to its competitor's entire repository of autonomous driving code and clones of its executives' hard drives—including those of He, its CEO. A hearing on the matter was due to take place on May 7 in a San Francisco federal court, but has been delayed until May 28.

If Tesla wins its motion, Xpeng will have to hand over much of its most sensitive information. Even if Tesla ultimately loses the lawsuit, it would send a message that engineers who switch jobs to Chinese employers are automatically suspected, which could chill recruiting for years.

How did it get so bad?

TechNode reviewed public court documents, spoke to industry insiders, interviewed Chinese lawyers about the case, and attempted to reach Cao's friends. What emerged was the story of a tragic relationship—a group of Chinese EV enthusiasts who loved Tesla so much they tried to become it, and an American company that went from nurturing competitors to accusing them of theft.

Tesla and Cao's attorneys did not respond to TechNode's requests for comment.

Bidding for talent

To compete in self-driving technology, Xpeng began recruiting engineers from top Silicon Valley companies, including Tesla and Apple, in 2017. For years, Tesla engineers have been sought after as some of the most capable leaders in the future of driverless mobility. These employees have been chased by US tech companies hungry for self-driving talent, as well as by Chinese tech firms with US operations.

When Xpeng hired Gu Junli, a young engineering manager from Tesla, they made her vice president of autonomous driving. The promotion allowed Gu to jump three ranks up from her previous job—equivalent to 10 years in the career of a typical engineer. Xpeng also issued a press release boasting that she was a "leading figure" in Tesla's machine-learning technology.



But Gu's Tesla resume did not automatically lead to success. One year after joining the company, Chinese media reported, she was missing her targets. Two persons close to Xpeng told TechNode she was just too inexperienced to build a team that could compete with the giants in a field like self-driving.

In December 2018, Xpeng replaced Gu as head of the team with a hire from Qualcomm, Wu Xinzhou. It was Wu who would later recruit Cao from Tesla.

Gu was given another job as a leader for development of "advanced" technologies, but was later sidelined. She left the company in March.

Sincerest form of flattery

In 2018, Xpeng launched its first production vehicle, the G3. At the time of launch, the vehicle had a range of around 350 kilometers and shipped with driver assistance features. Observers noticed several similarities between the G3 and Tesla's Model X and Model S—from the front profile of the car to the interior dash design.

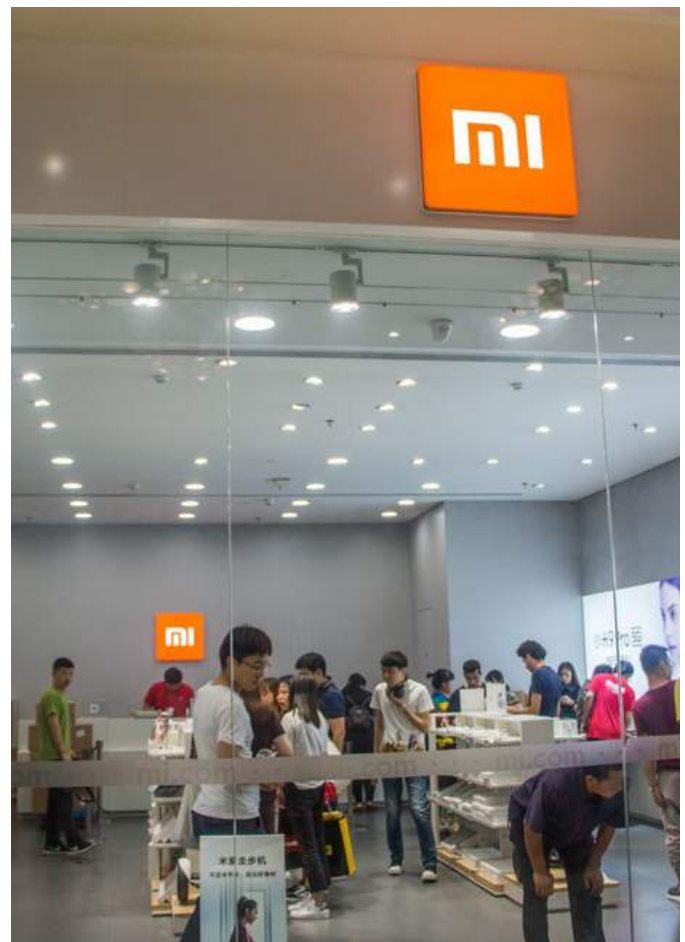
This influence came as no surprise, given how open Xpeng had been about where it had drawn its inspiration.

Xpeng had a lot in common with the Chinese smartphone giant Xiaomi, one of the company's recent investors. When Xiaomi began operating, it took many of its cues from Apple—so much so that it was often called an Apple clone. The company adopted the same minimalist aesthetic as its US counterpart, but quickly began developing its own

signature line of devices, from smart home equipment to computers, clothing, and cookware.

But copying an idea is not against the law. "The reason Apple won't sue Xiaomi is that, while their products look similar, they don't necessarily constitute copyright infringement," Fang Chaoqiang, a lawyer at Beijing-based Yingke Law Firm, told TechNode.

Xiaomi is the poster child for an argument that critics of IP law have made for years—if the Chinese company had not been able to learn from Apple, dozens of innovative products would never have come on the market.



A Xiaomi offline shop on Sept 28, 2019, in Beijing. (Image credit: TechNode/Coco Gao)

Allegations emerge

If Tesla took issue with the G3's similarities to its own vehicles at the time of launch, it didn't say much. In Musk's 2014 patent blog post, he wrote that manufacturers of gasoline-fueled vehicles were the company's main competitors, not rival EV companies. Indeed, the 16,608 vehicles Xpeng shipped in 2019 were a drop in the ocean compared to Tesla's sales.

But after US-based Xpeng engineer Zhang Xiaolang was arrested by the FBI for stealing Apple IP while switching jobs in July 2018, rumors simmered that the Chinese company was cheating to catch up. Zhang was arrested on July 7, 2018, after Apple accused him of downloading sensitive information before he resigned to take a job with Xmotors in China.

Xpeng leaders deny that they encouraged Zhang to misappropriate Apple's IP. The company added that there is no evidence Zhang transferred sensitive information from Apple to Xpeng, and that the engineer's contract has been terminated.

The fallout for Xpeng's reputation was immediate. Now, the company faces challenges in hiring talent, as US-based Chinese engineers have reportedly distanced themselves from the company.

In the 29 reviews about Xmotors to be found on job search website Glassdoor, three employees addressed concerns that their career prospects might be affected by these lawsuits, since "no one wants to hire someone from a company with all the public news about FBI investigation."

An Xpeng spokesperson told TechNode that the company has not had trouble hiring new engineers in the US or China.

Cao, then an engineer at Tesla, condemned Zhang, the former Apple employee, in text messages that have since become public in the course of the lawsuit. Zhang's case would cause a "bad impression on us Chinese," he said, according to translated message transcripts.

Xpeng hires Cao

When Wu Xinzhou, Xpeng's new self-driving team leader, interviewed Cao about a job as "head of perception" in late 2018, the Tesla employee was concerned about how the job switch would look. Cao later told the court that Wu had soothed his worries by saying Xpeng "did not get involved at all" in Zhang's actions.

Cao was a high-flying computer vision expert and a natural fit for the perception job. With both a bachelor's and master's degree in electrical engineering from Zhejiang University—one of China's top schools, which houses an entire startup accelerator in an ultramodern egg-shaped building at the center of campus—and a Ph.D. from Purdue University, he'd worked on medical applications of computer vision at GE and Apple before working at Tesla.

Cao joined Xpeng in January 2019.

Just two months later, he was in court.

Xpeng's work on autonomous driving had begun long before Cao joined them. The company was developing its driver assistance technology as far back as 2015, three years before its first mass-produced vehicle was released. Level 2.5 autonomous driving capabilities were included in the G3 upon delivery in early 2019. Xpilot includes assisted lane changing, cruise control, lane centering, and automatic speed limitations.

But in December 2019, Musk aired suspicions on Twitter that Xpeng was copying Tesla's code. When a Twitter user with the moniker "The Cyber Pope of Muskanity" suggested that Xpeng had stolen Tesla's software, Musk replied, "That's certainly our impression.

"When Cao left Tesla in January 2019, the company suspected another engineer, surnamed Zhang. In

addition to a shared nationality, both engineers had previously worked at Apple—though Cao has testified that they worked in separate divisions located at different buildings and campuses.

When Tesla found out that Cao had copied files to a personal computer, they decided that he had taken the code for his new employer. In March 2019, the company filed a suit against Cao, formally accusing him of misappropriating code by copying it to his personal iCloud account.

Fool me twice?

Tesla is trying to paint Xpeng as a repeat offender that poached engineers in order to gain access to IP, said a Chinese lawyer who spoke to TechNode under the condition of anonymity. Successfully linking the cases could have serious reputational implications for Xpeng.

Tesla admits that it can't prove the theft.



Unlike smartphone design, in the world of self-driving software, it's difficult to tell if someone has copied your product without actually getting your hands on the code. Tesla claims, in essence, that the fact that Cao had the code when he left Tesla is so suspicious that they should be allowed to rifle through Xpeng's files in an effort to prove that the Chinese company used it.

As tech giants turn into corporate behemoths, they've taken a more possessive attitude to their employees.

Tesla's case is built heavily on parallels between Cao and Zhang, but the company argues that its document requests will allow it to find proof. Cao has admitted to downloading files to a personal computer, but claims it was common practice at the company.

Other evidence submitted by Tesla is weaker. For example, an edited translation of Cao's text message exchange about the Zhang case made it appear that Cao was speculating about how much money Zhang had gotten from Xpeng—when in fact this message was sent by his friend. Cao had responded by condemning Zhang's actions.

Tesla's case against Cao and the US authorities' move to indict Zhang are two independent lawsuits, at least for now, said Lin Hang, a lawyer at Guangzhou-based F&P Law Firm. There are different parties involved in each case; moreover, Cao's is a civil case, while Zhang's is criminal. Xmotors is a third party in both.



Lin questioned the grounds of demonstrating a pattern of misconduct by Xmotors in its operations and recruiting. "You can't just say C stole from D because A allegedly stole from B," he said.

Another counsel, who wished to remain anonymous, was pessimistic about Xpeng's chances, as the US has increasingly treated all Chinese companies as potential IP thieves. Tesla's move against Xpeng may trigger more US tech companies targeting Chinese competitors for intellectual property theft, he said.

Whether he wins or loses, Cao's life has been permanently changed. Xpeng placed him on administrative leave "until further notice" in March 2019, when the investigation began. His position has since been filled by a subsequent hire. The damage to his reputation will likely last much longer.

A non-compete by any other name ...

In 2014, Musk wrote that Tesla's leadership was defined by its ability to "attract and motivate the

world's most talented engineers." Nowadays, he's less willing to compete for talent.

In its complaint against Cao, Tesla cited Xpeng's pursuit of its engineers as part of a pattern of "copying," writing that "at least five former Tesla Autopilot team members including Cao have gone to work for Xmotors." Xpeng, and other Chinese EV startups, are known in the industry for recruiting Chinese employees from US tech giants with highly competitive salaries and stock option plans.

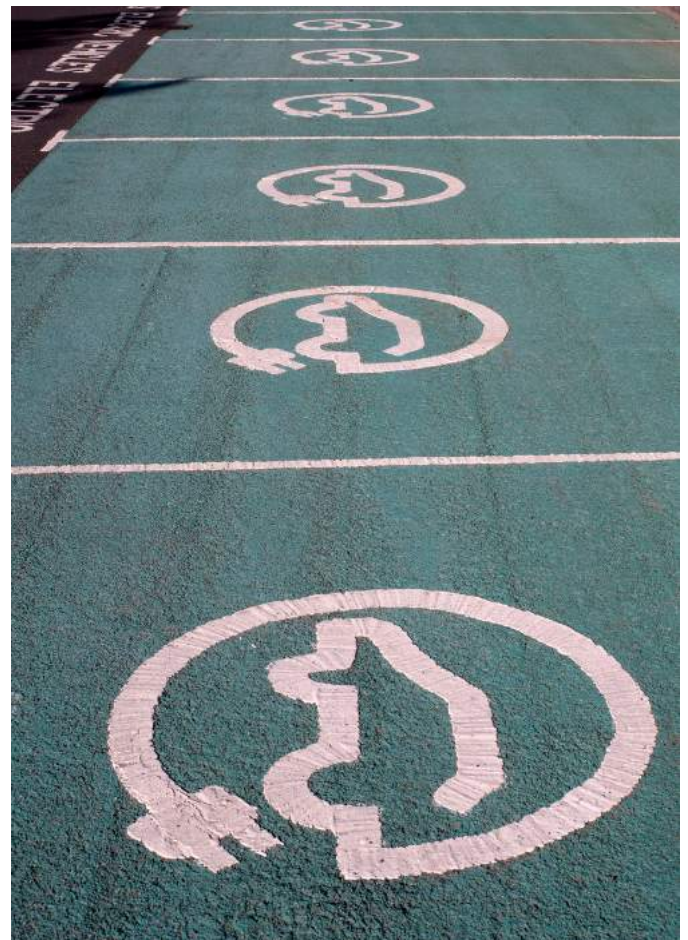
If Tesla wins its suit, it could have broad effects on the market for tech talent, scaring off engineers who had been considering working for Chinese companies.

Hiring away a rival's staff is a normal part of competition, and Silicon Valley was built on disloyal employees. In the US, California is the only state that bans non-compete agreement—contracts are common throughout the rest of the US—and this fact is often credited with spurring the state's culture of entrepreneurship.

Nevertheless, as tech giants turn into corporate behemoths, they've taken a more possessive attitude in regard to their employees—and the US's Department of Justice (DOJ) has taken notice. In 2010, the DOJ alleged that companies including Apple, Adobe, Intel, and Google had made a deal not to recruit each other's employees, limiting competition in the labor market and holding down salaries for coding talent. The measures effectively barred rivals from reaching out to potential employees at competing companies to offer them new positions.

In 2011, the companies settled with the DOJ, promising to end the practice. Subsequently, in 2015, they agreed to pay \$415 million to settle a related class-action lawsuit in order to compensate around 64,000 employees.

While tech firms can't use non-compete agreements to retain their employees, if Chinese engineers who start jobs at rival companies face probes or life-altering lawsuits, they are effectively bound by fear of repercussions from moving to better jobs.



Is Xpeng ready to leave the nest?

For most consumers, an Xpeng is still just a cheaper version of a Tesla. But as the company fights in court to prove that it's not stealing IP, it is making moves in self-driving in an effort to find its own identity.

Xpeng has seen several changes in its self-driving team since Tesla began its legal offensive. Gu, the young Tesla hire who previously led autonomous driving, finally left the company this March due to "personal career and family reasons," after reportedly being idle from any management roles for a couple of months.

Meanwhile, Cao's position has been filled by Wang Tao, the co-founder of Drive.ai, the self-driving startup acquired by Apple in June 2019, according to Xpeng slides that were shared with the media last year.

Xpeng is forging on. In March, the company launched its first electric sedan model, the P7. The vehicle is equipped with Xpilot 3.0, Xpeng's latest

driver assistance system. The EV startup is attempting to follow the path set by backers Alibaba and Xiaomi—from copycat to Chinese original. It's promising self-driving technology software and hardware that is different from Tesla, with executives claiming that its systems are optimized to better handle China's crowded roads.

"I strongly believe that P7 will provide the best driver-assist experience in China," Xpeng's He said during the sedan's launch event last month.

As the legal battle between Tesla and Xpeng heats up, the P7 could allow Xpeng to show that its days of imitating Tesla are over. But the stakes are high. EV leaders expect bankruptcies to dominate the headlines. Li Xiang, the founder of rival EV firm Lixiang, recently warned: "Given the hardship in the Chinese auto market, there is a possibility that only three out of more than 100 EV startups could survive ... and I hope Nio and Xpeng can be with us." It may all come down to a judge in San Francisco.

NO. 4

INSIGHTS | Who owns 'internet literature'?

JUN 15, 2020 | BY EMMA LEE



Who owns “internet literature”?

If you ask the 8.1 million authors registered with China Literature, the Tencent-backed ebook platform that’s almost synonymous with the genre, they do.

While a few internet lit authors hit it big and turn pro, most are hobbyists. Internet literature is China’s equivalent of fan fiction, a grassroots literary scene famous for schoolyard romance, swashbuckling adventure, and—especially—time-traveling modern heroines who are sent back to teach the Qing Dynasty a thing or two and marry a prince.

If you ask Tencent, or the new management it installed at the platform in April, it’s the publisher. They began their tenure by offering authors a new contract—one that proposed taking away their royalties and claimed film and TV rights for anything published on the platform.

Authors and fans revolted, with millions of authors refusing to continue serialized stories in protest. Now Tencent is in retreat, but it hasn’t changed its ambitions to tame internet literature and turn it into the IP-generating engine of a multimedia empire. There’s a lot at stake in a fight over fan fiction.

Bottom line: Powered by grassroots fans, Chinese “internet literature” is big business. Dominant platform China Literature does for Chinese TV what Marvel comic books do for Hollywood movies, offering a reliable supply of already popular characters, plots, and settings. But Tencent’s efforts to harness online writers to its multimedia ambitions set off a writers’ revolt, forcing the company to seek

a balance between catering to the internet lit community and exploiting it as a source of raw narrative material.

Ebook nation: Online literature first took off almost two decades ago. It has long surpassed print: Chinese readers consumed an average of 14.6 books via screens or smart speakers compared with 8.8 print books in 2019, according to a survey conducted by China Audio-video and Digital Publishing Association.

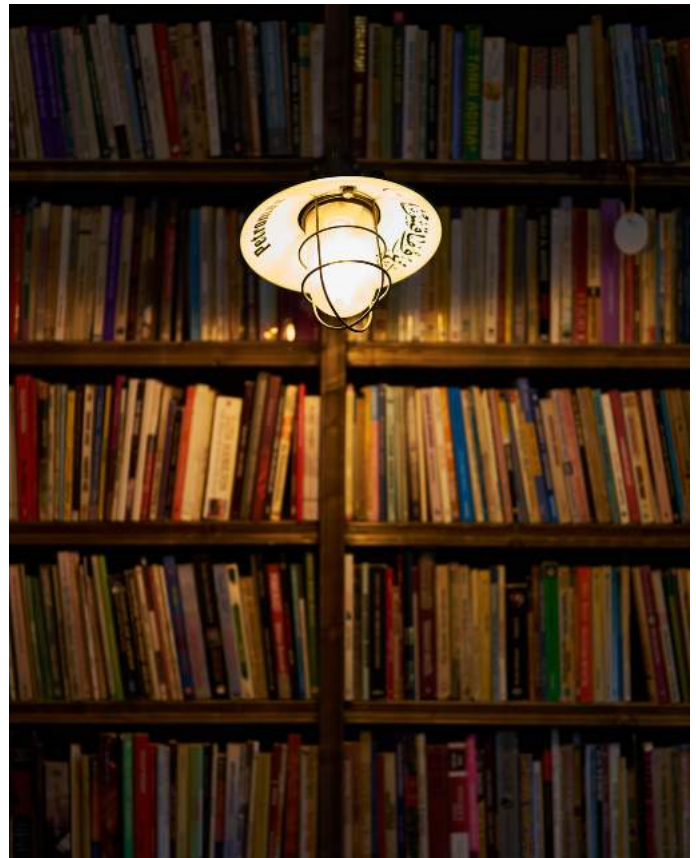
The change in reading habits fostered a boom of web-based literature, with popular genres including martial arts adventure tales, known as Wuxia, fantasies, campus life, contemporary romance, thrillers, and more. Internet literature is so popular that Disney has tried to use it to sell Star Wars in China, reaching a deal in 2019 to support authorized fan fiction on China Literature.

The king of internet lit: China Literature, best known for its QQ Reading and Qidian apps, is the largest player in China’s RMB 20.48 billion (around \$2.89 billion) digital reading market with a 25.2% market share in 2019, according to a report from Big Data Research (in Chinese). Second-ranked Ireader holds 20.6%, and Alibaba-backed Shuqi follows with 20.4% market share.



A brief timeline:

- **May 2002:** Qidian is founded by a group of fantasy story writers.
- **April 2013:** Tencent poaches the founders of Qidian from then-market leader Shanda Cloudary.
- **May 2013:** At Tencent, the Qidian team launches online publishing platform Chuangshi.
- **March 2015:** Tencent founded China Literature by merging homegrown online literature unit Tencent Literature and Cloudary.
- **January 2015:** Tencent merged Cloudary, the online publishing business of Shanda, creating joint venture China Literature, or Yuewen, which includes all online publishing sites and digital reading services owned by the two.
- **Nov. 2017:** China Literature raises about \$1.1 billion through a 2017 listing on the Hong Kong stock exchange, one of the largest IPOs for the city that year.
- **Aug. 2018:** China Literature acquires Chinese digital production company New Classics Media (NCM) for around \$2.2-2.3 billion.
- **April 2020:** China Literature replaces its founding management team, which is also Qidian's founding team, with a team of senior executives from Tencent.
- **Late April 2020:** Writers contracted to China Literature begin to voice their discontent on April 28 about a new contract which includes the removal of the site's paywall for premium content and grants the platform authority to license content without permission from authors.



From micro-payments... The pioneer platform was Qidian, which launched in mid-2002 and found success with the micro-payment model for premium content in late 2003.

Qidian focused on serials: authors would release a few pages at a time, while readers paid a few RMB for each installment. This revenue is split between author and platform, creating an opportunity for hobbyist authors to earn money that laid the foundation for what is now a massive 8.1 million author community.

Qidian stayed independent until 2013, when Tencent took it over in a dramatic series of events....

to licensing: As online literature got big, China Literature discovered a new way to monetize: film and TV rights. Beginning in 2013, internet companies began mining the online literature sector as a source of ideas for film and TV content. Compared with pennies in the jar from online reading, a TV deal is big bucks for a popular author.

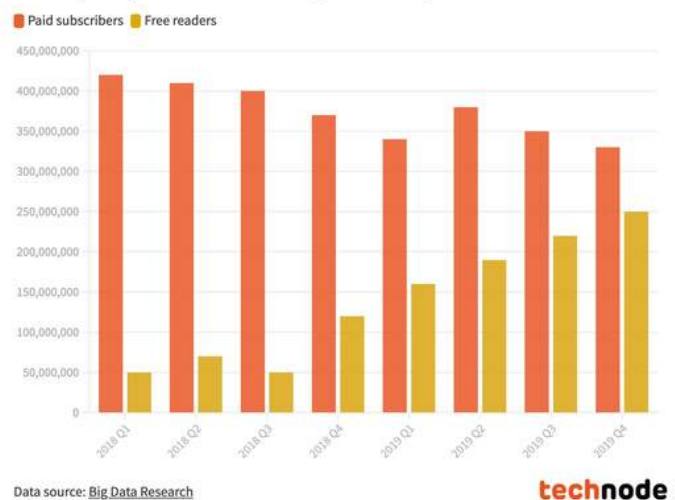
- Last year, the company helped facilitate the adaptation of more than 160 online literary works into movies, television shows, games, animation, and comics, up from 130 in 2018.
- Online books are a major source of characters and plots for television—which often copies dialogue straight out of the source material.
- Popular books come with a built-in fanbase, making them a safe bet for TV producers.
- An author known as “Maoni” earned RMB 65 million (about \$9 million) from the rights to his popular novel “Joy of Life,” which became a hit TV series last year.
- China Literature earns revenue from fixed licensing fees as well as revenue sharing deals on licensed content.

The threat of free: The paid reading model worked for years, with the first wave of Chinese online users—mostly better-off young readers from first- and second-tier cities—content to pay for premium literature. As the market grew saturated, however, users from lower-tier markets, less willing to pay for online content, became the driver of growth.

In 2018, Qutoutiao’s Midu and Lianshang Literature disrupted the market by offering all content for free. The app bombarded readers with constant, disruptive ads, which were the primary revenue source for such platforms, but they caught on with budget-conscious readers.

The number of paid online reader subscribers in China dropped 27% to 330 million in Q4 2019 from 420 million in Q1 2018, while those with free accounts surged five-fold to 250 million in Q4 2019 from 50 million in Q1 2018, data from Big Data Research showed.

In two years, free readers nearly overtook paid



China Literature suffered significantly from the change. Revenues from its online business, mostly paid reading subscribers, declined 3.1% on an annual basis to RMB 3.71 billion in 2019 compared with a 9.7% increase in 2018 and 73.3% year-on-year increase in 2017.

Where the money is: With subscription revenue in decline, China Literature has committed to IP. It's quickly overtaken subscriptions as a source of revenue. In 2018, China Literature brought adaptations in house with the \$2.25 billion acquisition of television and film production company New Classics Media (NCM).

- NCM is paying off with blockbuster TV dramas including "The Joy of Life," "Memories of Peking," and "The Best Partner," all based on bestselling online novels from the platform.
- In 2019, China Literature earned 53% of its total revenue this way, up from 19.9% in 2017.
- Meanwhile, revenue from online reading fell to 44.5% in 2019, from 83.6% in 2017.
- The company's revenues from intellectual property operations increased by 341.0% year-over-year to RMB 4.42 billion in 2019.
- The surge is mainly driven by consolidation of NCM's revenues in 2019, and an increase in revenue from IP-related self-operated online games and co-invested drama series.

The 'pan-entertainment' strategy: Tencent executive Cheng Wu has been talking about developing multimedia properties since 2011 under a strategy he calls "pan-entertainment." In pursuit of a pan-entertainment empire, Tencent has built a foothold across all verticals.

While film and TV adaptations are usually the flagships, the strategy calls for IP to serve every part of the entertainment portfolio. While film and TV adaptations are usually the flagships, the strategy calls for IP to serve every part of the entertainment portfolio, with brand tie-ins appearing in music and games alongside TV adaptations.

Cheng was appointed CEO of China Literature in April. With additional executive roles in Tencent's film and TV holdings, his appointment signals a commitment to turning the platform into an IP factory.

All your IP are belong to us: This year has seen Tencent accelerate its push for licensing. In April, it replaced the original management team from Qidian with Tencent executives. Then, in May, the company proposed a revamp to its author contract which would remove the paywall for all content on the site, in an attempt for the platform to catch up with free reading platforms—ending subscription royalty income for authors. It also assigned all rights to film and TV adaptations to the platform.

Tactical retreat: Authors revolted at the new contract, with millions refusing to continue stories on the platform and fans taking to social media to criticize the company. In the face of this backlash, the company pulled back, issuing updated contracts for its writers on June 3. The new contract has three versions: authors can opt to allow adaptations, and decide whether the platform can charge readers for content or offer it for free.

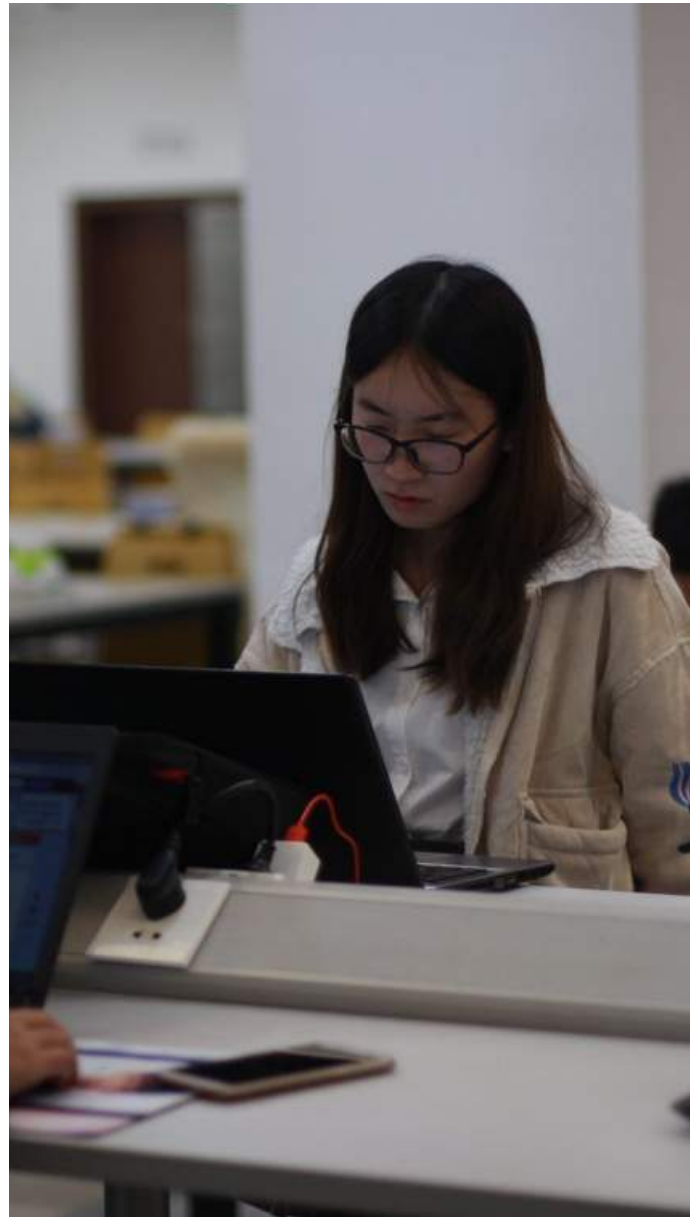
The company's new president, Hou Xiaonan, denied that the company was considering an all-free model and pledged to continue to "forge payment mechanisms" for authors.

Peace at hand? The move may have settled the dispute for the time being, satisfying at least some authors (in Chinese) who say on social media that they can see the company's "commitment" to solve the problem.

But for others, it may have spurred a tug-of-war between the platform and authors over IP rights.

Although the company is making compromises now, they may grab control over author IP in a more subtle way in the future since the general [monetization] trend is shifting," (our translation) wrote renowned online writer Zeng Dengke, known as Angry Banana, in a lengthy Weibo post about the controversy.

The pan-entertainment market is yet another battlefield for internet giants. China Literature is the largest player, but not the only one in the sector. It's up against rivals backed by Alibaba, Baidu Inc., and ByteDance, who are also looking to build their own entertainment empire. Conflict with writers could risk access to readers and the IP pool, but giving up on the IP strategy is not an option for Tencent.



Students prepare for finals at the Guizhou Normal University library. (Image credit: TechNode/Cassidy McDonald)

NO. 5

INSIGHTS |

'Second landlord' platforms get tenants in debt to fund growth

JUN 29, 2020 | BY CAPUCINE COGNÉ





Businesses thrive easily in good times. It's the bad times that reveal the cracks under their surface.

China's "second landlord" apartment rental platforms have had their share of PR crises in the past, but the coronavirus has exposed some really deep cracks.

In February, the Shenzhen Consumer Council opened an investigation of rental platform Danke, following complaints that they increased rents during the Covid-19 pandemic while suspending payments on its own leases. The investigation's conclusion has not yet been published, though the department has noted that in the three months following March 1, 219 Shenzhen residents filed complaints against the platform.

Now, another platform is under fire. Not only did Qingke, like Danke, use the coronavirus as an excuse to stop paying landlords without pausing tenants' payments, but it also left many tenants still on the hook for rental installment loans despite their already moving out (or being kicked out) of their apartments.

Now, Qingke faces many complaints and lawsuits filed by tenants. Regulators have yet to launch investigations into Qingke, but it was these kinds of complaints that led Shenzhen regulators to investigate Danke in February. It will be tough for Qingke and Danke to restore consumer confidence.

Bottom line: China's "second landlord" platforms—companies like Zroom, Qingke, and Danke—are highly susceptible to economic downturns such as that caused by the Covid-19 pandemic. Their business model of funding rapid expansion with tenants' rental loans is unsustainable. Amid business challenges and increasing regulatory scrutiny, they will at minimum have to rethink this model. Many platforms have already collapsed—and there's no guarantee even the largest will survive.

WeWork for housing

The "second landlord" model emerged between 2010 and 2012, the period when industry leaders Mofang Gongyu, Zroom, and Qingke were founded. By 2018, there were at least 107 second landlord platforms in China. Three companies have emerged as leaders:

- Zillow, the largest (as of mid-2019), is backed by Tencent, Sequoia, and General Atlantic, and is still held privately. Estimated number of units leased: 850,000 as of June 2019.
- Danke has been listed on the Nasdaq since January 2020. It operated around 440,000 units as of December 2019.
- Qingke has been listed on the Nasdaq since November 2019. It operated about 97,279 units as of December 2019, primarily in Shanghai.
- Mofang Gongyu is backed by Canadian pension fund Caisse de Dépot, Avic Trust, and Warburg Pincus & Co. It operated 70,000 units as of March 2019.
- Major Shenzhen-based property developer Vanke dipped its toe in the water in 2017, but abruptly scaled down plans two years later. Vanke has continued to expand its Port Apartments (dormitory-style “co-living” spaces), though at a much slower rate than competitors.

One-stop househunting: The appeal for consumers is obvious. What WeWork did for workspaces, second landlord platforms do for apartment-seekers. They make the process easy: A renter only needs to visit the space (virtually or physically) and can sign all necessary documents via the app.

- Renters told TechNode they chose the platforms for ease and security: no need to negotiate with landlords, no need to worry about being scammed or figuring out the utilities. The platforms do it all.
- While most Chinese landlords provide furniture, it’s often shoddy or strange. Tenants note that the rental platforms guarantee an Ikea-like standard of quality and taste.
- Rental platforms also make it easy to find one room in a shared apartment.

Lease long, rent short: Like WeWork, these platforms earn profits from the difference between the price of long-term leases and short-term rentals, and by packing more people into the same space. All major platforms operate on roughly the same model, although we know a bit less about Zillow, which is privately held. The second landlord platforms secure long-term (usually 5–6 year) leases from landlords, renovate the apartment—often converting the living room into another bedroom—and then offer shorter-term (usually 1–2 year) leases to tenants. In a typical case, a two-bedroom apartment could become three studios with a shared kitchen and bathroom.

- Platforms rely on algorithms to set prices, saving on human assessors.
- In the race to get the biggest market share, all platforms consistently offer major discounts—such as waiving management fees for fresh grads—which eat into margins.

Rocket fuel—rental installment loans: Collecting rent is a slow business—if you make a single sale, it takes a year or more for cash to trickle in. For companies racing to dominate a fast-growing market, this isn’t fast enough. Second platforms use financial wizardry to bring in cash faster; “rental loans” let them collect a whole year’s rent in advance while tenants pay a month at a time. Let’s take Qingke as an example. The company expanded by 106% since 2017 while creating a very large pile of debt in its tenants’ names.



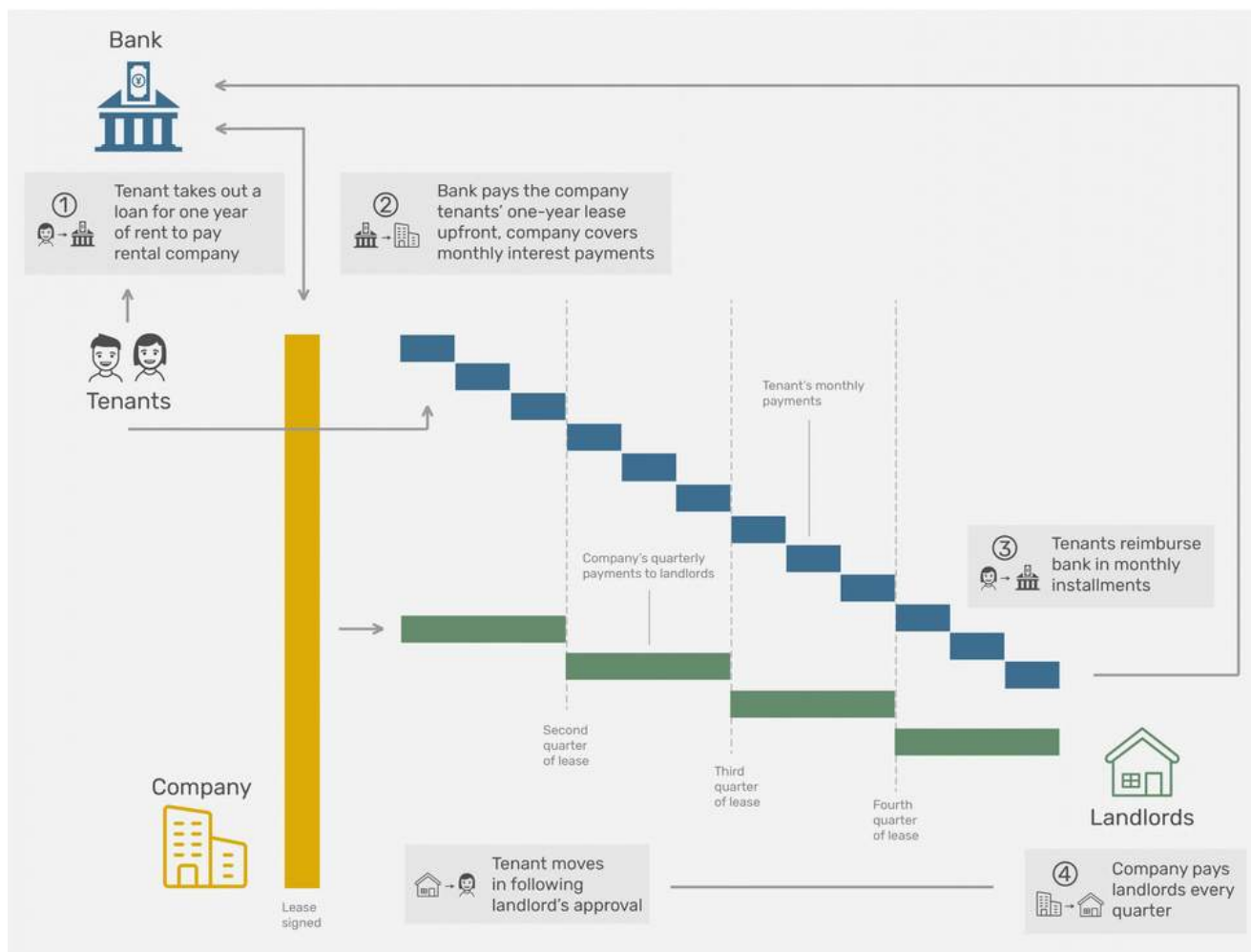
- Qingke encourages tenants to pay one year of rent upfront with incentives like 5% off the total lease, while they usually pay the landlord in quarterly installments.
- Most tenants can't pay a year in advance—but Qingke partners with 11 financial institutions to offer tenants loans to cover their one-year lease.

Qingke, rather than the lender, screens tenants for credit risk. The money goes from the bank to Qingke, and tenants then repay the loan in monthly installments.

- According to 2019 corporate filings, 65.4% of Qingke's leases are backed by rental loans, which adds up to RMB 1.1 billion (about \$152 million).

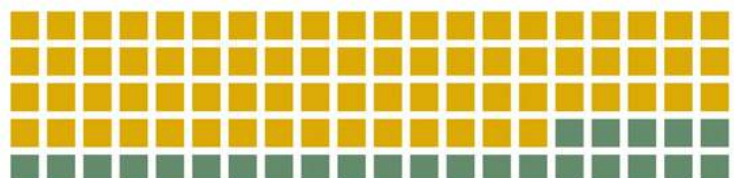
How rental loans work

"Second landlord" platforms expand rapidly using their tenants' rental loans



Rental companies can quickly accumulate capital for expansion

Just 25% of the value of newly signed leases needs to be paid to landlords in the first quarter of the lease, leaving plenty of **cash** for rental companies to expand.



What went wrong

What if a tenant moves out early? Qingke claims to guarantee its rental loans. According to its annual report, the platform charges a fee to the tenant should they surrender their lease early, and the platform must reimburse the bank for the rest of the loan. Should the tenant default, Qingke must also reimburse the lender.

Pandemic put a crunch on platforms

- The Covid-19 pandemic hit revenues by postponing the return of white-collar workers—Qingke’s target market—to China’s Tier 1 and Tier 2 cities.
- Many current tenants cut their leases short, while potential tenants stayed in their family homes.
- Qingke is not the only one suffering: January to March saw a major dip in the real estate market. The Chinese New Year period usually brings about many sales as people travel home, and developers tend to rely on pre-sales for cash flow—which were effectively halted given that showrooms were closed.

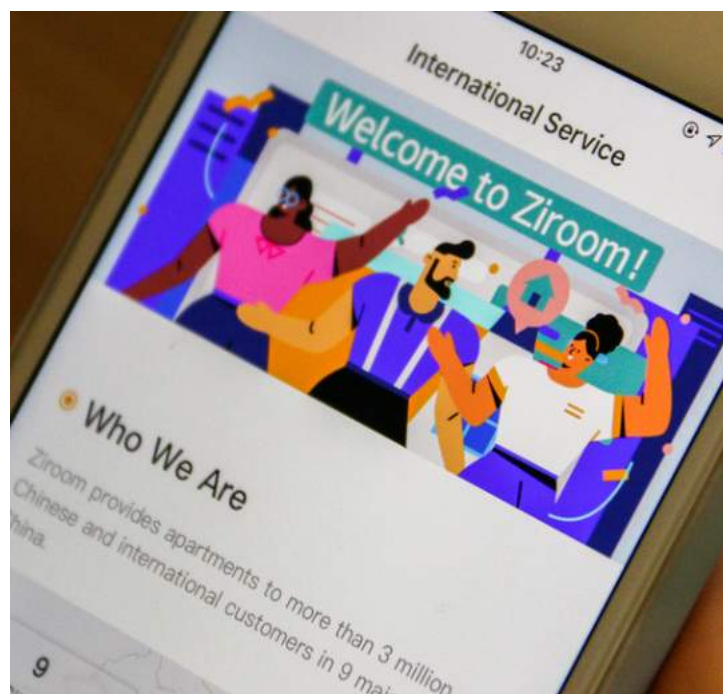
Tenants pay while Qingke backs out:

- Xiaoliang, a factory worker from Anhui, told TechNode that he signed a contract with Qingke in Shanghai for 26 months in November; then he realized Qingke had not paid the landlord while he was still paying the loans to reimburse his pre-paid rent.
- After terminating his lease, he found out he owes the bank the equivalent of the rest of his lease: approximately RMB 15,500.
- Xiaoliang and the landlord are now jointly suing Qingke. Based on remarks in WeChat groups from other people in similar situations, legal action seems to be the only way for tenants to get their money back.

Worse, tenants are kicked out:

- Some tenants were even kicked out by their apartment’s landlord because Qingke had not paid the landlord—leaving them homeless during the Covid pandemic.
- Tenants in both situations found that they are still liable for paying the rental loans, and a default on these would impact their credit scores.

Clearly, then, there is more to what Qingke’s annual report suggests. It seems that if Qingke (the loans’ guarantor) does not pay the loans when the tenancy is suspended early, the tenant becomes liable for them. This is pretty common: 49% of tenants left their lease early in 2019, according to the company’s annual report. The report says most left because they changed jobs. Since Qingke cannot afford to pay for the remaining loans, tenants remain liable.



'Second landlord' apartment rental platform Ziroom now provides English services on its app. (Image credit: TechNode/Jiayi Shi)

Where did all these platforms come from?

China's second landlord platforms have mushroomed in the last four years, driven by a confluence of factors.

Shift to renting:

- The Chinese real estate market is highly dependent on policy (even more so than other countries). Since 2017, Beijing has encouraged the growth of the residential rental market.
- In 2017, China's rental business made up only 2% of the property market, compared with 20% to 30% in developed economies.
- However, sky-high housing prices and an increasingly mobile population make renting necessary.
- Policies pushing rental sector growth range from granting temporary residency to renters, allowing them access to free healthcare and education privileges, to incentives for developers to develop large-scale rental projects.

Same old story: Before rental loans, P2P lending platforms peaked from 2016 to 2019. In the beginning, they complemented government policy and enjoyed lax regulation. But as problems emerged, P2P lending was first strictly regulated and then banned. Second landlord platforms are likely on the cusp of an oversight push, with December 2019 guidelines (in Chinese) restricting rental loans, beginning with this trend.

- Even before Covid-19, second landlord platforms struggled: Dingjia's tenants were also left on the hook for rental loans when the company went under in August 2018.

- In December 2019, six government departments published new regulations (in Chinese) stating that by the end of 2022, only 30% of leases on these platforms could be funded by rental installment loans.
- Qingke stated that they may not be able to meet this deadline, which will undoubtedly slow the company's expansion.

Irrational competition: Second landlord platforms have also focused too much on winning the market, and not enough on building sustainable businesses. They echo decisions made by companies such as Luckin Coffee, which essentially bought its customers through discounts, the bike-sharing pioneers Ofo and Mobike, and WeWork.

What now?

The model is not sustainable, and these companies know they must change.

- The "second landlord" model needs a major rethink. The demand for short-term leases and a one-stop shop for related services is certainly there. However, the ruthless competition between platforms drives the prices down and pushes them to expand faster, making them unprofitable businesses.
- The platforms realize the need to change and are trying new models: Qingke has started cutting renovation costs by leasing already furnished apartments from landlords, while Danke introduced the dormitory-style "Dream Apartment" a year and a half ago, in which entire floors or buildings are sub-leased as dorms with shared kitchens and facilities.

Regulation will shape the future of the market

- The new guidelines (in Chinese) limiting 30% of the leases to rely on loans, along with the Shenzhen regulators' investigations into these platforms seem to signal a tightening of policy.
- This, along with the losses suffered by the companies during Covid (Qingke and Danke's stocks decreased by 23% and 54% in the last five months, respectively), will make it even tougher for the platforms to stay afloat.

Only time will tell which platforms will survive, but currently, it seems likely Ziroom will win the race to capture the second landlord market.

Ziroom is already the biggest platform in the number of apartments leased, and the only one that has been able to sustain steady funding without going public. It has gone the furthest in recovering from the Covid PR crisis by waiving 20-50% of 44,318 customers' rent in March.

On the other hand, as rentals go mainstream, second landlord platforms may run into larger, deeper-pocketed competition. The residential rental market in China is still dominated by large developers (some of them SOEs). Perhaps they will find a way to incorporate tech platforms into their models—eliminating the need for the less-reliable platforms like Ziroom, Qingke, and Danke.

Eroding consumer trust and new regulations will force platforms to wean themselves off rental loans. This will mean either finding new sources of funding—or simply accepting slower, safer growth.



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NO. 6

996
in your living room

AUG 14, 2020 | BY WEIQI LIU

What does a global pandemic mean for the future of work? In the short term, people have had to bring their jobs home, adopt new digital tools, and balance work and child care in new ways. But will these changes last? Will they make any long-term difference to office work in China tech—notorious for the “996” schedule that all but replaces home life with the office?

With the pandemic under control in China, workers are going back into the office en masse. I spoke with a variety of people working in China tech on how the pandemic is affecting their work lives. Spoiler alert: things haven’t changed much.

Based in Beijing, Shanghai, Shenzhen, Guangzhou, and Xi’an, the 11 people I spoke to represent different aspects of China’s tech industry: from big tech like Tencent to small startups, from senior managers to entry level programmers.

During the lockdown, many had a hard time juggling home and work life, while others found communication with colleagues difficult. China’s infamous 996 (working from 9 a.m. to 9 p.m., six days a week) work culture also invaded their living rooms as employees worked from home (WFH).

Many staffers complained that they work overtime while at home because their KPIs ‘are heavier than a mountain.’

While the experience of working from home varied, the experience of coming back was predictable: post-pandemic tech work in China is just pre-pandemic work on steroids, interviewees said. Happy as they might be to be socializing with colleagues again, tech workers say their workloads have increased.

Busy as ever, some of them have found that the biggest change is their attitude towards their work.



Lockdowns: a blessing and a curse for tech

Stuck inside and online for weeks on end, China's reliance on the digital world increased during the lockdown. This gave a huge boost to tech companies. Giants like Alibaba and Tencent set up health code systems, delivery services surged, and telecommunication tools such as Dingtalk and Wechat Work were overloaded.

Tech companies might have been lucky enough to see growth in some areas during the Covid-19 lockdowns, but with regards to managing their workforce, they were in the same boat as everyone else: their offices couldn't open without local authorization.

Tech companies took epidemic prevention mandates seriously, in part because the government held them accountable for lapses in their epidemic control systems. For example, Dangdang reopened in February, but after an employee tested positive the company was "summoned for inquiries" by regulators.

Complicating the tech industry's efforts to reopen was its high proportion of migrant workers from other provinces. Even when restrictions were lifted in some cities, many employees were stuck outside the province where their office was located due to limitations on cross-province travel and quarantine mandates.

The only person I reached who is still working from home now is an employee of a Chinese company in India, who's unable to return because India has

banned international flights. Considering recent tensions, he's not sure if he'll ever go back.

Not locked down, but still home

China's tech industry has experimented with work from home before. In 2015, James Liang, the co-founder of Ctrip, published an academic paper based on Ctrip's work-from-home experiment with its call center employees. His results showed that working from home can increase performance significantly. After the experiment, Ctrip "rolled out the option to work from home to the whole firm."

My interviewees all said they had some remote work experience before the pandemic. Some said they preferred remote work because they could launch a virtual meeting without having to book a conference room. Some had done so because certain jobs like remote assistants are always coordinated through the internet. Some just wanted to reduce commuting time.

But working from home en masse during the pandemic is an entirely different story. Faced with the prospect of letting all their employees stay home, companies were generally reluctant.

996 at home

Many analysts predicted that the pandemic would lead to sweeping acceptance of working from home. Some US tech giants have already taken radical measures such as allowing employees to work from home indefinitely.

But China's tech industry defied these predictions. For the most part, Chinese tech firms were eager for employees to return to the office, and made preparations accordingly. In February, they told employees to return to the cities where their company's offices are located, even before the work sites were allowed to reopen. This way, employees could fulfill the mandatory self-isolation requirement while working from home, and then return to the office as quickly as possible once the government allowed it.

It would be naive to think the pandemic reduced the workload of Chinese tech workers. On the contrary, the growing demands of online services made them even busier. On Zhihu, China's Quora, many staffers complained that they still need to work overtime while at home because their KPIs (Key Performance Indicator) "are heavier than a mountain".

Some tech companies seemed to distrust their employees as a matter of habit. Managers are known to abuse Dingtalk to constantly monitor their staff. Some social media users even claimed that their companies required them to turn on their laptop cameras while working from home, but TechNode wasn't able to verify these stories (my interviewees found the idea shocking).

Unprepared for the long-haul WFH experience, many tech workers said that it worsened communication, lowered efficiency, and extended working hours.

Workers felt that they were working longer hours at home, and sometimes "unable to get off work" for a variety of reasons: delays in remote communication, the lack of a formal lunch break, replacing commuting time with more work, and sluggish internet connections.

For tech employees with kids, having to homeschool while working from home was the stuff of nightmares. Most interviewees said it was a last resort, and couldn't wait for it to end.



Two employees work in the office on April 9, 2019, in Shanghai. (Image credit: Technode/Shi Jiayi)

“WFH is a matter of necessity which doesn’t fit everyone,” said Chen Qianyi, co-founder of a startup that just opened a new office in Shanghai. “Of course, manufacturing requires workshops, but offline work is also better for other full-time positions and daily operations.”

It is open to debate whether working from home actually makes people less productive, but going into the office can certainly make people feel more productive: working around colleagues and bosses as a unit forces people to adjust their behavior and focus on the task at hand.

People working from home may turn off their camera soon after a video meeting starts, but they can’t do that in an in-person meeting, even as such meetings may be a waste of time. It is true that some people work overtime in the office to complete more tasks, but many also stay late just to project a good image to their bosses.

For China’s tech workers, the requirement to work from home ended with the lockdown. They were told to return to the office.

The post-lockdown crunch

Many tech workers were happy to be back at their desks.

“The office provides me with a better development environment, especially for team work,” a programmer at Tencent said. “People get distracted easily when they work from home and coordination with co-workers can be more difficult and time-consuming. The productivity of work from home is guaranteed if only you work on your own. If you have co-workers, you need an office.”

But upon returning to the office, many employees found that their challenging work from home experience was viewed by their bosses as a holiday. A trainer who hosts online workshops four times a week said: “We did not have much time off while working from home because my boss had bad coordination skills. But what’s worse is that we were asked to re-do some tasks when we returned to the office. My boss made us repeat the work simply because he did not believe in working from home,” she said. Many tech workers likewise found their workloads increased when they first returned to the office.

But the uphill battle during the Covid-19 lockdown has produced positive effects too: it made office culture more close-knit. Interviewees said they preferred to take company-provided buses to avoid public transportation, and canceled business trips so they could stay safe at the office. In the post-pandemic world, such perks of big tech, like company transportation, are even more enticing to tech workers, according to one market manager from a smaller company: “I am jealous that they have company-provided buses and canteens, because I have to take a taxi for work and bring my own lunch, which is expensive and sometimes time-consuming.”



"After spending more time with colleagues during working hours and using more company services, the bonds between colleagues strengthened. However, many interviewees also said they now hang out less often with work friends outside the office.

Better 996 than 000

Despite the frequent warnings to avoid public spaces, some have found the precautions unnecessary. The spaces are "empty during the pandemic which may result from the rising unemployment", said A Jiu, chief editor of Zhenguan, a Xi'an-based new media company covering local livelihood issues.

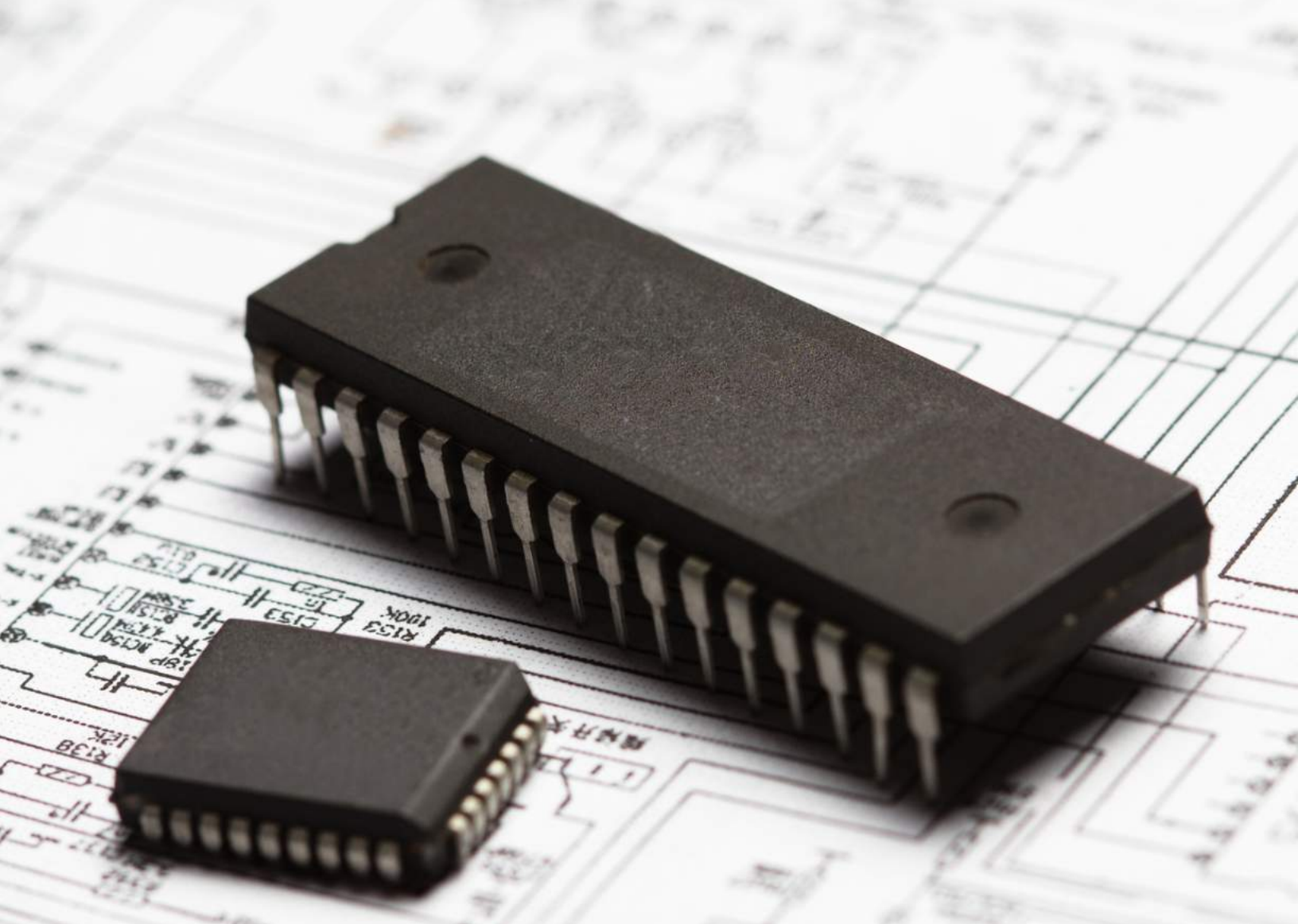
This rise in unemployment has pushed many tech employees to accept their heavier workloads. Many are just glad to have a job. Some even went as far as to defend 996 culture: "You have to get the job done", a manager from JD told me. "People have too many stigmas against 996, but the fact is, you only gain if you go through the pain."

Others said that it is a privilege to work safely from home, because not all jobs can be done through computers. Drivers and delivery workers aren't officially recognized as employees of Chinese tech firms, and during the pandemic, they had little choice but to be exposed to a dangerous work environment.

These foot soldiers of China tech are more aware than ever of the fact that apps determine their ability to make ends meet.

A ride-hailing driver I spoke to was pessimistic about his post-pandemic life: "I had no money for months due to the epidemic, but what makes me more worried is that my life counts on an app."

But other than these realizations, the pandemic did not change anything foundational. At least for China's tech workers, what happened in the pandemic stayed in the pandemic.



NO. 7

**HSMC promised
China's first 7 nm
chips. It didn't go well.**

SEP 09, 2020 | BY WEI SHENG

A government-backed semiconductor manufacturing project based in the central Chinese city of Wuhan has gone belly-up, with key operator HSMC mired in debt. The local government said the project amounts to nearly RMB 128 billion (around \$18.7 billion) in investment.

Chinese media recently reported that the construction of the Wuhan Hongxin Semiconductor Project, which was planned to house China's first 7-nanometer (nm) chip fabrication plant in a 650,000 square meter (around 160 acre) structure, had been at a standstill since December.

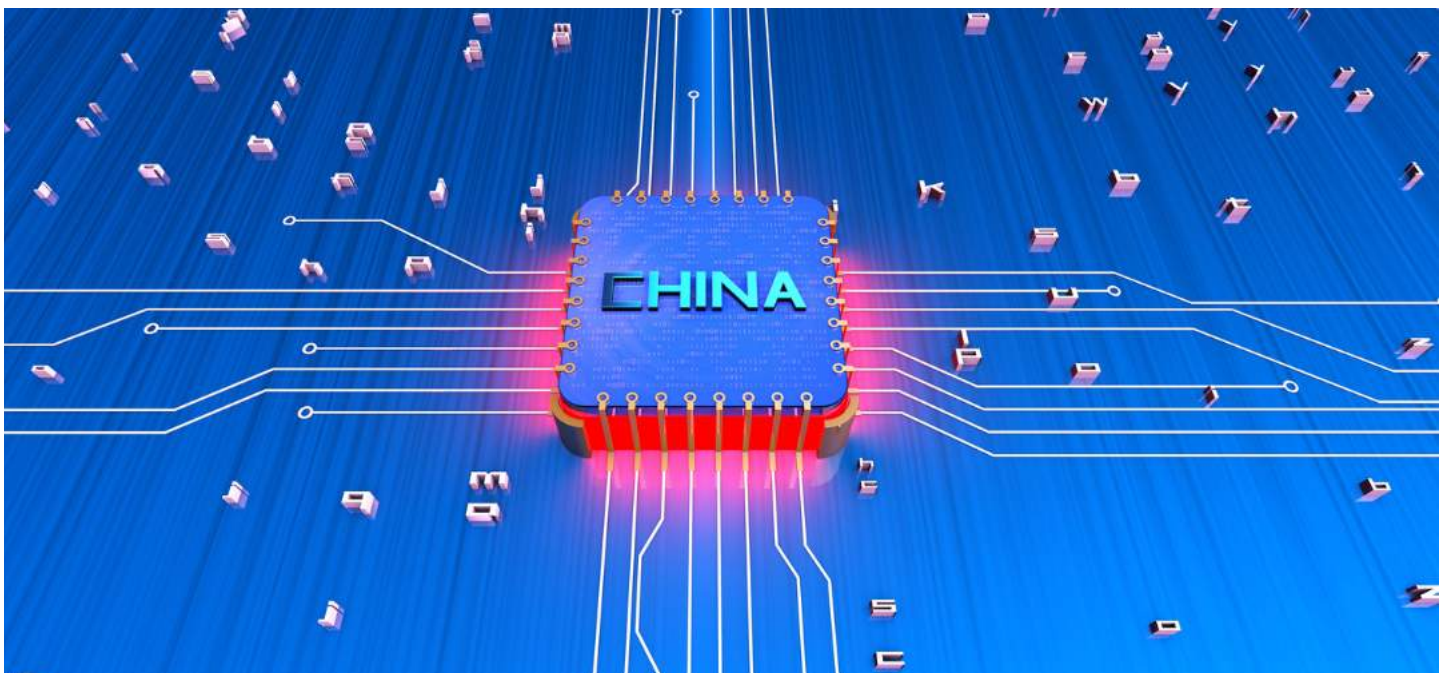
Local newspaper National Business Daily said in a report (in Chinese) on Monday that work had stopped on the project's headquarters in Wuhan as of Thursday, with no buildings completed. The newspaper cited a contractor of the project as saying that construction had been halted because workers had not been paid.

On Aug. 28, the Commerce Bureau of Wuhan's Dongxihu District, where the project is located, said in response (in Chinese) to a local resident's inquiry that the project had been suspended because of "financial difficulties."

On July 30, the Dongxihu District government said in a semi-annual report about the local economy that "there is a huge funding gap in the Hongxin Semiconductor Project" and that it faces "risks of stagnation at any time." The report cited the "challenge in the capital market" because of the "global outbreak of Covid-19."

The district government deleted the report (in Chinese) from its website after wide coverage from local media.

The project's operator is a company founded in 2017 called Wuhan Hongxin Semiconductor Manufacturing Co. (HSMC). The company said on its



website that it expects to be able to build a 14-nm chip production line that can produce 30,000 wafers per month and a 7-nm chip production line with the same capacity. It did not give a timetable for those goals.

The decline of the ambitious chip manufacturing project highlights risks as local governments in China rush to achieve dreams of semiconductor self-reliance. According to Made in China 2025, a government initiative announced in 2015 aimed at boosting the high-tech sector, China wants to produce 70% of chips it uses by 2025. But making cutting-edge chips is hard, and attempts to charge into the industry haven't gone well.

Vast investment and big hires

The Hongxin Semiconductor Project had received RMB 15.3 billion in funding as of the end of 2019, according to the Wuhan Municipal Development and Reform Commission, a government body that oversees local macroeconomic planning. The project is expected to receive an additional cash infusion of around RMB 8.7 billion in 2020, it said.

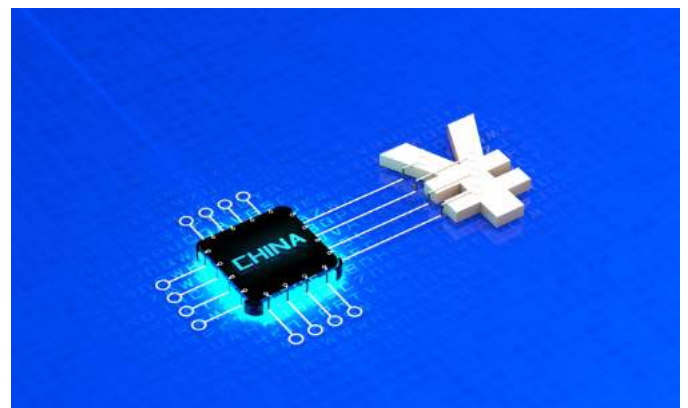
It is a truth universally acknowledged—as Jane Austen would have put it, during a second career as a semiconductor market analyst—that a new chipmaker in possession of a good fortune must be in want of talent. HSMC has been courting engineers at Taiwan Semiconductor Manufacturing Co. (TSMC), the largest contract chipmaker in the world. The company, together with another local government-backed chipmaker, had hired more than 100 engineers and managers from TSMC since last year, according to a Nikkei Asian Review report in August.

In Taiwan, HSMC is known as a generous suitor. One anonymous source told Nikkei that the HSMC offers packages “as high as 2 to 2.5 times TSMC’s total annual salary and bonuses” for engineers and managers from the Taiwanese company, which supplies high-end chips to big tech firms such as Apple, Google, and Huawei.

In July 2019, HSMC hired as its chief executive Jiang Shangyi, formerly a research and development vice president at TSMC. The 75-year-old chip veteran also served as an independent director at Semiconductor Manufacturing International Corp (SMIC), a Shanghai-based state-backed chipmaker, from 2016 to 2019.

Where was the money from?

While the Wuhan municipal government said the project had received billions of RMB in funding, HSMC’s shareholding structure doesn’t reflect that. The company is 10% owned by a government-owned firm and 90% by a Beijing-based private firm, according to Chinese corporate information platform Tianyancha. The Beijing-based firm is majority-owned by company Chairwoman Li Xueyan, who holds a 54% stake. Mo Sen, one of the company directors, holds the balance.



On Monday, Chinese media The Cover reported that the Beijing-based company never put real money in the project.

Public information shows Li has no experience in semiconductors and data from Tianyancha shows she also has stakes in a baijiu retailer, a few catering companies, and several medical firms.

Li cannot be reached for comment. HSMC didn't respond to an emailed request for comment.

"The strange thing about HSMC is that it's unclear where its money is from... It seems that the company didn't actually receive as much money as it claimed to have," Gu Wenjun, chief analyst at Shanghai-based semiconductor research company ICwise, told TechNode (our translation).

Chen Rang, a semiconductor investor cited by the National Business Daily, hinted that the Wuhan municipal government may have leveraged land resources to attract private capital to back the project. "But the semiconductor industry has a high standard on investment and it is far from enough to just utilize land resources [to raise money]," Chen said.

Phantom mask aligner

HSMC's goal was to make China's first 7-nanometer chips. All it has to show for it is a few uncompleted buildings. It did buy a high-end machine needed for bleeding-edge semiconductor production, but it was put up as collateral for a loan.

The semi-annual report by the Dongxihu District government also said that HSMC had bought "China's only mask aligner that can produce 7-nm chips" from Dutch company ASML, referring to an instrument that enables photolithography in the fabrication process.

If true, it would be quite a coup—the US government has been campaigning since 2018 to prevent ASML from selling the most advanced machine required to make high-end chips to Chinese companies, according to Reuters.

Chinese media Caixin tried to find the unique 7-nm machine, and it does seem to exist. But they found that it was under mortgage; is good only for 14-nm chips, not 7-nm; and, citing an anonymous semiconductor industry insider, that SMIC has around 10 units of the same model.

Court files show that the machine had never been used when it was held as security for the RMB 582 million loan in January.

"You will need at least two mask aligners and nearly 100 pieces of other machinery to make chips," said Gu of ICwise. He added that no Chinese chipmaker has realized the mass production of 7 nm chips.

Fool me once

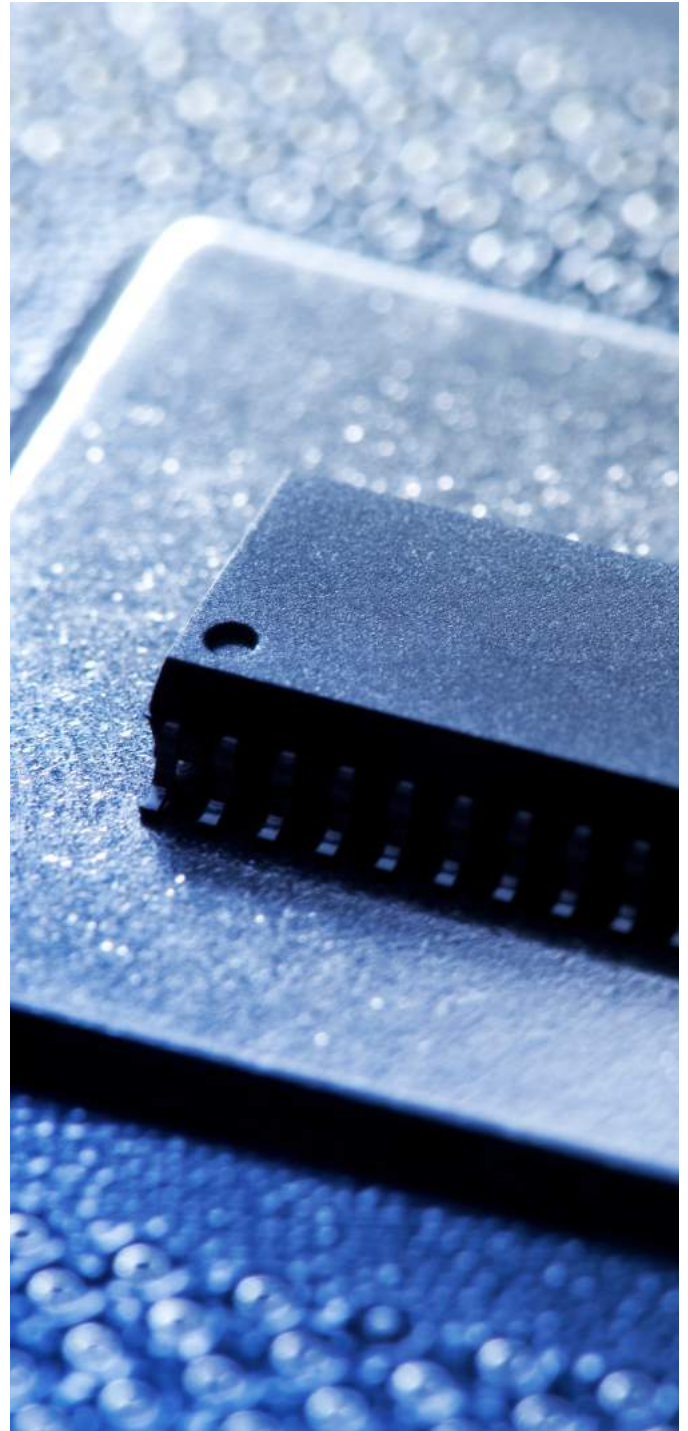
The Hongxin project was widely questioned in the semiconductor industry, said Gu. "No one believed that it would be a success," he said.

There are similar stories from other parts of China. In July, Dekema, a Nanjing-based chipmaker backed by the local government, announced it was bankrupt because of “financial difficulties” in raising additional funds from investors.

The Nanjing company previously received \$3 billion from investors including the Nanjing municipal government. Founded in 2016, the company said it would “fill the blank in China’s contact image sensor (CIS) chip production.” CIS chips are a key component widely used in portable scanners and bar code readers. After the bankruptcy announcement, local media found that the company’s headquarters consisted of two unfinished buildings and that it had not produced a single wafer.

“Building [semiconductor] production lines needs long-term and consistent investment and it usually takes three to five years to see the initial results,” Gu said. “Production lines backed by local governments face the risk that the support is not consistent because of rotations in officials.”

“We appeal to local governments to make decisions on semiconductors after necessary analyses,” he said. “Whether a semiconductor industry can be built doesn’t depend on how much subsidy the government gives, but on how capable the participants are.”



NO. 8



Nio, Xpeng, Li Auto: your cheat sheet to China's listed Tesla rivals

OCT 15, 2020 | BY JILL SHEN

With China's electric vehicle (EV) sector still reeling from a withdrawal of government support, three companies have emerged as viable challengers to Tesla in the world's largest car market: Nio, Xpeng Motors, and Li Auto.

Despite rising geopolitical tensions between the US and China, all three EV makers are now listed in the US. But their stock market rides have been pretty volatile. Nio shares have been in recovery since April, capped by a 22.57% jump Oct. 14.

Xpeng and Li Auto's share prices have seesawed since they went public this year. Both companies' shares surged more than 40% overnight in their US stock market debuts, and have since lost more than a fifth of their peak values.

The three Tesla wannabes vary in their approaches and development.

Nio is the showiest, led by its charismatic founder, William Li Bin, and boasts the deepest pockets and boldest business plan. The company is known for its grand, customer-centric strategies ranging from a network of luxurious showrooms to a free battery swap service. It was the first of the three to deliver cars to its customers, in June 2018.

Alibaba-backed Xpeng has its targets set on self-driving technology, and began delivering cars just six months after Nio. Led by a former Alibaba executive, its vehicles have been criticized for bearing a close resemblance to Tesla's—this is no coincidence.

The staid Li Auto is more practical, solving the most urgent issues of early EV adopters, and was the last of the three to begin deliveries, in late 2019.

Comeback story

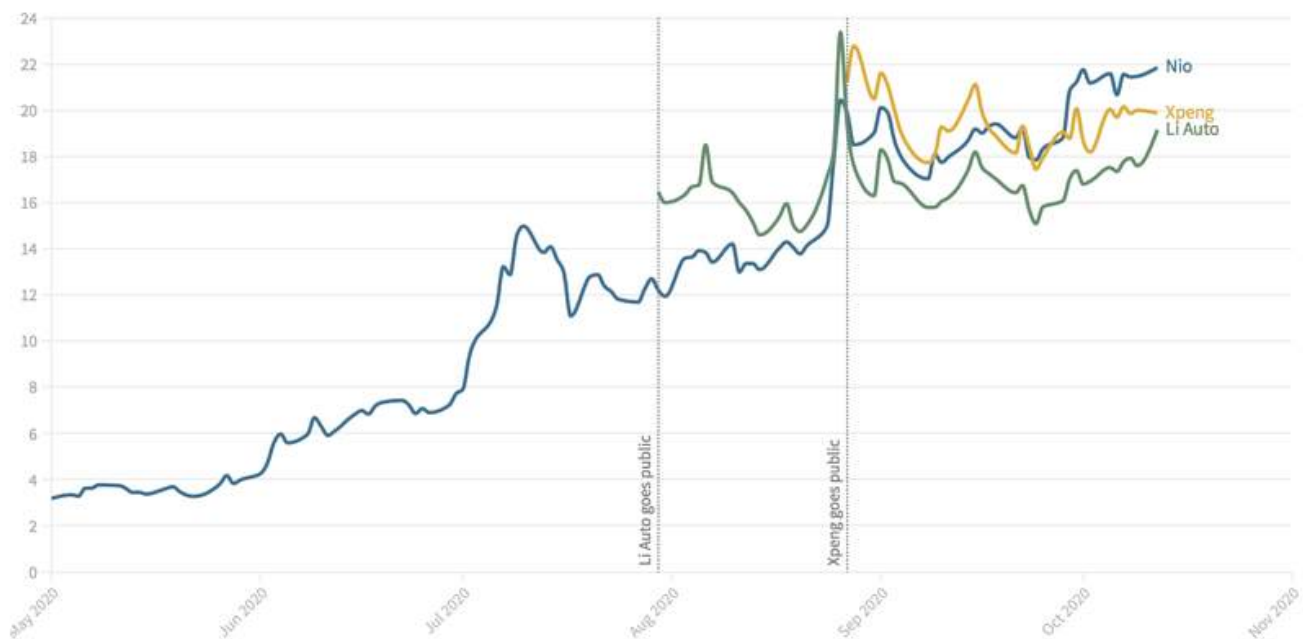
While EVs may be exciting, investors have doubted the viability of the market as a whole and question Chinese EV makers' prospects. Even in their home market, these companies are dwarfed by Tesla, whose locally built Model 3 is the country's top-selling EV. Critics had viewed Nio's prospects as gloomy, last year speculating that the company was insolvent and wondering if other companies might follow in its footsteps.

But the Chinese government is bolstering a surge in EV adoption and clean energy vehicles are expected to grab a quarter of total car sales by 2025. The state's efforts to achieve this goal has benefited EV makers, including Nio. The company landed a \$1 billion bailout from the government of Hefei, capital of China's eastern Anhui province. As a result, its shares have rocketed a whopping 470% this year.

Nio, Xpeng, and Li Auto have reported surging deliveries that outperform legacy automakers. As investors reverse their attitudes towards Tesla's Chinese challengers, we wonder whether they are well-positioned to sustain high growth rates into the future, and even more interestingly: which one has a stronger shot at becoming the "Tesla of China"?

Li Auto and Xpeng listed in the US after Nio stocks began rallying in April

Share price in US dollars between May and October 2020



Source: Yahoo Finance

technode

Infection points

Chinese EV makers seemed to be teetering on the edge of collapse earlier this year after Beijing slashed purchase subsidies by half last year to cool the overheated industry. As a result, EV makers saw sales figures sink while cash burn rates stayed high.

Nio—then the poster child for China’s EV industry—saw its cash reserves disappear after years of aggressive spending on its retail strategy, which included building impressive showrooms across China. The market went from around 500 EV companies in early 2019, to fewer than 10 that have managed to deliver cars in 2020.

Then, the EV market quietly began to turn around. Growing consumer demand and extended

government support have led to robust sales growth and narrowed losses. As the world’s biggest auto market recovers from the Covid-19 pandemic, analysts expect strong long-term growth for Chinese EV makers, with Nio and Li Auto potentially expanding their lead among the homegrown players.

Deliveries

Nio, Xpeng, and Li Auto recorded surging sales over the past two quarters, illustrating their improving performance. Analysts expect further top-line revenue growth in the second half of this year, as Tesla’s success in China draws more funding to help local EV makers grab a share of the market.

- Nio delivered a record 4,708 vehicles to customers in September, up 133% year on year. The company sold 12,206 vehicles over the summer, a new high in quarterly deliveries. Li Auto came in behind Nio, selling 8,660 of its own EVs over the same period.
- Growth may prove more difficult for Xpeng, which has just recently launched its first sedan, the P7. Some analysts have expressed concern over Xpeng's near-term prospects considering that the P7 competes head-to-head with Tesla's Model 3.
- Meanwhile, Tesla is seen as a growth driver for China's EV market by increasing consumers' awareness of these cars. The US carmaker this month launched a Model 3 with Chinese-made batteries, bringing the post-subsidy price down

by almost 10%, Bloomberg reported. China's biggest brokerage, Citic Securities, remains bullish, in a note on Oct. 9 saying Tesla is stimulating the overall market.

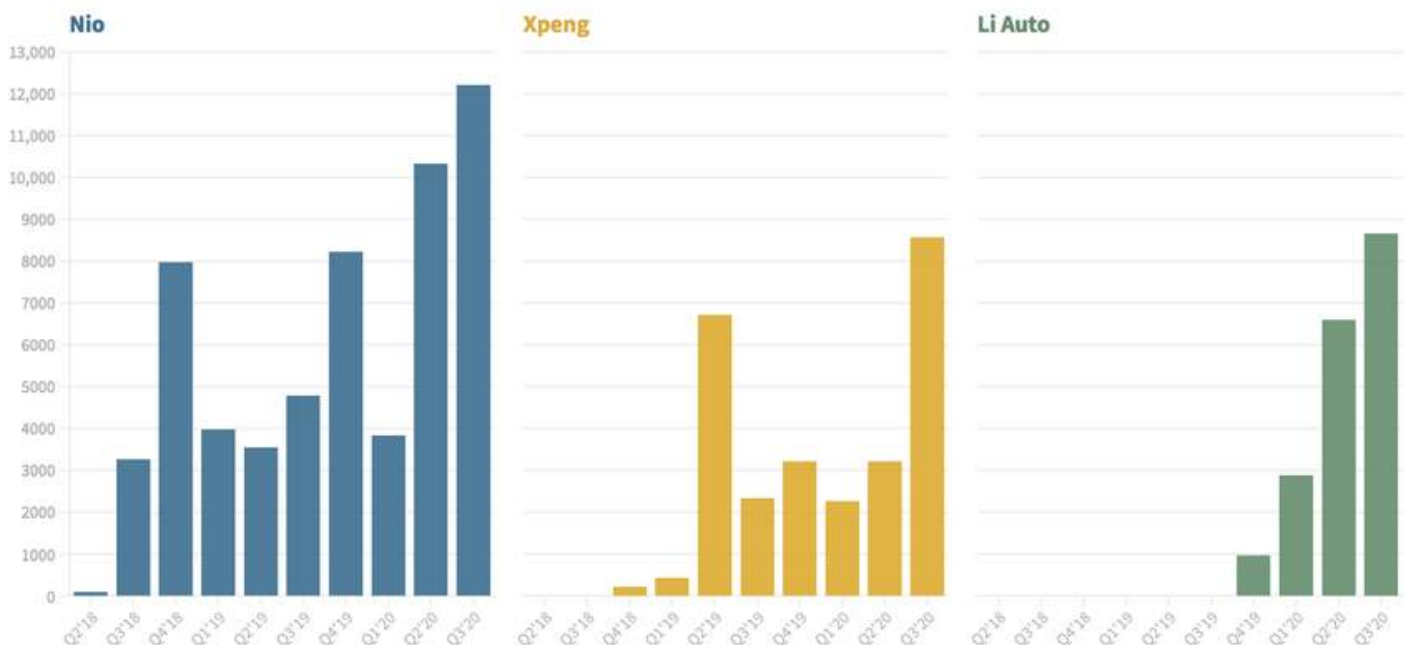
Tackling money problems

As China's EV makers produce and sell more cars, they have also been able to absorb costs more effectively. In the first half of the year, Nio and Xpeng narrowed their net losses by more than 50% compared with the same period a year ago.

- Li Auto improved its gross margin to 13.3% in the second quarter from 8% in Q1, impressing observers. Still, Bernstein analysts warned that future losses are inevitable as the company ramps up development of new vehicles and self-driving technology.

Chinese EV maker deliveries began surging in Q2 2020

Number of vehicles sold by quarter

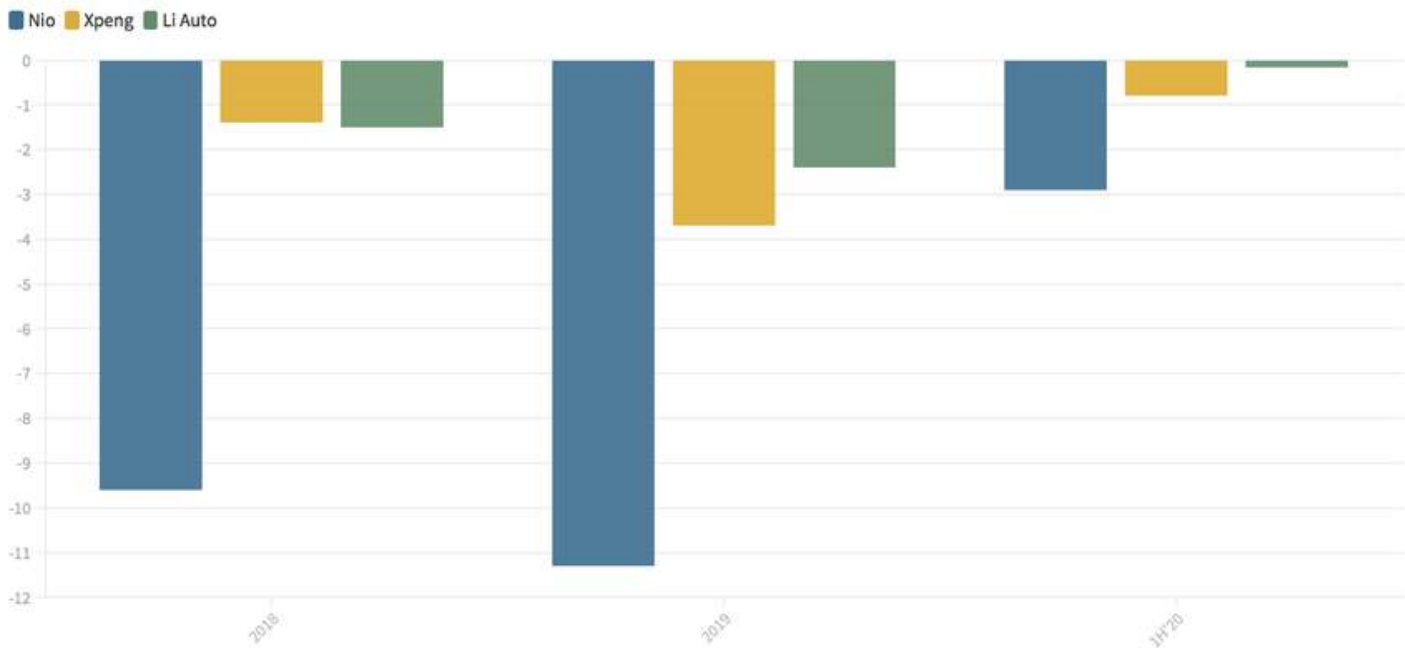


Source: Company reports

technode

Chinese EV firms have narrowed their losses in 2020

Losses in billions of Chinese yuan



Source: Company reports

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Meanwhile, Tesla's success in China is good for the company—but also for its competitors. The US carmaker's growth has local governments scrambling to bail out homegrown competitors.

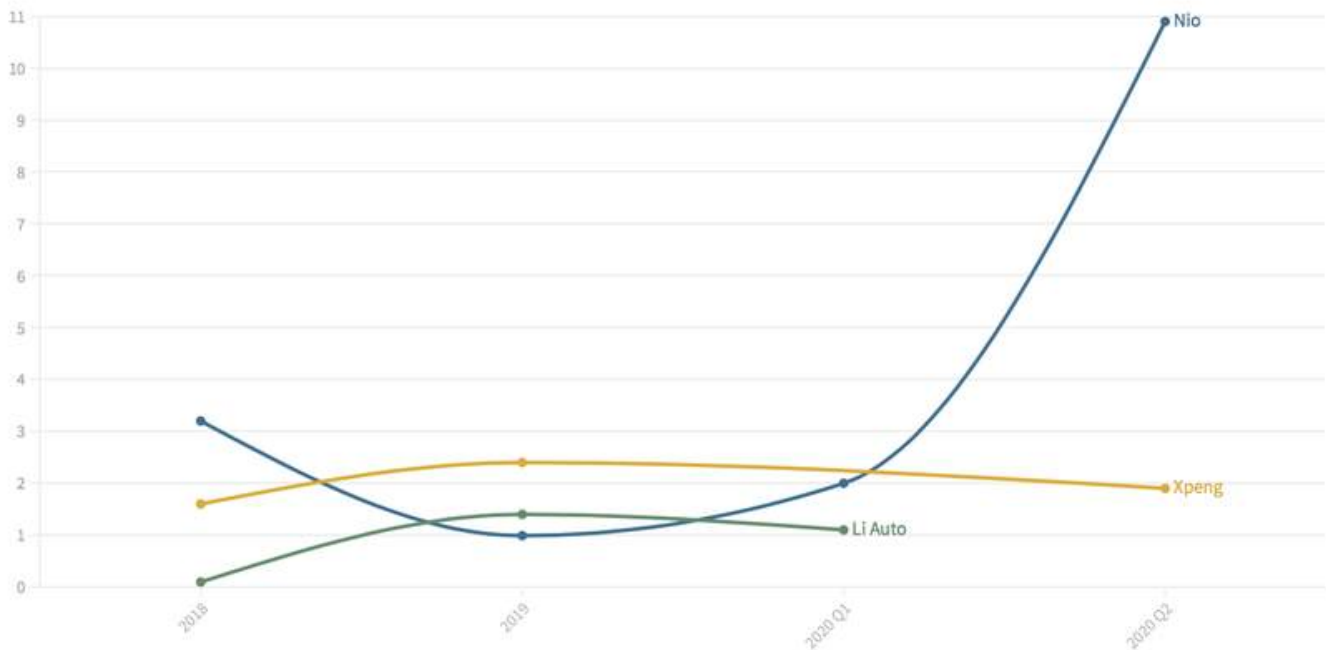
- Nio's \$1 billion lifeline spurred some analysts to rethink their evaluations of the EV maker, though the company will continue to face pressure to raise more capital. UBS analyst Paul Gong in late August jacked up his target share price for Nio to \$16.3 from \$1 while upgrading the company to neutral from sell, according to a CNBC report, since the company's liquidity concerns were "assuaged" by the successful fundraising.
- Xpeng followed soon after. In September, the company secured \$586 million from the government of Guangzhou, the capital of China's southern Guangdong province. Analysts said that Beijing-based Li Auto could strike a similar deal with local authorities.

Strategies

Tesla's Chinese rivals have taken vastly different approaches to gaining a foothold in the market. Nio, the most high-profile and best-financed of the three, had a market cap of \$29 billion as of Oct. 14, almost equivalent to that of Xpeng and Li Auto combined (Update: These figures are slightly out of date—Nio's stock jumped 22.57% in trading Wednesday following publication of a favorable report from J. P. Morgan, coming after this article was published in a newsletter). However, analysts are sharply divided over the company's ability to improve margins because of its big budget, customer-centric business model, which includes offering battery swap facilities around China.

Nio nabbed a \$1 billion lifeline in April, ending a year of financial woes

Cash reserves in billions of Chinese yuan



Source: Company reports • Cash flow data is a summary consolidating cash, cash equivalents and restricted cash at the end of the year/period.

technode

But Nio's investment in its costly retail and community strategy appears to be paying off. Deutsche Bank said last month that a growing number of consumers recognize Nio as "a high-quality premium brand with best-in-class technology and customer service." Meanwhile, Credit Suisse reportedly raised Nio's price target to a new high of \$25 when the company guided a record number of orders last month and expanded its monthly production capacity to 5,000 vehicles.

- Still, analysts warn that Nio sales are likely to fall off following the end of an offer of unlimited free battery swaps in October. Sales may have been artificially high if consumers sought to lock in purchases before the deadline.

- China International Capital Corporation (CICC) expects Nio's net loss to narrow another 6.8% to RMB 4.4 billion in 2021. In a note published in August, analysts said the company's battery-leasing service could significantly lower the cost of EV ownership, while enhancing user experience with upgradable battery technologies.
- Still, bearish researchers including Bernstein think otherwise, warning that the launch of Tesla's locally built Model Y next year could deal a blow to Nio's sales.

Analysts are generally more positive about Xpeng and Li Auto, which have more conventional business models. These companies are more circumspect about spending, have strong growth potential, and have successfully tightened manufacturing costs.

J.P Morgan said Xpeng could be the potential winner in China with its in-house self-driving technologies and mid-to-high-end positioning. The company expects Xpeng to break even in 2023 and sell 345,000 cars a year by 2025.

- Targeting more frugal consumers than Nio and Li Auto means Xpeng could find itself locked in a price war against companies including Tesla and BYD, among others, Bernstein noted, adding that autonomous driving technology in general is still in its infancy.

While Nio is seen as the higher-tier brand and Xpeng the cutting-edge competitor, Li Auto's pragmatic approach is viewed favorably. The company has distinguished itself from competitors by offering extended-range electric vehicles (EREVs), a bridge technology that addresses the pain points of owning a standard EV, including range anxiety and charging point bottlenecks.

Bernstein expects Li Auto to reach a gross margin of 13.5% this year and break even between 2022 and 2023. Goldman Sachs in August classed Li Auto as a "conviction buy," predicting that the company's stocks would outperform expectations, and estimated an annual sales volume of 445,000 vehicles in 2025.

- There has been some controversy over EREVs as a transitional technology, as well as doubt about how long it will remain relevant as EV technology improves. Nevertheless, Bernstein and CICC analysts said Li Auto could jump from EREVs to all-electric, since the latter is simpler from an engineering standpoint.
- Li Auto may break even earlier than its peers, while Nio remains a bigger threat to Tesla with a solid reputation in the high-end segment, something no Chinese manufacturer has accomplished before.

Market shifts

China's EV sales have slumped since last year. Beijing's subsidy cuts followed by the economic shock of the Covid-19 outbreak have left companies reeling.

More analysts have reversed their initially positive outlook for 2020, predicting a 20% drop in sales compared to last year's 1.2 million deliveries. In August, the country's top auto industry body, the China Association of Automobile Manufacturers (CAAM), lowered its 2020 EV sales forecasts to 1.1 million vehicles.



The situation could get even worse for EV companies, as legacy automakers including VW plan to release more EV models from 2022 onwards. This, coupled with Nio, Xpeng, and Li Auto's relative inexperience in manufacturing, could make for a difficult next couple of years.

However, the transition from internal combustion vehicles to EVs is gaining speed. And Chinese firms are riding the wave of Beijing's push to maintain its leadership as the world's biggest EV market. Sales of all-electric and plug-in hybrids vehicles have to make up around one-quarter of total auto sales in 2025 in order to reach China's mandated EV quotas, according to IHS Markit.

Consumer demand for EVs is expected to grow rapidly over the next few years due to increased affordability, with the high-end market seeing a rapid surge in sales. Around 1 million luxury EVs will be sold in China by 2025, according to Bernstein analysts. Half of this total will be made up of sales from smaller EV players like Nio, Xpeng, and Li Auto.

"China's smart and electric vehicle market will enter the fast lane over the next 10 years, and the hand-to-hand fight between homegrown carmakers and overseas giants has started," Citic Securities wrote in a note in July (our translation).

While many Wall Street analysts have taken bearish views of the field, Asia-based analysts are embracing the notion that young EV makers could co-exist with Tesla and even benefit from its China success. Nio and its peers collectively accounted for 14% of China's EV sales in June, a significant rise from 7% a year ago, figures from the China Passenger Car Association (CPCA) show.

The road ahead

Speed is the key to success for homegrown Tesla challengers to carve out a position in the market and avoid getting squeezed out by established automakers.

Bernstein expects that the pace of sales network expansion will be a "critical determinant" for Li Auto's performance in the coming year. As of Sept. 30, the company currently has 35 retail stores in 30 cities, only a quarter of those of Nio and Xpeng.

Time is also short for Nio and Xpeng to scale charging service networks, which IHS Markit sees as one of Tesla's early competitive advantages in encouraging consumers to go electric. Nio last month announced a RMB 100 million (\$14.9 million) initiative to build 30,000 fast chargers over the next three years. Xpeng is also ramping up with its lifelong free charging for first-time owners program, which launched on Sept. 26.

As costly projects come to life, Chinese EV makers need to continually raise capital to keep funding their ambitions. Any gaps in financing could mean being left behind.

"The combined market cap of Nio, Xpeng, and Li Auto is \$50 billion, far below Tesla's \$450 billion. There is still great room for (valuation) growth," Chinese media in August reported citing Wang Sheng, deputy head of global investment banking at CICC. (our translation).

NO.9

CHINA VOICES | THE UNSIGNED OP-EDS THAT FORESHADOWED ANT GROUP IPO SUSPENSION

NOV 09, 2020 | BY ELIZA GKRTSI



As fintech titan Ant Group prepared for a long-anticipated IPO, a struggle over the reach of regulation between founder and controlling stakeholder Jack Ma and financial regulators spilled into public view.

In the days leading up to Nov. 5, when the fintech giant was set to go public and raise an estimated \$34.5 billion, a series of pointed attacks on Ant Group were published in financial media including the central bank's official newspaper.

These articles called Ant Group "too big to fail" and a "systemic risk," likening Ant Group to the sprawling financial institutions that brought about the 2008 crisis. One accuses it of tricking its customers into taking on extra debt. All argue that Ant Group should be required to follow the Basel Accords, the bank rules created in the wake of the 2008 crisis.

Some were rumored to be written by China's top echelon of financial regulators. The people rumored to be behind the articles include Zhou Xiaochuan, the longest-serving governor of the People's Bank of China—a figure who presided over China's rise to a financial powerhouse and led the development of its modern financial system.

These articles likely provide insight into regulators' intentions for fintech. Ant Group's lending practices have emerged as a key issue for regulators: On Nov. 2, the China Insurance and Banking Committee released a draft regulation that would limit the amount companies like Ant can lend out to micro-borrowers.

Ant Group: no need to regulate

In the last year, authorities have been making moves to raise the regulatory bar for Ant Group, among other fintech giants, and bring it closer to what banks have to comply with.

In September, the State Council released new measures to introduce licensing requirements for non-financial holding companies that are involved in financial services, and could potentially raise capital requirements for companies like Ant Group.

"If you were previously unregulated, it feels like a clampdown," Andrew Polk, co-founder of research firm Trivium, told TechNode.

The People's Bank of China (PBOC), which is chiefly responsible for "macro-prudential" policy to manage overall risk in the financial system, appeared particularly worried about Ant Group. In July, the PBOC asked banks to report lending data for H2 2018, the whole of 2019, and H1 of 2020. The central bank asked for separate reports on loans going through Ant Group's platforms.



As Ant prepared for a history-making IPO, regulators were asking the company to accept being regulated more like a bank. This posed a threat to the sky-high valuation that would justify raising more than any company had ever asked from the markets.

But Ma believed that regulators misunderstood his business. Ant is more than a bank—as one of China’s two major online payments providers, it knows nearly everything about its customers—from rent payments to 3 a.m. e-commerce impulse purchases. Armed with this information, Ma believed, the company could assess risks with an accuracy banks could only dream of—making it safe for the company to operate at high leverage.

Ma thought the regulators were living in the analog past—and with weeks to go before the IPO, he decided to tell them in a very public setting.

On Oct. 24, Ma spoke at the Bund Summit, a Shanghai conference where some of the world’s top financiers discuss the state and future of the world economy, and China’s role in it. Speakers at this year’s conference included: China’s vice president Wang Qishan; the current and former governors of the PBOC, Yi Gang and Zhou Xiaochuan; the vice chairman of the China Securities Regulatory Commission, Fang Xinghai; high-level executives of China’s big four banks; former governor of the European Central Bank Jean-Claude Trichet; former UK Prime Minister Tony Blair; former US Treasury Secretary Robert Rubin; founder of US hedge fund Bridgewater Associates Ray Dalio; and former governor of the Bank of Japan Masaaki Shirakawa.

In this setting, Ma said: “The Basel Accords are more like a club for the elderly”—irrelevant to the “young” field of online finance. The accords are a set of international standards created in the wake of the 2008 financial crisis to reign in the banks and improve the stability of the world’s financial sectors.

The Basel Accords are about treating the diseases of the elderly with antiquated and overly complex systems. What we have to think about is: “What we should learn from the elderly?” The elderly and young people are not the same. The elderly care about whether there is a hospital, and the young people care about whether there is a school district.

The Alibaba founder said that tech companies are not afraid of regulation, but regulation using antiquated thinking:

We are not afraid of supervision, we are afraid of monitoring using the way of yesterday. We cannot manage the airport the same way as the railway station, and we cannot manage the future with yesterday’s methods.



China's financial sector suffers from a "pawnshop" mentality, Ma says, that must be replaced with big data.

The pawnshop idea of mortgage cannot support the financial needs of world development in the next 30 years. We must use today's technological capabilities to replace pawnshop thinking with a credit system based on big data.

The day after Ma's speech, at the same event, Shang Fulin, director of the Economic Committee at the Chinese People's Political Consultative Conference and the former governor of the China Banking Regulatory Commission, said that regulation must catch up with financial technology in order to reign in its excesses, making special notes of risks to the economy and privacy that big tech brings to the finance sector.

As modern information technology is more deeply involved in financial transactions, risk decision-making, internal control compliance, intelligent analysis, and other activities, information technology risks are more likely to lead to chain reactions such as operational risk, credit risk, liquidity risk, and so on. It is necessary to guard against the risks that may be brought about by the digitization of traditional business, as well as the risk of using technology to innovate in finance.

The 'old men' reply

A week after Ma's now-infamous speech, he got a response: three prominent articles in state media



laying out a case for stricter financial regulation on Big Tech, widely taken to represent the views of regulators.

The first shot was a forum comment highlighted by the online edition of Guangming Daily, an influential state newspaper on Oct. 26. Ma was "arrogant," and "the speech was not an idle talk over tea, but a targeted one in the context of Ant Group's IPO." "Without this kind of regulation [the Basel Accords], the size of the IPO will definitely be proportional to the sound of explosive thunder," the commenter wrote, drawing on an image frequently used to describe industries as out of control.

A week after Ma's speech, three strongly-worded editorials criticizing internet companies' involvement in finance, all attributed to pseudonymous "senior scholars," were widely reprinted on Chinese media. The latter two were printed in the official newspaper of the People's Bank of China, Jinrong Shibao (literally, "the Financial Times"—no relation to the salmon-colored London paper).

On Oct. 31, a pseudonymous op-ed called for strict financial regulation on big tech. Market insiders believe that the author, credited as “senior scholar” Zhang Feiyu, was an insider from the regulatory authority, Reuters China reported. We are a little confused about the place of publication—we’ve found reprints citing both independent financial media Caixin and the PBOC-linked Jinrong Shibao as the original.

“There was no supervision of the development of fintech in its early stages,” Zhang wrote, reminding readers of the scams and losses associated with peer-to-peer lending platforms, which rose and fell 2007–2018.

Financial regulatory authorities must dare to say “no” when supervising big tech companies—otherwise they will be easily misled by their technology, held hostage by public opinion, and fail to conduct effective supervision, which will eventually distort the market and generate financial risks.

On Nov. 1, a second warning about unregulated fintech appeared in Jinrong Shibao under the name Zhou Jueshuo, emphasizing the systemic risks associated with fintech.

Rumors on social media identify the author as Zhou Xiaochuan, who served as the governor of the PBOC for 16 years. Using pseudonyms when writing publicly is common practice among government-affiliated public intellectuals, especially household names like Zhou Xiaochuan.

The article did not single out a target, but attacked internet companies that participate in the financial sector. In the first two paragraphs of the main body, the author makes note of the benefits of internet companies’ involvement in finance, mentioning “Alibaba, Baidu, Tencent, and JD.com.” It credits Ant with bringing hundreds of millions of people into the financial system.

Other than these name drops at the top, the text only brings up Ant Group as an example of a big tech company that has become too big.

The article argues that big tech firms in the finance sector must be reigned in, and outlines a strategy for regulators. The article blames big tech for:

- Using data to gain unfair advantages, effectively creating **monopolies** that cannot be easily managed by traditional tools against unfair competition.
- **Evading financial regulation** by obfuscating the true nature of businesses and products, and pushing the limits of business licenses to provide financial services.

“If a large Internet company provides a large number of financial services but claims to be a technology company, it is evading regulatory oversight, will be more prone to disorderly expansion, which causes hidden risks, and is not conducive to fair competition or consumer protection.”

- **Complexity of technology** makes it harder to identify risks and determine responsible parties if something goes wrong.

“It is difficult for regulators to understand high-tech ‘black boxes’ and their hidden risks.”

-
- Data collection practices that pose risks to consumers through **data leaks** and **algorithmic discrimination**.
 - Posing serious **systemic risks** to the financial system—with the possibility of a domino effect if they fail.

Large Internet companies are [said to be] “too big to fail.” Ant Group counts over 1 billion individual users, over 80 million institutional users, and 118 trillion digital payment transactions. Its listed market value may set a historical record. If it [Ant Group] faces financial difficulties, it will cause serious contagion risk.

The section concludes:

Due to the wide network coverage of large internet companies, the convergence of business models and algorithms, the contagion of financial risk will speed up and may evolve into systemic risk in a very short time.

To solve these problems, the author argues fintech giants must be regulated in the same class as banks, but grants that authorities must update their systems for a tech-driven era. He calls for rules to protect consumer rights and prevent systemic risk, requiring fintech companies to seek licenses and accept oversight like traditional financial firms.

Finally, on Nov. 2, a third essay appeared in the PBOC newspaper, this time credited to “senior scholar” Shi Yu. The Nov. 2 essay singles out Ant, accusing it of exploiting retail borrowers.

The author starts by saying that the “so-called” innovative Ant Group” is “the institution with the highest degree of cross-industry sprawl in the world.” Rebutting Ma, it continues to argue that “Yesterday’s regulation’ is not useless, and the Basel Accords are not outdated.”

The essay attacks the lending models of Ant Groups’ virtual credit card Huabei and its money market fund Yu’eobao, saying that what it calls “inclusive finance” is actually very costly to consumers:

The annualized interest rate when borrowing from [Ant Group virtual credit card] Huabei was once close to 24%, and has dropped recently, but is now about 15%. At the same time, the Huabei borrowing mode on Alipay’s Yu’eobao feature... raises the interest that borrowers need to pay from the 5%-6% of a bank loan to 15%.



It also accuses Huabei of manipulating users' consent and tricking them into taking on debt:

At present, Huabei's lending interest rates are disclosed in the form of daily interest rates, and are not converted into annualized rates, as required by regulations. Borrowing is often set as the default choice during periods such as Singles Day, and customers are easily deprived of other payment options.

Finally, the article urged regulators to examine Ant Group's structure to require it to place financial services like Yu'eobao and Huabei under properly licensed online banks.

The moral

Probably the strangest state media response to Ma's speech was the victory lap from official news agency Xinhua.

On Nov. 2, Ma and two other top Ant Group executives were called in for a talk with regulators, while regulators issued new rules about microlending.

That evening, Xinhua rendered a verdict on the Ma affair via the medium of roundabout bedtime podcast. Xinhua's "Evening read"—a podcast offering "beautiful writing, every evening around 10 p.m."—selected an essay titled "You can't just say anything, you can't just do anything; people can't just do as they please."

Ma is not mentioned by name, but he appears by rebus in a painting accompanying the article, which shows a horse-shaped cloud floating over a leafless, dark forest. The billionaire's name can be translated as "horse cloud."

In a gentle voice accompanied by light piano and strumming guitar, host Wu Weiling tells listeners: "You can have different opinions, but you don't have the right to throw stones."

"Everything comes at a price," Wu said in words highlighted in red in the accompanying transcript. "If you don't have the capital, don't do as you please."



An essay on the importance of self-control, read aloud on a Xinhua bedtime story podcast the evening Jack Ma was called to speak to regulators, evoked the billionaire's name through rebus with a painting by the Japanese artist Kawai Higashiyama. Ma's name is composed of the Chinese characters for "horse" and "cloud." (Image credit: Xinhua)

NO. 10

HOW HUAWEI HOOKED GREEK TELCOS

DEC 09, 2020 | BY ELIZA GKRTSI





Based on ten interviews with industry insiders and regulators, TechNode tells the story of how Huawei established itself in the Greek market—and how the tables have turned for the Chinese telco giant. This is the first part of a three-part series.

In 2011, the Greek government was just embarking on what would turn out to be a years-long journey of bankruptcy avoidance with a cost of harsh austerity. Social welfare cuts, increased taxes, and drastic public sector reforms sent unemployment and inflation soaring—and Greeks took to the streets en masse.

Thousands of people were being laid off. Many businesses didn't know if they would make it to the end of the year. The Greek government was so cash-strapped that it had to be bailed out by international credit institutions.

During this chaos, a small telco operator decided to upgrade its network to 4G. Wind Hellas wanted to

spend three years rebuilding infrastructure that previously took 18 years to complete.

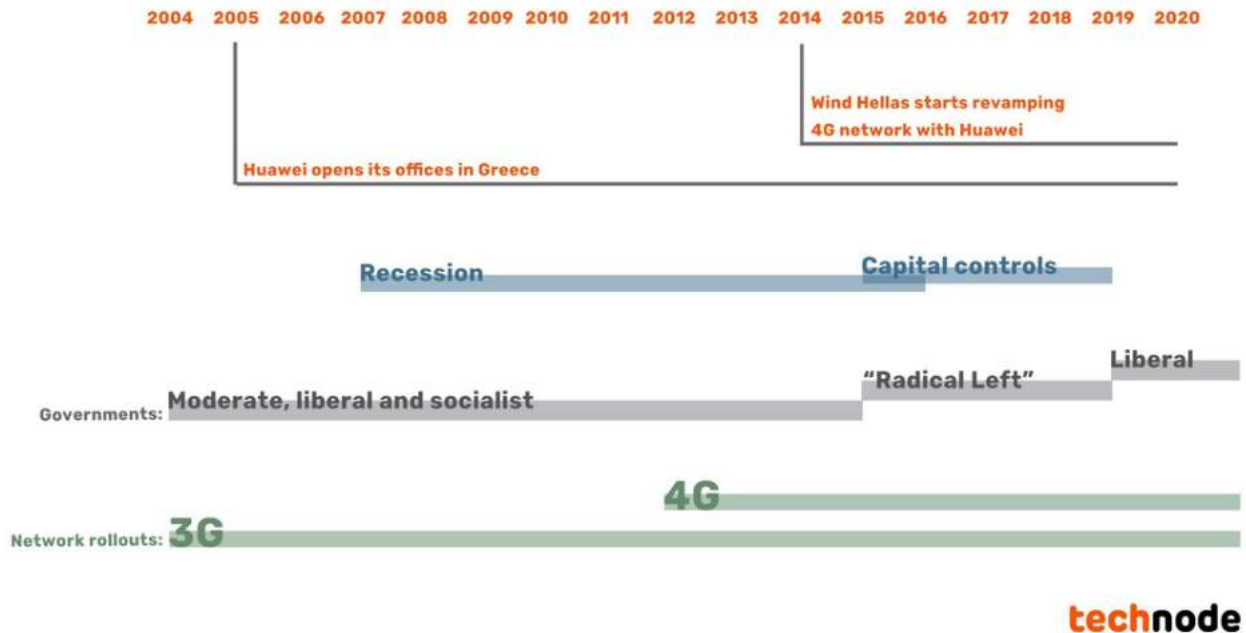
Wind Hellas had a secret weapon: a relatively unknown Chinese company called Huawei. While the country was in deep trouble, Huawei helped Wind Hellas build a brand-new network.

By 2014, the pair had built a 4G network that they claimed was the country's fastest.

Today, Wind Hellas is Greece's only surviving network operator that isn't affiliated with a European telco conglomerate, and its relationship with Huawei runs so deep that its experience of other vendors is virtually non-existent.

"We cannot compare with other suppliers, but from what we know, [Huawei's] performance is on par with them," Nikos Panopoulos, chief network and supply chain manager at Wind Hellas told TechNode.

Huawei in Greece: a timeline



Huawei has been building relationships with Greek telcos for 15 years. When capital controls were implemented in the recession-struck country, it was Huawei's time to shine.

The telco wars

To China, Huawei is a national champion, proof that the Chinese model can birth global tech leaders. To the US, it is a Trojan horse, Chinese interests and state capitalism masquerading as a run-of-the-mill tech firm. But to Greece's three telco operators, including Wind Hellas, Huawei—or "Hua," as Greek telecoms professionals call it—has been a reliable partner for 10 years. It is a trusted supplier with a proven track record.

Huawei equipment is everywhere in Greece. Although it has not been used in Greece's core network, Huawei equipment makes up more than half of Greece's 4G radio access network (RAN), the grid of cell towers that speak directly to cellphones. Wind Hellas built its RAN system almost entirely with Huawei equipment.

RAN is the infrastructure that connects the end-user with the core network. If you're sending an email, the first thing your phone does is to connect to the network using RAN. The EU considers RAN "highly sensitive" but not "critical" to network security.

It's not just telecoms. The warehouses of IT providers in the country are full of Huawei products, ready to be integrated into server centers around the country. The Shenzhen-based company is so deeply entrenched in the systems of a US ally that it is all but impossible to imagine the country rejecting it.

With its most important military ally on one side and a vital trading partner on the other, Greece faces a dilemma that's become common in 2020.

We're going to spend the next few weeks exploring what the fight over Huawei looks like when you're caught in the middle, using Greece as our case study. Greece's story is unique (as we'll see next week, it includes the suspicious death of a Vodafone employee possibly involving a US security agency), but it exemplifies the conflicts US allies face as Washington tries to drop a Silicon Curtain.

For the past two years, US diplomats around the world have implored allies not to use Huawei gear in their 5G networks. The company is "an arm of the Chinese Communist Party's surveillance state," said US Secretary of State Mike Pompeo in an official press release. He has called on countries to form a coalition and "push back" against China.

Some of the US's closest allies have decided to exclude Huawei from 5G buildouts: Australia, New Zealand, Sweden, the UK, and, reportedly, France. The rest of Europe has so far resisted singling out Huawei for a complete ban.

Even three countries that signed 5G security agreements early on with the US—Estonia, Poland, and Romania—are trying to find ways to increase security without singling out Huawei.

Many European countries are still undecided: Austria, Finland, Luxembourg, the Netherlands, Norway, Portugal, and Spain. Some, like Switzerland and Hungary, have committed to buy from Huawei.

Huawei's journey to the west

In the early 2000s, Ericsson and Nokia were the world's biggest telecoms vendors, and China was still considered a developing country by the World Trade Organization. From 2000–2005, only about one in five people in China had either a mobile phone or a landline, according to data from the International Telecommunication Union.

Huawei was a budget alternative at best. It started to explore business in Africa in 1998 and set off on its international expansion around 2000, Antonia Petrovits, a spokesperson for Huawei Greece, told TechNode.

Telecoms equipment manufacturer Cisco was the first US entity to take aim at Huawei in 2003, alleging that the then-upstart had infringed on five Cisco patents. But Washington had yet to come up with an aggressive and comprehensive policy centered around a national security argument, which is what we see today.



Huawei's office in Athens is hard to find, but is located a stone's throw away from the headquarters of Greece's three telcos.

Huawei's Athens office doesn't have a big sign. The company doesn't even list the address on their website. Unless you are invited, the only way to find out where they are is by accident (as TechNode did).

It's a far cry from Huawei's grandiose Shenzhen headquarters. A simple four-floor building houses a women's health clinic, and the national headquarters of Huawei and Media Markt, a nationwide electronics retailer.

But its strategic location more than makes up for its modest appearance. It is a stone's throw away from the headquarters of Greece's telco providers.

The Chinese telco giant approached Europe via the Middle East, Paul Scanlan, head of Huawei's Carrier Group, told TechNode. They wanted to build a good brand and understand the region better before dealing with more "mature customers," he said.

When Huawei opened its offices in Athens in 2005, it was a China-focused company with a few branches in developing countries. The same year it inaugurated its offices in Greece, it opened an office in Kenya.

Greece appeals to Chinese companies as a "landing point" for Europe. As a member of the European Union, it follows EU rules and is an entry point into Europe's southern and eastern blocs, Andreas Polycarpou, who worked in Athens as an executive consultant for strategy and innovation at ZTE for six years, told TechNode.

Good products, great service

At first, Huawei undercut competition with lower prices and aggressive marketing tactics. One person with direct knowledge of the procurement process said Huawei would directly compare technical specifications and pricing with competitors' at sales meetings.

The company's ownership structure allowed it to keep prices low while charging into new markets, like Greece. As a privately-owned company, it can afford to be patient about turning profits.

"If their prices are lower, it's not necessarily because they're being heavily subsidized by the Chinese government. It's because they don't have to answer on their margins for shareholders," Paul Triolo, practice head of geotechnology at advisory firm Eurasia Group, told TechNode.

Greek telcos OTE and Wind Hellas first bought Huawei equipment eight years ago, OTE's Director of Strategic Planning Pavlos Vihos and Wind Hellas's Head of Communications George Tsaprounis told TechNode in separate interviews.

Over time, Huawei's products got better and its prices increased. But their relationships with local telcos had been established, and their equipment earned a reputation as reliable.

Industry insiders in Greece said Huawei's equipment is excellent. Some even said that it is superior to Nokia and Ericsson equivalents, Huawei's only real competitors.



But Huawei's success in the Greek market goes beyond technicalities. It is largely attributable to a knack for localizing to the market and providing technical support. "Localization has always been our strategy," Petrovits said, adding that the company "combines the best of the Chinese and international approach."

At first, "communication was very difficult," but Huawei developed a very good team of Greek employees and, over time, they managed to make the partnership work, Wind Hellas's Panopoulos said.

Today, out of Huawei's 120 employees in Greece, 70% are locals, Kostas Vasiliou, wireless solution sales manager at Huawei Greece, told TechNode. Half of the 120 are technical staff, he said.

Huawei earned its place in Europe by delivering what was most important to the Greek market: world-class equipment at irresistible prices, and support throughout the products' life cycle.

The Huawei secret sauce

Huawei's commitment to localization allowed it to distinguish itself from other low-cost suppliers. As fellow Shenzhen equipment maker, ZTE, learned the hard way, this was key to winning over new markets like Greece.

ZTE entered the market in 2002 with a big sale of ADSL equipment—a type of broadband—to network provider OTE, Polycarpou said.

But ZTE never managed to form relationships with Greek telcos the way Huawei did. Huawei was able to convince Greek telcos that it would provide dedicated support. ZTE wasn't.

"When you buy telecoms equipment, you don't buy it for a year. You buy it for decades. You need to convince the buyer that you will be there to support them," Polycarpou said.

Huawei had a technical service team tailored to the market from the moment it set foot in Greece. While ZTE improved its localization efforts from 2011 to 2017 and gained some market share, Huawei quickly rolled out new products to counter ZTE's success.

ZTE's technical staff currently numbers two people. They can't compete with Huawei's "army" of 60 technical service specialists.

"When they [Huawei] installed the IMS systems [IP Multimedia Core Network Subsystem], they brought armies of engineers with them," Andreas Rigas, Senior Manager of strategy and development at OTE, told TechNode.

ZTE also did not navigate the local business landscape well, sometimes trying to sell products by talking to the wrong people, Polycarpou said.

"When the manager changes, he doesn't listen to the locals' advice. He wants to go meet a minister. But in Greece, the minister has nothing to do with sales of telco equipment," he said.

ZTE never gained traction in Greece. Today, Huawei is cozily nestled in the country's RAN system, while ZTE mainly sells peripheral network products, such as routers.

Seizing the moment

When the financial crisis spiraled into strict capital controls in 2015, the stars aligned for Huawei. Domestic politics, monetary controls, and other vendors' finances came together for Huawei to embed itself deeper in Greece's networks.

Since 2010, the Greek government had been agreeing to difficult austerity measures in exchange for bailouts from international creditors, chiefly the European Central Bank and International Monetary Fund. Foreign direct investment, including from US companies, dried up.

Washington itself sat out the Greek crisis, leaving the fate of its close ally to the hands of its creditors—other than the occasional diplomatic assurance.

Frustrated by austerity and “capitulating” governments, in 2015, the Greek people elected a “radical left” government which promised to stand up to its European creditors.

Shortly after the election, a dramatic sequence of events led to the implementation of capital controls to avoid a run on the banks and the catastrophic collapse of the financial system.

Transfers of money overseas were banned, unless with explicit permission from financial authorities. Cash withdrawals were limited to €60 per day.

Greeks spent their summer of 2015 waiting in long ATM lines around the country.

Huawei seized the moment.

When capital controls were introduced, European and US companies stopped most shipments to Greece. Many would only sell if they were paid in advance. With public and private debt reaching unprecedented levels in Greece, advance payments were basically impossible.

Chinese companies like Huawei and ZTE had more cash on hand, and a willingness to bet on the Greek economy—or the country's geopolitical position. They turned a blind eye to the capital controls by offering generous terms.

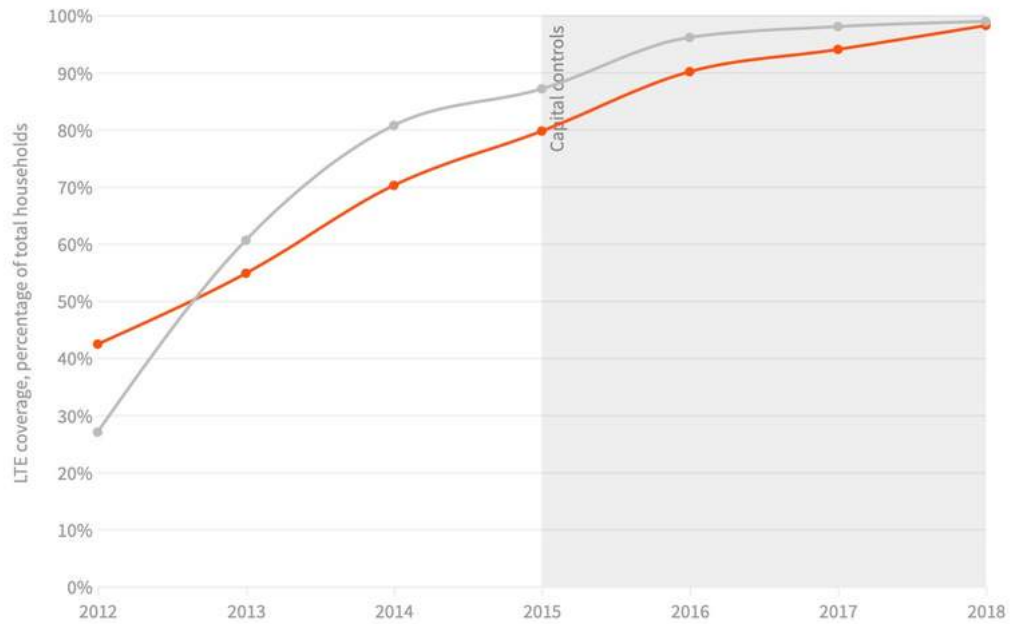
These companies let Greek buyers have equipment on credit, accepting deferred payments of up to 15 months.

Such agreements were commonplace during the crisis across industries, an unspoken secret in Greek business. In the case of telco equipment, they boosted the Chinese vendors' position in Greece's systems.

The Greek government could barely pay its healthcare suppliers. But Huawei and ZTE's support allowed Greek telcos to continue investing in their networks.

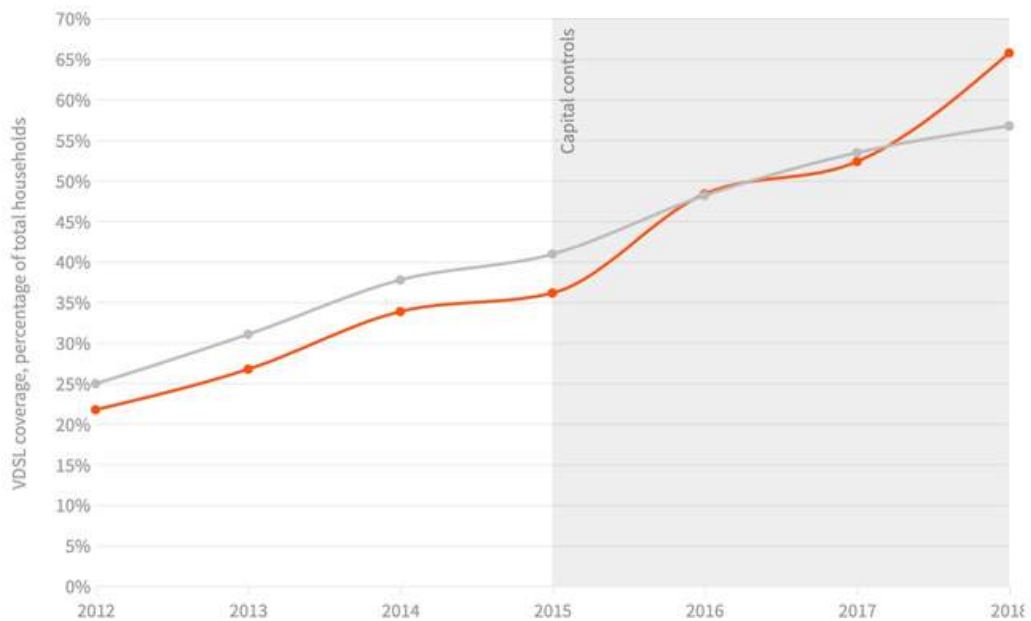
4G networks saw a 20% increase in coverage while EU and US vendors refused to sell to Greece

LTE coverage, percentage of total households



Greece improved its VDSL coverage by 30 percentage points with Huawei's support

VDSL coverage, percentage of total households



Source: [European Commission](#)

technode

— Greece

— EU 28

While Greek telcos were basically unable to buy from Western suppliers, their customers enjoyed substantial improvements in service.

Between 2015 and 2018, the last year for which the EU Commission has released relevant data, one-third of Greek households gained access to very high-speed digital subscriber lines (VDSL). In the same time period, coverage of Long Term Network Evolution networks (LTE) increased by 20 percentage points. LTE is the technology that supports 4G connectivity.

In the context of the crisis, these facts are astounding. As Huawei equipment was being used to build up capacity during the capital controls era, about 22% of people in Greece were unemployed, 35% of the population was at risk of poverty and annual GDP growth averaged a meager 0.7%.

Huawei was pivotal in achieving these gains in connectivity. It is unlikely that telcos would have updated their networks so drastically in the midst of a financial crisis without an equipment vendor that was willing to make concessions in payment schedules—Huawei.

The Greek sector took note: when Western firms fled, the Chinese stayed. They “stood by the market,” an industry insider said.

As Huawei ties with Greek telcos were growing tighter, Washington damaged its credibility when it was caught red-handed spying on Greek telecoms networks.

By 2018, when the US began lobbying long-standing allies around the world about the security risks of Huawei products, Huawei equipment was thoroughly embedded in Greek networks. Meanwhile, European leaders in Brussels were finally waking up to the importance of telecoms security.

But in more than a decade in the market, Huawei had already made good friends in Greece. When the Huawei debate started, Greek decision makers had years of experience—and trust—with the company.

Part II of this series will explore how the US campaign against Huawei—and its own espionage activities—have affected EU policy.





BONUS VIDEO !
TECHNODE
BLIND TASTING:
PLANT-BASED
MEAT

SEP 23, 2020 | BY SHI JIAYI AND ELIZA GKRTSI

Since Beyond Meat launched in China, plant-based meat has been all the rage—at least in news headlines. Rarely do the marketing-savvy earth warriors ask, does China really want new age plant-based meat?

Dozens of companies are betting that it does, including Yum China, the company behind KFC, Taco Bell, and Pizza Hut. In July, we visited the fast food chains to try Beyond Meat’s plant-based meat alternative. It exceeded my carnivorous expectations.

I was especially impressed by Taco Bell’s vegan taco. The vegan beef was really juicy and blended well with the sauce. KFC’s vegan burger was good for the first few bites, but the portion was too big for me, and I felt my stomach fill with fast food grease as I ate more. Let’s not talk about my Pizza Hut experience...

All these foreign brands entering the Chinese market with armies of branding and marketing specialists are facing competition from local startups—and a centuries-old industry of Buddhist vegetarian meat.

With China’s market heating up, we thought it’s time to do a taste test on some of the local veggie meat brands. A lot of the hype around plant-based dishes on the Chinese market has revolved around western food, but we wanted to see how they’d perform with Chinese basics.

We picked dumplings—if plant-based pork is going to catch on in Chinese kitchens, stomachs, and hearts, it has to work with dumplings. They are usually made with pork, which is China’s favorite meat.

To ensure our taste test adhered to the highest standards of justice and fairness, we would not reveal to our tasters which dumpling was made with which plant-based meat until after they had given us their feedback. In other words, the phyto-beasts were subjected to a blind test.

The dough-wrapped pockets of delicious Chinese cooking have the added benefit of hiding what’s inside, sparing us the cost of blindfolds.

The contenders:

- Omni Pork, a company based in Hong Kong
- Z-Rou, a Shanghai-based startup
- Traditional Buddhist veggie meat maker Gongdelin, established in 1992.
- Pig-based pork, for the meat-eaters.

We invited two vegetarians and two meat eaters to try our dumplings. Click the picture below to check out the video of their verdict.



WITH CHINESE CHARACTERISTICS

TechNode blind tasting: plant-based meat

by **Shi Jiayi** and **Eliza Gkritsi** Sep 23, 2020

News of China’s plant-based meat market heating up have caught the attention of journalists and investors. But can the veggie meats woo Chinese consumers?



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