CKGSB
KNOWLEDGE

CHEUNG KONG GRADUATE SCHOOL OF BUSINESS

Volume No. 34
SUMMER 2019
$12.00



A SOCIAL RULEBOOK

Working with China's controversial social credit system

- CKGSB Research: How do Chinese business people lead?
- The rise of domestic venture capitalists in tech
- A look into BASF's first wholly-owned plant in China

CKGSB
长江商学院
CHEUNG KONG GRADUATE SCHOOL OF BUSINESS

MBA



A WORLD-CLASS MBA PROGRAM
WITH UNRIVALED CHINA INSIGHTS

· Accelerated 14-month English Program ·

· Full-Time World-Class Faculty

Learn from
globally acclaimed professors
with in-depth China perspective

· Exceptional Alumni Network

Connect with an alumni network
of China's most successful
entrepreneurs and companies

· Global Learning Platform

Take exchange program
with top Business schools around
the world and join overseas modules

· Career Development

Receive service from Career Management Center
Mentored by Chinese business leaders and
Fortune 500 decision-makers

· For more information about
CKGSB SCHOLARSHIPS,
please go to www.ckgsb.edu.cn

MBA Admissions Office
+86-10-85181052
mbaadmissions@ckgsb.edu.cn

Scan to Apply

Learn more
about the program

BEIJING | SHANGHAI | SHENZHEN | HONG KONG | NEW YORK | LONDON

Economy and Policy



Eyes On The Prize 7
How will an increasing number of domestic venture capitalists impact China's tech system?

Shelter For Innovation 11
China is strengthening its intellectual property laws faster than many realize

Stephan Kothrade, president of BASF Greater China, on the value of an integrated value chain 16

Issue: Summer 2019
Vol. No. 34

Editor-in-Chief
Zhou Li

Senior Editors
Marcus Ryder and Greg Langley

Managing Editor
Mable-Ann Chang

Coordination
Mei Xinlei

Design
Jason Wong

Cover
Wei Bingnan

Produced By
SinoMedia

ISSN 2312-9905

Publisher
CKGSB GLOBAL LIMITED
Suite 3203, 32/F, Champion Tower,
3 Garden Road,
Central, Hong Kong

For Letters to the Editor or reprint requests, please contact:
ckgsb.knowledge@ckgsb.edu.cn

The end of China ODI? 19
China's outward investment spree looks spent. Is that the case?



Parag Khanna, founder of Futuremap, explains geopolitics and multipolarity in Asia 23

Getting Ahead 27
Working with China's controversial social credit system

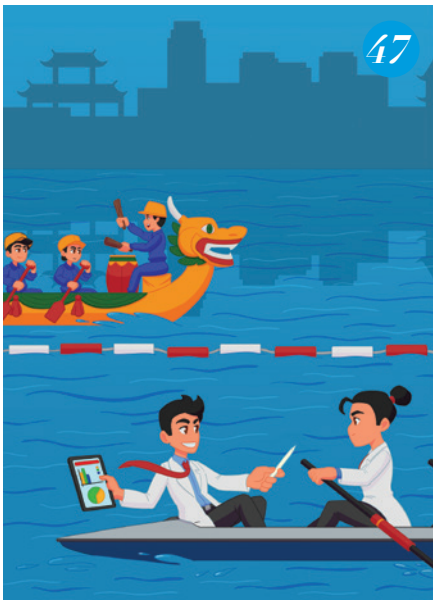
Business Trends



Roseann Lake, author of *Leftover in China*, on the power of "leftover women" 32

Bursting At The Seams 35
How is China's bulging waistline impacting the economy and healthcare system?

Jun Wu, founder of AMINO, explains the challenges in China's IT sector 39



From Passion to Impact 43
What is behind China's rise in charitable giving?

Changing Tides 47
As China's economy shifts, will its management style need to do the same?

Company

Comac Takes Off 51
The future of China's state-owned aircraft manufacturer

CKGSB Management Research Report 55
How do Chinese executives lead?

Business Barometer

Business Barometer 58
Results from CKGSB's business sentiment surveys

Downtime

Going Underground 62
How has China's massive urban railway network affected society?

Snapshot 66
A statistical breakdown of China's transportation systems

China Data 68
The Chinese economic trends you may have missed: from Beijing's falling population to China's gig economy backstop

Bookshelf 70
Andrew Polk, co-founder and head of Economic Research at Trivium China, selects his top China books

优 明 取

術 道 勢

CHINA INSIGHT. GLOBAL IMPACT.
SHAPE TOMORROW TOGETHER.



GLOBAL BRANDING & COMMERCE IN THE DIGITAL ERA:

RESETTING FOR GROWTH

Nov 17-22, 2019

New Haven, New York City

An action-learning program delivered by global experts and executives in digital marketing to help you grow your business globally

Contact
Michelle Yu | +1 646 627 7731 | yingyu@ckgsb.edu.cn

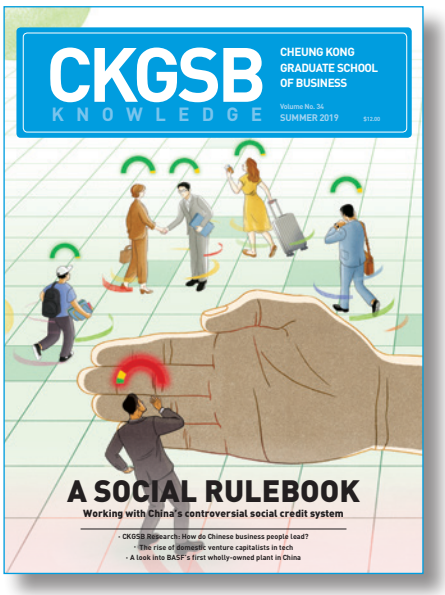
CKGSB AMERICAS

WPP

Yale SCHOOL OF MANAGEMENT

Writing its Own Script

China is now unquestionably a key player in global affairs, but to become a world superpower the country will need to continue developing and refining its policies. Changes are already occurring across a variety of sectors, and innovation is occurring on a scale the world has never seen before.



In this issue of *CKGSB Knowledge*, we explore how China is catching up to international standards, with two of our stories following developments within specific sectors. "**Shelter for Innovation**" (page **11**) looks at the development of patent protection in China, an issue that has been a longstanding concern for foreign companies operating in the world's second-largest economy. **"From Passion to Impact"** (page **43**) examines China's growing philanthropic sector, the role corporate social responsibility programs are playing in charitable giving in the country as well as the challenges that non-governmental organizations continue to face.

And while catching up to and exceeding the US is on the agenda, China is also creating its own set of rules in the process. **"Getting Ahead"** (page **27**) analyzes the controversial social credit system that is expected to be rolled out nationwide next year. What effects, positive and negative, will this system have on individuals and businesses?

There are, of course, also negative consequences to China reaching similar living standards as the West, with obesity rates surging in recent years. **"Bursting at the Seams"** (page **35**) examines the strain that China's bulging waistlines are having on the economy and health care system.

On this journey, as China shifts from a manufacturing economy to a knowledge-based economy, will the Chinese management style need to adapt? **"Changing Tides"** (page **47**) considers the differences between Western and Chinese management styles and the economic benefits that each bring to the table. With so many Chinese businesses flourishing in an incredibly short period of time, are there perhaps things that the West can learn from China as well as the other way around?

As part of China's quest to become a world leader and to move up the manufacturing food chain, **"Comac Takes Off"** (page **51**) explores the potential of China's state-owned commercial aircraft manufacturer. Will it be able to break the current Boeing-Airbus duopoly? Meanwhile **"Eye on the Prize**" (page **7**)**,** looks at how domestic venture capital has largely replaced foreign VC funds and the impact that this is having on the development of China's tech sector—an area in which the state has also been investing heavily in recent years.

"The End of China ODI?" (page **19**) examines how China's decade-long outward investment spree appears to have plateaued and what implications that has. And in our Downtime piece, "**Going Underground**" (page **62**), we look at how China's massive urban rail network has expanded at an incredible pace in recent years and how its sprawling networks have affected society.

We feature four fascinating interviews in this issue. Stephen Kothrade, President and Chairman of Greater China at BASF, the largest chemical producer in the world, discusses plans for the company's first wholly-owned plant in China and the benefits that an integrated value chain can bring (page **16**). Parag Khanna, an international relations specialist and Founder of FutureMap, explains the importance of understanding geopolitics and multipolarity in Asia (page **23**).

Jun Wu, founder of venture capital company AMINO capital and previously Vice President at Tencent and senior expert at Google, explains the challenges facing China's nascent information technology sector (page **39**). And Roseann Lake, author of *Leftover in China: The Women Shaping the World's Next Superpower,* looks at the experiences of women who have postponed marriage in China and how they are shaping the country's economic future (page **32**).

This issue presents plenty to think about and discuss. If you have any comments or opinions to contribute, we would love to hear from you (*lzhou@ckgsb.edu.cn* or *ckgsb.knowledge@ckgsb.edu.cn*).

Yours Sincerely,



Zhou Li
Assistant Dean, CKGSB
Editor-in-Chief, *CKGSB Knowledge*

For more insights on the Chinese economy and business, please visit the CKGSB Knowledge *site: http://knowledge.ckgsb.edu.cn/*



Hyatt® and Grand Hyatt® names, designs and related marks are trademarks of Hyatt Corporation. © 2019 Hyatt Corporation. All rights reserved. Advertisement

SO FAR SO GRAND

CELEBRATE THE 20TH ANNIVERSARY OF GRAND HYATT SHANGHAI

-

Discover a Shanghai landmark. Experience why we've stood tall and grand for two decades,thanks to breathtaking spaces, authentic cuisine and customized service. Make each step you take grander than the last.

To book,visit shanghai.grand.hyatt.com

上海金茂君悦大酒店

GRAND | HYATT

SHANGHAI

20 ANNIVERSARY

EYES ON THE PRIZE

How will the growing strength of domestic venture capitalists impact the development of China's tech system?

By Colin Shek

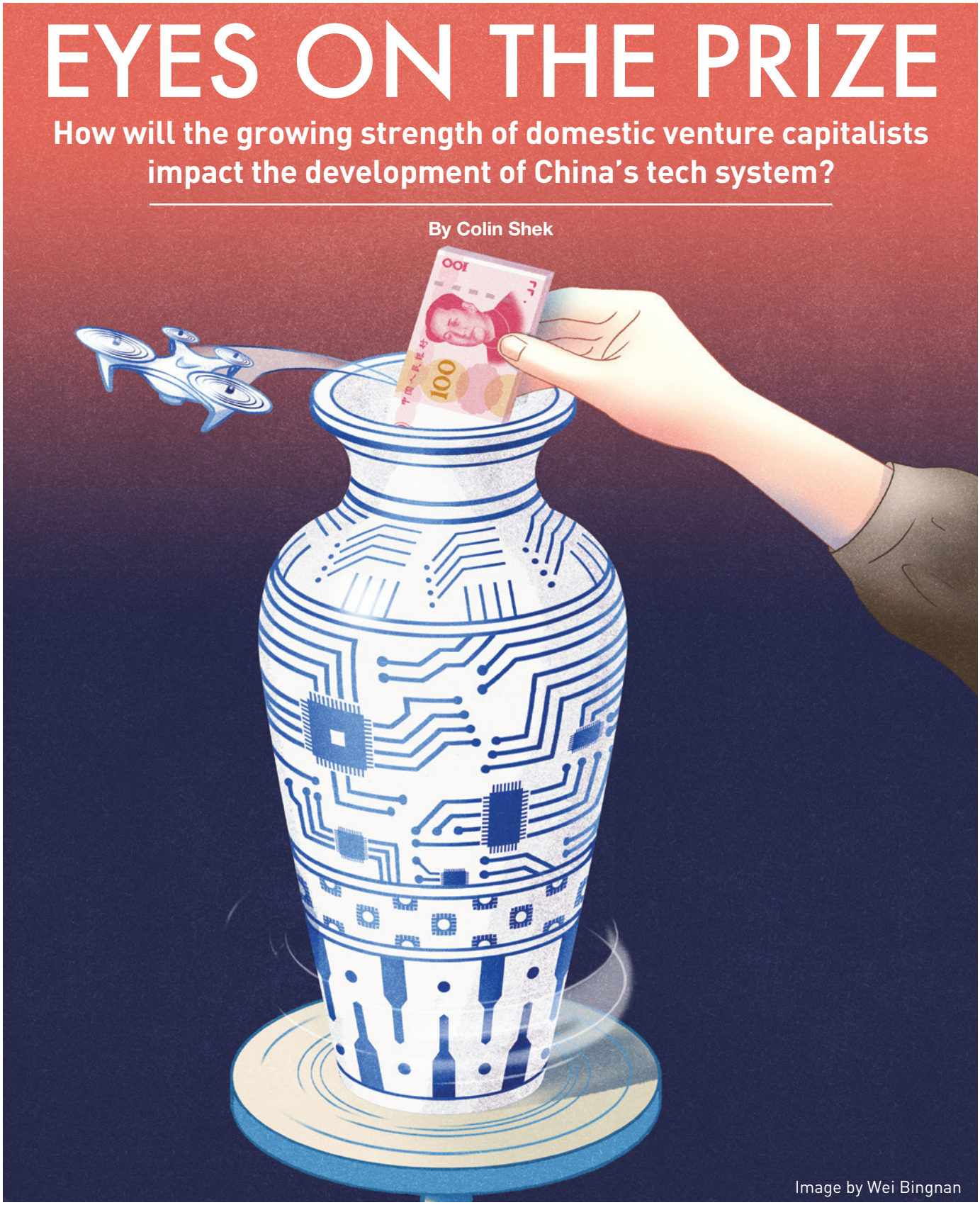


Image by Wei Bingnan

Domestic venture capital is muscling out international VC funding in the China market. What does this mean for startups?

A decade ago, most venture capital (VC) investments in China were led by foreign funds. Today, the vast majority are led by Chinese VC funds and foreign capital is hardly seen. It's a turn-around that has big implications for China's growing tech sector and for its integration with the rest of the world.

On Forbes' most recent list of top 100 venture capitalists globally, Chinese investors snagged 21 of the places, up from 17 last year. Importantly those VC funds and their activities were not focused on Silicon Valley but on ventures in China.

Decades of economic reforms in China have given high-quality startups the opportunity to thrive, and also provided rich prospects for investors. A yearslong swell of venture capital activity in the country has created a number of so-called "unicorns"—privately-held startups valued at more than $1 billion. Until a few years ago, most of them would have been looking for foreign VC support as a prelude to a listing on NASDAQ, or another foreign stock exchange. No longer.

While foreign heavyweight US champions, such as Sequoia and Matrix, have been the main players in the field in the past, domestic Chinese VC funds such as Qiming as well as VC offshoots of China's tech titans led by Alibaba and Tencent, have become far and away the biggest investors in Chinese startups.

The total value of completed VC deals in China that only involved domestic funds reached a record $12.5 billion in 2018, according to data compiled for *CKGSB Knowledge* by Pitchbook. Meanwhile, the value of US investor-only VC deals done in China was roughly just one-tenth of the size, at $1.27 billion. Some 463 VC deals were completed last year with only Chinese funds participating, while just 47 deals were done with only US investors onboard.

The rise of domestic VC in China and its recent overshadowing of foreign VC has "been driven by the fact that a lot of the foreign firms—Kleiner Perkins being an example—started a branch in China, but it was a train wreck," says Gary Rieschel, managing partner of leading China VC firm Qiming.

"They just never got off the ground. New Enterprise Associates started a branch, pulled it, started it again. Greylock Partners got rid of people. Because it was really hard to establish trust with the people in China back in the fund headquarters when they were making investment decisions. The funds that were able to actually establish local subsidiaries and raise capital specifically for China have just grown dramatically."

Investors' paradise

Chinese startups raised more cash than their peers in the US for the first time ever in the first half of 2018—$56 billion versus $42 billion—according to a study conducted in November by data provider Preqin and French business school INSEAD.

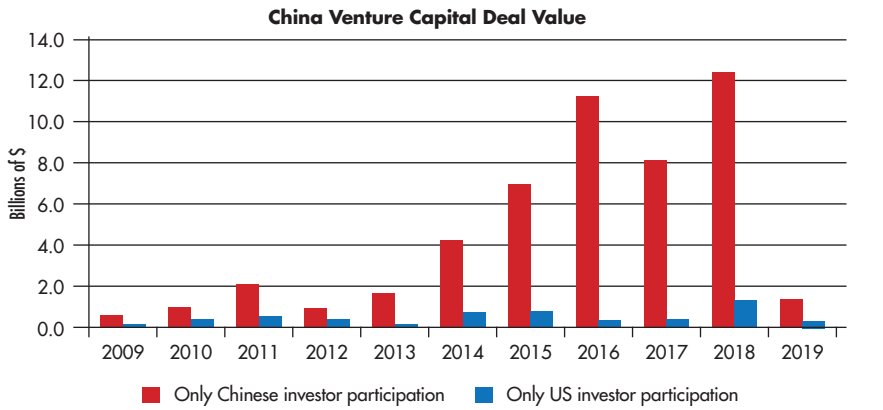
That was largely thanks to a huge $14 billion funding round in June 2018 for Ant Financial Services that gave Alibaba's financial affiliate a post-fundraising valuation of $150 billion. Other multibillion-dollar investment rounds that closed in China last year included: Didi Chuxing's late-stage financing for $4.6 billion in February; $4.0 billion for Meituan-Dianping in April ahead of its Hong Kong listing in September; and the $3.0 billion for ByteDance in October, the startup that created the popular video app TikTok.

In recent years, VC activity in China has been concentrated in tech and other emerging industries, such as artificial intelligence, new energy vehicles, new materials and robotics, says Wang Dan, an analyst with the Economist Intelligence Unit. The Chinese government has also been very supportive of the trend.

"Some government reforms stressing the use of digital transformation have also attracted VC into traditionally non-digital fields such as health care and education," says Wang.

"AI is extremely hot because everyone thinks it is going to completely disrupt the way things are done," says Joe Chang, a Shanghai-based partner at Eight Roads, the proprietary VC arm of Fidelity International. "That's key for a country like China, to be able to leapfrog the US.

ON THE UP | There has been a surge in Chinese VC investments in the country



Source: Pitchbook

There's going to be a lot of value creation, and value destruction."

Domestic VC in the spotlight

China's central government has driven mass entrepreneurship by boosting support to startups and small-business owners with generous financial incentives in the hope of accelerating growth and generating jobs. Beijing also stepped up policy support, not just through subsidies but also by simplifying the registration process for startups—entrepreneurs can set up small businesses in less than a week with only a few thousand RMB, without needing an office or registered capital.

State-backed funds have become some of the biggest players in the VC industry. One local government-backed VC firm, Shanghai Information Investment, was founded in 1997 with the mission to fund companies developing Shanghai's IT infrastructure. In 2007, the Ministry of Science and Technology launched the first of many state-owned "guidance funds" to encourage more investment in tech startups. There were at least 2,041 guidance funds in operation last year, with total funding reaching RMB 5.3 trillion ($742 billion), according to Pitchbook. More recently, in 2017, China's central government launched the RMB 100 billion ($14 billion) China Internet Investment Fund to finance and support domestic internet companies.

"The state-funded money going into the venture market has been extraordinary in the last few years," says Rieschel. "The government has all sorts of local venture fund deals at city level, county level and provincial level, so it's a huge player in terms of the amount of capital deployed."

One story that illustrates the current VC environment is the example of Reap. In mid-2018, Daren Guo and Kevin Kang started approaching VC firms in China and overseas for seed capital to fund Reap, their Hong Kong-based startup that enables SMEs to pay for business expenses using credit cards. The numerous successful Chinese companies that have gone from zero to blockbuster flotations in a short space of time have spoiled local investors to some extent, raising the bar for domestic startups and inflating expectations about what they can achieve.

"China is a market where if you're able to hit the problem and get distribution at scale very quickly, the network effect allows you to scale incredibly quickly because of how large and interconnected the country is," says Guo. "There were a few investors that we talked to in China that have these expectations for startups and companies that do not share some of China's unique market dynamics."

"You think about a lot of the success stories in China that have accelerated to massive scale in a very, very short amount of time. It has to do with the network effect. You really have to keep investor expectations of that in check, if your business is not fully immersed in China," says Kang.

The huge levels of liquidity and the plethora of startups seeking cash means domestic VC players do not necessarily need to be picky when it comes to backing new businesses.

"Some of the ones we talked to were just very almost just like capital machines," says Kang. They're dispensing money because they have so many opportunities to look at. Especially in China, there are so many seed-stage companies out there, it makes more sense to just spread your money around and see what works out."

The scattergun approach of some Chinese VC firms ties into a shorter-term mentality compared with their international peers, says Jiang Xiaodong, managing director of Shanghai-based Long Hill Capital.

"Global funds seem to be more long term-oriented, simply because in many cases, global partners have been doing this longer," says Jiang. "They are more mature, and they know the nature of cycles, so they're not necessarily after quick riches because they know that it's not possible in most cases."

Chinese VC firms are arguably less efficient than international funds because of their lack of diversification in investment, says Wang from the EIU. "Too much capital is always chasing too few companies, and usually ends up in a narrow range of technology and consumer sectors. Their decisions are often driven by government policies and market sentiment. Their exit strategy is limited too, given that IPOs in mainland China are cumbersome. Yet the Shanghai Tech Board may provide a way to cash out for some VCs."

BAT comes out swinging

The most active VC firms in China were once VC-funded startups themselves. Baidu, Alibaba and Tencent Holdings, known as BAT—China's first generation of super-unicorns—command significant sway in the economy and have become formidable investors in startups.

The BAT companies started with a singular business objective—Baidu in online search, Alibaba in e-commerce, and Tencent in social networking services—

> The state-funded money going into the venture market has been extraordinary in the last few years
>
> Gary Rieschel
> Managing Partner
> Qiming

but they have now built sprawling digital empires that challenge, at least in the China context, the likes of Google, Amazon and Facebook. They have pervasive platform strategies that successfully extend into nearly all sectors of the Chinese internet, and by dominating Chinese screen time and e-commerce spending; the BAT trio have made nearly a thousand VC investments through a variety of vehicles and subsidiary companies.

"These guys can be kingmakers, particularly in the consumer sector," says Chang. "They're important players. They've created even more massive platforms than United States players, from which to service customers—and consumers in particular."

Tencent and Alibaba have become especially adept at picking promising young Chinese companies that are generating enormous wealth early in their development. Tencent invested in 31 out of China's 202 unicorns by the end of March, while Alibaba had funded 21, according to the Shanghai-based Hurun Report's latest Greater China Unicorns Index. This ranked the two companies ahead of well-known VC names, including GGV Capital, Matrix and Qiming.

"They have been far more aggressive than their US counterparts in pursuing investments in the unicorn space," says Rieschel.

As Chinese consumers rapidly adopted internet and mobile technology, the BAT firms expanded into new business models to address consumer needs—in the process, becoming reliable sources of capital for startups. Ever fewer promising young Chinese companies seem able to escape the reach of their insatiable investment teams—by the time early-stage companies in China hit a $5 billion valuation, 80% of them have accepted funding from one of the tech triumvirate.

The BAT trio not only invests in early-stage companies, but also provides an attractive exit channel by acquiring many of the companies in the long run. Significant investments in unicorns as well as smaller tech startups are part of the platform-based strategies that BAT have adopted to expand horizontally and to embed themselves in the daily lives of Chinese users.

Continued investment in Chinese startups also allows the BAT firms to increase the stickiness of their platforms and to act as a one-stop shop for all entertainment, shopping, finance, and other needs. They have strong alliances with Chinese local governments, which provides strong tailwind for growth.

Challenges

Foreign VC firms were originally very attractive for Chinese startups because they provided a route for listings in the US markets, but those markets have become less attractive too Chinese entrepreneurs in recent years for several reasons, most importantly increased oversight of the companies by the US regulators combined with more relaxed conditions for listing on the China stock markets.

Domestic funds based in RMB are able to invest in a much wider range of sectors, and companies are not restricted from listing on domestic exchanges. Foreign VC funds, in contrast, face significant hurdles in exiting on Chinese exchanges. The Chinese equity markets also typically provide much higher valuations for Chinese startups, and ever-stricter controls on the cross-border movement of funds also makes Chinese entrepreneurs much less interested in raising US dollars, and much more interested in raising RMB funds domestically.

Foreign VC funds also face policy risks. Some fund managers are conscious of the fact that opposition exists from within the central government over concerns that foreign VC funding could undermine its close-knit system.

Looking to the future

Nonetheless, as the world's largest single market, China still boasts vast potential in the consumer sector and services, and foreign VC investors have certainly not abandoned it.

China is now itself originating more and more technological and scientific advances, particularly with government support, and foreign VCs often want in.

"In the past what you had was that most of the real invention that we celebrate today occurred in the US, and then was brought over to China," says Rieschel. "You had localization and innovation on that, but the real core invention was overseas. I think you're going to see the Chinese become more inventive. You're going to wind up having fundamental breakthrough technologies start to hit the market from China."

While Chinese VC firms have to a large extent taken the spotlight for now, fund managers don't expect international outfits, and the need for them, to disappear any time soon.

"The international limited partners are still more mature in terms of the way they approach investing," says Long Hills' Jiang Xiaodong. "Going into the future, the best general partners will want the best limited partners, not just someone who'll write a check, but someone who really understands the private equity and venture capital business. Right now, they're still mainly overseas."

SHELTER FOR INNOVATION

China is strengthening its intellectual property laws much faster than many realize

By Dominic Morgan

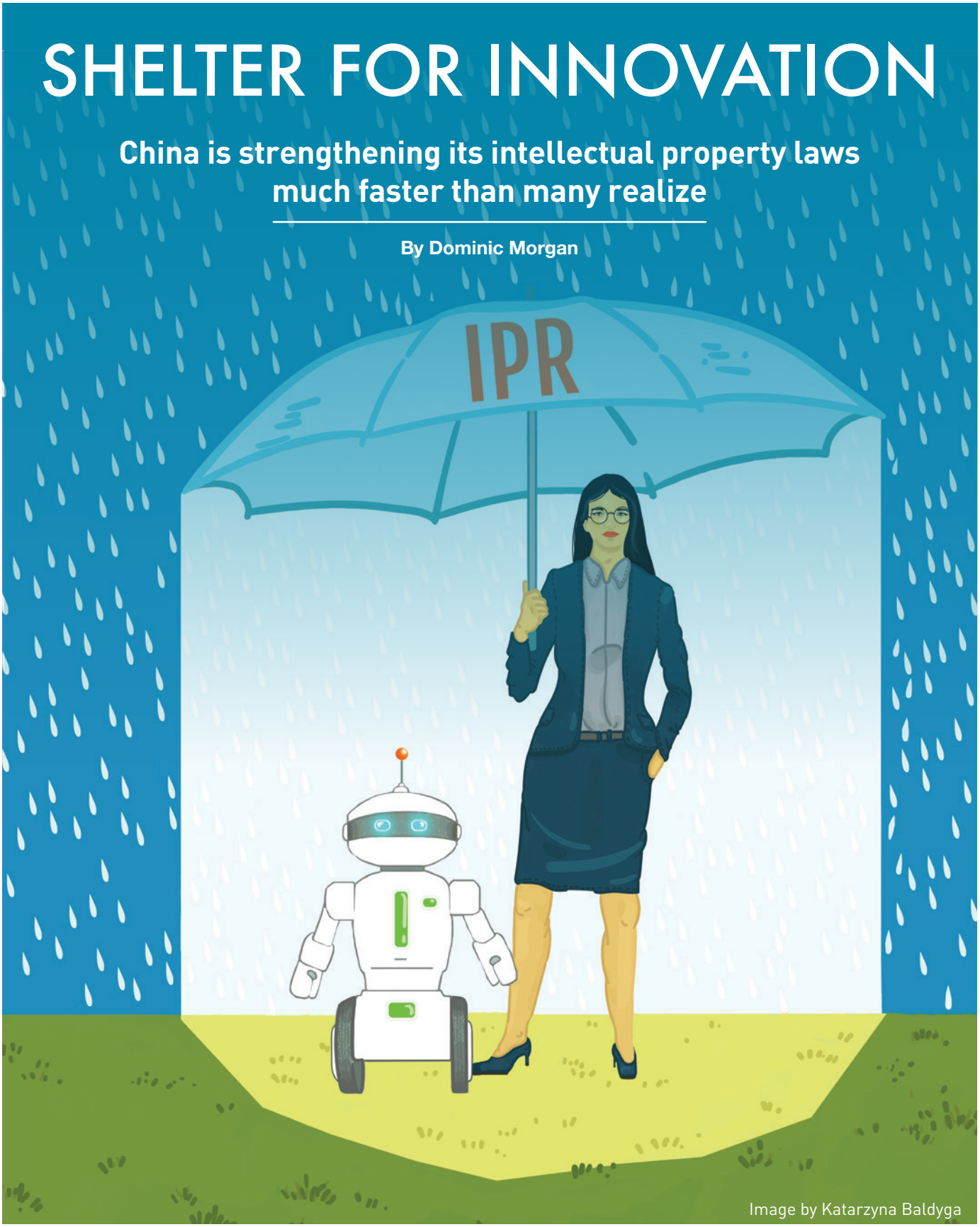


Image by Katarzyna Baldyga

Intellectual Property Rights infringement has been a longstanding issue in China, but as patent laws have developed, foreign firms are saying there are signs of progress

In late April, China's Ministry of Public Security launched one of the most dramatic piracy busts in its history.

Over the course of a few hours, police in the eastern city of Yangzhou rounded up a huge crime ring suspected of selling bootlegged versions of a string of hit movies, took 251 people into custody, shut down 361 websites and seized seven servers that had been used to create high-definition copies of dozens of films. A Public Security Bureau (PSB) official estimated that the pirates had cost online streaming sites and film companies $117 million in lost revenue.

The *South China Morning Post* called the move "an apparent bid to support [Beijing's] claim it has tightened protection of intellectual property ahead of trade talks." But the arrests were actually more likely part of a very different story, and were aimed not at protecting the interests of foreign movie studios, but of Chinese ones.

The bootleggers' most popular titles were domestic blockbusters including the sci-fi hit *The Wandering Earth* and comedy *Crazy Alien*.

While China remains the world's copycat leader, the bust indicated that China is beginning to take the protection of intellectual property rights (IPR) more seriously.

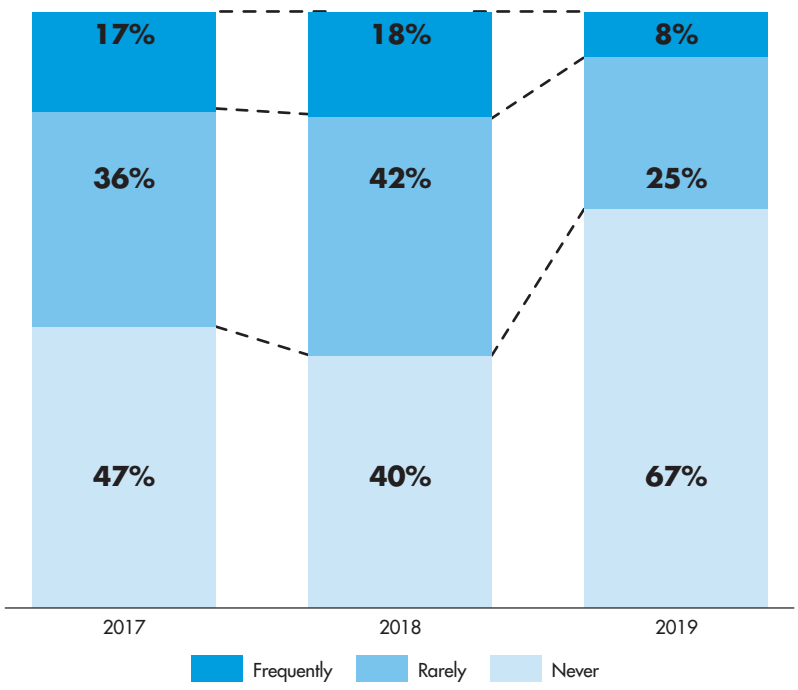
"The Chinese government has done amazing things in this area in a short space of time," says Erick Robinson, a partner at the law firm Dunlap, Bennett & Ludwig and former Director of Patents for Qualcomm in Asia. "The rules are changing every few months."

"The Chinese government realized that China has a market to protect," says Robinson. "Look at Alibaba, Huawei, Tencent and Xiaomi—all these companies are doing great things and they need protection."

Stealing the crown jewels

Chinese IPR theft has been a hot-button issue for the US at least since the time of

INTELLECTUAL INFRINGEMENTS | Has your company been a victim?



Results of a European Chamber of Commerce survey to the question "Has your company suffered an IPR infringement in China?"

Source: European Union Chamber of Commerce in China

President Bill Clinton. In 1995, the 42nd president threatened to slap 100% tariffs on $2 billion of Chinese imports unless Beijing did more to live up to its promises on stamping out IPR infringements.

But the threats had little effect, and for decades most foreign firms considered constant IPR infringements an inevitable cost of doing business in China.

In 2015, a US government commission estimated that China accounted for 87% of global counterfeit goods. The same year, the software industry alliance BSA estimated that 70% of new computer software installed in China each year was unlicensed. Multinationals were also regularly victims of IPR theft, with hackers and paid-up corporate spies keen to acquire valuable trade secrets.

"When Western companies first began to operate in China, espionage at their facilities was rampant," says James Lewis, Senior Vice President at the Center for Strategic and International Studies and a former official at the US Department of Commerce.

Western firms in a wide variety of industries were forced to form joint ventures with local companies in order to operate in China, and many found themselves subjected to official pressure to transfer valuable technology to their new partners.

This process was facilitated by controversial policies such as the Trade Import-Export Restriction (TIER) regulation.

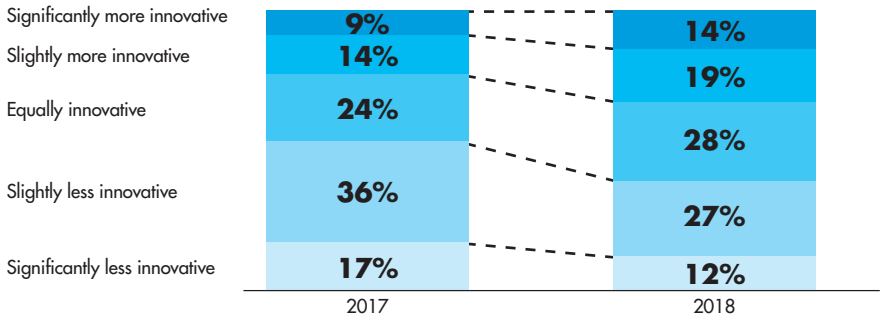
"Under TIER, all improvements made to a technology as part of a joint venture, even if they were fully generated by the foreign company, were owned by the domestic partner," explains Robinson.

Foreign companies had little power to defend their interests because of the inadequacies and inherent biases of China's legal system.

Courts were inexperienced, the rules were stacked in favor of defendants and even if a conviction was made, the penalties for IPR violations were laughably low.

"A few years ago, my advice to clients was: don't sue a Chinese company in China," says Robinson.

CAN INNOVATION KEEP UP? How EU firms in China see Chinese companies



Source: European Union Chamber of Commerce in China

Changing mindsets

The Chinese government made promoting innovation central to its economic strategy in its 13th Five-Year Plan, published in 2014. Since then, it has made real progress in strengthening IPR protection for both domestic and foreign firms.

"Enforcement has really tightened up and laws have been changed to broaden and improve the quality of protection," says Alice de Jonge, a senior lecturer at Monash University in Australia whose research focuses on IPR issues.

One game-changing measure has been to set up specialist IPR courts in major cities. There are now four such courts, plus another 17 smaller IPR tribunals.

The judges in these courts have been able to build up real expertise in handling IPR cases, which has led to much better outcomes, says de Jonge. "The experience gives the courts a lot more confidence to find that a breach has occurred and to calculate the proper compensation."

In China's legal system, cases decided by the lower courts and adopted as guiding cases by the Supreme People's Court also have to the potential to improve the way IPR cases are handled.

Robinson cites the example of the way courts calculate loss of earnings in patent infringement cases, where a change made at the local level has led to a dramatic shift in the balance of power in Chinese courtrooms.

Defendants used to be under no obligation to hand over internal documents, such as product-by-product revenue figures, which are crucial to helping plaintiffs prove loss of earnings.

But then local courts started allowing plaintiffs to estimate losses based on publicly available data. The courts would use that figure unless the defendant provided proof that it was inaccurate.

This change in procedure has made it much easier for plaintiffs to win substantial damages.

"Damages used to be a joke in China, but my prediction is that we'll soon see a $50 million award," says Robinson.

Reducing risk

The stricter IPR environment is already bringing tangible benefits to foreign multinationals in China.

American companies received $7.2 billion in IPR royalties from Chinese enterprises in 2018, up from $3.5 billion in 2011.

Foreign firms in most industries are now less hesitant in enforcing their rights against domestic IPR violators, as most courts no longer prioritize defending the interests of local enterprises.

"No place is perfect, but if you're a foreign company you can probably get as fair a shake in China as you could as a foreign firm in the United States," says Robinson.

According to the law firm Rouse, foreign firms in China now have a higher win rate in patent cases than domestic firms and receive higher damages on average.

> Damages used to be a joke in China, but my prediction is that we'll soon see a $50 million award
>
> Erick Robinson
> Partner
> Dunlap, Bennett & Ludwig

Recent surveys of foreign businesses in China also show that intellectual property protection, though still a serious problem, is less of a concern than it was a decade ago. In the European Union Chamber of Commerce in China's 2019 member survey, 33% of European firms said that they had experienced an IPR infringement in China, down from 60% the previous year.

Fifty-nine percent of European firms now say they consider China's IPR laws to be adequate, while 35% are satisfied with enforcement of these laws, up from just 13% in 2013.

When the American Chamber of Commerce in Shanghai asked its members to list their greatest operational challenges, executives placed IPR infringements seventh—far below issues such as rising costs and lack of available talent.

China vs. China

But the largest beneficiaries of the tighter IPR regime have been domestic firms, many of which now own valuable intellectual property themselves.

A spike in IPR cases occurred last year, with China's courts accepting 41% more cases than in 2017. This was driven almost entirely by the rising number of local disputes, according to Laura Wen-Yu Young, Managing Partner of Wang & Wang, a law firm active in both Asia and North America.

In most industries, Chinese companies are now as strong as their international competitors. They have little to fear from operating inside a strict IPR regime that treats all parties equally.

More than 60% of European companies in China now think that domestic firms are at least as innovative as foreign firms, according to the EU Chamber. More than 30% believe that Chinese companies are more innovative on average.

American firms in Shanghai now consider domestic competition their second largest business challenge, with 30% of companies agreeing that it is a "serious hindrance" to their growth. For this reason, many domestic companies largely welcome Washington's attempts to push Beijing to speed up its IPR reform agenda.

"Chinese people continue to say that external pressure helps push the IPR development agenda along, and this helps local IPR holders as well," says Young.

This can be seen clearly in sectors such as software and e-commerce, where Beijing has recently launched landmark reforms aimed at stamping out endemic piracy.

The US has been begging China to clean up these industries for years. But now that Beijing is finally doing so, the big winners are likely to be Chinese companies.

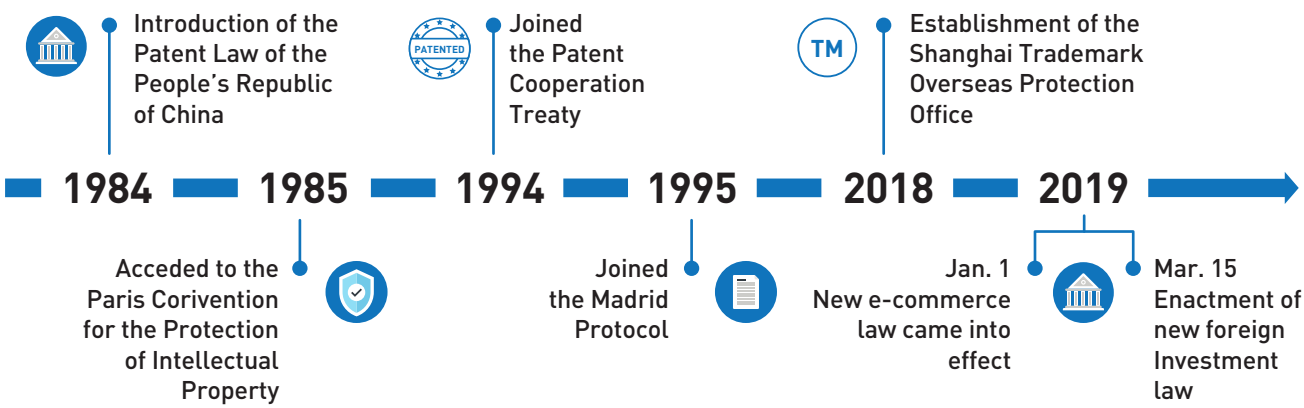
"The reason why they have heightened patent protection in the software space is that some of the most important and fastest growing software companies are, guess what, in China," says Robinson.

Structural reforms

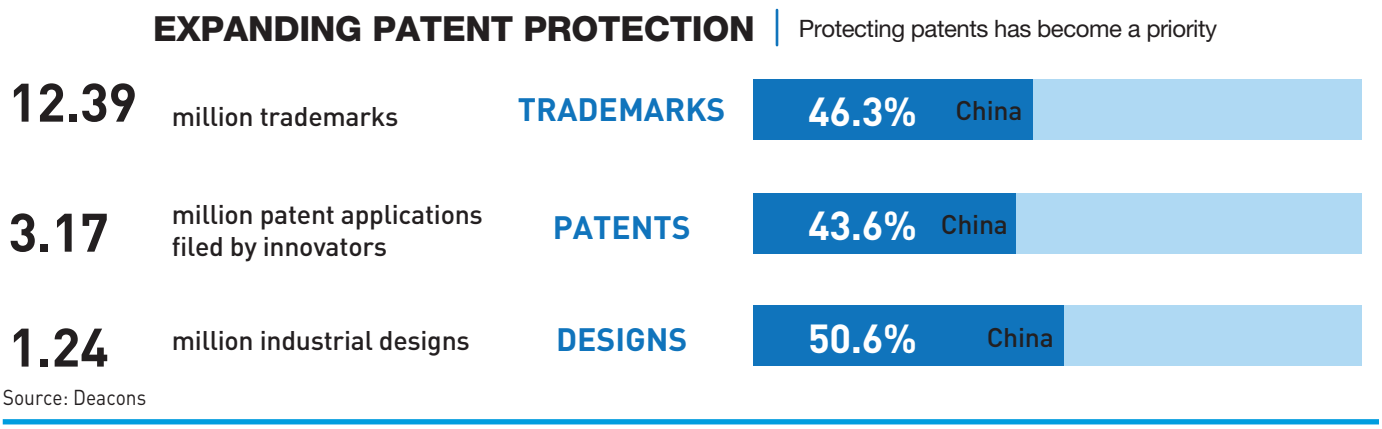
The strength of domestic firms also means that Beijing has little to lose by meeting Washington's demands for fair treatment for foreign firms.

After trade war negotiations broke down in early May, US officials decried China's refusal to write agreed reforms into law on certain issues. But the fact is that the Chinese government has already made legal changes that deliver on many of the US's top demands.

LEVELING UP | Key milestones in protecting IPR



Source: Deacons



The notorious TIER regulation has been abolished. Licensing rules have been simplified to give local governments less leverage over foreign firms. The definition of trade secrets theft has been broadened and the penalties for violations substantially increased. Likewise, penalties for patent violations have been hiked dramatically.

The revised Law Against Unfair Competition, meanwhile, specifically bans any form of forced technology transfer under any circumstances.

"If you look at the laws on the books in China, they are now equal to any developed country, particularly after the amendment to the Unfair Competition law," says de Jonge.

"The trademarks and trade secrets reforms will be a big help to foreign companies, but they will also help the domestic firms," says Robinson. "As China continues to evolve into a technology leader, these reforms will be needed."

Straitjacket on innovation?

As IPR rules continue to strengthen in China, some have even begun to worry that the tighter rules could start to hold back innovation in the country's dynamic technology sector.

There has been growing concern among social scientists that patents can in some cases stifle innovation. And a turn toward patent activism would be a huge culture change for China's tech ecosystem, which for decades has been defined by its copycat culture.

For some experts, including Kai-Fu Lee, CEO of venture capital firm Sinovation Ventures and author of *AI Superpowers*, the rampant plagiarism among Chinese startups is one of the reasons why the tech sector has become so dynamic.

It has created an environment of ruthless competition where "gladiator" entrepreneurs like Wang Xing, founder of lifestyle super-app Meituan-Dianping, have to relentlessly tweak products and business models to stay ahead.

But China appears unlikely to replicate the problems of the United States' patent system. The Chinese legal system more closely follows the German model than the American one.

The US system tends to favor large companies over smaller competitors because cases can run on for years and legal costs run into the millions of dollars. But in China, a patent case typically costs both parties just $250,000 to litigate and is completed within 10 months, according to IP Watchdog.

China also places more restrictions on the power of market leaders than the US because it has a much more relaxed attitude toward suits filed by non-practicing entities (NPEs).

NPEs are companies that make money by filing patent lawsuits on behalf of a small plaintiff and taking a cut of the winnings. In the US, they are often dismissed as "patent trolls," but they can also play an important role in helping smaller players hold larger companies to account.

"If you take NPEs out of the equation, which the US largely has, then the middlemen have been removed," explains Robinson. "It basically means that the big companies that have the money to destroy you in court, or just exhaust you, will always win."

In fact, China's more activist approach to IPR law is already being felt far beyond the country's borders, as US companies with business dealings in China can also fall under the jurisdiction of Chinese courts.

China's potential influence could be seen clearly in the recent legal battle between Apple and Qualcomm over the chipmaker's patent royalties.

Apple looked to have the upper hand in the dispute, but Qualcomm scored an unexpected victory in December when a court in Fuzhou granted the firm two preliminary injunctions which banned Apple from selling several iPhone models in China. Tim Cook's firm was able largely to circumvent this ban, but the decision sent shockwaves through global markets.

It is impossible to say whether the Fuzhou incident played a role in Apple's last-minute decision to settle with Qualcomm in April, but Robinson suspects it could have been a significant factor.

"China turned out to be the great equalizer," he says. "Apple still makes most of their stuff in China, they had just lost injunctions on two software patents and Qualcomm has around 40,000 patents that go to the heart of what makes a smartphone a smartphone."

This case could prove to be just the beginning. For decades, China has been renowned as being the world's number one IPR infringer. And while progress is being made, this may be the beginning of it becoming a key patent enforcer.

The Value of Integration

Stephen Kothrade, president and chairman of Greater China and president of functions Asia Pacific at BASF, discusses plans for the company's first wholly owned plant in China and the benefits of an integrated value chain

BASF, the largest chemicals producer in the world, has made bold moves to increase its presence in the Asia-Pacific region, placing a particular focus on China.

The German company announced in July last year that it would invest $10 billion into a new production site in Zhanjiang, located in the southern province of Guangdong. Then in October it revealed plans to expand its integrated production site in Nanjing, which was established in 2000 as a 50:50 joint venture with the state-owned Chinese firm Sinopec.



BASF is renowned for its *Verbund* sites, a German term referring to a large-scale, highly-integrated chemical production complex. The principle of the *Verbund* concept is to add value through the efficient use of resources. Stephan Kothrade has led two such sites, one in Antwerp, Belgium, and another one in Nanjing before his current assignment.

In this interview, Kothrade looks at China's growth potential as well as the opportunities and challenges that opening its first wholly owned *Verbund* plant in China will bring.

Q. Could you tell us about the history of BASF in China and what factors have allowed the company to succeed here?

A. BASF started in Ludwigshafen, Germany, back in 1865 and just 20 years after, we started our business in China. At that time, the biggest part of our portfolio was in textile dye, with the textile industry being very important in China. It turned out to be quite a success and business grew steadily. Later, in the 1980s, we developed our own production facilities in mainland China, and since then we invested more than €9 billion (over $10 billion) together with our partners here. We now operate 27 sites across the country. The most important thing is that we want to continue our growth story, continue investing into R&D, production and people to support our customers.

Our long history in China definitely helped us succeed here. From the very first day, I believe we tried to gain an understanding of local market factors. Throughout the years, we have built very close working relationships with the Chinese authorities, our joint venture partners and customers.

One thing that is for certain is that China will always be surprising. We have experienced and taken part in very rapid development here. Customers are becoming more innovation driven and I think the key success factor is our willingness to adjust all the time. We challenge ourselves, make sure to ask the right questions and remain responsive to new needs.

Q. In what ways does BASF leverage its China business globally?

A. If you think about total chemical production and chemical demand worldwide, China is already the largest market and biggest chemical producer—even bigger than the United States. Today, just over 40% of total chemical production is in China

and by 2030, it is expected to reach 50%. If you want to be an important player in chemicals, you have to be here.

The rest of Asia provides a more mixed picture. There are mature markets, such as Japan, and growing ones like in Southeast Asia, but China is ultimately the place to be. Our plants here are not focused on exporting products to other parts of the world, but on supplying our customer base in China. It is one of the most important markets for BASF and in our new corporate strategy, we emphasize that we want to both invest in and participate in the growth here. BASF, together with Sinopec, has been successfully operating one of its six *Verbund* sites worldwide in Nanjing for almost 15 years. In addition to its expansion, we are going to build a new smart *Verbund* in Zhanjiang.

Q. How are changes in the Chinese economy and the US-China trade war affecting BASF?

A. We saw a deceleration of growth last year (2018) as well as weaker market development in the second half of the year, particularly in the fourth quarter, which was driven by two main factors that were not unexpected.

One is that we had very favorable conditions in isocyanates (a chemical used in the manufacturing of foams, fibers and coatings) in the past. It was a big business opportunity for us, but that market has now returned to normal.

The weak development of the automotive industry in China is another important factor. It was not completely unexpected, but I think it was more pronounced than was anticipated. The automotive industry is our most important customer industry, both globally and in China.

The weaker demand we are experiencing is also influenced by the trade conflict. Luxury cars are still selling, but mid-ranged and local brands are seeing the negative impact. People in tier two, three and four cities, are reconsidering their car purchases as they are not sure if now is the right time for a new big purchase. Their postponed decision is what we are feeling right now.

Q. BASF has announced that it will invest in a new production facility in Guangdong, which we understand is wholly owned [meaning it is not in partnership with a Chinese company]. How did this decision come about and how important is the development?

A. To understand this, you need to know that BASF is focusing on an approach that we call *Verbund*. The idea is that we design an integrated chemical production site in which the byproducts of one plant can be used as the feedstock for another. It's not only to improve product flow, but also to facilitate the energy flow that the off-heat generated by the exothermic processes in one plant can be used as primary energy for the endothermic reactions in another plant. In this way we can save a lot of primary energy, and there are many other synergies that have proven beneficial. Another effect is that we then have the entire value chain within one company.

The starting point of all of these value chains in the chemical industry is a steam cracker[1]. In the past in China, it was not possible as a foreign company to own and operate such a cracker. Over the past two years, however, this situation has changed, and the Chinese authorities have become more willing to open up the chemical industry. We are very glad that we will be the first foreign company to operate such a big wholly integrated *Verbund* site, starting with a steam cracker as the core of the *Verbund*.

> There are mature markets such as Japan and growing ones like in Southeast Asia, but China is ultimately the place to be

Q. BASF already has a number of production sites in China. With your first wholly-owned* Verbund *site in the country, what opportunities and challenges are you expecting to have?

A. First, it's above all a great opportunity because it allows us to bring our latest technologies to China. Second, if you set up a new site, it's not only about innovating new products, it is also about how you operate the plant. With Industry 4.0 and digital technologies, we can apply our smart manufacturing ideas to this new site. We also have the opportunity to design the entire *Verbund* in a way so that the products it creates fit in with local markets. Guangdong and southern China in general, is still undersupplied when it comes to high quality chemicals. Guangdong itself, as China's most populous province and home to many key industries, is one of the powerhouses of China. I see many opportunities enabled by local production.

I actually don't see any big challenges because we are mature enough as a company to run such a plant, especially considering that we have been operating production sites here in China since the 1980s. We have also established a talent pool at our existing

1 Steam cracker: a large plant in which steam is used to "crack" naphtha (petroleum). The resulting petrochemicals — above all, ethylene and propylene — are the base materials used to manufacture most of BASF's products.



The steamcracker at the heart of BASF's Nanjing chemical facility

sites. So, if we need new engineers, plant managers, experts for logistics, we have a lot of internal resources. With the combined expertise from our own team, we have a unique advantage.

Q. To my understanding, this is BASF's largest investment ever. Why did the company choose Zhanjiang in Guangdong province?

A. We chose Zhanjiang because southern China is home to many key industries, so there's a strong demand. Even more important is that they are open to the opportunities brought by foreign investment. The Guangdong provincial government is experienced in supporting multinationals to do business in China, which is very inviting. As for Zhanjiang, it has the big advantage of a deep-water port and excellent logistics facilities. You can conveniently import raw materials and export your products along the coast to other locations in China, and also to countries in Southeast Asia. It is an ideal location.

Q. What were the factors behind BASF's decision to expand its petrochemical complex in Nanjing and what impact is this expected to have on the business?

A. Our joint venture with Sinopec in Nanjing, BASF-YPC, has been extremely successful and it is one of the most successful Sino-German partnerships in China. We started production in 2005, so it has already been in operation for quite some time and we developed it in several investment waves. Now the time has come to think of a second steam cracker, which as I mentioned is the starting point of all you do in petrochemicals.

According to the memorandum of understanding that we signed last October, BASF-YPC will invest in a 50% stake to build a second steam cracker with a capacity of 1,000,000 metric tons of ethylene per year. Sinopec Yangtzi Petrochemical (YPC) will invest the other 50%. Both BASF-YPC and YPC will have access to all of the products of the new steam cracker to develop their downstream product portfolios. Additionally, the basic chemicals provided by the new steam cracker enable BASF and Sinopec to expand production capacity at BASF-YPC.

We want to be close to our customers. The complex in Nanjing is ideally located to supply customers throughout the Yangtze River Delta. Within a radius of around 400 kilometers, we sell more than 80% of our products. Nanjing and Zhanjiang will be our most important sites serving eastern and southern China.

Q. Taking systemic obstacles and problems such as the middle-income trap into account [the idea that countries' economies struggle to move from middle-income to high-income status], what is your overall view on China's economic growth potential?

A. Economic growth is indeed slowing down, which is in line with the quality-growth approach that the government is adopting. It's important to note that even with the 6% growth that we're seeing now, it's actually a huge absolute increase as it's coming from a bigger base.

What is important to us is how the key customer industries are growing. With urbanization and people having higher disposable incomes, spending patterns have changed. People now want to spend money on lifestyle products to improve their quality of life. There is a demand for cosmetics and new cars. The way transportation is being organized in cities has also changed. Now there is a demand for buses that are safe, that offer seats that are lightweight and occupy less space, but still provide comfort. There is a demand for new battery materials because of electric vehicles. The chemical industry is an enabler for all of these demands—we provide the materials and solutions to these industries.

Therefore, even if growth in general is slowing down, there are still fantastic opportunities out there. It's also important to note the aspects of sustainable development, where we can contribute to the construction of well-insulated houses, cars with lower emissions and more durable battery materials.

Q. The Chinese authorities have indicated a possibility for further reforms and flexibility on foreign investment. How do you see this affecting BASF?

A. Looking back over the past few decades, BASF has really built up a strong presence here in China. We have always received very strong support from the government. Now that we are allowed to build this new smart *Verbund* solely operated by BASF as a foreign company, we see it as a very positive message from the government.

We also see things going in the right direction when it comes to the enforcement of legislation regarding safety and environmental protection. We offer our full support to the authorities and industry associations to continually improve the science- and risk-based safety standards in China.

There has been significant improvement in the protection of intellectual property as well, which is very important to us as we conduct a lot of research activities locally with many new patents being filed here in China. We hope that ultimately the legislation, and especially its enforcement, will be adapted to meet international standards.

The end of China ODI?

China's decade-long outward investment spree has plateaued. What caused it to stall and what does the future hold?

By Jens Kastner



China's massive outward direct investment spending spree has stalled after a series of policy shifts and strong capital controls. What happens next?

China's outbound investment has fallen dramatically off its highs, with the days of massive growth in Chinese investments around the world clearly over, at least for now.

The sudden pullback in China's non-financial outward direct investment (ODI) in the past couple of years follows a series of policy shifts and further strengthening of controls on the movement of capital abroad.

After reaching its peak in 2016, China's ODI took a 30% nosedive in 2017—its biggest drop since 2003. That was followed by meager growth of 0.3% in 2018 for a total of $129.8 billion and then another drop of 1.1% year-on-year in the first quarter of 2019.

From a regional perspective, the changes are even more dramatic. In 2018, Chinese ODI into North America and Europe fell by a combined 73%, with total ODI into the two continents amounting to only $30 billion compared to $111 billion the previous year. This was only slightly cushioned by increases in ODI into countries with Belt and Road Initiative (BRI) projects, which increased by 8.9%.

Years of red-hot growth

China's foreign spending spree took off after its accession to the World Trade Organization in 2001, an event that hugely accelerated the country's economic growth and the amount of money it had available for further investment. In what constitutes one of the most astonishing shifts in the history of economics, China went from being ranked 23rd globally for ODI in 1999, with $27 billion, to becoming the world's second-largest ODI source after Japan in 2016, with $196.2 billion.

Between 2000 and 2016, the state relaxed regulations on investing abroad and streamlined the registration and approval of ODI projects to support foreign mergers and acquisitions (M&A), particularly those that gave Chinese investors access to raw materials and the technology needed to upgrade the country's manufacturing sector.

"When I started working on M&As after the turn of the millennium, it was mostly about foreign companies entering the Chinese consumer market or setting up export-oriented production in China," says Sun Yi, a Chinese management consultant and partner at Ernst & Young. "But since 2010, I mostly deal with Chinese ODI, which reflects a shift in the overall trend."

Chinese investors' initial focus in Germany, Sun says, was on the automotive, machinery and pharmaceutical sectors so that they could access technology. Motivations have since diversified, such as how Chinese corporations and private equities are now also considering their reputations by buying European fashion brands.

An example of this is how China's investment fund Fosun International in 2018 became the majority shareholder of both Austrian lingerie maker Wolford and French fashion house Lanvin, luxury brands which have long been running at a loss.

The big 2017 dive

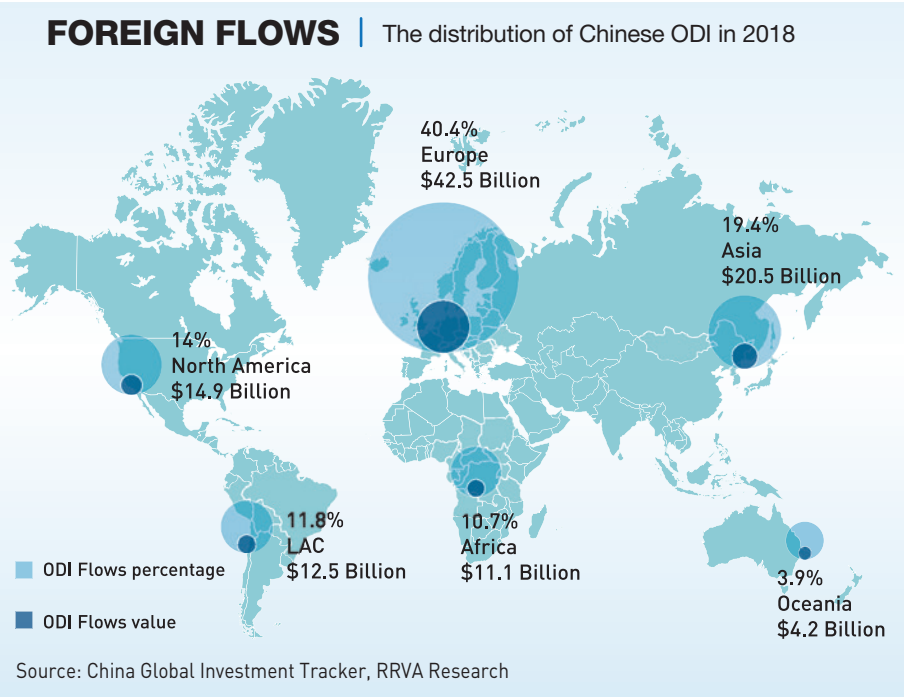
The sharp decline in ODI recorded in 2017 has been generally attributed to the stiff capital controls and the slowdown in China's economic growth. The government has been anxious to tame "irrational" capital outflows, effectively curtailing the ODI binge, especially into the real estate, sports and entertainment sectors.

In a measure to slow the flow of private wealth out of China, since early—2018 individuals are only permitted to remit a sum of RMB 100,000 ($14,500) abroad per year, regardless of how many separate bank accounts or ATM cards they have.

As a second layer of control, the state has implemented measures to manage outbound payments. Before each cross-border payment for an outbound investment of a Chinese enterprise, the investor needs to obtain approval from multiple Chinese government departments to remit money across the border to pay for the deal.

This includes potential investors being required to submit an audit report of the foreign company to be purchased if the target company exceeds the investing company's size by more than 50%, which, according to Sun, "no target company is happy about during late-stage negotiation."

Banks are under strict obligations



to ensure that money only leaves the country in compliance with the relevant requirements.

"Authenticity checks have become stricter since 2016, adding considerable uncertainty to any M&A negotiations, as it is often not clear until the very last minute that all paperwork is on the table," says Jakob Riemenschneider, partner at law firm Taylor Wessing in Hong Kong.

"There has also been direct government interference. Prominent companies, such as the real estate developer Dalian Wanda Group, the airline operator HNA, the insurer Anbang Group, or Fosun have had to dispose of overseas investments after the government branded these investments as 'irrational'," he adds.

Riemenschneider went on to explain that the main challenge for Chinese companies' existing ODI investment portfolios, is that business leaders may be concerned about which of their investments will come under scrutiny next.

"And on the project implementation level, many foreign business partners of Chinese companies consider the multiple approval and filing procedures for outbound investments as an unpredictable factor that may slow down a transaction," he says.

The new normal

Several developed countries have started to perceive China's M&A purchases of valuable companies in their high-tech sectors as a potential threat to their leading positions.

A number of EU member states have begun upgrading investment screening systems, which has raised the bar for Chinese takeovers. A new EU investment screening framework encourages member states to specifically review state-supported investments in sensitive technologies and critical infrastructure. According to a report published by Rhodium Group and the Mercator Institute for China Studies in March, an estimated 82% of Chinese M&A transactions in Europe in 2018 would have fallen under at least one of those criteria.

The strengthening of review mechanisms has already impacted Chinese investment patterns. Germany blocked Chinese company Yantai Taihai's bid to purchase toolmaker Leifeld, citing security concerns. This followed the German government indirectly thwarting China's state-owned State Grid Corporation of China from acquiring a share in power distributing company 50Hertz. Rather than vetoing the deal, Berlin instructed the government-owned KfW bank to buy the shares on offer.

Meanwhile, in the United States, inbound ODI from China is being screened with renewed gusto for national security risks by the Committee on Foreign Investment in the United States (CFIUS).

According to data compiled by the Pillsbury law firm, CFIUS's clearance rate of US-China deals has fallen to under 60% under US President Donald Trump's administration, compared to more than 90% under the Obama administration.

On the China side, while ODI has been slowed by Chinese regulators concerned by money leakage, the approval process for "rational" ODI has become more efficient, with the amount of paperwork needed to be filed in an ODI application being reduced.

According to data provided by Taylor Wessing Hong Kong, the Central Committee of the Communist Party of China and the General Office of State Council in May 2018 promulgated a "Guiding Opinion on the Further Promotion of Making Examination and Approval Services More Convenient for the Public" to serve as the latest policy basis of the so called "one-stop services" for ODI applicants.

"Now people know where to apply, how long it takes, and how to deal with the banks and foreign exchange controls in the ODI process," says Wang Jiawei. A Chinese lawyer, he specializes in advising Chinese companies looking to invest in Europe in his position as the head of the China Desk of Rödl & Partner law firm.

"The number of unregulated areas is steadily decreasing, as China's governmental authority has been standardizing the procedures and we are also witnessing that China's judiciary system is making huge progress especially in terms of dealing with IP protection, cross-border dispute settlement and so on, which provides a strong basis for various Chinese ODI projects," he adds.

Wang explains that Chinese buyers have learned lessons from the past and are nowadays much better prepared in overseas M&A projects than they were at the beginning of China's ODI trend.

Meanwhile, BRI also helps

Chinese ODI into developing countries on the back of BRI infrastructure projects, is on the rise, although marginally, and there is a growing sense of concern amongst Chinese officials about the return on investment for such projects in countries such as Pakistan and Venezuela.

"The economic reality is that Chinese investors prefer developed markets, rather than chasing potential opportunities in BRI countries," says Nick Marro, a China analyst with the Economist Intelligence Unit.

In 2018, BRI spending amounted to over $15 billion, or 13% of China's total ODI, according to the Ministry of Commerce. In the first two months of 2019, such investments rose to make up 14.6% of China's total ODI.

China's *Global Times* reported in April that its surveys indicate that many Chinese companies and top industrial leaders have shown enthusiasm to ride on the momentum started by the BRI.

"Over the past five years, we have achieved significant results, all participants have seen tangible benefits and recognition, and participation in the BRI has continued to improve," said Xiao Weiming, director general of the Department of General Affairs of the Office of the Leading Group for Promoting the Belt and Road Initiative.

Reading the tea leaves

According to Loletta Chow, Global Leader of China Overseas Investment Network at EY, China's overseas M&A activity declined significantly in the first quarter of 2019 because Chinese enterprises generally are taking a more prudent approach to avoid risks amid intense global trade friction, increasingly complicated geopolitics and the slowdown in many major economies.

"With slipping investment confidence in Europe and North America where foreign investment policies were tightened and uncertainty increased, many Chinese enterprises turned to Asia," Chow said in a May 2019 report.

"Meanwhile, with economic transformation and upgrade, sectors such as TMT [technology, media and telecommunications], life sciences and consumer products were expected to attract more capital," she added.

> **Money is not being spent as generously and Chinese investors are expecting higher returns on their ODI**
>
> Olaf Rotax
> Managing Director
> dgroup

In a November 2018 report, Chow had noted that in terms of sector, energy infrastructure has become the key target for Chinese enterprises to invest overseas.

From January to September 2018, the deal value of overseas M&As in the power and utilities sector increased four times year-on-year to $31.3 billion, representing nearly 30% of the total value of China overseas M&As and became the most attractive sector among Chinese investors.

From what Rödl & Partner's Wang sees on his desk on a daily basis, there is a tendency toward diversification in Chinese ODI projects, with the focus shifting from the Business-to-Business (B2B) area over to Business-to-Consumer (B2C) projects.

"It's normal that major economies are continually strengthening their mutual economic ties, and the more these two economies get familiar with each other, the more new investment fields will be generated," says Wang. "Nevertheless, Chinese investors' interest in automotive, medical and modern equipment has remained strong, which is also in line with China's plan to upgrade its industries."

Alibaba, China's top cross-border e-commerce platform, for example, is leaping ahead of its Chinese competitors such as JD.com and NetEase's Kaola—by selecting Southeast Asia and Europe as a focus for expansion and increases in ODI.

Alibaba's logistics arm Cainiao is setting up a 220,000m² logistics infrastructure hub at Belgium Liege Airport, with an initial investment of €75 million ($85 million). This follows the establishment of similar hubs in Dubai, Kuala Lumpur and Moscow.

"Cross-border sales represent the fastest growing segment in China's e-commerce market, and the firmer Alibaba gets its boots on the ground overseas, the greater its edge it has over its rivals," says Olaf Rotax. He is managing director of dgroup, a consultancy for digital transformation belonging to multinational professional services company Accenture.

Whither ODI

As for the future trajectory of Chinese ODI, it is important to keep in mind that China is now the second biggest economy in the world, and it is not going to relinquish that position or the global financial clout that it represents.

"There are no indications that Chinese ODI will lose its significance," says Rotax. "But there are indications that money is not being spent as generously and that Chinese investors are expecting higher returns on their ODI, making them choose their targets much more carefully than they did in the past."

Some analysts have been speculating as to whether this marks an end to China's soaring ODI, but a conclusion that the Chinese ODI era is over is premature. Amongst other factors, the trend of the past few years mirrors activity elsewhere—overall global cross-border investment flows dropped by double-digit rates since 2017. The bottom line is that Chinese ODI is going to be an important and permanent factor on the world stage from now on, even though the goals and targets will change.

The Global Power That is Asia

Parag Khanna, founder and managing partner of FutureMap, explains the importance of understanding geopolitics and multipolarity in Asia

Parag Khanna is an Indian-American specialist in international relations and the founder and managing partner of data and scenario based strategic advisory firm FutureMap. Khanna is the author of several bestselling books, with his latest being *The Future is Asian: Commerce, Conflict & Culture in the 21st Century*.

With a Ph.D from the London School of Economics, Khanna was previously an adviser to former US President Barack Obama as well as the US National Intelligence Council's Global Trends 2030 program. He has also served in Iraq and Afghanistan as a senior geopolitical adviser to the United States special operations forces.

With Asia's rise to global prominence, many have questions as to what the future of this multi-cultural continent that links 5 billion people through trade, finance, infrastructure and diplomatic networks will look like.

In this interview, Khanna paints a clearer picture of Asia's future and discusses how the continent, which encompasses far more than just China, has come into its own and how the world cannot afford to keep getting Asia wrong.



Q. In your latest book you suggest that the 21st century belongs to Asia. Why is that?

A. Quite frankly I could have called the book "the present is Asian", as I think it's a statement that is not that far off base. In terms of global demographics, more than 50% of the world's population lives in Asia and when you look at the world economy in terms of purchasing power parity, a report from Standard Chartered says that in 2020, 50% of global GDP (gross domestic product) will be in Asia. So again, it is already an Asian world if we look at the economic growth rate, infrastructure investment and a wide range of other metrics. Part of my argument in the book is that our psychology is lagging behind the facts.

Over the past 30 years, Asia has consolidated and reawakened to itself during the post-Cold War process of trade integration by exploring complementarities and building interdependence, drawing other countries into it that would have been at the periphery of Asia for some time. But now what we're seeing is that Asia is pushing outward considerably, with Japan and China as leading players in the story as well as India picking up its role as well. This all forms part of the Asianization of the world.

Q. What is your view on the rising US-China rivalry?

A. There are two answers to this question. The first is that the future world order does not boil down to only the US-China dynamic, which is one of the great fallacies of contemporary international relations thinking. Geopolitics is a much deeper discipline in which you really look at the diffusion of power economically, militarily and institutionally.

The second is that Asia is multipolar and is much more than just China. There are 3 billion people in Asia who are not Chinese. Japan is also a polar power in Asia, as are India, Russia and Australia. That is the correct foundational landscape through which to view the US-China relationship. So, is the relationship extremely important? Yes. Is it perhaps the most important bilateral relationship in the world? Again yes. But is it the sum total of all geopolitics in which the fate of human geopolitical order rests? No, it's not, because irrespective of what happens in the US-China dynamic, the world will remain multipolar.

When it comes to economics, which is really the foundation of geopolitical power anyway, not only are we in a multipolar landscape, but China's dependency on the US is much lower than is portrayed in Western media. As I explain in my most recent



Skyline of Mumbai, a city that plays a significant role in the Asian powerhouse

book, from the Chinese point of view, its own neighbors are its most important trading partners. Asia is China's most important trading partner by far, with China's second most important trading partner being Europe. The US is actually the third most important for China from a trade standpoint. It's the most unpredictable of the three, which gives it a certain centrality in our discourse. It is not undeserved as it's obviously very important, but China is going to be able to substitute its dependence on the US much more rapidly than the reverse.

Q. Besides China, what other countries do you see playing significant roles in the Asian powerhouse?

A. It is important to view the Asian story not as one of competitive national blocks, but what I call mutually reinforcing waves. The first wave was Japan, the second was the tiger economies, the third wave was China, and the fourth wave is South and Southeast Asia.

As China's rise began 40 years ago, Japan and the tiger economies were the largest investors in China. Now you have the faster growth rates of India and Southeast Asia and there you can see that the largest investors are Japan, China, Singapore and Hong Kong. These waves have reinforced each other and it has been a very positive story. So that helps to answer the question about who the other pillars are. The truth is that they're much more deeply interconnected to each other than most people appreciate. And as I mentioned before, to me geopolitically, the hierarchy would be China, Japan, India and ASEAN. In some ways ASEAN is actually more important than India. So, whether it's economic or geopolitical, you find that again, there are four or five significant pillars.

Q. How do you see the Asian system interacting or coexisting with the US and Europe in the future?

A. I think the Asian system as a whole is first and foremost consumed with the priority of the Asian system itself and making sure that it is doing well. Asians are managing relations with each other economically and geopolitically and that's a full-time job. Based on economic and diplomatic dynamics, Asian relations are actually more important to Asians than relations with the rest of the world.

Then in terms of relations with the rest of the world, again, I think Europe is central in all of this because if you look the European Union's efforts to have Free Trade Agreements with ASEAN, Japan, India and other countries, those are all moving forward now. And of course many European countries have joined the Belt and Road Initiative, so the real diplomatic action in the world today is either within Asia or across Eurasia, where the US has been distancing itself in some ways by not joining the Trans-Pacific Partnership Agreement and by launching this trade war, which will effectively lead to it cutting itself off from European trade.

Q. What is your take on the soft power element of China's project to build infrastructure and expand links across a range of different countries—through the Belt and Road Initiative—and its chances of success in the long run?

A. I never use the term soft power as I don't think such a thing exists. I think that there is cultural appeal, but the meaning of the term soft power is that cultural appeal converts into an ability to compel decisions. There's not a single instance in history of that actually working, so I think the term is bunk. Just because there are branding exercises associated with the Belt and Road, we shouldn't put the cart before the horse. The fundamental question is whether countries are mutually served by growing infrastructural connectivity or not. When they are, they do it, when they're not, they resist it, and no amount of soft power can paper over that.

I think that the focus should actually be on public good, because what China has done is something much more important than soft power. What China has done is to remind the world that infrastructure is a global public good and that security and environmental stewardship are not the only global public goods.

China has, rightly, validly claimed that the deficit and infrastructure finance has been a great global market failure of the past 70 years and that someone needs to address it. A lot more resources are needed, and it has to be done in a much more multilaterally coordinated way. Even though the Belt and Road

> The Asian system as a whole is first and foremost consumed with the priority of the Asian system itself

is more of a collection of bilateral relationships, it is gradually taking on more multilateral characteristics. The next phase of the Belt and Road, I think, is going to continue to demonstrate the realization and the appreciation that we need to have a coordinated approach to global infrastructure finance.

Q. What is your opinion on the critics who argue that the Belt and Road Initiative is a debt trap and geopolitical ploy?

A. I think they are just generalizations, and I don't like generalizations when it applies to something that we could actually give much more specific answers to. There is no basis to support the argument. For example, the Sri Lankans are out there defending themselves against the notion that they're in a debt trap and reminded everyone that the reason they'd come to an agreement with China in the first place is to actually generate revenue to pay off their other creditors.

The actual econometric research on it shows very clearly that most countries that have a high outstanding debt to China actually had a high outstanding debt to China before they joined the Belt and Road. And the reason is because heavily-indebted poor countries—whether they're in Africa or Central Asia—almost always had only one creditor. The notion that China is to blame for countries having high debt is facile. There are absolutely countries that are in very significant and painful debt traps to China, there's no question about it. But those problems are far deeper than China and infrastructure finance. We have to be clear about causality, about sequencing and about priorities, to help these countries. Even if China is the problem, China is actually the only solution at the moment and there's no way around that fact.

Q. The United States has said that it will be presenting an Indo-Pacific geostrategic concept as an alternative to the BRI. How do you think it will compare?

A. This is something that I describe as the infrastructure arms race and I am hoping to see complementarities come out of it. If you go back, there were no Asia connectivity initiatives coming out of the European Union. There were no connectivity corridors co-sponsored by India and Japan. All of these initiatives are a response to China's Belt and Road. They clearly came after it— there's no question that they were formulated as a response. China got there first, China put it on the agenda, and I think that's extremely important to recognize.

A lot of what China is doing is modeled on the Asian Development Bank, which deserves a great deal of respect, as it does predate what China is doing and is an important template for the initiative. I think that these geopolitically-inflected initiatives will compete against each other to finance projects, with the outcome being greater connectivity, therefore making them complimentary initiatives.

Q. How do you see China's relationship with the European Union as its second largest trading group developing in light of the various changes that are taking place now?

A. I'm positive about this relationship. My book is as much about Eurasia as East Asia and I see a lot of potential there. I think that the volume of trade across the region is likely to double within the next decade. I also think that Europe will find ways to practice investment screening and other sorts of things that are reminiscent of what the US is doing, over national security and protecting critical industrial sectors. But on the other hand, they'll also be aggressive in hoping to rebalance the dominance of Chinese Belt and Road projects.

Q. What are some geopolitical trends that we can expect to see over the next decade?

A. I think that the Belt and Road is the biggest geopolitical story in the world. Military conflict is something that has happened intermittently and quite frankly, rarely. Whereas the real stuff of geopolitics is actually happening 95% of the time when it comes to the Belt and Road, so it's significant.

I hope that we'll see a stronger technocratic, diplomatic effort to solve outstanding intra-Asian disputes. I would like to see a peaceful resolution over the South China Sea and over the Senkaku [Diaoyu] Islands. If you look at Asian problems, they could potentially be solved just as easily as they were created. I'm hoping to see more of an approach that's not just about conflict management but also conflict resolution, as well as Asian countries gaining the diplomatic confidence to solve their own problems.

Another trend to take note of is the one of migration. A story that has not been told enough is just how strongly there has been an increase in acceleration of intra-Asian migration, which has been extremely beneficial for all parties involved. You have countries in Southern Asia that are young and populous and therefore labor rich, while there are labor shortages in countries like China, Japan, South Korea and Thailand. If we can actually work to bridge some demographic mismatches, it would be very good for Asia as a whole.



绿洲俱乐部室内游泳池

绿洲俱乐部的热带雨林式室内游泳池让客人宛如置身度假胜地，堪称都市绿洲。作为繁忙都市中的休闲一隅，绿洲俱乐部是理想的休憩之地。绿洲俱乐部拥有1500平方米的湛蓝游泳池，四周郁郁葱葱，各种热带植被、瀑布流水、豪华立柱、奇石洞窟穿插其中，引人入胜。游泳之后，在池畔的躺椅上享用一杯饮料，仿佛穿越到热带海滩。

开放时间：早六时至晚十一时

*住店客人无需支付额外费用即可使用绿洲俱乐部泳池及健身房

北京东方君悦大酒店

GRAND HYATT BEIJING AT ORIENTAL PLAZA

GRAND | HYATT



GETTING AHEAD

Social credit systems are rapidly being rolled out in pilot cities across China. What affect will they have on the future?

By Mable-Ann Chang

Image by Wei Bingnan

China's controversial social credit system is already being trialed in many cities in the country. What has its effect been and what can be expected in the future?

Imagine living in a world where your actions are monitored and filtered into a database, which then creates a score for your social standing. A world where your public behavior, tax payments, purchases, legal affairs, social media activity and financial records, in addition to images gathered from millions of surveillance cameras and processed by facial recognition software, are all taken into account, judging whether or not you are a "trustworthy citizen."

This system of social control, already a reality for many Chinese citizens and is due to be rolled out nationwide. But it is already having an impact in the areas where it is in place. Low social credit scores barred 23 million people from buying air and rail tickets in 2018, while another 290,000 people were stopped from obtaining management-level positions, according to a report released by China's National Public Credit Information Center in February.

The social credit system, first announced in 2014, aims to support the idea that "keeping trust is glorious and breaking trust is disgraceful," according to a State Council notice, and is due to be fully rolled out by 2020. Much like the private financial credit scores already used all-around the globe, social credit scores for individuals, businesses and other entities can move up or down, providing access to certain financial services and credit based on the score. Unique to the social credit system, however, is how "punishments" can also be served, should a score reach a less-than-desirable point.

Foundations of trust

Some local governments across China have already implemented their own pilot versions of the system.

"Cities such as Shanghai and Xiamen have developed their own algorithms to calculate credit scores, but there is no national system in place as of yet," says Lu Li, a research data analyst at China-focused consulting firm Daxue Consulting. "The one currently being used is based on the financial credit system of the People's Bank of China."

"At the moment there are 43 pilots, they're still in very early stages and every city has … a different focus," says Genia Kostka, a professor of Chinese politics at the Free University of Berlin.

With a national system not yet in place, a specific across-the-board rulebook has not yet been fully revealed, so local governments have created systems with focal points based on each city's individual needs.

Official statements from Beijing and the progress of the developmental trials, however, given the public a clear idea as to how the system will work and who it will affect. At present, the scope of the credit system will cover all Chinese nationals and entities operating in the country.

At the heart of the system is data that reveals compliance or non-compliance with legally prescribed social and economic obligations and contractual commitments. These are flagged and aggregated on a national level to determine the trustworthiness of companies and individuals.

If a trustworthiness score is low, the consequence can range from limiting the selection of schools available to children to the throttling of internet speeds, as well as the inability to secure loans. Those with high social credit scores, on the other hand, are rewarded with benefits such as being able to rent rooms at top hotels without having to pay a deposit, discounted utility bills and better interest rates at banks. Scores can be boosted by repaying a loan even after a bank has canceled it, taking care of the elderly and other social volunteering work.

A moral compass

China's social credit system has been called "An Orwellian system premised on controlling virtually every facet of human life," by United States Vice President Mike Pence, but it has a high level of support amongst Chinese people.

Kostka conducted a survey in 2018 with 2,209 Chinese citizens, revealing that a whopping 80% of respondents said they approved of the government implementing the social credit system. Only 1% reported a moderate to strong level of disapproval.

"The reason is that they really see it as a tool that can close regulatory and institutional gaps," says Kostka. "Chinese people are less fearful of technology than in the West and they're already used to the public security bureau collecting their personal data."

She explains that because of how China went through a rapid level of transition over the past 40 years, levels of trust throughout much of society are low.

"Seventy percent of people that I interviewed in my research said that there is an issue of mistrust in Chinese society. The social credit system is just seen as a tool to help make consumers or individuals make decisions based on trustworthiness," says Kostka.

A lack of awareness

"I support the idea of the social credit system. There are often people eating and littering on the metro with no sense of shame or civic virtue," says Fang Luofan, a 24-year-old student in Beijing. "China has been focusing on high-speed economic development for many years, but developing social standards didn't receive the same amount of attention."

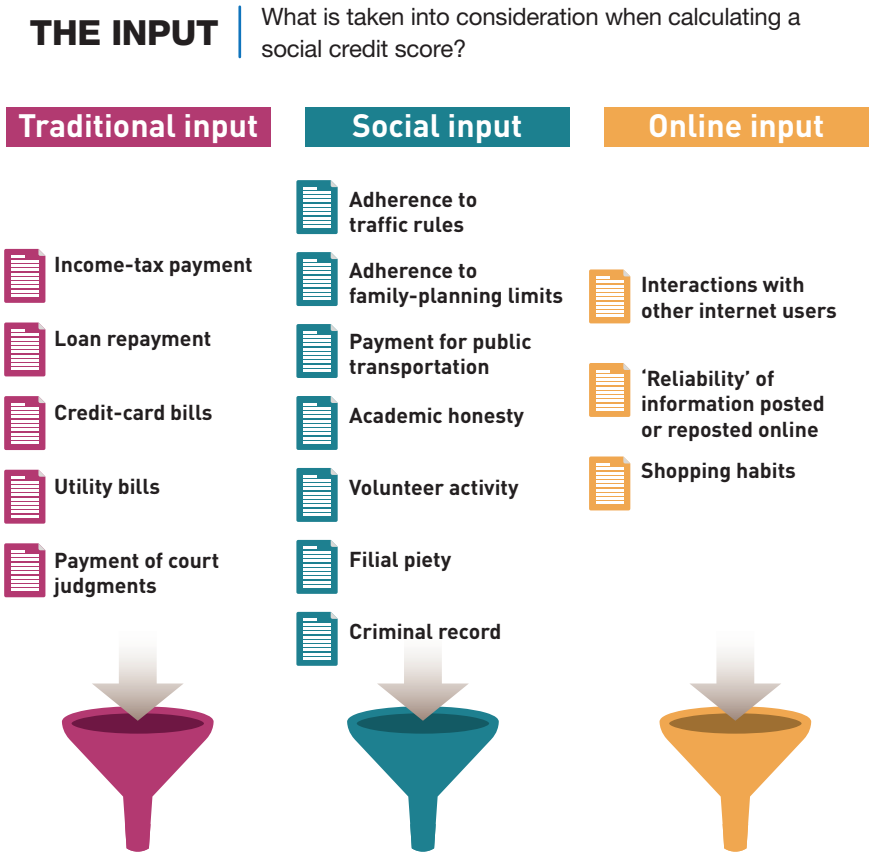
The system is also seen as a way of addressing more deep-rooted issues such as the mismanagement of resources.

"We didn't have this kind of system in China before, and there were many issues such as poverty, corruption and other unethical behavior," says data analyst Li. "But this tracking system could help improve the management of the country and I believe it will assist us in building a better society."

There is also a brief that the system will positively affect the way people interact with one another.

"I think the system will help build a certain level of trust between people," says Wang Jia, a translator living in Wuxi city, west of Shanghai. "People will become more likely to keep their word."

Despite the general support that the public has for the system, few are aware that they are already being rated by it in the various pilot systems running across the country.



Source: The Wall Street Journal

"In my survey only 7% of the over 2,000 respondents said that they are part of a government system, but when I checked, 43% of them actually live in areas that are running pilot systems," says Kostka.

"This lack of awareness ... has to do with how local systems are currently more incentive-based and not punitive," says Maximilian Mayer, assistant professor at the University of Nottingham Ningbo China. "The only national-level punitive action has been in stopping people from buying flights and trains tickets thus far."

The obvious question stemming from this is: how can a social credit system alter the behavior of individuals when they have never heard of it?

Enter the enterprises

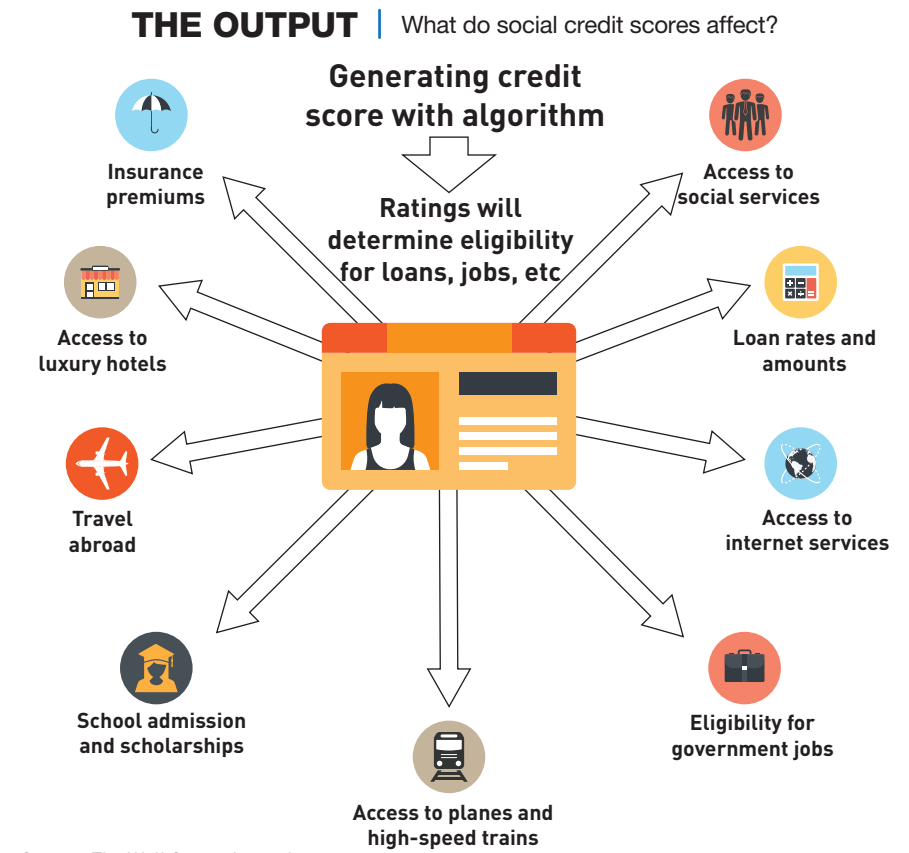
While the media and public originally assumed that the system would mainly focus on the monitoring of individuals, the pilot systems have shown otherwise. All companies registered in the cities in which the pilot systems are running were brought into the social credit system at the beginning of 2018.

"Most cities are focusing on businesses at present, only a few are focusing on individuals," says Kostka.

The way the social credit system works for businesses seems to be different to how it is used to rate individuals, but so far little has been revealed about the specific standards that businesses are being held to.

"The government doesn't use scores for businesses per se, which I think is the right way to do it, they separate companies onto black and red lists," says Kostka. A "red list" in China indicates approval.

Despite the current lack of transparency on the rules for companies, the trust that the system could build in doing business in China, could be a benefit for many. If a business is on the red list, it would be strong proof that it is credit-worthy and has operated well in the past.



Source: The Wall Street Journal

"On the bright side, these kinds of the systems may generate a positive force for financial markets and risk assessment," says Mayer. "It might improve customer security, product quality and the behavior of millions of companies in China. Traditionally, China suffers from being a low trust society."

But if a company were to be added to the blacklist, it could be banned from operating or barred from government procurement contracts. "If you have a positive rating then you have an elevated standing with government procurement," says Kostka.

But the system could work more to the benefit of larger companies, with smaller firms facing difficulties in recovering from a blacklisting.

"It's a double-edged sword. In China there are many small- and medium-sized enterprises, and due to a lack of transparency, they don't get access to loans and bonds as easily as larger companies," says Li. "But I think because the system will ensure a more transparent level of information-sharing in the future, it may help these smaller business get better financial support from banks and other financial institutions."

The other side of the coin for companies is the expense involved in maintaining a high score. Companies might, for instance, have to re-evaluate their PR approaches or adapt their business operations to become more environmentally friendly. "Smaller businesses might not have the finances or capability of changing their score," says Mayer.

Many local governments are also making use of existing private credit scoring mechanisms that insurance companies, big tech firms and other large commercial companies have already developed. Naturally, these companies also see the social credit system as a valuable opportunity to collect data to learn more about consumer behavior and patterns.

A commonly-used system is Sesame Credit, a private credit scoring and loyalty program system developed by Ant Financial Services Group, an affiliate of the Alibaba Group. It uses data from Alibaba's services such as purchases carried out on Alibaba Group websites to calculate scores.

"The system is not fully developed, but what is being used at the moment, such as … Sesame Credit, is quite transparent," says Li. Financial institutions and banks are able to access Sesame Credit scores. It's much more difficult for documents to be forged or to find a way around the new system."

While certain elements of the system may improve transparency in terms of how companies' scores would be visible to vendors and customers, some experts are not completely sold. The opaque nature of the system, they say, still leaves questions unanswered.

"It's not clear how the system would prevent corruption, how easily it could be hacked into to create a black market for score manipulations and whether scores would be fair toward smaller businesses," says Mayer.

The extent to which foreign companies will be impacted and in what ways is also not yet clear.

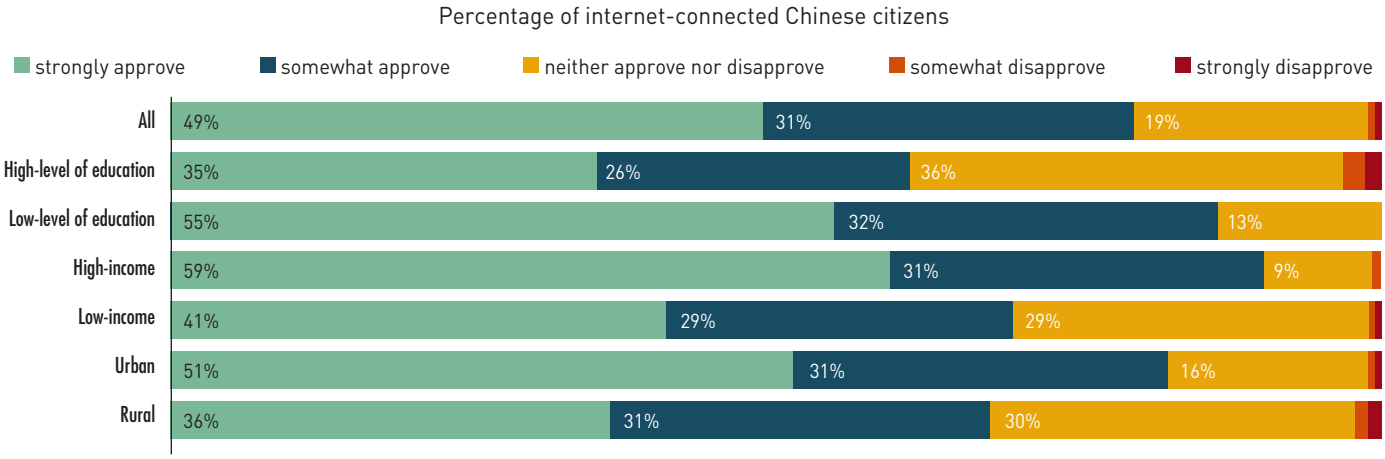
Cause for concern

The social credit system has sparked a debate internationally. Despite the high level of public support for the system in China, Kostka says the two main problems to be addressed in order to ensure continued public support are transparency and fairness.

"People feel that they were not well-informed on how they can improve their score or how their Sesame Credit scores are even calculated. A lot of people also raised the issue of fairness, they wonder whether highly-ranked officials will be held to the same standards," says Kostka.

"The commercial side of the credit system is very unfair for poor people because it's linked to consumption. If you consume a lot, it's easier to get a higher score, but if not then it's more difficult to do so," says Kostka. "The rewards are also not always useful, especially for people

RATING THE RATINGS | Chinese public approval for the social credit system is high



Note: Based on a survey of 2,209 internet-connected Chinese citizens, conducted from February to April 2018
Source: Mercator Institute for China Studies

living in rural areas. A lower deposit in a hotel and faster visa processing isn't meaningful for a farmer."

Questions have also been raised about how this new regulatory system will work in relation to the laws and systems already in place.

"The social credit system could end up undermining the legal system in China," says Mayer. "The system appears to contradict basic legal principles, such as not being charged for a crime twice, first by the law and again by the consequences of a lowered score."

He highlights how the system is actually a symptom of a deeper issue. "In a way it shows the dysfunction of the legal system. Why is the legal system not enough to hold people accountable for their actions? Why does the state have to introduce this new measure?"

With increasing digitalization also comes concerns over privacy, but while the United States and Europe have been debating privacy issues for years, in China it remains a relatively rare topic and low on most citizens' list of concerns.

"The social credit system is not seen as a system that would bring on privacy violations, it's just seen as a pragmatic tool," says Kostka. "I think the link at the moment is quite weak between social credit, big data and privacy, but it doesn't mean it will stay that way, as things happen very quickly in China. As the system develops, issues around transparency and privacy will undoubtedly emerge."

Another concern is what impact the system will have on overall social mobility.

"What the system is basically doing is the quantification of social relations," says Mayer. "If the system works according to the vision of the central government, then social mobility would become much harder."

"There is certain level of dependency on those you are connected with and if you have the right links to the right people it would be easier to stay on top, but for those at the bottom it would be more difficult to climb up," says Mayer.

"If banks consider personal credit to be more important than financial credit in loan considerations, it may help the poor to change their lives," says the student Fang. "However, if banks only focus on assets and consumption it will end up harming social mobility. People might be able to buy credit points to increase their score, but again that's only for people that can afford to do so."

But will it work?

While the idea of the social credit system seems alien to many people outside of China, similar systems in the West might have even been the inspiration behind it.

"The scoring of social relations happens everywhere in the world, China is not an outlier," says Mayer. "The reality is that these systems are already in place in other countries. Consider the scoring mechanisms behind PR firms, behind advertisement strategies, behind customer profiles and behind fintech that exist in the West. China just went a step further and added political and moral elements to it."

"It's simply a collection of standard guidelines," says Kostka. "Local governments are simply adding new rules to previously existing systems and renaming it the social credit system. The real difference now is that sometimes these systems also collect data and merge that data between departments."

Whether the system will have the desired effect of improving society overall, is something yet to be seen, but Chinese people seem to be taking the system to heart.

"The names of people that don't pay their debts have been revealed to the public before; you can even see their names listed on the televisions on public buses. I wouldn't want my name to appear there," says Fang.

"I was late to pay my credit card bill once," says Wang. "Luckily, it didn't seem to affect my social credit score, but I have since set a reminder on my phone to make sure that I pay it on time in the future."

The Power of Leftover Women

Roseann Lake, author of *Leftover in China*, looks at the experiences of women who have postponed marriage in China

Roseann Lake is currently the Cuba correspondent for *The Economist* and author of *Leftover in China: The Women Shaping the World's Next Superpower*. The book explores how Chinese women have become unprecedentedly well-educated and goal-oriented but are struggling to find partners in a society where gender roles have not evolved at the same rate as society. She was previously based in Beijing, where she spent five years as a television reporter and journalist.



China's now-lapsed one-child policy led to the creation of what was in effect the country's first generation of "only-daughters," with families giving those daughters the resources that in the past were normally reserved for boys. Girls have been pushed to study, excel in college and succeed in their careers in ways previously reserved for sons. Those girls, who have now become women of marrying age, are increasingly choosing to wed later in life, if at all.

The term "leftover women" is used to label unmarried women in their late 20s and beyond in China, and despite their successes, they are typically subject to constant pressure to find a husband.

In this interview, Lake explores gender roles in China and how these so-called "leftover women" are shaping the country's economic future.

Q. What inspired you to write the book Leftover in China ***and what kind of impact did you hope it would have?***

A. I met my first populations of so-called "leftover women" when I started working at a television station in Beijing. Right away, it struck me that their name was quite the misnomer and that it didn't at all reflect what they were. These women were the producers, the editors and directors of an international news network. They were bilingual, they held masters' degrees, and many of them were from other cities in China and were supporting themselves in the big city. I felt that these women should be celebrated—they are the toast of the nation! Why are we calling them names?

It was initially this intrigue of how they could they be so inaccurately portrayed that led me to write the book. Every single woman I worked with was a 'leftover.' As we started talking about it, I'd ask them questions and they would introduce me to their friends, who were also leftovers. They were all young women between 20 to 35 years old.

When I moved to Beijing in 2009, there weren't campaigns like the one released by SK-II where people could voice their opinions on leftover women. There weren't documentaries being made about it and none of this conversation existed. People were dealing with this issue on their own, which in many cases affected their self-esteem. After Spring Festival each year, they would be in visibly different moods because they were upset by the constant pressure they'd be getting from all of their relatives at home. I wanted to provide a few answers as to why there were so many of them all of a sudden and why finding a man of the type they were looking for wasn't actually that easy—despite the misleading numbers of there being more men than women—as well as to find a way to celebrate them, because it didn't seem like anybody else was doing so.

Q. In your book you write that China's leftover women are shaping the country's economic future. How are they doing that?

A. In the book I explain how over the past 40 years, women in China—almost by accident—have received unprecedented access to education and professional opportunities. The whole book is based on the idea that there was a one-child policy, which meant that a lot of baby girls were aborted or discarded shortly after birth, but some were born. And of those surviving girls, many of them did not have brothers. The sheer fact is that not having a brother in China meant that all of a family's resources were funneled into daughters, which may not have been done otherwise. A superclass of women has now emerged with many of them being born in urban areas where parents were more open-minded and willing to keep a girl.

They play a key role in China's economy going forward, because China is now trying to transfer from a manufacturing-based economy—from that made-in-China label—to a much

more sophisticated knowledge- and service-based one. The type of talent pool that they need is precisely the one that they have in the young women that have received this education.

Another part of it is that China's economic growth has been the result of generous, sometimes feckless bank loans that went to big corporations that threw up buildings that are now not making the return on investment that was originally expected. A lot of these loans are defaulting, which could spell bad news for China's economy, but a way to counteract or minimize that damage would be to stimulate domestic consumption. Who is going to stimulate that the most? As far as I know, Chinese women like to buy a lot of things.

Another big concern for China going forward is its population size. Who calls the shots on whether babies are born? Women. And obviously the size of China's population is directly linked to its economy because people equal productivity. With a shrinking population, you have fewer young people supporting it. China may not like the fact that the traditional family unit is eroding, but I think one, they understand that that's true all around the world. And two, they understand that if they try to force it to stay traditional, they're going to lose all the economic benefits of a lot of the part of population that's driving that economy forward, which are these women.

Q. What more do you think China should be doing to support single women in the workplace?

A. Fortunately a few things are already being done, but there is of course a lot more still to do.

Women have said that they've faced discrimination in the hiring process because they are unmarried, as employers often see a woman who isn't married and has no children as someone they will likely have to provide marriage and maternity leave with somewhere down the line. They think that it's just much easier to hire a woman who has done these things already. It reinforces the thinking of 'have them early' so that it doesn't interrupt your career later on or when you're looking to switch careers.

The situation is not always black and white, however, and you sometimes see glimmers of hope. I was very pleasantly surprised to learn that Beijing and Shanghai have now made it legal for single women to have children. Before, if a woman had a baby out of wedlock, she had to pay a very high fine and her child wouldn't be able to get a residence permit because that was always determined by the location of the father's permit. This change allows for the creation of a different kind of family unit, but by Chinese standards that's also a departure. I think society has realized that perhaps having children is more important than getting married. We also know that grandparents are happy to take care of those babies so that mothers can go right back to work and continue building our economy. It was a really encouraging shift.

Q. How did the stigma behind single Chinese women develop?

A. Marriage in China has historically held a very important social, cultural and even political role. For hundreds of years a woman's sole means to livelihood was through marriage. It took me a while to realize, but for many of these women, their own mothers didn't get to choose if or when or sometimes even who they married.



Chinese women are now in top executive positions, shaping the country's economic future

What we're seeing now is women for whom marriage is discretionary. These are the first generations of women in China who actually have that option. It's almost destabilizing in a way. It's like society doesn't know what to do with them as they think that they're supposed to be married. That's just what is expected of women of a certain age. I think the stigma developed around the traditional sense of thinking that families are the building blocks of a nation. It's Communist Party rhetoric and if you upset that balance, who knows what will happen?

A lot of that stigma is also linked to fertility. It's this idea that if you don't have a child by 25 or 27, it's too late and that marriage and children are a fundamental rite of passage. You have no place in society until you're married and have given your parents a grandchild. Not giving your parents a grandchild is the most unfilial thing you could possibly do. It's what your parents did, what is expected of you and any sort of departure is reprimanded.

Q. What would you say is the difference between feminism in China and in the West?

A. They are very different. First of all, "feminism" and "feminist" aren't words that too many women like to associate themselves with in China. There are of course active, wonderful feminist groups in China that do a really tough job, and women are joining their ranks, but in China what they do is still seen as extreme. The

> The type of talent pool that China needs is precisely the one that they have in young women

idea of feminism is much more subdued in China.

Chinese women are just as feminist as women in the West in their actions. They wouldn't have inspired me so much if they weren't. One of the things that always struck me and that I admired, was the grace in which they stood up to the pressure that they were getting from their parents. It's almost like your entire world is treating you like a burning building. You're not married and you're for the most part keeping calm and being respectful of your parents. And sometimes you go on a blind date that you would rather not go on, but you do it out of respect for your elders.

Chinese women are actually internally quite strong; they just have a different way of defining their feminism. When you don't know that much about China, it's easy to just think 'those poor women,' but I don't pity them, they're strong in just very different ways.

Q. How are "leftover women" changing China's traditional culture?

A. China has become globalized enough and the economy is moving quickly enough for things to change. Women now have the economic and educational resources to be able to push back in ways that they couldn't in the past. As more and more women are in that situation, they will educate further generations. The last census we have for marriage data was compiled in 2010. When that 2020 census comes out, I'm pretty sure we're going to see really different figures. The number of single women over 25 and even over 35 will have grown exponentially, and I suspect that that will continue to be true in China. Maybe not to the same degree as it has been in Japan or South Korea, where genders have a very clear divide, as in those societies you either become a mom or you have a career. In China it's possible to have both, which will in many ways likely be its saving grace.

Women in China will certainly change it and they already have in a way. It will become more and more commonplace to get married later or not at all. Parents will increasingly support their daughters, as at the end of the day they are realizing that their daughter is actually doing exceptionally well. I hear stories all the time of parents saying to their daughters that they need her to have two children, the first to take her husband's last name, and the second to take theirs. They've invested in their daughter and see their family line as being just as important.

Q. People have been saying that China's real problem is leftover men. What do you think about this idea?

A. I absolutely agree with that statement. You've got all of these single women living in urban areas, but where are the men? The vast majority of them are in rural areas. They're poor. They haven't been as educated and there are few women where they were born, because no one wanted a girl. How are these guys going to get married? How are they going to have economic independence?

They are a problem because at the end of the day, leftover women will be fine. Not all of them may find the emotional connection they desire and have a partner, but financially they'll be just fine. They'll have jobs, they'll have opportunities and they'll find other ways to enrich their lives. But these men are kind of at the bottom of the barrel and there are many more of them than leftover women. You worry about instability and how they're going to continue their family lines. In rural areas the pressure to do so is much stronger. They're essentially an economic concern—much more of a concern than leftover women for sure.

Q. How do you see gender roles in China developing in the future?

A. On my book tour, a lot of women and men actually end up asking me: How on earth do you find a girlfriend or boyfriend? The answer to that question is tied up with gender dynamics. I have faith in the boys and I definitely have faith in the girls. I often tell the men that they can't be so traditionally-minded if they expect to have a girlfriend, as girls today want really different things. They want real partners; they don't really care about whether you have a house or not. They aren't so bothered with your *hukou* (a system of household registration used in China) because in many cases the women are going to have a higher-level of education or they may even have more family wealth than men do.

Men are under a lot of pressure to provide everything, but they need realize that it's not necessarily the case anymore. A lot of women agree with that and they would rather have somebody they're happy with than someone who gives them a house and a certain *hukou*. Not all of them of course, but as that perception changes, gender dynamics will change too. It won't be as imperative to marry a man who has more of everything than you do. That is still the expectation, but it's going to have to change because the numbers just aren't working out. If you look at the rate at which men and women are getting educated, women are outperforming men. If the men can figure that out and the women can help them figure that out, then there could a middle ground to meet on.

BURSTING AT THE SEAMS

How is China's bulging waistline impacting the economy and the country's health care system?

By Timothy Ang



Image by José Luna

Of all the changes seen in Chinese society resulting from the country's meteoric economic rise over the past few decades, perhaps most symbolic of all has been the population's relationship with food. The economic reforms of the 1970s and 1980s catapulted China toward higher living standards, but with today's abundance of food—with supermarkets, fast food restaurants and cafés on every corner—the country is beginning to ask itself: are we eating too much?

Growth in China's obesity levels have skyrocketed in recent years, with rates in some demographics, such as children and urban residents, approaching Western standards. This is creating a national health issue that was unthinkable just two generations ago when most households lived on the breadline and manual labor was the norm.

Rising incomes and increasingly sedentary lifestyles are leading to more and more Chinese loosening their belts, while at the same time creating a booming consumer market for health-related services such as gyms, weight-loss camps and diet pills. Although growing waistlines are being seen across the world, the speed of China's weight gain and the quirks of its consumer culture suggest that the economic and social impact of a fatter population could be particularly significant here.

Taking its toll

Paul French noted in his book *Fat China: how expanding waistlines are changing a nation* that only around 7% of China's population was overweight in 1982, back when government figures were scarce, compared with around 25% in the United States. Today, according to the World Health Organization (WHO), the overweight figure in the US is around 67.9% and 32.3% for China.

While the latest figure for China may not appear to be particularly startling in comparison, obesity is on the up and quickly becoming a major problem. The term "obese" denotes a Body Mass Index (BMI)—which accounts for one's height relative to weight—of over 30, while "overweight" refers to those with a BMI between 25 and 30. Several studies combine both under the title of being "overweight" and anything between 18.5 and 25 is considered "normal."

The problem has gathered particular attention for its impact on children, for whom obesity rates are usually lower worldwide. Already home to the world's largest number of obese children, a recent study conducted by researchers at Peking University showed that of 1 million Chinese children between the ages of 7 and 18, 20.5% were overweight, up from just 5.3% in 1995. This is forecasted to continue rising to 28% by 2030.

So far, the bulge has been the largest in China's cities, where households have benefitted the most from an ever-growing economy. Between 1990 and 2010, the period of steepest annual growth, real per capita food expenditure grew on average 3.7% a year in China's urban areas, compared to 1.9% in the countryside, according to analysis by China Agricultural University. Beijing stands as the fattest Chinese city, with one-in-four being overweight in 2017.

But people in rural areas have been packing on the pounds as well. A survey of school children in less-developed regions of Shandong province in eastern China, found that the percentage of overweight boys had jumped from 0.5% to 30.7% in the thirty years to 2014. For girls the increase was smaller, though still significant, from 0.8% to 20.6%.

"The rate of growth in obesity is largest in rural areas, where food tastes are changing and practically all field work is now done by machines," says Zheng Zhihao a researcher at China Agricultural University.

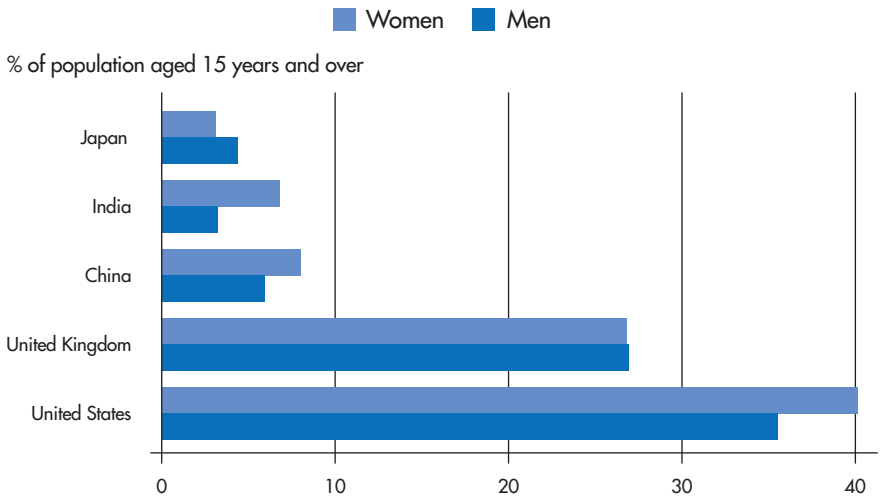
Many have looked to the rise of fast-food culture as a key cause behind the nation's weight gain. McDonald's, which dominates the market alongside Yum China brands such as KFC, went from a single store in 1990 to over 2,500 in 2017, and plans to have 4,500 outlets by 2022. KFC, operated by Yum, has opened its 5,000th outlet. In the past five years alone the fast-food industry in China has managed to grow 11.1% per annum and is worth $175 billion, according to IBIS World, only slightly lagging behind the US market at $198 billion.

"In the early reform era, Western fast food was too expensive for most Chinese, and its consumption became a significant status marker," says Neil Thomas, research associate at US-based think tank MacroPolo. "Western outlets introduced the idea of a dining experience to many Chinese, different and appealing from the dreary state canteens of the 1980s."

Grandma's love

China now has a maturing middle class

HEAVY WEIGHT | Obesity in China is still relatively low, but is quickly on the rise



Source: OECD

of some 400 million citizens, with tens of millions more being added each year as the country continues to climb up the economic ladder. One of the first symptoms of more money in the pockets of ordinary Chinese has been a transformation in what food is being consumed.

The grandparents of today's children would have done most of their shopping at local wet markets, filling their baskets with grains, fresh fruit and vegetables. Now, people flock to the shiny hypermarkets on the border of every town, stocked full of packaged, processed goods.

More is being spent eating out too. In 2016, China spent $507 billion in restaurants, according to data from food delivery service provider Meituan Duanping. Of total spending that year, more than one-in-five RMB went towards oily hot-pot meals.

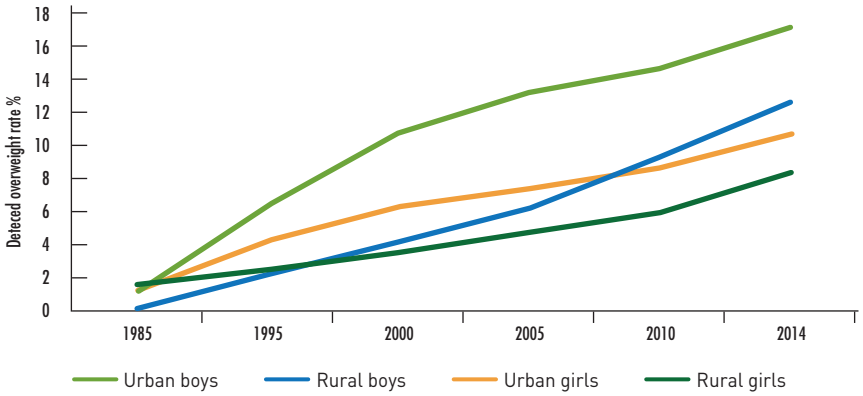
As tastes have transformed, so has the nature of work. More Chinese are taking on white-collar desk jobs that involve hours sitting behind a screen with only a short window to grab a snack during the day. For children, for whom school pressure is notoriously high, after-school down time is eaten away by excessive homework, with the most popular leisure activities being gaming and mobile phone browsing, both sedentary.

Unlike the squadrons of elderly Chinese seen dancing en masse in public parks to keep fit, children have few opportunities to run around or kick a ball. The majority of parks prohibit playing on the grass, and outdoor basketball courts are still not common. The result, therefore, is more kids sitting at home.

Obesity remains a tricky issue to tackle in Chinese home life. There is not the same stigma attached to being fat that exists in Western countries, and in many Chinese families, the bulk of childrearing is still done by retired grandparents while mom and dad are at work. This means that the Little Emperors and Empresses born under China's now-retracted One Child Policy are likely to have been doted on by a generation for whom food is still sacred.

"As a child and teenager, especially as a boy, there's no real means of raising the subject of weight loss," says Liang Jie, an overweight office worker in Shanghai who has recently started working out. "It's not just that parents like their sons to be fat and confident, but even thinking about the issue is considered more of a thing for girls."

TIPPING SCALES | Urban boys in China lead in weight



Source: UNICEF

The biggest loser

With a bigger population looms the possibility of even bigger social problems. Not only will overeating individuals themselves suffer higher rates of obesity-linked diseases, but a slide in the nation's health will weigh heavily on an already overstretched health care system.

Despite annual increases in expenditure, the Chinese government still spends just 3% of the world's total health care spending to look after 22% of the world's population, making this one of the most under-provisioned state health programs in the world. According to the WHO, there is one general practitioner for every 6,666 people, compared to 380 people in the US.

"The situation will be the worst for rural residents," says Wang, a nutritionist at a private clinic in Shanghai. "In the cities, where the funds are concentrated, nutrition and family health departments are starting to get recognized, but they're long way from popping up in provincial hospitals."

In addition to diabetes, two other major symptoms of being overweight—high blood pressure and heart disease—are on the rise in China. The USA spends roughly $200 billion every year fighting heart-related illnesses, from which 630,000 die each year. In 2016, China reported 94 million cases of heart disease.

A crucial factor in the health impact of obesity on ethnic Chinese is genetics. Results of a 20-year study published in the journal *Diabetes Care* in 2006 showed that Asian women in the US are almost twice as likely as other ethnic groups to develop type-2 diabetes when overweight, with similar trends being seen for hypertension and cardiovascular disease in other studies over the past two decades.

Deteriorating health can only exacerbate China's demographic crisis, where an aging population and plummeting birth rates threaten to cut the country's workforce by up to 200 million by the middle of the century, according to forecasts by the China Academy of Social Sciences. This all gets added to the government's health care bill.

In October 2016, President Xi Jinping unveiled Healthy China 2030, a series of health care reform plans aimed at rebranding public health as a foundation for the country's economic and social development.

"The all-around moderately prosperous society could not be achieved without people's all-round health," said Xi.

Among the targets outlined is the lifting of national life expectancy to 79 from 76.25 at the time of the project's launch, boosting of health care provisions in rural areas, and getting another 170 million people engaged in regular exercise. How much progress has been made in the past two years is unclear.

Childhood obesity has also gained



Obese Chinese children warm up before swimming during a weight loss summer camp in Hangzhou, Zhejiang province

more attention in recent years, with the achievement of lower rates being part of the China National Program for Child Development spanning from 2011-2020. The blueprint included better training schemes for health workers and nutritional education for parents, but as the latest figures show, kids are still getting fatter.

A central obstacle to tackling the problem is the lack of formal obesity monitoring by the China Ministry of Health. Up to now, figures have been provided by international bodies such as the WHO or university research centers.

"The government has only just started looking at the issue of obesity," says Zheng. "Research on the topic doesn't get funding, and many departments, including my own, are just three to four years old."

Shifting Standards

Ultimately, education and traditional views regarding health and well-being will underpin any resolution to China's obesity crisis. Emphasis on prevention over cure, a key principle of traditional Chinese medicine, could be used to unstick harmful views of food and fat.

"I like to explain things to my patients in this way: routine and moderation," says Wang, a doctor in Shanghai. "Even rice, which most Chinese cannot conceive as being unhealthy, is bad in high quantities."

Attitudes are shifting, nevertheless, if faster in some areas of society than others. There are now an estimated 40,000 gyms across China, up from just a few hundred at the turn of the millennium.

This goes for nutrition too. Mainstream Chinese diets may still be overloaded with oil, fatty meat, and white grains, but at the market's higher end, exemplified by successful supermarket chains such as Alibaba's Fresh Hippo, businesses are tapping into this taste for clean eating.

Health foods and drinks such as yogurts, premium water brands, and soybean milk have all seen double-digit sales increases in China between 2015 and 2017, while chocolate, other candies, and MSG (a preservative ubiquitous in Chinese restaurant food) were all down.

Poised to ride this health-conscious wave are a legion of personal trainers and dietitians. Unheard of as a career option just 20 years ago, health and exercise coaches have become easy-entry professions for many young Chinese, who can charge anywhere from RMB 400 ($58) to 2,000 for an hourlong session.

"I started this job with no qualifications, but now I'm getting new clients every week," says Hai Xiang, one of 25 personal trainers stationed at a mid-market fitness center in downtown Shanghai. Fitness apps have also proven successful among this craze, perfectly suited to China's young, tech-savvy population.

Fat before rich?

The rates at which obesity is increasing in China suggest that the problem is here to stay.

According to Zheng of China Agricultural University, this will result in a need to rework priorities from a supply-side focus to more demand-led policies on food consumption and social health, as seen in the US.

"Right now the government is still focused on delivering food to the people, it has an immature policy when it comes to influencing what people choose to eat," says Zheng. "If this is to change, universities and research groups will need to provide more evidence of the scale of the obesity crisis, to put pressure on the government."

There is optimism on this front. In some respects, unlike in Western countries, the centralized nature of the Chinese government can give it greater control over public health issues. Schemes such as more compulsory exercise in schools or a ban on fast-food advertising would be well within Beijing's grasp.

"I think it might get worse in the short term, but in the end obesity rates will start to drop as people get educated," says Wang. "It's still such a new area."

The Advance of China's IT Market

Jun Wu, founder of venture capital company AMINO Capital, explains the challenges facing China's nascent information-technology sector

Jun Wu joined Google in 2002 as a senior expert and was a major contributor in developing the Google Search Engine for Asian languages, later becoming a pioneer in combating internet search fraud. He also served as vice president at Tencent from 2010-2012 and as an adviser to the Ministry of Industry and Information in China. Wu is now founder and managing partner of AMINO Capital, a venture capital firm.



Wu completed his Ph.D. degree at Johns Hopkins University and currently sits on the board of Whiting School of Engineering. He has over 10 patents in his name and is the author of six best-selling books in Chinese, including *Silicon Valley* and *Smart Times*.

As China transitions from a manufacturing to a service-based economy, new issues have developed around the role of technology and how China's IT companies draw on and differentiate themselves from global leaders in Silicon Valley.

In this interview, Wu discusses the similarities and differences of the information-technology sectors in China and in the United States, the challenges facing innovation and the prospects for emerging technologies such as artificial intelligence.

Q. With your experience in Silicon Valley, how do you think China's Greater Bay Area compares? Is there an advantage in being a latecomer to the tech arena?

A. First of all, it is important to highlight just how big China's Greater Bay Area actually is. In Silicon Valley, including San Francisco and most of the areas surrounding the valley, there are only 6 million people, while China's Bay Area has a population of 50 million.

Second, the Greater Bay Area plays a vital role in China's general export-oriented economy. After a new product is created, the market scope for the product is much wider—not only in local markets, but in external markets as well.

Third, the industrial manufacturing system in the Greater Bay Area is more advanced. In fact, Silicon Valley has no traditional manufacturing and processing industry. IT is the mainstay, and it is relatively virtualized. Therefore, innovation in the US is easy, but it isn't possible to physically produce. Guangdong, Hong Kong and Macau are industrial production centers and so ideas can easily become physical products to be sold on the market.

Q. In constructing the Greater Bay Area, the Chinese government has aimed to make it a key zone for scientific and technological innovation. What are the areas that should be focused on to reach that goal?

A. First, China needs to attract a skilled workforce. When it comes to cultivating skilled labor, it is not enough to simply rely on the people already in China—we also need the Chinese people living abroad to return. On top of that, skilled individuals from all around the world should also be recruited, whether they are Indian, Israeli, Japanese or Russian.

Second, we must address the global market. Every time the global market is mentioned, we praise Alibaba, Huawei and Tencent and while the market value of Alibaba and Tencent is large, their share of the global market is still negligible. Even a small company of 20 people in Silicon Valley can be considered a multinational and global corporation. If Chinese companies want to be the main driving force behind the world's economy, then they have to focus on entering the global market, not local markets.

Third, China must develop industries that are unique to the region but also have a competitive advantage in the wider world. The reason why Silicon Valley developed into such an important technological hub was that it was there that the first semiconductor was built. At the time, this was a technology not available in other regions of the world. If a particular industry already exists and a

company in another region works to develop it, their performance is only relative to other companies already in the market. The result ends up being very different.

Q. From an investor's perspective, how do you see the US-China trade war impacting tech companies in Silicon Valley?

A. In short, they are not significantly affected. It seems that no one has been very successful in commanding both the Chinese and American markets; even companies such as Google, Microsoft and Oracle have not fully done so. Most Chinese companies, like Alibaba, Huawei and Tencent are also having difficulty entering the US market.

Because of this, all tech startups must decide whether they want to enter the Chinese market or the US market. Companies that are able to capture the Chinese market always say that the market size is massive, but if you are not able to maintain that market then essentially it has no value. People who really want to do business in China need to understand that. From my point of view, both Chinese and American entrepreneurship is dynamic, and thus far the US has been little affected by the trade war.

The China-US trade war is not a matter of trade in manufactured goods, but essentially a question of information. The US is focused on collecting intellectual property fees—for example, in order to use Microsoft's real software, you have to pay for a license. Facebook, Google and other services are still waiting to enter the Chinese market, as are biopharma companies. This reflects an important difference between the two sides of the trade war—compared to the US, the Chinese economy is very large, but still focused on tangible goods. Consumer willingness to pay for information-based products is still lacking, and the development of this kind of mindset takes a long time.

Q. What advantages and disadvantages do Chinese companies have when it comes to technological innovation?

A. If you simply look at one or two innovative products, you will always find that the US holds a couple of innovations over China and vice versa. You have to look at the social environment as a whole. From the perspective of national identity, China is more cohesive than the US, and this means two things:

First, China has an advantage in that it already has a relatively large pool of highly skilled workers domestically, a resource that is needed for technological innovation. China produces an increasing number of graduate students and doctoral students each year, so for Huawei to find 10,000 people to do any given task, is possible. Typically, this is very difficult for most countries, including the US.

Second, all local governments in China have made technological innovation and improving the entire IT industry a top priority. In the past, China was eager to enjoy quick success after quick success and invested their money into enterprises that yielded fast returns, which is why copycats appeared. When a country—especially a country that is in its early stages of development—can profit through relatively straightforward means, there is no incentive to make long-term investments into technology.

In the US and other countries, innovation and entrepreneurship are the specialty of a few people in certain regions (typically in Silicon Valley). But in China, even in third-tier cities, people are more concerned with technological innovation than traditional industries. People in China are gradually beginning to realize that economic progress requires technological innovation.

Beyond that, Europe and the US have another advantage over China in that more mergers and acquisitions in their markets occur. When a small company creates a new technology, a big company is willing to acquire it. Because of this, there are fewer small companies. The smaller companies understand that it is unlikely for them to do well in a market on their own, and so they concentrate on designing new technology and wait for bigger companies to acquire them. In China, this process is more difficult. Big companies may not necessarily acquire smaller companies, which means that smaller companies lack the initiative to develop new technologies. On this point, Chinese businesses need to improve.

Q. What role does capital play in incubating and developing technological innovation?

A. Essentially, new technology can be created based off old technology. Not much financing is required that way. If a great deal of money needs to be spent on a new technology, it often means that the company is going down the wrong path.

China is less likely to rely on investment to promote the advancement of technology in the future. A large part of the technology that startups use in products today comes from scientific research that originated 20 years ago—such as the iPhone's touch

> "China has an advantage in that it already has a relatively large pool of highly skilled workers domestically

screen, which is from the 1980s. So even if investment into startups becomes 10 times more than it is now, it is still impossible for all of the science and technology that would be accumulated over the next 20 years to be completed in a single day.

Even though venture capital has increased significantly compared to just five years ago, it does not proportionately generate a higher number of truly valuable tech companies. The same number of companies are now just receiving much more money, and in the end, this may create a financial bubble.

Investing in new technology is rewarding, but it is a long-term investment. In the short term, it is impossible to expect that an increase in investment will accelerate the innovation process.

Q. Chinese tech companies, including internet giants, are rapidly increasing their investment into R&D for artificial intelligence (AI). What do you think about the future of the commercialization of AI in China?

A. There is no need to worry about the commercialization of AI just yet. There are three main reasons for this:

First of all, the Chinese market believes in the technology being developed and is willing to try and use it.

Secondly, AI doesn't require much financing and too much investment often ends up being a waste of money. But once a product has been developed to the point of being ready to be put on the market, domestic capital is typically abundant.

Third, China's policies on AI are the most relaxed in the world. For example, if you want to test drive a newly developed driverless car, cities are generally willing to provide you with a test site. Most countries in the world are relatively conservative when it comes to things like that. AI in San Francisco has been criticized publicly in the past; facial recognition is not allowed to be used even to catch criminals, due to concerns over potential human rights violations. From a commercial point of view, these constraints put San Francisco and Silicon Valley at odds with one another.

Q. What are your thoughts on privacy in the age of big data?

A. Privacy is a big problem. Some US lawmakers are already asking big data companies to ensure that data is protected, which I believe is the right thing to do. Data is a resource, much like oil. As a resource, it should have transaction records and traceable links. If a deposit of RMB 100 is made to a bank, the bank has a system that can accurately track the flow of that RMB 100—who is depositing it, where it goes, and how it is eventually used. If banks didn't have this system, they would not be able to function.

In contrast, no company currently using big data can fully explain the source or path of the data they have collected. There are no similar requirements for companies to track data. In China, WeChat's chat records are mainly used by Tencent to improve its own products, but there is no company that has tools that can help verify which products are using the data and what role it plays.

I personally feel that just advocating for privacy protection without any real practice or method is meaningless. Facebook has proven to everyone that placing too much faith in tech companies is unwise. Therefore, data essentially needs to be tracked, just like banks track flows of money.

> The Chinese market believes in the technology being developed and is willing to try and use it

Q. How do you think big data will affect industries in the developing world?

A. The gap between developing and developed countries is likely to be further widened by big data. In any industrial revolution, there are countries that benefit and there are countries that are left behind. Even though we do our best to eliminate that gap, in reality, it is not an easy task. When that gap widens, the less developed countries may become markets. If China misses this opportunity of becoming one of the "developed," then it will be difficult for them to catch up in the years to come.

Q. What emerging technologies or trends do you think are worth investing in?

A. Although investing in technology is very important, the role of venture capital is not to simply provide funding for research or to study a certain technology, but to see what kind of technology a company uses to get the result they want. In other words, you shouldn't choose a specific technology, but rather base your decisions on what that technology can do for the world.

There are certain factors that you need to consider before investing in a new technology, namely the product, the market environment and the entrepreneurs themselves.

The points that need to be considered are if there is a corresponding demand for the product and what the current conditions of the market are. An example of a mismatch is the VR boom a short while ago. The conditions for the product were lacking and making a VR program is very expensive, which ultimately determined its trajectory.

Investing in new technology essentially supports the entrepreneur. Of the many factors required for successful entrepreneurship, technology is only one of them.

Where Dim Sum Meets a Fashion Statement

时尚邂逅 点点心意

Starts from RMB 218 + 15% service charge

每位人民币 218 元起 +15% 服务费



WALDORF ASTORIA®
BEIJING
北京华尔道夫酒店

☎ 8520 8989

5-15 Jinyu Hutong, Dongcheng District 100006, Beijing, China

中国北京市东城区金鱼胡同 5-15 号 邮编：100006

FROM PASSION TO IMPACT

What is behind China's rise in charitable giving?

By Mable-Ann Chang



Image by José Luna

The start of charitable giving as a trend in modern China can by pinned on a single date—May 12, 2008, the day an eight-magnitude earthquake hit Sichuan province leaving 70,000 people dead.

Before that disaster, making charitable donations simply didn't enter the heads of most Chinese people. It was just assumed that the state was responsible for dealing with all problems—especially disasters. But the earthquake changed that. Millions of Chinese citizens from all over the country provided support to the victims, with philanthropic giving in China increasing 30 fold in a single year, from $440 million in 2007 to $16.1 billion in 2008.

"The Sichuan Earthquake was a cultural turning point, because people just wanted to help and give what they could," says Elizabeth Knup, regional director of the Ford Foundation in China. "The internet enabled it and because there is a much larger middle class now, people thought 'wow, I as an individual have some agency to make a difference in the life of somebody else.' Fundamentally, there was a regulatory turning point and a cultural turning point and things just grew from there."

Philanthropy—in the modern sense of the word—is still relatively new to China's landscape, but it has taken a firm hold, increasingly amongst middle class urban residents and particularly in the form of company corporate social responsibility (CSR) programs.

On the up

On a global scale, China's level of philanthropy is still small, despite its remarkable growth in recent years, but other factors are helping to encourage more giving, including a new supportive legal framework and an internet-connected society.

In the past decade, philanthropy in China has increased at an average of 20% year-on year, compared to GDP growth of between 6% and 7%, and total donations reached a new high of $23.4 billion in 2017, or around 0.2% of total GDP, according to a report released by the Asian Venture Philanthropic Network. In the United States, for comparison, charitable giving makes up 2.1% of total gross domestic product (GDP). That means there is huge potential for growth.

Ford Foundation's Knup says the growth in philanthropy is based largely on two factors, separate from the Sichuan quake. "The first is the economic growth that has taken place here, leaving people with higher levels of disposable income. Second is the regulatory environment. The charity laws that were introduced in 2016, allowed for the establishment of more private foundations in China."

While private wealth has increased in China over the past decade, there remains a huge gap between private prosperity and private giving. In the World Giving Index of 2018, an annual report published by the Charities Aid Foundation that ranks how charitable countries are, China came 142nd out of 146 countries. And according to *The Economist*, Chinese giving is only around one-hundredth of what Americans donate per person.

In many countries' philanthropic sectors, funding predominantly comes from private donations, with corporate giving only representing a relatively small slice of the pie. The opposite is true for China.

Corporate giving in China accounts for a staggering 80% of all philanthropic funding, while in the US only 14% comes from corporations and 80% comes from individuals, according to the Nonprofit Quarterly. That is largely because the framework for charitable giving and disbursement hardly exists in China. At a 2015 ceremony to launch a new degree program in nonprofit management at Peking University, Alibaba's co-founder Jack Ma said that, "Giving donations to charities is much harder than earning money."

Giving as a culture

Western philanthropic practices are relatively new to modern China, but the country has thousands of years of history involving charitable giving. Both Confucianism and Buddhism contain the core value of benevolence and the concept of caring and helping others is rooted in Chinese culture.

"Here in China, there is an old saying, 'Don't refrain from doing good just because the good deed is minor," says Pastor Fan, a pastor involved in the philanthropy work of churches in Wuxi "Buddhist and Confucian values still play a big role in people's behavior towards other people."

Charity, however, was one of the things that disappeared along with private wealth for the first three decades after the communist victory in 1949. During those years, the responsibility for helping others shifted almost entirely to the government, and that approach persists.

"With the communist vision of China comes the idea that the government is going to take care of everything," says a foreign NGO (nongovernmental organization) worker in China.

Yong Lu at the China Research Center says that during that era and to some extent beyond, "almost any recognition of the need for private charity was considered a sign of government failure and was not encouraged."

It was only when China began to

> There are so many people in China, that even if every person makes a small contribution, it can easily add up
>
> Elizabeth Knup
> Regional Director
> Ford Foundation

reopen its markets to the world in 1978 that Beijing started to consider ways to balance both public and private efforts in providing social services to its people.

The role of civil society

China's middle class has become the largest in the world, according to many estimates. Investment banker Credit Suisse estimated the size of the middle class at 109 million in China in 2015, compared to 92 million in the United States, based on possession of assets of between $50,000 and $500,000. This middle class represents enormous potential when it comes to increasing private donations.

"There are so many people in China, that even if every person makes a small contribution, it can easily add up," says Knup.

"People now have more money than they used to, the education they receive is more multifaceted than before and they have better access to information," says Zhenxi Zhong, executive director of environmental organization Roots and Shoots in Shanghai. "More and more Chinese people are going abroad these days and their minds are opening up to the possibility of philanthropy being something they can do at home as well."

A massive level of internet-connectivity in China is another development contributing toward an increased involvement of civil society in philanthropy.

"It is a highly-internet connected country, almost everyone has a mobile phone and almost everyone is on WeChat," says Knup. "So those technologies have penetrated society on a deeper level than elsewhere. Using big internet platforms, you can really mobilize a lot of people."

Despite these positive trends, Rory Barrow, a teacher involved in volunteer work, says that many people are still hesitant to help.

"My understanding of the typical Chinese mindset is that it's important to help your family and your friends, but that's basically where it stops," says Barrow. "Much of what is given out of that circle surrounds the idea of saving face and putting a good image out there. A big reason for that is because it is understood that the government will take care of everything else."

"Familial bonds in China are very strong, so many families question why they should give to a charity instead of giving the money to someone in the family," says the foreign NGO worker. "As China is a developing country, there is still a great sense of need here."

Other reasons why private giving in China is at such a relatively low level include a lack of trust in charities, the modern historical legacy and a lack of understanding on how the philanthropic system works.

"There is often a strong fear, particularly amongst the older generations, of appearing prodigal or helping someone and then getting into trouble," says Barrow. "Many people don't want to get involved in things that don't immediately concern them. We can see this in the news stories of individuals getting into accidents in the streets and people are unwilling to help them, for fear of getting blamed in some way."

An ecosystem

The actors in the ecosystem of philanthropy in China are the same as elsewhere—NGOs, corporations, individuals and the state. But the relative importance of each is vastly different. The state and corporations—in the form of CSR programs—play a much larger role in China than in many other countries.

For private organizations, Fan says that there are three main sources of funding available. "The first is direct donations from people in society, the second is through online donations and the third is from the government."

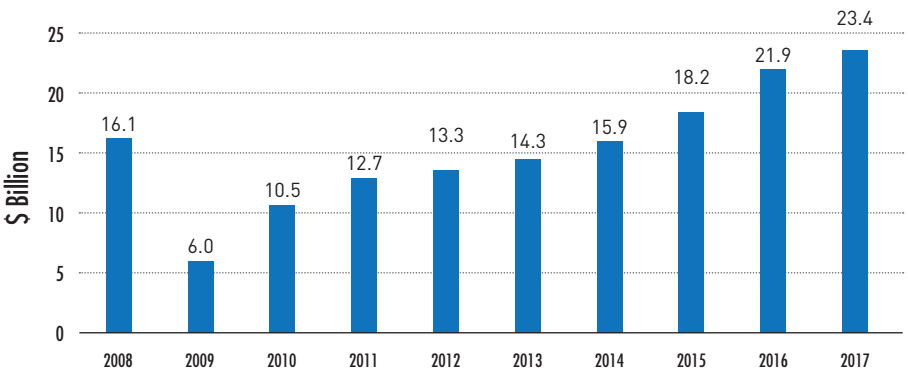
CSR is a relatively new practice in China. According to the World Economic Forum, between 1999 and 2005, only 22 CSR reports were published in the country, but in 2006 the concept of CSR was added to corporate law and CSR programs have since mushroomed and Chinese firms now dominate.

"In the past, [philanthropy] used to be more centered on multinationals," says Zhong. "It used to be rare for a local company to give to a charity. It's becoming more and more important now, especially for business success. People feel that you have to be able to show you're not just making money, you're giving back."

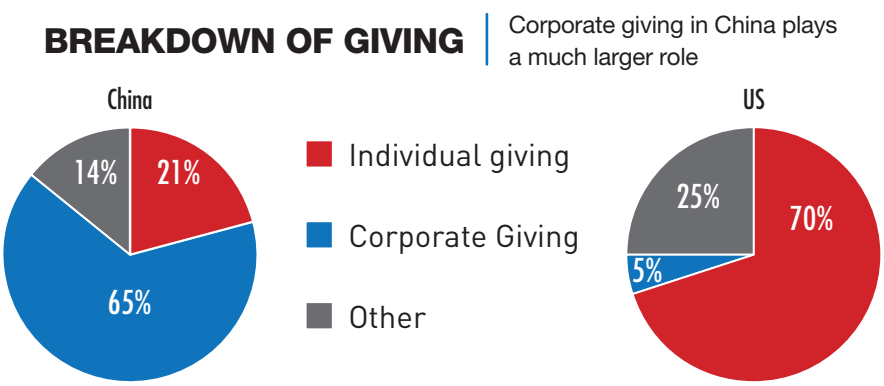
Chinese companies have realized that in order to remain competitive they must promote a positive brand image, and part of that is adopting socially and environmentally sound practices in line with global CSR standards. Positive performance in CSR provides companies with returns in the form of more consumer support.

"Maintaining a good image plays a big role in China, especially for big companies and the government," says Barrow. "The hope is that charitable giving will improve their public image, but also to create a sense of charitable giving in the people that see it."

A GROWTH IN GIVING | Total giving in China has increased over the past decade



Source: Rockefeller Foundation



Source: AVPN, Rockefeller Foundation, Giving USA Foundation

State involvement

The importance of the state's role in all sectors of China's economy and society is undeniable, with philanthropy being no exception. In an effort to boost and better regulate the sector, the government has created a legal framework and provides funding to selected organizations.

"I would say up until the 1990s, the citizens of China really expected all of the social problems to be solved by the state," says Knup. "And it was only when the state began to realize that they could benefit from the help of NGOs and other grassroots level organizations that the philanthropic sector started to grow."

"The government needed NGOs to take that step to be closer to the ground," adds Knup. "The millions of NGOs operating in China are now seen as doing a kind of 'last mile delivery' for the government."

Others have underscored the link between public image and the state wanting organizations to concentrate on certain societal issues.

"A very common thing when I meet somebody at a company that works in interfacing with NGOs and charities is that their business card is labeled 'corporate social responsibility/ government relations', which tells me that their charitable giving is connected to how the government wants them to direct their funds," says the foreign NGO worker.

The year 2016 proved to be an important milestone for philanthropic organizations, with the introduction of a Charity Law and later a Foreign NGO Management Law. Before then, these organizations had generally operated in a policy gray area. "There used to be very few regulations for international NGOs in China until this law came along. It really wasn't a regulated space," says Knup.

The Charity Law included new registration processes, tax incentives for organizations, an expanded definition of "charitable activities" as well as regulations regarding the management of volunteers and donations.

"I believe that the new laws are a way in which the government is trying to unify the sector and get more companies involved," says Zhong. "It has opened up a lot of potential funding sources for nonprofit organizations as well."

The law allowed individuals to more easily establish philanthropic organizations and improves the transparency and efficiency of operations.

While there are benefits to such a legal framework, some organizations still find the registration process lacking in efficiency. "The procedure to start an organization still seems to be more complex than in other countries," says Kanako Uehara, who works for an animal shelter in Wuxi.

The Charity Law has a broader definition of philanthropic activities than the documents issued by the state, which means that organizations working in particular sectors still find it hard to receive support from relevant government departments. "The main difficulties of starting an NGO in China are in raising funds and navigating government registration," says the NGO worker.

Small beginnings

Philanthropy in China is still in its formative stage, in terms of many factors, including fundraising, the number of organizations involved and attitudes. Issues such as transparency, financial support and accountability have reared their heads.

"Relatively speaking, it's still quite difficult [to do charity work in China]," says Fan. "There are three main reasons for this. The first is that the policies regarding philanthropy here are not complete. The second is that society's trust in philanthropy is inadequate. And the third is the lack of recognition or awareness of our work."

"A lot of the time, private philanthropy is not very transparent," says Knup. "Usually the people in power—the people who have the money—have a certain power over the people who want the money—the grantees. And if you're not careful about how you handle that relationship, it can become one that's not very positive ... I think that's as true in China as it is in the US."

As with any significant cultural shift, creating a private philanthropy state of mind in China will take time. But young people in China are already more active than their parents' and grandparents' generation when it comes to charitable giving and volunteering.

"The sector is really young, and so people are still trying to find their way," says Knup. What does it mean to be a philanthropist? What is the power dynamic? What is my responsibility? What is the level of transparency and accountability we should have in this sector? What are the values we should hold ourselves to? These are all things that are still in debate."

"Compared with older generations, young people have a greater sense of participation and donations are more than just providing financial support," says Qing Gu, a program officer at the Ford Foundation. "The way they engage in philanthropy is much more diversified, such as through social media, artwork and volunteering. It's more dynamic than what we see in older generations."

CHANGING TIDES

As China shifts from a manufacturing economy to a knowledge-based economy, will the Chinese management style need to adapt?

By Colin Peebles Christensen



Image by José Luna

Haidilao, China's leading spicy hot pot chain, opened the doors to its first restaurant in London in May—teeing off a planned 20-shop roll-out across the United Kingdom—adding Europe to its ever-expanding list of markets.

The company has expanded quickly and to a massive scale at home in China based on excellent and creative service, good food and reasonable prices, and its global build-out has also been remarkably seamless. The key seems to be a management model appropriate for both Chinese and international business environments.

Haidilao is popular not only for its hot pot dishes, but also for such free services as manicures and board games offered to waiting customers. It was founded in 1994 and now has a market value of $21 billion with over 370 restaurants worldwide. The chain had $10.4 billion in revenues last year.

The company says it runs according to Confucian values, and has developed an employee-centric work culture with generous training, welfare benefits and family-support schemes. Meanwhile, the hierarchical chain of command typical of most Chinese companies has been replaced by a flatter, more Western structure: Restaurant managers have significant autonomy to operate without interference from head office, and even frontline employees are entrusted to make own decisions on a wide range of issues.

As a result, Haidilao—with 60,000 staff members—has a level of employee loyalty rare for a Chinese company. There is only a 10% annual frontline staff turnover rate and a management staff turnover near zero, compared to China's national average of 20.8%, according to human capital and management consultancy Aon Hewitt.

This has all made Haidilao's founder, Zhang Yong, into China's richest restaurateur. His success story mimics that of Jack Ma, who lifted Alibaba to global stardom using his own unique brand of East-West blended management. Former Alibaba vice president, Porter Erisman, once described Alibaba as having Chinese management culture paired with Silicon Valley spirit.

Is a shift in Chinese leadership style toward the Western model necessary for China to transform from a predominantly manufacturing-led economy to a knowledge-based economy? Both appear to provide lessons on what management style means for a company's bottom line, especially as more Chinese companies go global and the domestic economy matures.

"The appropriate leadership style has to match the market context," says Paul Ryder, president of the College of International Finance at the Bank of China. "As China looks to move up the value chain and become more competitive against other global players, some of the challenges faced by Chinese firms [on] questions of leadership style and competence become more crucial."

> **Chinese relate very much on a person-to-person basis whereas Westerners tend to operate more on an organization-to-organization basis**
>
> Stephen Morgan
> Professor
> University of Nottingham

"Chinese businesses who wish to operate in the West will have to recognize that the West operates differently than Chinese businesses—and vice versa," says Jonathan Geldart, executive director for markets development at Grant Thornton. "I think there are lessons to be learned on both sides, that, handled sensitively, could add better results."

The Chinese model

The strict, hierarchical and often opaque Chinese management style, is often criticized. A 2011 OECD survey covering 20 countries placed China at the bottom of the management rankings along with India and Brazil. In manufacturing, the survey found, Chinese firms "tend to be poorly managed."

But as Chinese business successes around the world pile up, observers are becoming more willing than before to look for the positives in how Chinese companies are run and what there is to learn from the Chinese leadership style.

An agile approach to strategy is one area where Western businesses can learn from China, says Geldart: "From the ability of Chinese management to move very quickly between one idea and another—to try something, fail and move on."

Barbara Wang, program director at Ashridge Business School, points to flexibility and pragmatism as two other key managerial strengths of the typical China business model. Chinese company structure, however, can be both positive and negative, she says. With hierarchical and paternalistic structures, efficiency depends heavily on the motivations and priorities of the one top leader. "So things can happen quickly in a Chinese company, and they can be very slow," she says.

Leadership styles also vary within China. John Van Fleet, director of corporate globalization at Antai College of Economics and Management, Jiaotong University, cautions against forcing all companies into a single mold. The gaps between them in achievement, efficiency and return on investment, "are vastly greater than the difference between some aggregated, averaged pool of such enterprises," he says.

The gaps are especially large in China between private and state-owned enterprises, with smaller private companies being typically far nimbler and more efficient, Wang argues. Still, she lists the Confucian notion of harmony, "giving face" and the system of social networks and influential relationships which facilitate business and other dealings—more commonly known as *guanxi* in China—along with indirect communication and longer decision-making timeframes, as shared cultural traits that guide all Chinese work culture.

In China, communication is designed to lubricate relationships just as much as to deliver information, Wang argues. Leaders express themselves less directly than those in the West and Chinese colleagues hold back ideas in a group setting for fear of being seen as showing off. This can be a challenge for Western managers who expect employees to contribute vocally.

A human touch

Direction and delegation are frequent sources of misunderstandings.

Western workers in China find a lack of transparency and the unwillingness of Chinese colleagues to speak their mind challenging, Wang says. Similarly, Chinese workers, accustomed to orders through crystallized chains of command, can be confused by the lack of direct instructions from their Western superiors.

The flatter structures of European and North American companies can also leave Chinese workers searching for communication channels and wondering who they should report to. "The Chinese are always cautious about speaking with peers across departments without getting permission from their boss," Wang says.

Meanwhile, Western linear thinking can clash with broader and more circular Chinese decision-making horizons. "Chinese thinking is quite holistic," Wang says. "They have to think outside the project, outside their department, and what kind of impact this decision will make on other departments or personnel." Decisions need to balance the interests of all parties. The process often involves going back to the beginning and starting the discussion over again.

"Chinese businesses are more Taoist in their views on strategy," says Ryder. "At their best, they embrace partnerships with other businesses to open up and grow new market potential, to make the whole business ecosystem generate more value."

Five- and 10-year plans make Chinese businesses look farsighted on paper. In practice, however, blueprints are frequently reworked or abandoned. "In Chinese culture you have a long-term view, but that's just a kind of vision, not a specific action plan," Wang says. "When you've fixed a one-year or two-year plan [in the West], normally you don't change much."

Chinese companies often alter contracts after signing. Centralized decision-making means signatures by the department head have little value unless followed by that of the CEO. And even then, dates may change.

Western companies follow structures, systems and policies more strictly, but sometimes lack a "human touch," Wang says. Chinese management provides an alternative model where inter-personal relationships are the focus. "I think this is the one thing they can learn from Chinese companies."

"Chinese relate very much on a person-to-person basis whereas Westerners tend to operate more on an organization-to-organization basis," says Stephen Morgan, professor of Chinese economic history at the University of Nottingham. "And for that reason, relationships tend to have greater priority over formal or legal type of relationships."

Battle of the business schools

The rise of Asian MBA programs on global rankings reflects a growing international confidence in the region. World class universities, English teaching programs, lower study costs and good job prospects all combine to shift the center of gravity to the East—making the Asia-Pacific the world's fastest growing market for business master's degrees.

"An MBA from a leading business school in 'the West' has a lot of cachet here [China], while an MBA from a leading local school has an increasing amount," says Van Fleet. "And the gap, while often wide, is narrowing."

Differences in what is taught are mostly small and much of the curricula is borrowed from the United States. Van Fleet highlights Marxist-Leninist theory, and



The success of the Haidilao hotpot restaurant chain represents the benefits that an East-meets-West management style can bring

Deng and Xi Jinping Thought, however, as obvious departure points.

Chinese business schools tend to focus on hard scientific skills, while Western schools put more emphasis on how to build a high-performance team, as well as on EQ, self-awareness and understanding others, according to Wang.

She says Chinese students graduating in the West with a science degree are likely better equipped for the job market back home. Students of Western management aiming to work in state-owned or private Chinese enterprises might find it challenging.

In a purely domestic company, a local MBA may well be valued higher than an overseas one, according to Van Fleet.

The economic context

Success often hinges on an understanding of cultural idiosyncrasies as well as a grasp of relationship building. As the political and personal are especially intertwined in China, effective management can require network building that extends beyond relationships with colleagues and clients, to government, state and private businesses and other entities and institutions.

Private firms with less access to state resources often overcome that constraint by making connections to government officials.

Size, age, level of technology and managerial competencies all influence the types of relationships the firm develops, says Morgan. Smaller, less technologically sophisticated Chinese firms "are likely to rely upon social networks much more strongly as a way to obtain resources, capital, develop markets, develop partnerships, than larger firms or technically sophisticated firms, and better managed firms."

"Business structures and capabilities are a product of the market they have been exposed to," says Ryder. "There should be no surprise, then, that a state owned enterprise (SOE) is structured to support the requirements of the Chinese government. This means that as the market liberalizes, Chinese businesses will need to respond to the new norms of the environment and adapt."

Stable markets require better structured organizations and managers capable of tackling several dimensions at once, while fast changing ones tend to favor looser organization and managers who can act independently.

"In stable environments, bureaucratic structures are reasonably efficient," Ryder says. "In changing environments more agility is required. This places an emphasis on judgement, strategy, decision-making, and leading through people—motivating, empowering, developing."

The way forward

China is predicted to overtake the US in R&D spending within a decade. As China transitions to a knowledge-based economy, the new demands and expectations of a higher skilled workforce will likely force management models to adapt.

"The question for China in part is what leadership style is important as employees need to move up the value chain in terms of their productivity and competence," says Ryder.

China's economic catch-up with the West is largely based on people sacrificing personal life for work, Wang says. But rising wages and increased economic independence among some groups is changing employment demands. Upper middle-class workers now expect more holidays and shun overtime work.

The "996" work week—working from 9 a.m. to 9 p.m. six days a week—practiced by many Chinese tech firms has recently been lambasted for causing worker burnout.

"Employee tolerance for different leadership style is changing. Generation Z the world over want their work to be meaningful," says Ryder. "There are significant generational differences in China between traditional leaders in their 40s and 50s and today's workers in their 20s and early 30s."

Also, as more Chinese companies set their sights on foreign markets, business models capable of bridging work cultures become increasingly important.

Morgan points to parallels between globalizing Chinese firms today and Japanese firms moving offshore in the 1970s and 1980s. "They both face similar issues of how to manage a work culture which is very different to their own," he says, pointing to delegation of responsibilities as a key conflict point.

"They have to develop a competency within their senior management staff and those who go offshore, in understanding what it is like to work across borders and between cultures," says Morgan. Some Chinese companies, such as train manufacturer CRRC, are investing in this, he says. But many others are not.

A perfect blend

Chinese companies also hold lessons for others. Geldart points to agility as a key strength of Chinese management culture that Western companies would benefit from adopting. Relationship building is another strength, according to Morgan. "It's important that people appreciate the value that a Chinese company and Chinese business place on a personal relationship over and above the organization with which they are dealing. And that's where sometimes Westerners make errors," says Morgan.

Geldart believes a blended management approach is possible if done through careful consideration. "But you can't just smash one into the other," he says.

There is already widespread adoption of Western practices by Chinese companies, in training systems, performance management practice, talent management and more. And Western executives are often advised to adopt a similar approach, blending the best of both worlds.

"There are also changes required on the Western side," says Ryder. "Management philosophy is driven by Western academic thought. There is room to take more of what's positive from the East and find a hybrid norm."

As Haidilao and Alibaba have shown, a blended management model can reap rewards. Foreign companies in China and domestic ones looking outward might want to take note. And perhaps infuse their own models with either a touch of Chinese management culture or Silicon Valley spirit, depending on where they are coming from.

COMAC TAKES OFF

What does the future of Chinese state-owned aircraft manufacturer Comac and its top products look like?

By Matthew Fulco



Building a jet to rival those made by Boeing and Airbus will be a challenge for state-owned aircraft maker Comac

The recent fatal crashes of two Boeing 737 Max 8 jets have placed the commercial aviation sector under intense scrutiny. It was unusual for the same type of jet flown by different airlines—Lion Air in October 2018 and Ethiopian Air in March 2019—to experience a catastrophic failure within such a short time period.

The crashes, that together claimed 346 lives, harmed Boeing's reputation and raised questions about its viability and possibly more importantly that of the commercial aviation duopoly it shares with the Franco-German joint venture Airbus. Currently, Boeing and Airbus account for 99% of global large plane orders and 90% of the overall commercial aviation market, according to aviation analytics firm, the Teal Group.

One alternative manufacturer for passenger jets is China's state-owned aircraft manufacturer, Comac. Timothy Kuder, an aerospace analyst at consultancy Frost & Sullivan, believes that Comac will add needed extra supply to the burgeoning commercial aviation market. "The Boeing-Airbus duopoly is causing a backlog," he says. "Airlines are waiting for six years to get a new airplane."

For China, therein lies an opening. "The Chinese would be fools not to exploit the situation," says Shukor Yusof, founder of Malaysia-based aviation consultancy Endau Analytics, speaking of the perfect storm created by the lack of capacity as well as the crashes. "They are trying to take advantage of it in any way they can, twisting the arms of their domestic airlines."

Comac, which was established in May 2008, is China's bid to build a commercial aircraft base from the ground up. The state-owned company has three airplanes in its product range. The first is the regional jet ARJ21 (which entered service in 2016), and is the only one so far that has been flown by a commercial airline. Ten ARJ21s have been built and sold to state-owned Chengdu Airlines.

The second plane is still on the drawing board—the CRAIC CR929, a joint venture between Comac and the Russian United Aircraft Corporation expected to go into service in 2027.

The third plane, the narrow-body C919, is the one which has captured the attention of global aviation industry watchers. Carrying up to 168 passengers and with a flight range of 5,555km, it is targeting the same market as Boeing's 737 Max and the Airbus A320. It is the first Chinese aircraft that would be able to compete with the Boeing-Airbus "large plane" duopoly.

The state-owned *China Daily* reported that as of February, Comac has received 815 orders for the C919, almost all from state-owned Chinese domestic airlines and aircraft leasing companies.

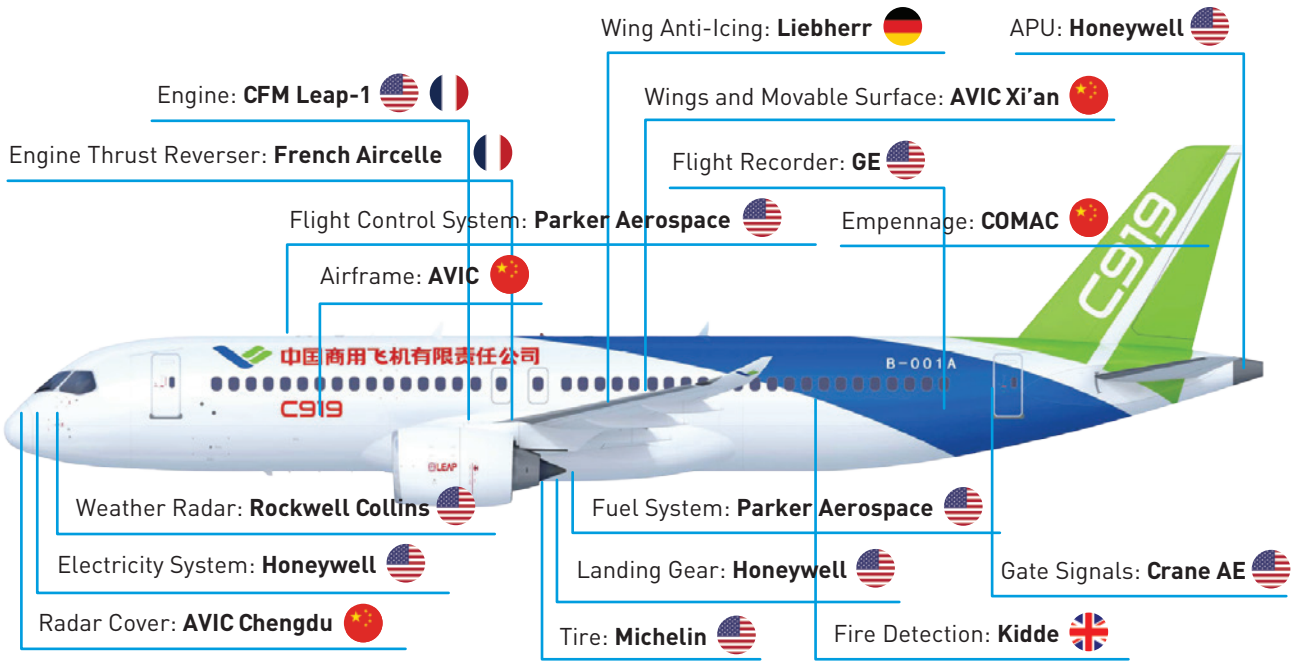
In terms of total sales, China is set to overtake the United States to become the world's largest commercial aviation market by 2022. Comac itself reckons that 9,000 passenger aircraft with a total value of $1.3 trillion will be delivered to the Chinese aviation market over the next 20 years, and Beijing is intent on building a commercial aviation industry which can capture a substantial slice of that business, as well as challenge Boeing and Airbus in other markets.

At the same time, aviation is integral to China's industrial transformation blueprint. To join the ranks of the rich countries, Beijing must become a world-class manufacturing power on par with that of the Europe, Japan and the US. Being able to deliver a viable commercial airliner would help buoy Beijing's advanced manufacturing dream.

Learning to fly

The Chinese government founded Comac in the era when, in the words of the late leader Deng Xiaoping, China was still "hiding its capacities and biding its time." The world's eyes were set on China primarily because of its widely hailed "reform and opening up," culminating in the 2008 Beijing Olympics. China's state-dominated industrial policy had yet to capture much attention beyond a small circle of analysts and China watchers.

From the outset, Beijing has been working to create an aircraft industry independent of foreign technology. But for now, foreign firms still play a crucial role. GE Aviation and its partner AVIC Systems provide IT systems, cockpit displays



Source: Aerotime News Hub

and black boxes for the C919. Hamilton Sundstrand makes the power supply system for the aircraft, Rockwell Collins supplies navigation and control systems and Honeywell produces the brake control system and tires.

Boeing's travails with the 737 Max offer an opening for the C919, and for other aircraft configurations in the future. The C919 "is a perfect example of Chinese intentions [to challenge Boeing] and should send fear into the hearts of Americans," said financial analyst Bruce Wilds in a *Seeking Alpha* commentary published after Boeing grounded the 737 Max in March. "It would be incredibly naive to underestimate China's resolve in rapidly becoming a player in a field that will move it up the manufacturing food chain."

To be sure, the C919 is a more economical alternative to the Boeing or Airbus equivalents. China National Radio has forecast that a C919 will sell for $50 million, compared to $100 million or more for the Boeing 737 Max, depending upon configurations. For developing countries in which Beijing is already building airports as part of its Belt and Road infrastructure plans, buying Comac jets "is very tempting," says Yusof. Backed by state cash, Comac could offer the jets to these countries for a low price.

Top state-owned carriers such as Air China, China Eastern Airlines and China Southern Airlines will certainly be the biggest buyers of the C919, and it is unlikely they will have much choice in the matter: The Chinese government expects them, as state airlines, to support the national commercial aviation initiative.

With that in mind, Liu Shaoyong, chairman of China Eastern Airlines, formally submitted a proposal in March to encourage Chinese airlines to procure domestically-made jets.

Encountering turbulence

Other analysts are less sanguine about Comac's prospects. They point to commercial aviation's high barrier to entry, the brittleness of the company's state-led business model and its mixed track record to date.

"Programs mandated by a government five-year plan seldom produce competitive jets," says Richard Aboulafia, vice president of analysis at the Teal Group.

Delays are also common, with the Comac ARJ21 being a prime example. The plane first flew in 2008 but was then subjected to numerous setbacks and was not certified even for flights in China until 2014. It was another two years before it was introduced into service, over a decade behind its original schedule.

Delays have plagued the C919 as well, which is now set to enter operation in 2021, six years behind schedule. It has been 13 years since the C919 project began.

The delays aren't surprising, given the challenges of aircraft production. "Building a jet is a complex job—it takes time," says Frost & Sullivan's Kuder. "Many different suppliers have to coordinate with each other."

Beijing's unattractive conditions for suppliers—mandatory vertical integration and China local production requirements—could end up costing Comac dearly, Aboulafia says, because Comac's suppliers are not naive.

"Suppliers are going to show up with stuff from decades ago and say it's the latest technology," he says. "Even if just 20% of them hold back [on cutting-edge technology], there's an inferior jet."

That was arguably the case with the ARJ21, which Aboulafia describes in unflattering terms. The design resembles McDonnell Douglas's DC-9 produced

Meet the COMAC Family | The three aircraft that COMAC offers



ARJ21
Short-to medium-haul turbofan aircraft

CAPACITY: 78-90 Seats
FLIGHT RANGE: 2,225-3,700 km
ORDERS*: 528



C919
Narrow-body twinjet aircraft

CAPACITY: 158-168 Seats
FLIGHT RANGE: 4,075-5,555 km
ORDERS*: about 1,000



CR929
Wide-body twinjet aircraft

CAPACITY: 280 Seats
FLIGHT RANGE: 12,000 km
ORDERS*: N/A

*As of January 2019
Source: Apex

between 1965 and 1982, and "is a classic example of re-inventing the wheel. The engines and avionics are pretty much identical to any other regional jet designed 20 years ago," he says. He adds that the dominant alternative regional jet maker, Brazil's Embraer, is now phasing out the same General Electric CF34 engine that Comac is just introducing.

While Beijing can ensure state-owned carriers place orders for Comac jets, non-Chinese airlines are all heavily invested in Boeing or Airbus infrastructure. "No airline is going to take a few Comac aircraft with all the resultant training and introduction costs just to bridge a gap in Boeing capacity," says John Grant, director of UK-based JG Aviation Consultants.

Aboulafia also has doubts about the C919's viability. He says that there is a serious risk that by the time the C919 enters service, "Airbus and Boeing will be offering products that make this jet look obsolete. The [current] A320Neo and 737 Max look pretty good against it, even without any kind of product improvement packages."

Long way to the top

But in the long term, Comac has huge potential because of China's aviation market fundamentals. The market is huge and growing steadily, and government support is robust.

The main problem for Comac is that its business model is not market oriented. "Vertical integration is a very bad idea," says Aboulafia. "Jet makers need to be free to select 'best-in-class' content for [components built into] their jet from a wide range of suppliers with no permanent links to any specific companies."

Grant of AG Aviation Consultants expects that Comac will do good business in China and also perhaps across Africa, where the aircraft could be included as part of wider trade agreements. But it is unlikely Comac would be able to break into the European or US markets in the next two decades, he says.

Indeed, Comac is not yet certified by the US's Federal Aviation Administration (FAA) or the European Aviation Safety Agency (EASA). Those two certifications are "the gold benchmark for flying anywhere in the world," says Endau Analytics' Yusof. Without them, aircraft are restricted from flying to much of the developed world. Comac planes are currently certified only to fly in China and in parts of Africa, Asia and South America that recognize Chinese certification.

In October 2018, business aviation publication *Aviation International News* reported that Comac had begun re-evaluating the C919's flight-deck design to satisfy FAA requirements.

Comac vice president Wu Guanghui said in March that the company had applied for approval from the EASA, aiming to be green-lighted in three to four years, and the Civil Aviation Administration of China (CAAC) and the EASA signed two framework agreements in May covering airspace security and flight patterns, which would support the C919's entry into the European market.

But to compete with Boeing and Airbus, Comac still has a long way to go. The world's two foremost aircraft makers "have a global footprint of customers and a very comprehensive range of aircraft with all the major airlines using their aircraft and with order books that extend into the next decade. Comac has nothing like that scale and depth of customer," Grant says.

However, Comac would not appear to face big headwinds as a result of its "Made in China" label because of the close involvement of world-class suppliers in the project and China's strong aviation safety record of recent years. China has not had a deadly crash since 2010, a major improvement over the 1990s when seven crashes between 1992-1994 claimed 492 lives.

Many frequent flyers said they would be willing to give Comac a try, with some more enthusiastic than others. "With some inherent biases, I might feel a bit uneasy, but it wouldn't ultimately prevent me from flying in a Chinese-made plane," says Jun Wakabayashi, a Taipei-based analyst for the AppWorks accelerator.

But given the damage that Boeing's reputation has incurred from the 737 Max's troubles, Comac will need to pay extra attention to safety, says Frost & Sullivan's Kuder.

"They [Comac] really have to nail the safety," he says. "If they were to have an instance like the 737 did in the next five to 10 years, I don't think they would recover from it."

CKGSB RESEARCH REPORT

Chinese Corporations' Understanding of Leadership

China's economic development and industry-wide changes have had a huge impact on the leadership skills of Chinese corporate executives over the past 30 years

By Zhang Xiaomeng

The Leadership and Incentive Research Center of the Cheung Kong Graduate School of Business recently published its first study on the leadership characteristics of top-level management in Chinese enterprises. The report, *Research Report on the Leadership of Top Management of Chinese Enterprises in the Transition Period*, was based on evidence from 1,906 respondents collected from the Cheung Kong Graduate School of Business' EMBA and Executive Education programs. Participants came from mainland China, Hong Kong, Macao and Taiwan, and consisted of leaders of private enterprises, state-owned enterprises and non-profit organizations. It is the first research of its kind to study the leadership of Chinese corporate executives.

Leadership behavior theory was used to analyze the characteristics of the leaders, dividing participants into basically two categories—task-oriented leaders and relationship-oriented leaders.

Task-oriented leaders prefer to focus on the planning, scheduling and achievement of a task, provide guidance to their employees and set high but realistic performance goals.

Relationship-oriented leaders, on the other hand, show trust and confidence in their employees, provide support for their team and ensure that employees feel valued.

"Situational leadership" is a management tool which looks at how effective leaders are, not only in prioritizing the completion of a task, but also with regards to maintaining collaborative relationships and focusing on teamwork in the process. In other words, the key to optimum leadership is finding a balance between task-orientation and relationship-orientation leadership styles.

The research showed that Chinese corporate executives who grew up during the evolution of the more liberalized Chinese market tend to share some common leadership traits. Generally, they are naturally authoritarian and good at taking initiative, and tend to focus on results. As work environments have adapted over time, however, leadership styles have changed from being initiative-driven to encompassing more comprehensive management styles, which focus on the balance between ensuring the well-being of employees and achieving goals.

Personality and leadership

Generally speaking, when an employee joins a company, their social personality is typically already set, meaning that few qualitative changes are likely to occur.

Personality types and management styles are different from leadership styles although there is some overlap.

More than half of the entrepreneurs in the research project (52%) were calculated to have an "authoritarian" personality, with another 10% having a "social" personality, 6% "patient" and 12% "logical." The remaining 21% were "flexible," usually shifting into one of the four depending on the situation they are faced with.

It was also discovered that the authoritarian management style is directly related to one's hierarchy in a company. The higher the position, the higher the proportion of "authoritarian" managers.

Industries with the highest proportion of authoritarian managers were manufacturing and IT, both of which tend to feature fierce competition. The competitive disposition of these industries requires better decision-making and execution skills. In addition, the market structures of these two sectors can change rapidly, and the personalities of managers in these two industries tend to be more distinctive.

Although traditional Chinese culture is authoritarian in nature, statistics have shown that the five management personality types are more or less evenly

distributed in society. But when it comes to the top leaders of a company, the proportion of authoritarian managers becomes abnormally high. This is seen in the more senior managers and is the result of the often highly-selective career ladder that they need to climb.

Enterprises allocate resources according to the market. An excessive proportion of authoritarian managers therefore results from the long-term cultivation of successful managers in the market environment. Enterprises that effectively discover, nurture and utilize managers with authoritarian personalities are often more likely to survive.

Changes in China's management style align with the period of "reform and opening up," when China started to open up more to the rest of the world and liberalize its markets, officially starting in 1978. However, real urban reform began in 1984, and it was not until 1992 that the market economy was formally established, which gave birth to the famous "Generation 92 entrepreneurs." Thirty years on, most of these entrepreneurs are still working.

The relatively singular personality of Chinese entrepreneurs reflects the relatively singular market environment of China over the past three decades. Planned economic development emphasized the accumulation of light consumption, and the reforms released huge amounts of pent-up demand, resulting in a number of periods of concentrated consumer consumption. The subsequent invention of the internet and resulting change in consumption patterns required companies to quickly launch products to fill market gaps and distribute goods through competitive pricing. The results-oriented business models involved created a generation of authoritarian managers.

However, we also observe that managers are changing their leadership styles. A total of 63% of corporate executives tend to prefer other leadership styles over an authoritarian leadership style. Their attitudes are no longer "only me alone," but focus on strengthening communication with others.

This is also supported by a breakdown of the data. The proportion of executives in various industries showing weakening authoritarian leadership behaviors exceeded those exhibiting intensified authoritarian behaviors. The highest reversal was in manufacturing, reaching 72%, and the authoritarian reversal of top leaders of enterprises is as high as 71%. Now, the management style of corporate executives mainly fall under the categories of initiative-driven (54%) and comprehensive management (35%).

The influence of economic environments

But how deep an understanding is there of this change in management effectiveness and how sustainable is it? As we know, there have been uncertainties recently in the political and economic climate both in China and abroad. When the dust settles, will the leadership style return to what it once was, or will it evolve further? For a number of reasons, we believe that the latter will be the case.

First of all, our research sample was made up of executives who have studied at the Cheung Kong Graduate School of Business. We found top executives do not necessarily have to deal with all of a company's challenges. Mature enterprises generally have a team of flexible middle-level managers who provide a buffer for the highest decision-makers and handle most of a company's short-term fluctuations, allowing executives to focus on the most important task of determining overall strategy. Statistics indicate that changes of approach often first penetrate the middle level managers of many enterprises and are then transmitted to the highest decision-making level. This has a strategic significance.

Secondly, in comparing task-oriented and relationship-oriented leaders, the goal of the task-oriented leader is to achieve information symmetry, a full understanding of the business from decision-making to the final output. In contrast, the relationship-oriented leaders always maintain information asymmetry. Lower-level employees usually know more about what is happening on the ground and it is therefore necessary to pay attention to the balance between the well-being of people and objectives, to stimulate initiative and creativity, and empower employees working at the grassroots level.

The two leadership styles target different micro-contexts differently and also have their own prominent professional characteristics. The current transformation of Chinese enterprises and industry sectors has revealed some important trends. China's "economic miracle" is mainly attributed to the manufacturing industry, but in the past 30 years, all sectors have been working hard to solve the problems of scarcity.

Today, all industries are becoming saturated, with growth through meeting unmet market demand increasingly difficult. China's economy is seeking transformation in two fundamental areas: high-tech research and development in the business area, and creativity and services for consumer facing businesses. The organization and leadership required for these emerging businesses are very different from traditional manufacturing.

James Q. Wilson, a renowned American contemporary political scientist and a member of the American Academy of Arts and Sciences, developed a public management model which is also applicable to enterprise management. It divides an organization's output and results into four quadrants according to observational difficulty. When output and results are visible, it is called "production organization," when the output is visible and results invisible, it is called "procedural organization," when the output is invisible and results visible, it is called "process organization," and when both output and results are invisible, it is called "solution organization."

Traditional manufacturing is a production-oriented industry, and its output and results are easy to observe. The large-scale manufacturing model pioneered by the famous Ford car assembly lines of the 1920s enabled precise control by breaking down the process into simple repeated actions. The development of information technology in the past 40 years has provided

a more complete toolbox for such control. But emerging businesses do not have such two-way transparency.

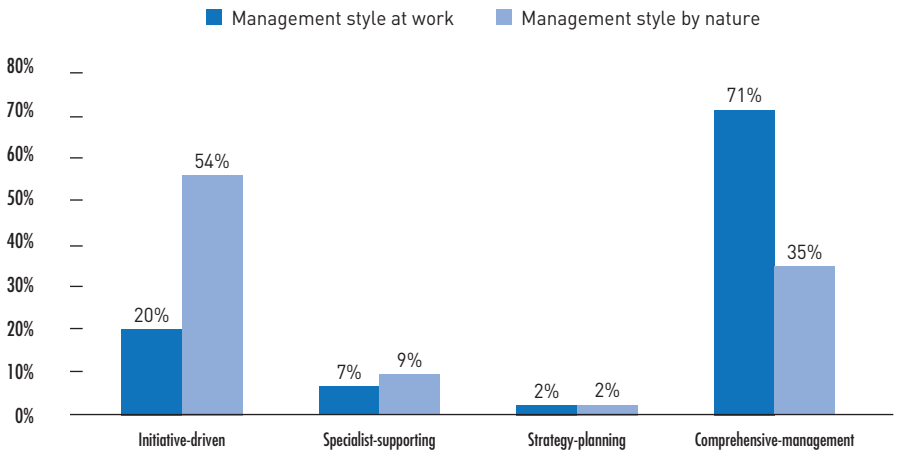
In the service and experience economy, companies can only control the easy-to-measure parts of employee output, just like traditional manufacturing. For example, the catering industry can control the speed of meals, but it is difficult to quantify the "critical moment of contact with customers." As a result, customer satisfaction is difficult to observe and quantify. There are huge uncertainties in creative and R&D operations, making output and results difficult to observe.

In short, traditional manufacturing is inclined toward task-oriented management, and new businesses require a strengthening of the proportion of relationship-oriented managers, so as to make the two more balanced. Reflecting on the changing situation, the leadership style has been greatly adjusted from being initiative-led to being more based on comprehensive management.

Finally, China's development has been mainly compared against the United States, the pioneer of the market economy. The mature business environment in the US contains a variety of situations, and the natural personality and management style of the corresponding managers are also very different. In contrast, Chinese entrepreneurs overall have a single management style. This singleness is clearly a product of the primary stage of the market economy, and is expected to diversify with economic development. Looking back at the history of management, in the early days of American development, the US also experienced a stage of authoritarian managers.

According to Stephen Barry, professor of organizational theory at the University of California, Santa Barbara, and Gideon Kunda, professor in the Department of Labor Studies at Tel Aviv University, research on the history of management shows that for a century, "rationalism" and "humanism" alternated as the main style of management every 20 to 30 years. This is consistent with the macroeconomic cycle. Rationalism attaches importance to capital management, while humanism attaches importance to labor management, which can be considered as task-oriented and relationship-oriented, respectively. The Chinese economy has clearly been dominated by rationalism for the past 30 years, and now it is time for an adjustment.

CORPORATE LEADERSHIP | The adjustment of Chinese top leaders' management styles



In summary, the long-term trend will be for top Chinese managers to strengthen relationship orientation, and downplay task orientation. Thus, the adjustment of individual managers is far from sufficient, and enterprises need to deal with the managerial class as a whole.

Enterprises should steadily promote transformation according to their own circumstances. Companies that are still in their early stages of development, as well as industries that have not yet achieved industrial concentration, still need to rely on authoritarian managers. As the market matures, referring to the above analysis, the emphasis moves to adjust the evaluation system of enterprises.

In the past, it matched the single business model, and the short-term performance appraisal was fair in form, but was actually more conducive to authoritarian managers, not conducive to other management styles, especially strategic. In the future, depending on a company's situation, a longer-term incentive system will have to be adopted.

In the past, adopting a single business model ensured a smooth performance appraisal, but in fact it was more conducive to authoritarian managers, and not conducive to other management styles, especially strategic ones. In the future, we should take a more effective incentive system to provide a longer-term perspective.

Long-term incentives are not limited to traditional Key Performance Indicator areas, including extending the assessment cycle and introducing more indicators, but also to establishing a benefit-sharing mechanism, including the granting of equity and options. Insufficient incentives are the core problem of many enterprises' weak transformations. Failure to establish a sharing mechanism can be attributed to both subjective factors, such as extensive growth methods and a lack of room for adjustment of interests.

This study revealed the relationship between macroeconomic transformation and micro-level situational leadership. It also found that change is the spirit of situational leadership theory.

Zhang Xiaomeng is Associate Dean of the Cheung Kong Graduate School of Business, Associate Professor of Organizational Behavior and Management, and Director of the Center for Leadership and Incentives.

She also holds a Ph.D. from the Smith School of Business at the University of Maryland. This article was originally published in the Chinese version of the Harvard Business Review in April 2019.

CKGSB BUSINESS CONDITIONS INDEX

Financial Repression

Following the relaxing of national credit, financing optimism climbed, but good times were not set to last



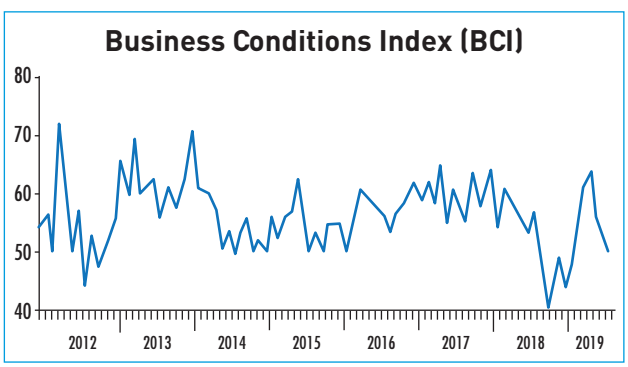
The BCI is directed by Li Wei, Professor of Economics at the Cheung Kong Graduate School of Business

The CKGSB Business Conditions Index fell to 49.8 in July, a drop from the month before's 51.8 and the first time since January that the index has fallen below the confidence threshold of 50.0.

Introduction

Since June 2011, CKGSB has conducted a monthly survey of executives about the macro-economic environment in China called the Business Conditions Index (BCI). The BCI is skewed toward small- and medium-sized enterprises that are competitive in their industries, and so provides a reliable snapshot of business sentiment among successful private companies.

The BCI is a set of forward-looking diffusion indicators. The index takes 50 as its threshold, so a value above 50 means that the variable that the index measures is expected to increase, while an index value below 50 means that the variable is expected to fall. The BCI uses the same methodology as the PMI index.



Key Findings

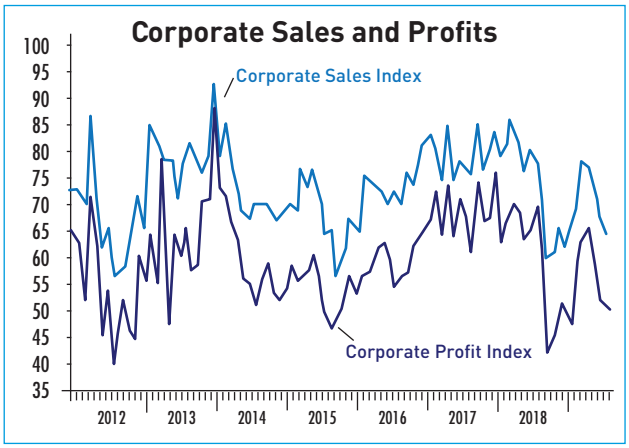
- All four sub-indices fell in July, most noticeably the financing sub-index, which dropped below 40.0, with financing expectations completely deflating.
- Apart from the main BCI and sub-indices, other forecasts have all shifted in different directions this month. Costs have stayed stable, financing and recruitment forecasts have fallen slightly, consumer prices are expected to fall to some degree and producer price forecasts have had a minor rebound. The overall impression is still not positive.
- This month's data has shown that old issues in the Chinese economy have still not been resolved. Triggered by the slightest relaxation, they make waves, but the situation remains dire, particularly in terms of corporate financing.

Analysis

The CKGSB BCI comprises four sub-indices for corporate sales, corporate profits, corporate financing environment and inventory levels, three of which measure future prospects and one, the corporate financing index, measures the current climate.

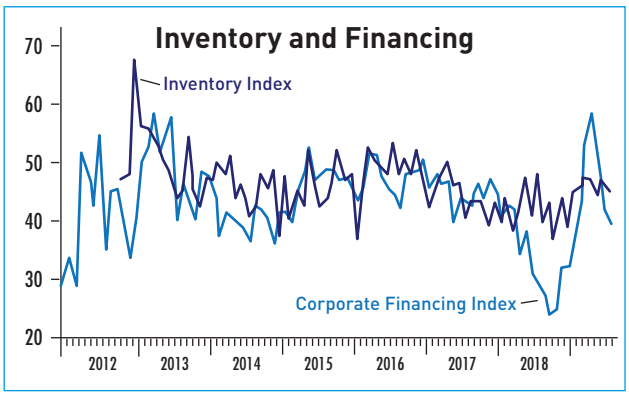
We should note that all four sub-indices fell in July. In September last year, this sub-index fell to its lowest-ever figure of 24.2. With the relaxing of national credit, financing optimism among our sample climbed again. The indicator climbed to its highest historical value of 58.2 only in April this year. However, good times were not set to last. To many, this is a remarkable reversal of fortunes.

The corporate sales index fell from 67.2 to 64.6, and the corporate profit index fell from 52.2 to 51.1. This month's



corporate financing index fell from 42.1 to 39.5 and the inventory index fell from 46.7 to 45.0.

This month's labor costs forecast was 82.4 and the overall costs forecast was 79.0. This means a slight rebound for labor costs and a slight fall for overall costs. No matter how the economy is performing, these two indices have remained stubbornly high.

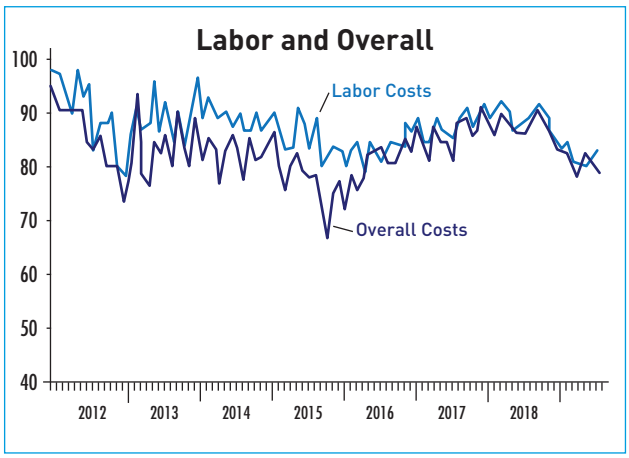


We now turn to the important issues of investment and recruitment. These two indices have been consistently at the more confident end of the scale since the BCI began. This year however, both have weakened, especially the recruitment index. This month, the investment index has fallen from June's 62.1 to 60.6, while the recruitment index has fallen from 61.2 to 59.7.

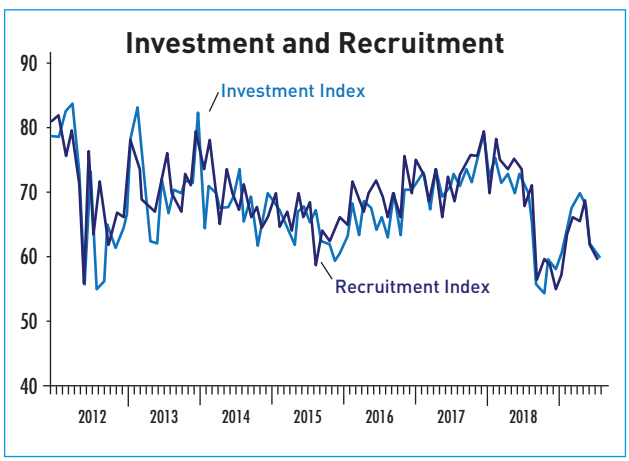
Conclusion

Financing of businesses is part of a country's financial system, and for any modern country it has to be done right. There will always be national projects that lack money, and there will always be "vacant money" in the system. But an efficient financial market, and vacant money being put to good use determines a country's ability to increase productivity, develop the economy and improve living standards for its people.

So what is the current state of China's finances? In short, the corporate financing environment is awful. It has become evident that the companies with the most efficient operations that are most in need of money have the most trouble getting funding. If it is difficult for an efficient company to get funding, this might be due to a gap in the market, but when it's a group of efficient companies, there has to be an institutional reason. When efficient companies cannot access enough money, we have landed in the realm of financial repression.



China is a significant financially repressed country, and financial repression has made a tidy sum for the government. According to Roger Gordon's research (2001), from 1991 to 1998, the government levied invisible taxes on depositors amounting to around 2% of gross domestic product (GDP).



If we want to continue to write about China fulfilling its dreams, then it is crucial to remember both positive and negative lessons. Growth in the Chinese economy will inevitably slow. Its continued success depends on brainpower: allocating funds to the most efficient companies. And to do this, eliminating financial repression is an essential step.

CKGSB BUSINESS SENTIMENT INDEX

A Trend of Expansion

The year-long expansion of 2018 carried over into 2019, but with the trade war and an economic slowdown to consider, the rest of the year remains uncertain



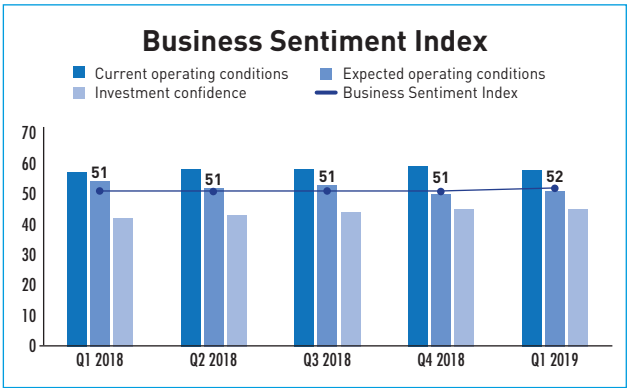
The BSI project is directed by Gan Jie, Professor of Finance at CKGSB

The CKGSB Business Sentiment Index continued to rise slightly in the first quarter of 2019, marking the first five-consecutive-quarter expansion since the survey was launched in 2014. Investment was still sluggish, and overcapacity remains prevalent amongst two-thirds of the firms that were surveyed. Exports shrank slightly, with 17% of firms being affected by the trade war, but only 3% of firms reported a large impact.

Introduction

This report is based on data collected from our quarterly surveys of around 2,000 industrial firms in China. Conducted through telephone interviews, this study is now in its fourth year, having been launched in the second quarter of 2014. If we exclude the agricultural, real estate and financial sectors from China's gross domestic product (GDP), the industrial sector accounts for 50% of the non-agricultural economy.

Our survey design ensures that our sample fully represents industry, region and company size. As a result, we are able to construct business indices that are, to the best of our knowledge, the most informative ones available about the Chinese economy.



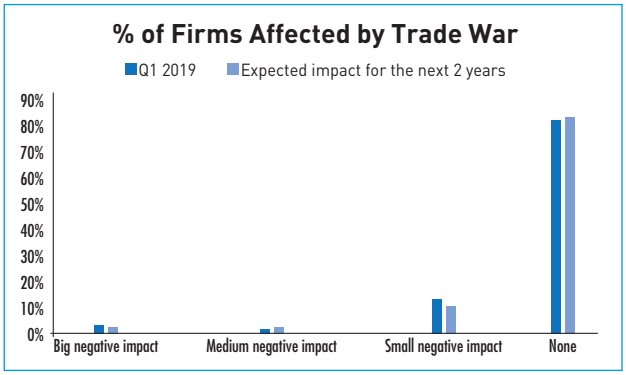
Key Findings

- Operating conditions continued to improve, with the Business Sentiment Index standing at 52, indicating a slight expansion in Q1.
- The impact of the US-China trade war was similar to that in Q4, with 17% of firms affected, whereas the proportion of firms reporting a significant impact stayed nearly flat at 3%.
- Weak demand is still by far the biggest challenge for the industrial economy, with 60% of the firms surveyed in Q1 citing a lack of orders. Costs were listed as the second largest issue, with raw material and labor costs cited by 21% and 14% of firms, respectively.

Analysis

Similarly to last quarter, state-owned and foreign firms mainly drove this quarter's expansion, with the diffusion indices being 61 and 56 respectively.

Large firms outperformed small firms (54 versus 49). Private firms—the vast majority of industrial firms—stayed nearly flat

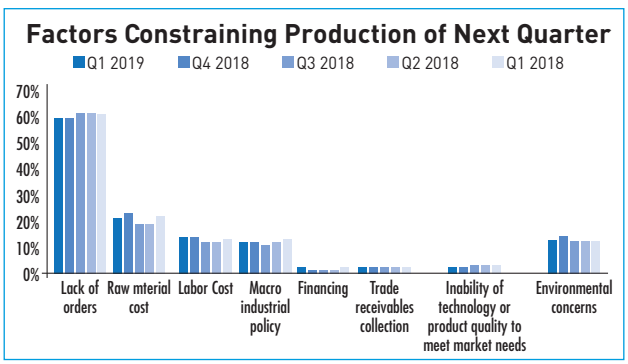


(diffusion index: 51). It's also noteworthy that there is a slight contraction in production and electricity consumption, with diffusion indices being 46 (Q4: 53), possibly due to the Lunar New Year. This contraction was mainly driven by consumer goods, private, and small firms, with diffusion indices of, respectively, 45 and 44 (Q4: 52 and 51).

Investments were still weak in Q1. Only 5% of the firms made expansionary investments.

Costs continued to rise in Q1, but to a lesser extent, with the diffusion index of unit costs being 61. Firms with a significant increase in costs (that is quarterly costs rise above 5%) continued to decrease from 3% in last quarter to 1% in Q1.

Firms affected by the trade war were mainly export firms, which accounted for 33% of our sample. Among these export firms, 31% were affected in Q1 and 6% reported a significant impact.

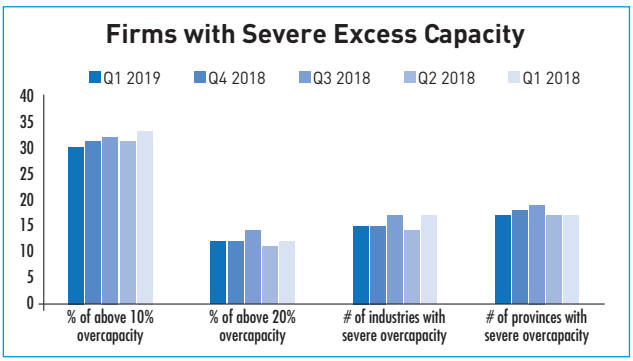


The top five most affected industries included Rubber & Plastic Products, Textile, Cultural & Sports Products, Paper Products, and Smelting and Pressing of Non-ferrous Metals. 29% to 41% of firms in these industries were affected.

Weak demand is still by far the biggest challenge for the industrial economy, with 60% of firms surveyed in Q1 citing a lack of orders. Costs were listed as the second largest issue, with raw material and labor costs cited by 21% and 14% of firms, respectively. Twelve percent of firms cited macroeconomic and industrial policies as limiting factors while another 13% of firms cited environmental concerns. In addition, financing was not found to be a bottleneck, with only 2% replying that financing was a limiting factor, a finding consistent with past surveys.

In 2019 Q1, two-thirds (66%) of the firms surveyed reported oversupply in the domestic market, with a diffusion index of 83 (Q4: 83), still close to historically high levels. Thirty percent of the firms reported that their excess capacity was above 10% (Q4: 31%), while 12% (Q4:12%) reported that their excess capacity was above 20%.

We categorize an industry as having severe excess capacity if more than 10% of firms in the industry report an excess capacity of more than 20%. There are 38 industries and 31 regions in total. In Q1, the number of industries and regions with severe excess capacity accounted for about half of the total firms respectively (15 industries and 17 regions in 2019 Q1).



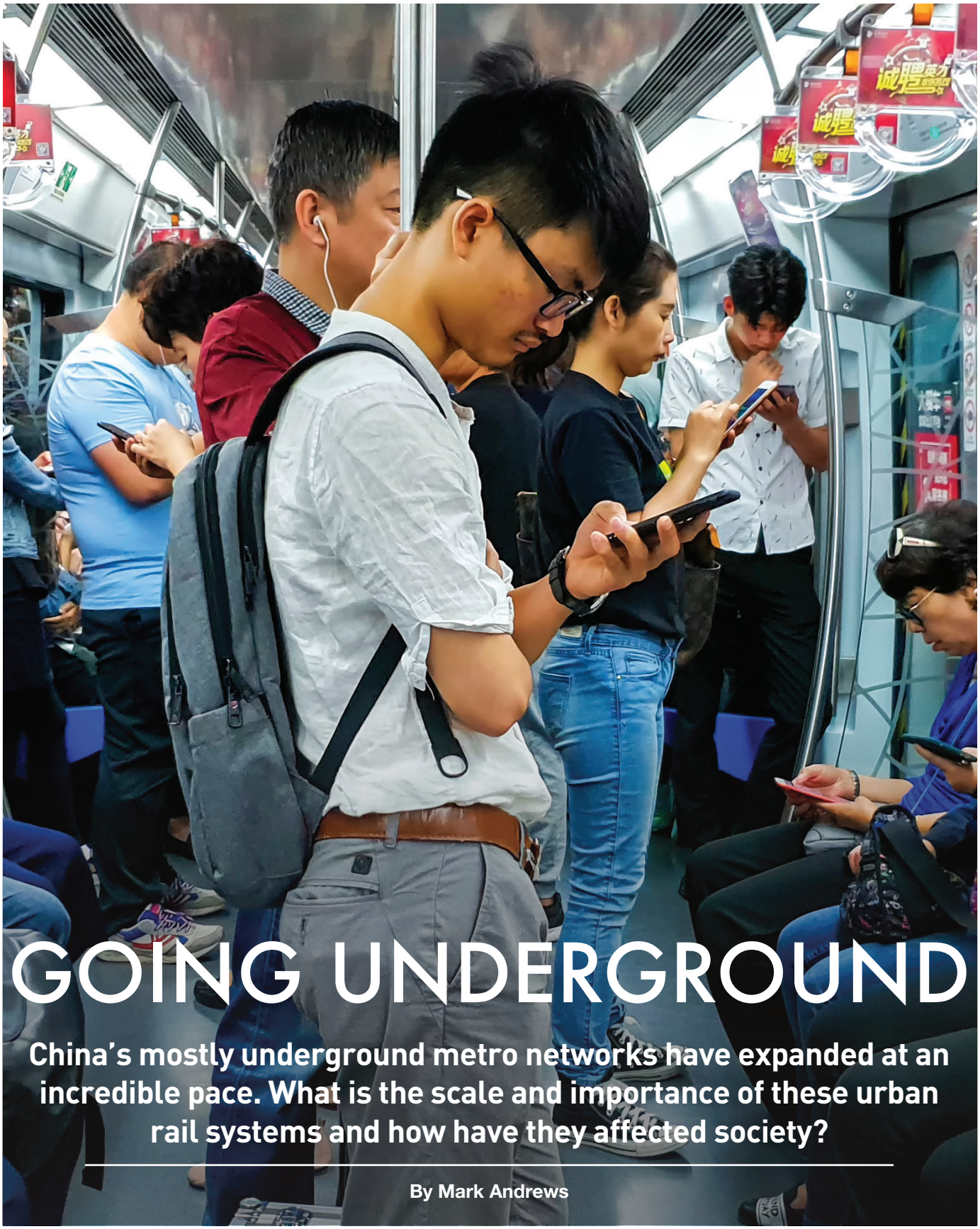
It is also worth noting that overcapacity in the international market was substantially less severe than in the domestic market, with the diffusion index 9 points lower.

Conclusion

While Q1 of the Business Sentiment Index marked the first five-consecutive-quarters expansion of the survey, there was also a noticeable contraction in electricity production and consumption. This contraction was mainly driven by consumer goods, private and small firms.

The biggest challenge facing the industrial economy was overcapacity. Its prevalence remained at historically high level. Financing was not a main limiting factor for the industrial economy. However, small firms faced tightened financing, due to the overall tightening of liquidity.

With the escalation of the trade war, the economy is slowing down and there is substantial uncertainty in 2019. Policy should focus on promoting long-term growth. Loosening of monetary policy can only be a short-term tool to prevent financial instability. The government needs to formulate systematic policies to promote technology innovation, which is the only path to long-term growth of the industrial economy.



GOING UNDERGROUND

China's mostly underground metro networks have expanded at an incredible pace. What is the scale and importance of these urban rail systems and how have they affected society?

By Mark Andrews

It is not yet eight on a Tuesday morning but line 7, which shuttles commuters in from the northern suburbs of Shanghai, is already jam-packed as it approaches downtown. Throngs of passengers stand shoulder to shoulder in metro rail cars, with next to no personal space between them, using one hand to grab a hold of any surface to balance themselves while using the other to hold a mobile phone offering up entertainment in the form of TV dramas and social media messages.

This is the daily scene in Shanghai on what is now the world's largest metro system, comprised of 16 lines, with more under construction.

Permanent way

The city's first metro line only opened in 1993, but the system has since expanded at an incredible pace, much like transportation networks all across China. The system now offers a track length of 676 km (420 miles), compared to New York City subway system, opened in 1904, which has 394 km.

Last year alone, China's total investment into metro systems was RMB 547 billion ($79 billion). China Association of Metros' figures show that in 2018 there were 185 metro lines operating in 35 Chinese cities, totaling 5,700 km in length and delivering 21 billion trips annually.

"As the sustained growth of industry and cities is dependent on high-quality transport links, the current investment in Chinese subway and tramway systems is reminiscent of the early development of the railways in Europe in terms of scale of construction and national prominence," says Simon Johnston, editor of *Tramways* and *Urban Transit*, a British publication on light rail transport.

"Beijing and Shanghai each have over 600 km of metro lines and rank as the top two [metro systems based on track length] globally," says Yang Yi, a transport specialist at the World Bank. The two cities now both service a daily average of 10 million riders.

But where did it all begin? China's first metro line, an east-west line through the heart of Beijing, was conceived in the 1950s with the assistance of Soviet experts, and went into tentative operation in 1969. But the country's metro boom only began after the economic reforms of 1978 and beyond, with the main model being Hong Kong's Mass Transit Railway (MTR) system, which went into operation in 1979.

"A significant influence came from Hong Kong's MTR, which started with the sharing of expertise and then led to the MTR operating metro concessions in Beijing, Hangzhou and Shenzhen," says Alok Jain, Managing Director of Trans-Consult Asia China. "It has also emulated the railway-property model of the MTR."

The development of new subway lines in Hong Kong is largely paid for by property development rights being sold or rented off along the new routes.

Chongqing is one city that has implemented such an approach. "What makes the rail system in Chongqing different is that a few segments—those in rural or remote suburban areas—are built based on the speculation of future urban development," says Zhong Haotian, transportation researcher at Texas A&M University. "In this way, it could capture the increased land value due to land use changes (from agriculture to urban land) and use it to reinvest in the system."

Zhong adds that China has a major advantage in terms of speed of development in that all land is government-owned, "meaning the government can capture increased land value due to urban development." He notes that Shenzhen has also used this system and compares it to the United States where the government would only be able to benefit from increased land value through taxation.

Thanks to central planning and an often low starting point in development, metro systems have been very much linked to the growth of China's cities. "The best investments are linked to city-building aspirations, so are often formed as part of wider development," says Johnston.

Development of the networks, however, has generally been conventional. "China's subways follow the traditional model of linking key passenger generators with the first lines, building upon this with further new lines being developed concurrently and delivered in stages," adds Johnston.

Hong Kong's MTR is one of the most profitable subway systems in the world and has the highest fare box recovery ratio—the amount of operating expenses covered by fares—of 187%. This, however, has not carried through to the Chinese mainland systems.

"The fares on Chinese subway systems are artificially set low," says Jain. "Hence, despite heavy utilization, cost recovery has been an issue. As Chinese subway profitability is not published, it is difficult to determine how close or how far they are from breaking even."

Jin Yongxiang, a general manager at a Beijing subway consultancy, previously estimated to *Caixin* that "the liability of subway projects nationwide adds up to more than RMB 1 trillion," or $158 billion. "From a macro perspective, that's a huge debt burden."

Yang points out that tickets being set at an artificially low price is largely for the purpose of affordability. Even still, subway ticket prices tend to exceed those of buses. In Shanghai, fares start at RMB 3 ($0.44) and rise according to distance to a current maximum of RMB 15, whereas most bus fares are a flat rate of RMB 2. Nanjing's subway prices, on the other hand, vary between RMB 2 and RMB 4.

Typically, metro stations sell either one-way tickets or tokens, along with pre-paid charge cards similar to London's Oyster or Hong Kong's Octopus. In some cities such as Guangzhou and Nanjing, these transportation cards give a discount over the standard single fare. Many systems also allow the use of mobile payment apps instead of having to purchase physical tickets or cards.

"Chinese society had to make a transition from super cheap buses to using relatively expensive subway systems," says Geeta Kochhar, assistant professor at Jawaharlal Nehru University. "This transition was painful for some, but over a period of time, Chinese society is adapting to a subway system, [offering] larger and

faster connectivity, and speed to travel between distances."

All aboard

With such fast expansion, often come problems.

"Question marks have been raised by some Western industry commentators about the rapid pace of construction and strict opening timetables," says Johnston. Subway construction in China has experienced a number of sometimes fatal instances of tunnel collapses and sinkholes.

In Guangzhou during the construction of Line 6, a 100m2 sinkhole swallowed a number of homes in 2013. Eight died from a tunnel collapse in the southern city of Foshan in 2018. Operationally, the worst accident was when two trains collided in 2011 in Shanghai, leaving 271 injured. A more recent accident saw a driver killed and three injured during trial operations of a new line in Chongqing earlier this year.

Despite questions over the safety of its infrastructure, Chinese commuters generally believe that day-to-day operations are relatively safe.

Almost all metro lines in China have glass walls and doors along all platforms preventing passengers from being able to access the tracks, making metro suicides almost unheard of in China. In Tokyo, the Chuo commuter line—operated by the East Japan Railway Company—has such frequent suicides that they have even been dubbed Chuocides.

Mandatory luggage scanning security checks in stations also add to passenger safety. "The feeling of general safety stands out in China," says long time China resident Tuomas Harjumaaskola. "In many countries you don't often see personnel at subway stations or on trains."

Mind your manners

While people generally feel safe when taking metro trains in China, some have complained of poor behavior from fellow passengers.

"People often push me out of line, rest their phone on my shoulder during a crowded commute, eat on the metro and watch videos on their phones without using headphones," says McCall Mintzer, a graduate student studying in Shanghai.

"Take Guangzhou as an example, I found that people seldom line up, seldom follow the direction-arrow signs and seldom follow the rule of 'let passengers alight first'," says Klavier Wong, a postdoctoral researcher at the Academy of Hong Kong Studies, Education University of Hong Kong. "On some extremely busy lines, this behavior causes severe chaos on platforms and on trains."

Wong believes part of the problem lies in the design of the platforms and user throughput channels.

"Customer service, passenger information systems and signage are often not thought out very well," says Jain at Trans-Consult Asia. This results in poor flow of people on platforms who are changing lines, as well as confusion over which exit to take.

> The fares on Chinese subway systems are artificially set very low
>
> Alok Jain
> Managing Director
> Trans-Consult Asia China

Chinese metros usually have television screens on both the trains and platforms which are often playing educational videos on how to ride the subway in a socially acceptable manner. They cover topics such as allowing people off the trains before boarding, not talking loudly on phones, and what is not allowed to be carried on board.

Recently the Beijing subway announced a crackdown on certain activities on the subway, such as eating, drinking, a single person taking up multiple seats, and the playing of music without using headphones. Wrongdoers will have their personal social credit scores cut.

According to Kochhar, the situation is likely to be improving. "People have become more conscious about overall public good. Higher earnings and standard of life have changed the concept of acceptable behavior in China."

Anonymous independence

But the existence of metro networks is changing Chinese cities, society and culture in other profound ways.

"The subway is turning suburbs into cities, resulting in the re-aggregation, deployment and migration of populations and resources. These result in bringing about huge changes to people's lifestyles, social activities and thoughts," says Zhang Qian a doctor of psychology at East China Normal University.

For families, this means the location of housing in relation to workplaces has become less important. As people move to more distant and cheaper residential areas, which often have more pleasant environments, the overall footprint of cities has grown.

"People are finding it easier to find jobs in far-off places and travel from their homes; rather than leaving their families and staying in rented apartments to make a living," says Kochhar. "Therefore, in that sense families are able to stay together."

Change, though, is not restricted to working lives and can improve quality of life in other ways. "It shortens travel time, thereby effectively extending leisure time," says Zhang. "It also expands the range of



Source: The Financial Times

family activities, which enables people to have a greater radius of space to choose leisure, residence and employment, thus reducing the opportunity cost of work and living."

Along with the development of the metro trend, the surge in China's urban population and advances in mobile technology has come an element of anonymity, as people—particularly young adults—are able to travel further distances independently.

This is a long way from China's past where society was very much centered on interactive communities. Nowadays those on public transportation, especially the metro, rarely even make eye contact. Metro stations in China have mobile internet coverage and usually offer free Wi-Fi, making this sense of anonymity for passengers even easier to maintain.

Digital consumption, however, seems to vary according to the time of day. "During morning commutes, it gravitates toward news-reading, video watching or flipping through an e-novel," says Michael Norris, strategy and research manager at AgencyChina. "In the evening, there's far less reading and more attention is given to music and video."

Norris goes on to mention that in terms of entertainment, more planning often goes into longer commutes. "If I had to take long journeys every day, I'd probably download documentaries to watch, and carry a power bank," says Harjumaaskola.

Ironically, while those in transit may feel anonymous, AI-monitoring of Chinese passengers has increased, with video surveillance and facial recognition technologies being introduced widely. The city of Jinan, in the northeastern province of Shandong, now allows ticketless entry, charging passengers through facial recognition technology alone.

Next stop

The fast and large-scale construction of metro systems across China in recent years is continuing, with a further 600 km of lines either planned or already under construction in various cities across China. But the rail lines come at a cost to the overall system because they almost all run at a loss due to the low fares.

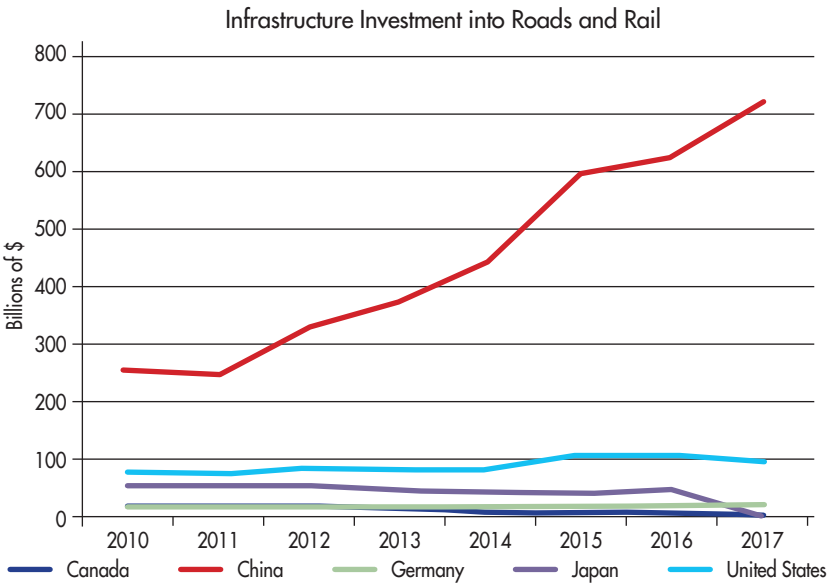
To reach financial self-sustainability and reduce the high debt levels carried by local governments will mean raising prices for consumers. Whether or not that is feasible is the key question for the future.

Transportation Systems

China has the most expansive domestic transportation systems in the world, and they are continuing to grow

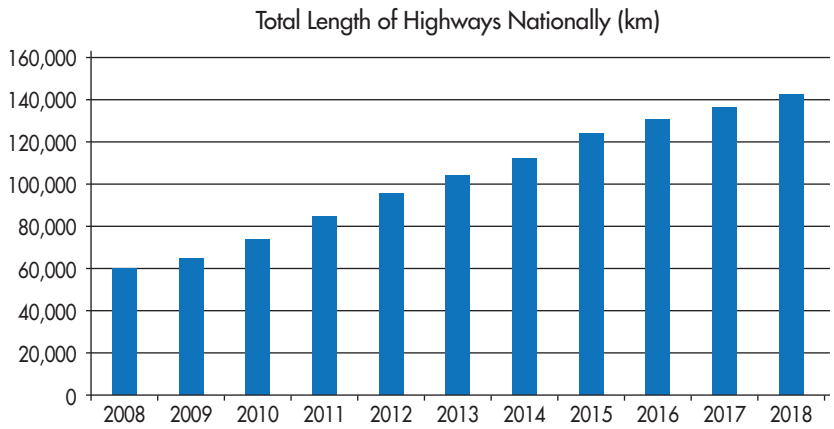
The Breakdown

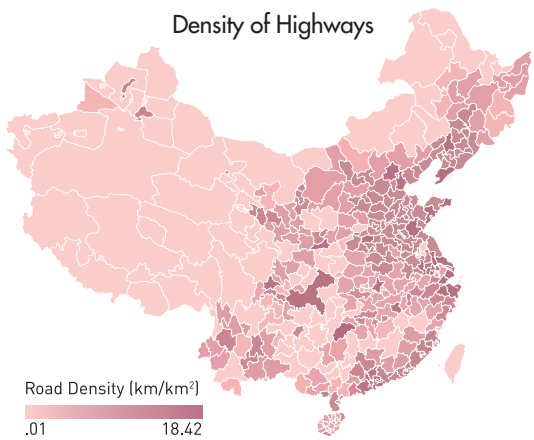
China remains far ahead of the rest of the world in terms of infrastructure investment in transportation, rising to over $706 billion in 2017, more than double what it was five years before. The money has financed construction of the largest transportation systems in the world, in both total kilometers of railway lines and highways. In 2019, Chinese agencies plan to invest $255 billion in highways and waterways, $113 billion in railways, and $12 billion in airport construction.



Highways

China's highway system has been growing at a steady rate over the past decade, with the majority of roads concentrated in densely populated areas. In 2017, revenue from toll roads reached $72 billion.

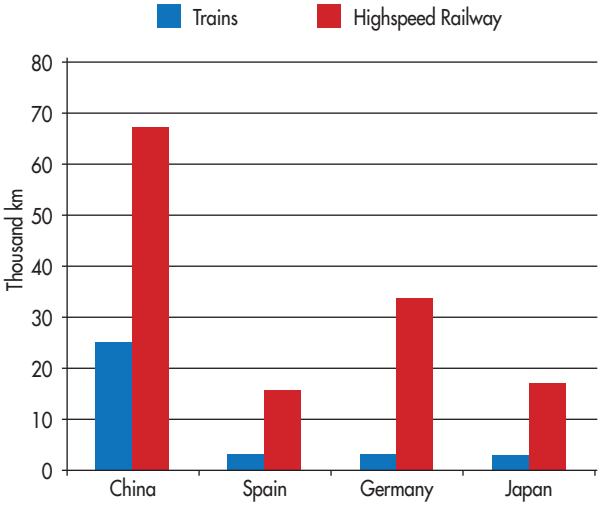


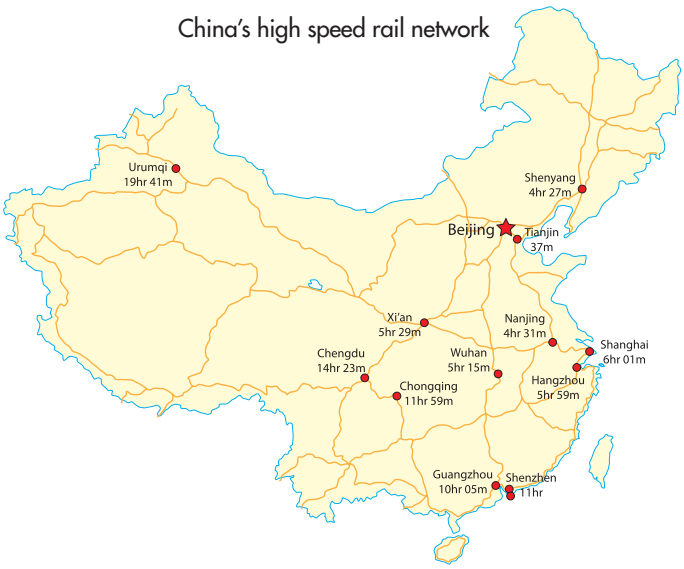


Sources: OECD, CEIC, Journal of Urban Management

Railway Systems

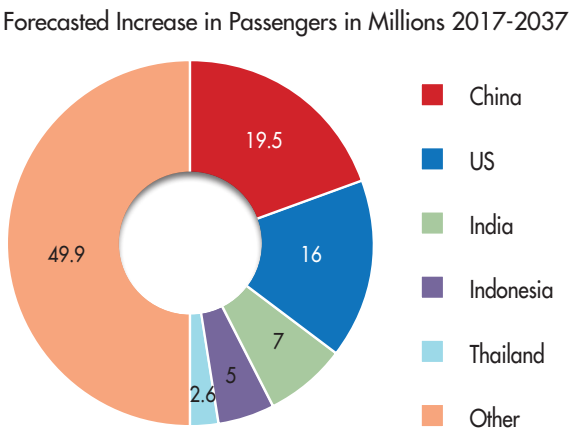
China has the longest railway system in the world, and it is only continuing to grow, with the China Railway Corporation planning to add an additional 6,800 additional km to the system in 2019. China's high-speed rail system alone, with average speeds of 250 km/h, is longer than the entire rail systems of Germany, Japan and Spain added together.

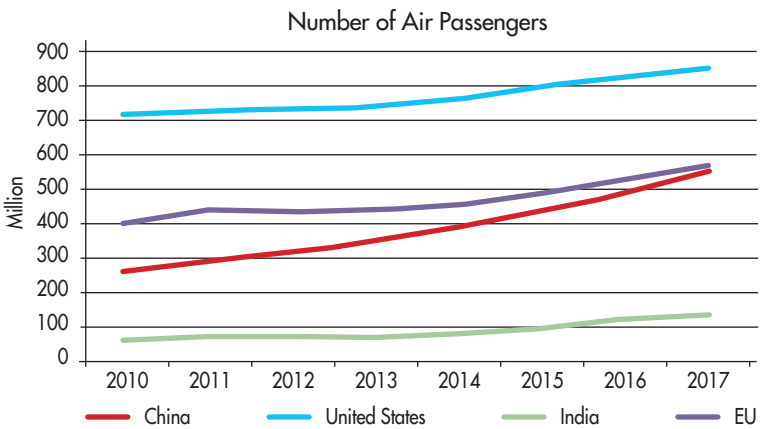




Airports

While the United States has over 5,000 public airports, in 2018 China only had 235. By 2037, nearly 20% of flyers around the world are expected to travel through a Chinese airport. China is aiming to build more airports to satisfy the growing demand, but is only currently building an average of only eight additional airports per year, despite the fact that revenue from air transport grew to over 800 billion in 2018, an 11% increase year-on-year.





Sources: SCMP, IATA, World Bank Group, U.S. Bureau of Transportation, CNN, Boeing Commercial Market Outlook

data CHINA

The stats you need to know

Macro



Urban growth

China continues to urbanize, with a ratio expected to reach **70%** by 2035, up from **59%** in 2017. This process will likely fuel the development of smart technologies, as **1 billion** people cram into **100,000** square kilometer of space.

Source: China Daily

Homegrown protein

The Ministry of Agriculture has announced plans to expand domestic soybean production by **8%** in 2019, in response to falling imports from the start of this year. In the first half of 2019, China's imports of soybeans fell **14.7%** from a year earlier to **38.27** million tons

Source: Caixin





Sliding land demand

The average price of land blocks sold in China's cities for the period between January and May 2019 declined **3.5%** year-on-year, the first annual fall since 2012. While investment in residential estates rose **16.3%**, investment in office and commercial property developments both declined.

Source: China Banking News

Business



Car sales crash

New emissions rules and a slowing economy caused Chinese vehicle sales to fall **16.4%** in May, the sharpest year-on-year decline ever recorded. Chinese buyers' lack of confidence was felt around the world, hitting large makers such as General Motors and Volkswagen.

Source: Financial Times

Falling supermarket stakes

Carrefour, Metro AG, E-Mart, Tesco and Marks & Spencer have been selling off stakes in their Chinese branches, withdrawing from China's market. All eyes are now on Walmart which is set to invest **$1.14 billion** toward building **10** logistics centers aimed at smart retail in China over the next decade.

Source: Caixin





Scrapping caps

Premier Li Keqiang announced that foreign companies would be allowed to own majority stakes in domestic securities companies by 2020, speeding up the opening of the financial sector by a year. The move is part of a strategy to attract more foreign capital to the domestic bond and stock markets.

Source: Financial Times

VC fund outflow surges

Southeast Asian tech companies received **$667 million** from Chinese venture capital investment groups in the first half of this year, an increase of **451%**. Chinese investment firms are looking to capitalize on rising numbers of internet users and salient demographics in the region.

Source: Financial Times



Technology



5G's greatest

China Mobile plans to construct the world's largest 5G network by building over **50,000** base stations nationally by the end of the year. By 2020, the company expects to offer commercial 5G services in over **200** prefecture-level Chinese cities.

Source: Caixin

Crypto currency to be launched

The People's Bank of China is developing a central bank digital currency as a potential monetary policy tool and investment vehicle. While the specifics and the timing have not been announced, the development comes just after Facebook said that it wanted to introduce its own global crypto currency.

Source: China Daily





AI on the road

Huawei will cooperate on projects with Audi, GAC Toyota Motor, and Chinese manufacturers to put self-driving cars on the road as early as 2021. Globally, the autonomous vehicle market is set to grow from **$54 billion** in 2019 to **$556 billion** in 2026.

Source: Financial Times

Mobile payment challenger

State-backed UnionPay is aiming to undercut WeChat and Alipay by offering a service named QuickPass, which boasts advanced card management services, such as making interbank transactions. The group aims to have **250 million** users by the end of the year, compared to Alipay's current **1 billion** users.

Source: Caixin



Consumer



ByteDance hits 1 billion

The Chinese company ByteDance, creators of the popular video app Tik Tok, has reported over **1 billion** monthly active users across its apps. The company's rise challenges China's traditional social media giants, Tencent, Alibaba, and Baidu.

Source: Caixin

Millionaire meltdown

As China's economy cools, the number of Chinese individuals with more than **$1 million** in investible assets is falling, down **1.5%** to **1.2 million** in 2018.

Source: Wall Street Journal





Interest in US housing wanes

Chinese people were the leading foreign house buyers in the US for the **7th** year in a row, from April 2018 through March 2019; but there was a **56%** decline from the previous 12 months. This comes as a result of slower economic growth, tighter Chinese capital controls, a stronger dollar, and low inventory.

Source: CNBC

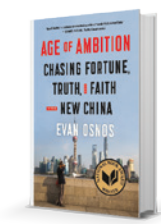
BOOKSHELF

Simplifying the Complexities of China

Andrew Polk, co-founder and head of Economic Research at Trivium China, recommends books that help readers break down China's often complex economic and political systems into more easily digestible chunks

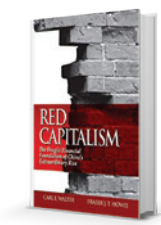
Andrew Polk is the co-founder and head of Economic Research at Beijing-based strategic advisory firm Trivium China, which specializes in unpicking the byzantine workings of the Chinese government to provide insights into where China is heading. Previously, Polk was the Resident China Economist at The Conference Board's China Center, where he conducted analyses on the Chinese economy for corporate clients and co-authored *The Long, Soft Fall in Chinese Growth*. In this selection, Polk recommends books that explore several fundamental themes in China and how these themes interact with one another.

What would be your number one book recommendation for someone looking to learn more about China?



I think ***Age of Ambition: Chasing Fortune, Truth, and Faith in the New China*** by Evan Osnos is a great read because it examines several broad and important themes about China across economic and social lines by focusing on the stories of specific individuals. It also highlights the tensions in modern China—between fitting in and standing out—and looks at them through a wide range of individual people's efforts to realize their unique personal ambitions. He also highlights how those individual stories interact with China's own efforts to realize its collective ambition.

What book on China have you re-read the most?



The book I have re-read the most and used as a great reference over the years is ***Red Capitalism: The Fragile Financial Foundation of China's Extraordinary Rise*** by Carl E. Walter and Fraser J. T. Howie. It is a classic text for understanding how China's financial system works as well as the complicated system of linkages among borrowers, lenders and regulators. The explanation of how authorities funded and established the four central Asset Management Companies in the late 1990s is highly detailed and instructive in understanding how bailouts happen in China.

What are you reading currently?



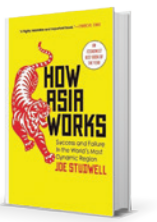
I am currently reading ***China's New Red Guards: The Return of Radicalism and the Rebirth of Mao Zedong*** by Jude Blanchette. Blanchette is a keen observer of Chinese politics and one of the best analysts around for understanding how the political system works and how it interacts with Chinese society. He helps to explain how nationalism and populism work in China, why they are so important, and how they influence political debate in the country.

What book totally changed your perspective on a certain topic?



Factions and Finance in China: Elite Conflict and Inflation by Victor Shih is an incredible book for understanding the political economy of China. After reading the book, it really hits home how economic and financial decisions are so heavily impacted by political dynamics. It is often difficult to grasp just how unique the relationship between the government, the Party and the economy (or financial system) is in China. Shih's book is all about understanding how these dynamics interact with one another.

Which China book do you think is the most underappreciated?



I believe ***How Asia Works*** by Joe Studwell is an excellent read for those wanting to understand how reform and industrial policy developed throughout Asia and why some countries were able to outperform others while some got stuck. It obviously covers more than China alone, which is why I think it is somewhat overlooked by China watchers, but the sections on Chinese agricultural reform are excellent for understanding how the country kick-started its growth story. The chapters on other Asian economies are also instructive in terms of how policy and development might play out for China in coming years.

CKGSB
长江商学院

CHINA CEO

11 - 15 NOV 2019 | CHINA
(BEIJING, SHANGHAI & SHENZHEN)

A 5-day intensive program designed to **Empower** today's business leaders. Gain China-specific knowledge, Network with successful Chinese entrepreneurs, and fin d the right partnership to **Shape** the future of your business success, with China and beyond.









OVERVIEW OF BENEFITS

China-specific knowledge delivered by world-class CKGSB faculty

Engage and be a part of China's influential and trusted global leadership community

Opportunities to connect with the right partners and investors, leading to a direct impact on your business success with China

APPLY
China-Ceo.eu

CONTACT
Jennifer Wang,
jenniferwang@ckgsb.edu.cn

scan to add Jennifer on WeChat

3nod三诺 JD.COM 京东 FOSUN 复星 Tencent 腾讯



CUTTING-EDGE INSIGHTS FROM CHINA

October 27 - 31, 2019 BEIJING CHINA

An English-language program that helps you to unravel China's complexities and stay ahead of the curve in this fast-changing market

---

- Latest research on the Chinese economy's transition - business, consumers and innovation

- Historical, cultural and political factors which are shaping today's China and are likely to impact on the world

- Insights into how China is developing, as well as lessons and experiences in building and running successful businesses in China, including those going global

- Strategies of foreign companies in China

- Company visits to leading local and multinational companies in China, such as Baidu, JD.com, Alibaba, Didi Chuxing, ICBC, SINOPEC, Lenovo and IBM

- Meet with unicorns and unicorns-to-be

Jointly Offered by CKGSB and Peking University

CKGSB 长江商学院 CHEUNG KONG GRADUATE SCHOOL OF BUSINESS

Institute for Advanced Humanistic Studies PKU

APPLY

Ms. Mara YUAN
ytyuan@ckgsb.edu.cn
+86 (10) 8537 8408