CKGSB MAGAZINE

CHEUNG KONG GRADUATE SCHOOL OF BUSINESS

Volume No. 13
MARCH 2014

The Digital Takeover

Will internet finance erode China's traditional banking system?

- Stem cells are revolutionary, both in medicine and business. Is China ready?
- China's healthcare system needs the private sector, whether it wants it or not
- China can wait no longer to truly modernize agriculture, are businesses ready to step up?

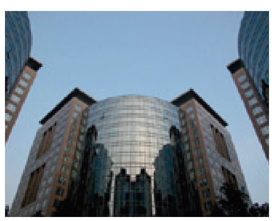
ENGLISH.CKGSB.EDU.CN

HOW MUCH DO YOU REALLY KNOW ABOUT DOING BUSINESS WITH CHINA?

WHY ARE YOU BLUSHING?

What are the global implications of China's rise? How do Chinese companies compete, and what does this mean for your industry? And how should you modify your strategies to take account of competition within and outside of China?

These are probably the most pressing issues of the day for senior businessmen and women. Which is why many of them from industries around the world are turning to us: CKGSB, Cheung Kong Graduate School of Business.



The CKGSB main campus building in Beijing, China.

Our alumni include over 2,500 Chairmen and CEOs, running companies that comprise 20% of China's most valuable brands, generate $1trillion in revenue and account for 12.7% of China's GDP. And our world class faculty represent many of the best minds from the leading U.S. and European business schools.

Now CEOs and senior executives around the world can gain the understanding needed to do business with China by attending one of our Executive Education programs, run by CKGSB, some of which are conducted in collaboration with top ranked business schools such as Columbia and IMD.

The courses are designed for executives who want to get the latest knowledge and share best practice on how to do business with China, both from the Eastern and Western perspective.

For admission details or further information visit english.ckgsb.edu.cn

CKGSB
长|江|商|学|院

CHINA'S WORLD CLASS BUSINESS SCHOOL

Table of Contents

Cover Story

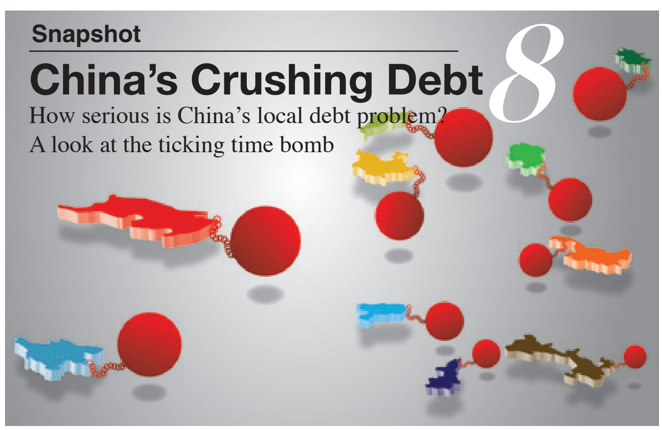


Table of Contents

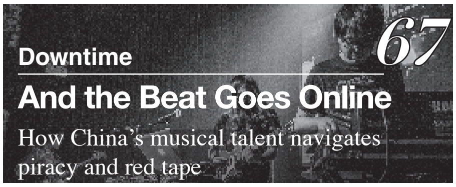
Issue: March 2014
Vol. No. 13

Editor-in-Chief
Zhou Li
Executive Editor
Neelima Mahajan
Produced By
SinoMedia
Managing Editor
Suzanne Edwards
Design
Jason Wong

ISSN 2310-9084
Publisher
CKGSB GLOBAL LIMITED
Suite 3203, 32/F, Citibank Tower,
3 Garden Road,
Central, Hong Kong

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

Xiang Bing, Dean, CKGSB



A Piggy Bank Revolution

ICBC, the largest bank by market value in the world, officially stands for Industrial and Commercial Bank of China. Its customers in China however call it *Ai Cun Bu Cun*, meaning, we do not care whether you put your money with us or not. As the banking sector is tightly controlled by the government and run by only a few state-owned banks, customers in China have to live by their terms. Sometimes the interest earned on deposits is lower than the inflation. The internet has been a disruptive factor for many industries in the world, it may also shake the foundations of these large banks that have been complacent for decades. New Economy businesses challenge the old ones. Can it happen in China's banking industry?

Apparently yes. And here's why.

Over the last few months, China's internet giants have been busy reshaping the contours of the banking industry. Companies like Alibaba, Tencent and Baidu have launched internet finance products that are gradually chipping away at the supremacy of the country's brick-and-mortar banks. By offering higher returns than traditional banks, the internet finance products of these companies have started to amass large deposits within just a few months of existence. In particular, the Alibaba group's Yu'e Bao already has deposits of nearly RMB 500 billion from 81 million people since its launch in June 2013. While these deposits are still miniscule compared to what sits on the balance-sheets of traditional banks, banks are starting to worry nevertheless—and are fighting back.

Our cover story looks at this contentious issue, even as it unravels. There are several questions that need to be addressed. Are the fears of the big banks justified? Is internet finance a real threat? If yes, what are traditional banks doing to fight back? On the other hand, can internet finance products continue to deliver high returns over long periods of time? Are their business models sustainable?

These are interesting questions and regulations on internet finance products are still being shaped, but we try to bring you some answers in our story 'The Money Matrix' on page 22.

Elsewhere in this issue, we take a hard look at China's agribusiness industry ('Down on the Farm', page 10). The agriculture sector has been plagued by outdated farming methods, land ownership issues and low returns. We analyze what China can do to modernize and scale up agriculture and improve yield. Our story tracks some of the reforms that are starting to kick in and how they could impact agriculture. There is a silver lining too: some of China's biggest companies—like the Lenovo group—are starting to invest in this sector. Hopefully corporate interest in the sector will also help buoy agriculture.

We also take a look at the healthcare sector in China. In its current state, China's public health infrastructure is unable to adequately meet the needs of the nation's population. There is a very acute need for private players to fill the gap. Our article 'Body of Business' (page 47) takes an in-depth look at the private healthcare market in China, and how private players navigate the murky issues of market access, regulations, insurance coverage and availability of talent.

While on the theme of healthcare, venture to our story on the stem cell industry in China ('Regenerative Economics', page 42). China is eager to be a global leader in stem cell research and with government backing, it has already taken the first steps towards realizing this ambitious goal. But is China at the cutting edge? How long before China generates its first breakthrough in stem cell research? Other prickly issues include regulatory oversight and dubious, unauthorized treatments.

Moving on, in The Thinker Interview segment we bring you a piece on Jonah Berger, the author of *The New York Times* best-seller *Contagious: Why Things Catch On*. He tells us about the science behind why some things go viral (page 59). We also have a very fascinating interview with Edwin Fenech, Greater China President and CEO for Ferrari (page 63). Fenech talks about Ferrari's strategy in China, Formula One and the impact of the Chinese government's austerity measures.

We look forward to hearing your feedback and comments. You can write to us at *ckgsb-magazine@ckgsb.edu.cn*

Yours Sincerely,

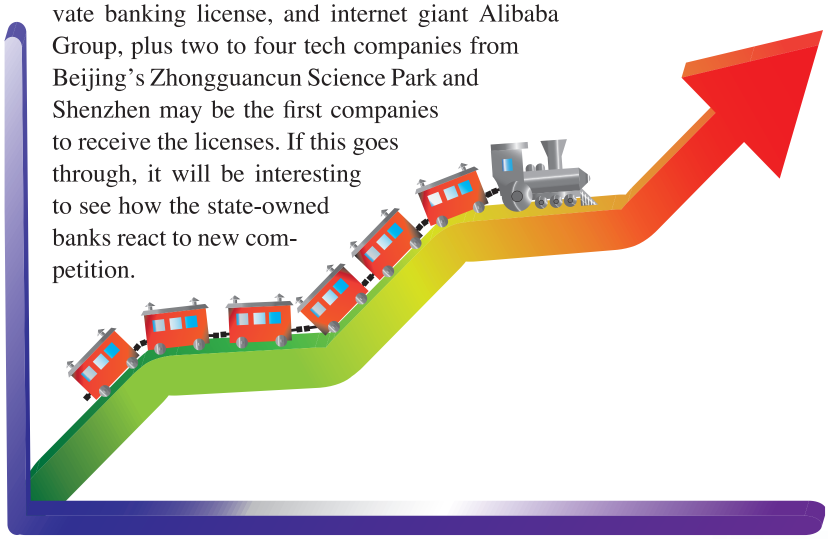
Zhou Li
Assistant Dean, CKGSB

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

China's New Year resolutions are underway, including but not limited to: embracing private investment in government oil, giving gambling junkets the boot, awakening its agriculture to the modern world and allowing tech companies to take a wrecking ball to traditional banks.

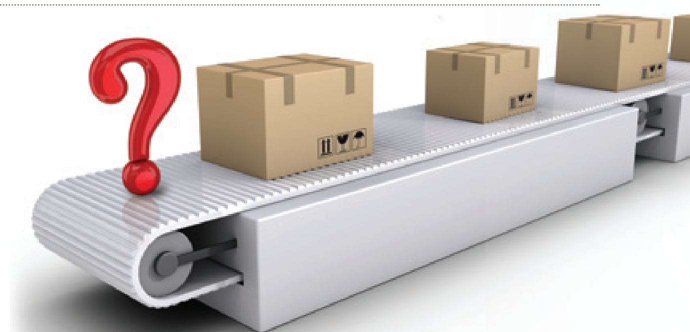
All Aboard the Bank Train!

Beijing may give the green light for high-tech companies to set up the country's first private banks in early March, according to Beijing-based *China Securities Journal*. Baidu has formed a partnership to apply for a private banking license, and internet giant Alibaba Group, plus two to four tech companies from Beijing's Zhongguancun Science Park and Shenzhen may be the first companies to receive the licenses. If this goes through, it will be interesting to see how the state-owned banks react to new competition.



Macao Doubles Down

Casinos in Macao will entice rich gamblers from China directly, cutting out the junket operators that act as middlemen, Bloomberg reported in February. Junkets have long recruited mainland gamblers and given them interest-free loans to blow on gaming in Macao. Now companies such as Sheldon Adelson's Sands China Ltd. offer the same services, launching a turf war in the world's biggest gambling market.



In the Dumps

China's still in a manufacturing funk that has lasted more than seven months so far, causing anxiety over impact on GDP growth. The final Markit/HSBC manufacturing Purchasing Managers' Index (PMI) fell to a seven-month low of 48.5 in February, the third straight monthly decline, from January's 49.5, Reuters reported. The figure was in line with the 48.3 reported in the preliminary version of the PMI released on February 20.

Till Your Own Soil

Reform is in the air for China's farmers, as several provincial governments have announced plans to clarify and boost their land rights after Beijing promised deeper reforms at a major meeting last November, Caixin Online reported. The province of Hebei, which surrounds the capital, said it would focus this year on a plan that involves completing a registry of rural landholdings, creating a county-level market for farmers to sell their rights to using publicly-owned land, and allowing farmers to use the contractual rights as collateral for a loan.

Get Your Bitcoins!

An online bitcoin platform opened a physical store for the virtual currency in Hong Kong in February, calling it the world's first bitcoin retail store, Bloomberg reported. Hong Kong-based ANX opened a shop near the city center, a counter that allows people to swap Hong Kong dollars for bitcoins. ANX will gauge demand before opening more counters in Hong Kong.

Edible Gold Rush

Agricultural futures like soymeal and eggs are increasingly on the menu in China, so speculators are rushing to invest in edible commodities as interest in metals fades, *The Wall Street Journal* reported in February. A construction slowdown is cutting demand for hard commodities and prompting a surge in contracts for soymeal futures—China's most-traded commodity—as well as palm oil, rubber and eggs.

Fueling Reform

China Petroleum & Chemical Corp (Sinopec) opened its oil retail unit to private investors in February, which caused its shares to surge, according to a company statement. Sinopec is welcoming private investment in up to 30% of the unit.

Huawei's Not Done with the US

Looks like Huawei Technologies has had a change of heart toward the US after dramatically declaring it was through with the world's second-largest smartphone market in 2013. The Chinese telecom equipment maker is looking to gain a foothold in the fiercely competitive but all-important US smartphone market, Reuters reported, citing comments by Colin Giles, the Executive Vice President of the company's consumer business group in February. Huawei is looking to take advantage of new trends in how consumers view service contracts.

China's Crushing Debt

Nearly everyone agrees that China has a serious debt problem, some would even call it a crisis, one which the State Council addressed in a highly anticipated report released last summer. The National Audit office said local government debt, including contingent liabilities and guarantees, had risen by nearly 70% to RMB 17.9 trillion as of June 2013. The report also said that shadow banks accounted for at least 13% of all local government borrowing. To put things in perspective, Shanghai-based Tiger Economics market research firm ranked the top 10 most indebted provincial capitals. Below is a snapshot of those cities, the size of their debt problem, and what investments got them in the hole.

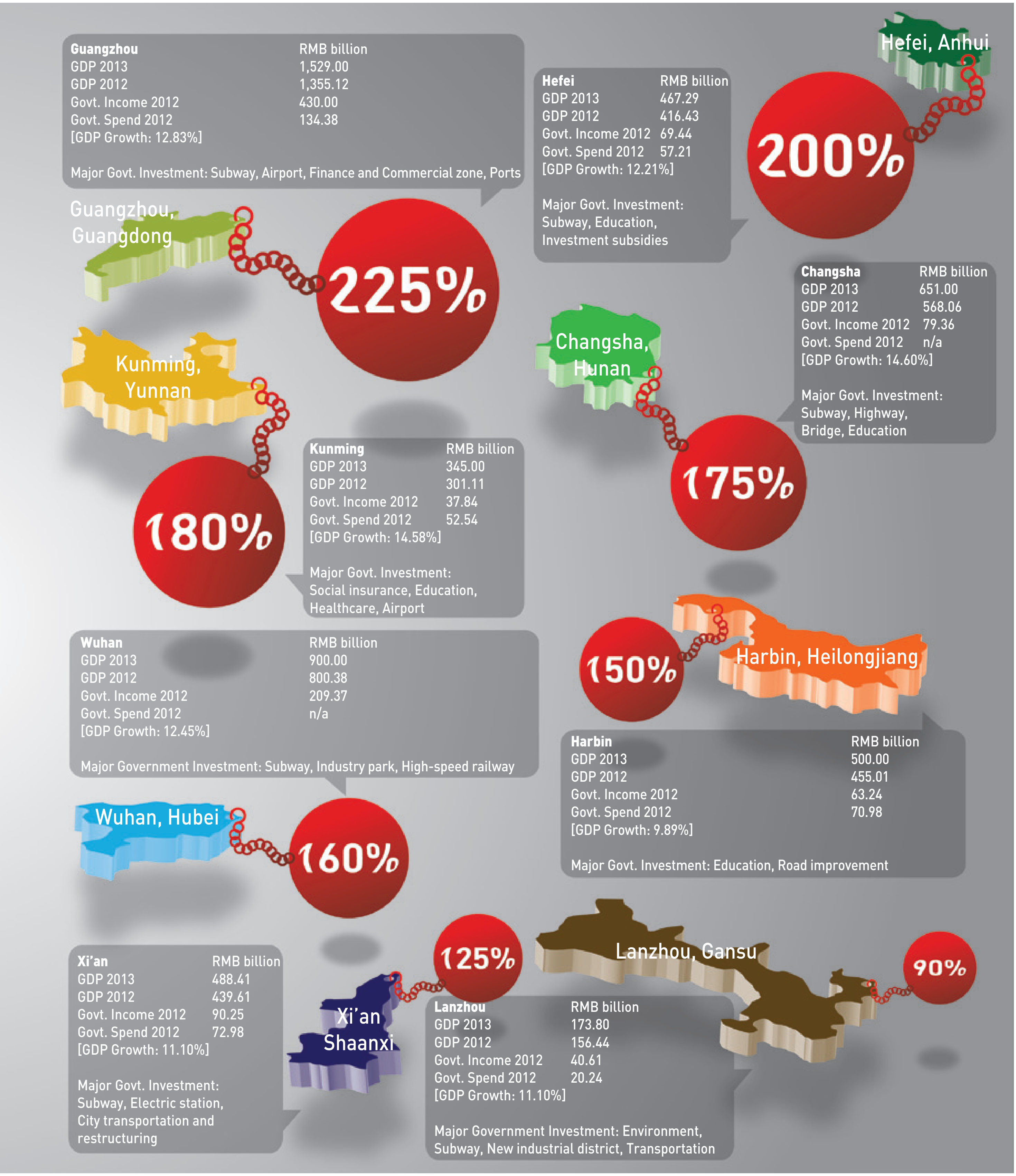
Nanjing	RMB billion
GDP 2013	801.17
GDP 2012	720.16
Govt. Income 2012	142.73
Govt. Spend 2012	76.98
[GDP Growth: 11.25%]	

Major Govt. Investment: Subway, Yangzte River project, High-speed beltway

Chengdu	RMB billion
GDP 2013	900.00
GDP 2012	813.89
Govt. Income 2012	233.31
Govt. Spend 2012	177.04
[GDP Growth:10.58%]	

Major Govt. Investment: High-speed railway, Tianfu new district, New airport, City restructuring

Source: CnAgri Database, Wanfang Database, China Customs data, China Ministry of Agricutlure, Xinhua News


Guangzhou RMB billion
GDP 2013 1,529.00
GDP 2012 1,355.12
Govt. Income 2012 430.00
Govt. Spend 2012 134.38
[GDP Growth: 12.83%]
Major Govt. Investment: Subway, Airport, Finance and Commercial zone, Ports
Guangzhou, Guangdong
225%
Hefei RMB billion
GDP 2013 467.29
GDP 2012 416.43
Govt. Income 2012 69.44
Govt. Spend 2012 57.21
[GDP Growth: 12.21%]
Major Govt. Investment: Subway, Education, Investment subsidies
Hefei, Anhui
200%
Kunming, Yunnan
180%
Kunming RMB billion
GDP 2013 345.00
GDP 2012 301.11
Govt. Income 2012 37.84
Govt. Spend 2012 52.54
[GDP Growth: 14.58%]
Major Govt. Investment: Social insurance, Education, Healthcare, Airport
Changsha, Hunan
175%
Changsha RMB billion
GDP 2013 651.00
GDP 2012 568.06
Govt. Income 2012 79.36
Govt. Spend 2012 n/a
[GDP Growth: 14.60%]
Major Govt. Investment: Subway, Highway, Bridge, Education
Wuhan RMB billion
GDP 2013 900.00
GDP 2012 800.38
Govt. Income 2012 209.37
Govt. Spend 2012 n/a
[GDP Growth: 12.45%]
Major Government Investment: Subway, Industry park, High-speed railway
Wuhan, Hubei
160%
150%
Harbin, Heilongjiang
Harbin RMB billion
GDP 2013 500.00
GDP 2012 455.01
Govt. Income 2012 63.24
Govt. Spend 2012 70.98
[GDP Growth: 9.89%]
Major Govt. Investment: Education, Road improvement
Xi'an RMB billion
GDP 2013 488.41
GDP 2012 439.61
Govt. Income 2012 90.25
Govt. Spend 2012 72.98
[GDP Growth: 11.10%]
Major Govt. Investment: Subway, Electric station, City transportation and restructuring
Xi'an Shaanxi
125%
Lanzhou, Gansu
90%
Lanzhou RMB billion
GDP 2013 173.80
GDP 2012 156.44
Govt. Income 2012 40.61
Govt. Spend 2012 20.24
[GDP Growth: 11.10%]
Major Government Investment: Environment, Subway, New industrial district, Transportation

Down on the Farm

China desperately needs to bring its agricultural sector into the modern age, but who's going to get it there?

By Matthew Fulco

Wang Liang is a farmer in the northeast province of Heilongjiang, China's top corn producer. Despite fertile soil, Wang says the small size of his plot limits his crop yield and income. Both took a hit last year when unseasonably cool spring weather delayed planting by two weeks.

"It's not that my situation is bad, I just don't earn very much money," Wang says. "It's the same for all of us here."

Farmers like Wang are straining to feed China's 1.3 billion people and the country's export markets on just 7% of the world's arable land. Urbanization further threatens capacity, as Beijing aims to move 100 million people from rural to urban areas by 2020. To meet expected food consumption needs that year, China must boost grain output by 10% over current levels, according to a 2013 Ernst and Young report.

Beijing recognizes the agricultural sector must be brought up to speed with developed nations, but the prevalence of small, fragmented land plots and unproductive farms render that task daunting. Further confounding the process is Chinese law, allowing farmers usage rights but not ownership, effectively cutting farmers out of the lucrative land deals engineered by local officials via a "collective ownership" scheme.

Despite those obstacles, reforms are underway. To begin, Beijing is creating a registration system that will record farmers' ownership of their land and allow them to transfer usage rights. It also plans to professionalize the agriculture sector by training large numbers of farmers in modern agribusiness.

Foreign investment seems a likely antidote to stalled agricultural development, but China's leadership sees food independence as a national security issue and chafes at the prospect of reliance on multinational companies to feed its own population, no matter how advanced their technology, hindering the role that such investment could play. That leaves the best prospects for agricultural modernization in the hands of domestic tech companies, private-equity firms and agribusiness entrepreneurs.

The Last Modernization

While China produces nearly one quarter of the world's food, its agriculture industry is primitive, 108 years behind the US and 36 years behind South Korea, says the Chinese Academy of Social Sciences.

Agriculture contributes just 15% to China's GDP, despite providing jobs to more than one third of its labor force. Compared to China's manufacturing and services sectors which drew in $38 billion and $50 billion in foreign direct investment (FDI) respectively last year, agriculture, animal husbandry and fishery businesses attracted just $1.4 billion.

But for certain investors, Chinese agriculture offers opportunity. Singapore-based CMIA Capital Partners is raising $150 million for a private-equity fund that will invest in Chinese agribusiness. The cross border China-Israel fund Infinity is also investing in agriculture, backing firms operating in Beijing Eco-Valley, a newly established agriculture park in the capital.

Scale-up activity is already happening in the dairy industry. According to a Rabobank report published in October 2013, the focus on milk quality in China since 2008—that year, milk and milk products tainted with the industrial chemical melamine killed at least four babies and poisoned thousands more—has favored the rise of large-scale dairy farms. The share of production of farms, with more than 500 cows, grew rapidly from 17% of total milk production in 2008 to 27% in 2011. "KKR [a large US private-equity firm] did well in Modern Dairy. There is a view that this is how to make money," says David Mahon, who heads a Beijing-based investment management firm active in China agribusiness.

Pig farming is also scaling up, as Beijing seeks to curb rising prices in the world's largest pork market. The Jiahua Pig Breeding Farm in Zhejiang province, which raises 100,000 pigs a year, is one of the largest new industrial hog farms. In the future, China aims to source 80% of its pork from scaled-up farms that produce at least 500 pigs annually.

For now, massive agribusinesses like Jiahua comprise just 2% of China's hog farms and 40% of its pork is still produced on small backyard farms. Most Chinese rural households each till about half a hectare, an area roughly the size of an American football field, sub-divided into five or more separate plots. The prevalence of these small, fragmented plots presents one of the biggest challenges to bringing China agribusiness up to first-world standards.

The Farm-Town Blues

China's current agricultural system does not provide farmers with the income necessary to spur productivity, nor does it encourage the development of skills needed in modern agribusiness.

Small land plots are one reason for that, preventing farmers from generating significant profits for themselves or investors, says Ma Wenfeng, an analyst at China Agribusiness Orient Consultants in Beijing. "It's a bad cycle," he says. "Farmers earn just enough to get by and have no spare income to invest in education that could boost their productivity or know-how."

The productivity issues are evident in the most ubiquitous crops and products. The current per-hectare yield of soybean and corn in the US is double that of China, while cows in the US, which in some instances are scientifically bred, produce four times as much milk on average as those in China.

The fragmentation of rural land also inhibits scale. "Farmers are free to rent land and build scale, but it is not easy to put together a large, contiguous plot because land is so fragmented," says Bryan Lohmar, China Country Director of the US Grains Council. "Plots are different in every village."

And while private-equity firms like CMIA may be bullish on China's agribusiness potential, concerns around fraudulent accounting may be stymieing the capital that could otherwise alleviate some of the farmers' income pressure.

"It's very hard to verify what is and isn't there," says Mahon. The hog producer AgFeed is a case in point. Filing for bankruptcy in July 2013, AgFeed acknowledged "fictitious sales" logged between 2008 and 2011 and is alleged to have underreported revenue figures of divisions for sale by tens of millions of dollars between 2008 and 2010.

Restrictions on foreign investment in the agriculture sector, which Beijing classifies as a "strategic industry", further hobble efforts to scale up. For instance, regulations prohibit foreign firms from producing genetically modified crop seeds in-country and only allow them to produce non-modified seeds in a joint venture in which the Chinese party is the controlling shareholder.

"China is walking a razor's edge on this," says Fred Gale, a senior economics researcher at the US Department of Agriculture. "They are afraid their own seed industry will die on the vine if multinationals have free reign because their technology is so far ahead, but they know they need the best technology to increase productivity."

But before the seed industry can blossom, farmers need reassurance that their land rights won't be completely negated on the whim of local officials that sniff a lucrative business deal. Despite improvements on the issue of land grabs, disagreements between farmers and officials still weaken development opportunities.

Facing tough conditions, younger farmers are increasingly opting to work in cities, where personal incomes are three times those in the countryside. According to the National Bureau of Statistics, China's rural population dropped by 12.61 million to 629.61 million as of the end of 2013.

"Farmers are more willing to buy a truck and be a trader than buy a tractor and be a farmer," Lohmar says.

The farmers themselves remain largely unskilled, presenting another major challenge to strengthening Chinese agribusiness.

Silver Linings

In a bid to professionalize farming practices, the Ministry of Agriculture announced in August last year the construction of farmer-training bases in 100 counties. The bases are expected to train 100,000 professional farmers over the next three years. Some of them may be urban residents with the aspiration to operate a farm as a business.

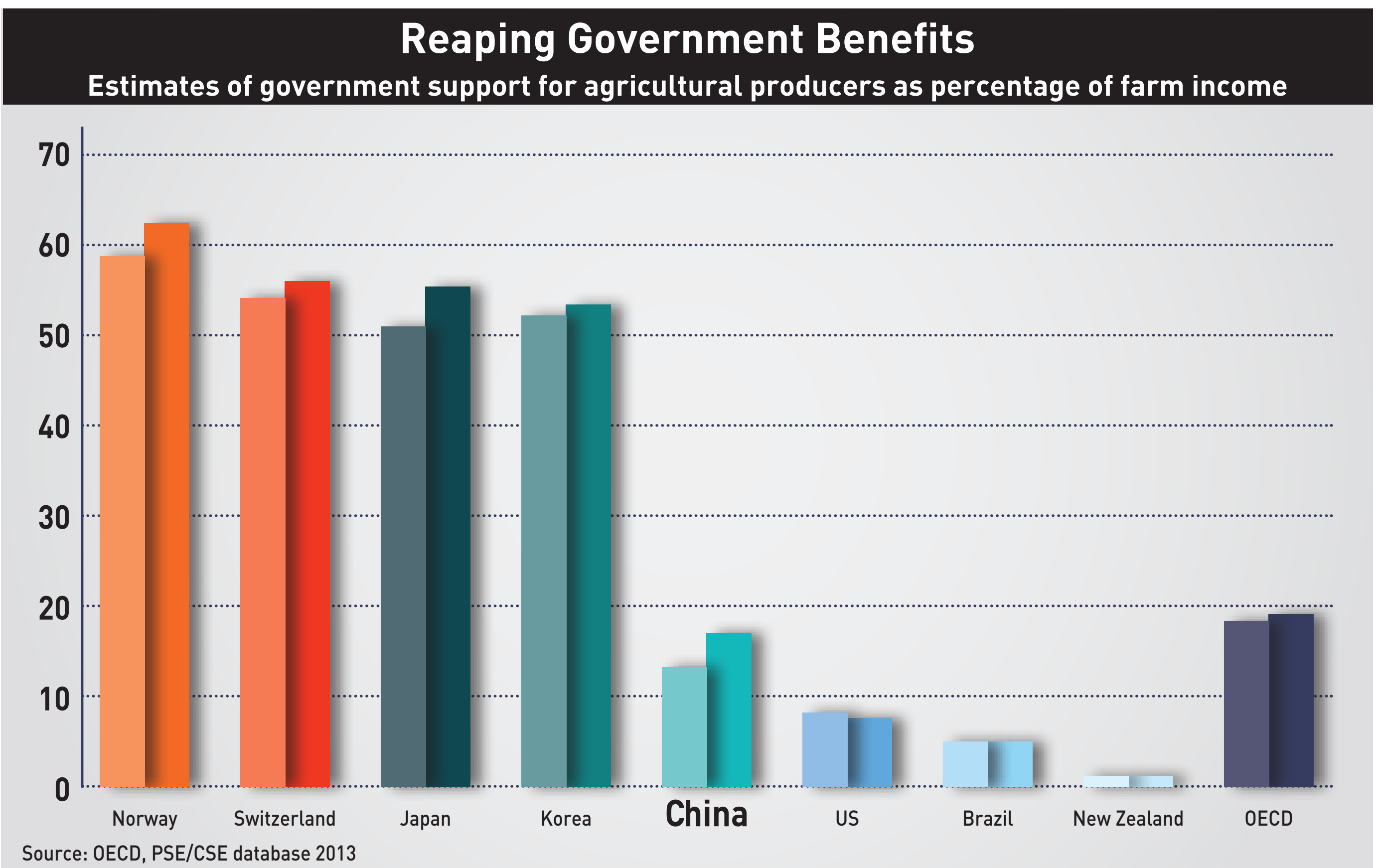
"Nobody educated would have wanted to go to the countryside as recently as five years ago," says Gale of the US Department of Agriculture. "That meant being a bumpkin." But he feels that stigma is fading.

Beijing is also encouraging farmers to "franchise" their lands to large farming entities, farmers' cooperatives and agricultural enterprises. According to Agriculture Minister Han Changfu, China will commence land registration in more areas in 2014, aiming to roll out the scheme nationwide in 2015 and complete it within five years.

"Many farmers do not trust the current system to guarantee their land rights, so they hesitate to rent their land out," says Ruan Wei, a senior economics researcher at the Norinchukin Institute in Tokyo. Once farmers feel more secure that their land will not be reappropriated against their will, they will be more likely to rent it out, which will boost their incomes, she adds.

Improved ownership clarity and structure augurs promise from investors, particularly from newly interested technology firms. Joyvio, a subsidiary of the Lenovo parent Legend Holdings established in 2012, has become China's biggest producer and distributor of blueberries and kiwi fruit in less than two years following its acquisitions of existing fruit companies in China and Chile. The company has said it aims to implement global standards and to make farmers more cognizant of food safety issues. Joyvio says it is even mulling the use of IT systems to monitor farmer activity.

"That was a smart move," Mahon says of Joyvio's acquisitions. "They bought proven producers of kiwis and blueberries, which are fruits with some of the highest



profit margins." Their antioxidant properties make them popular with Chinese consumers, and in the case of blueberries, a reputation as a potent aphrodisiac, Mahon says."That's a high selling point".

But other tech firms' forays into agriculture have yet to flourish. The IT firm NetEase, which earns most of its revenue from internet gaming, released a statement last month explaining why the pig farm it launched in 2012 had progressed less than expected. "Agriculture is a brand new field for NetEase, and managing a complicated supply chain is not what an internet company is good at," the statement said. The initial plan announced in 2009 was to set up a farm that would raise 6,000 to 10,000 pigs annually with a target opening date in 2012. As of December 2013, the farm was still in an experimental stage and had only raised 400 pigs with 100 head nearly ready for slaughter.

Farms of the Future

Investment from the tech sector plays into Beijing's overall strategy to reboot farming in China with a new set of actors, capital and concepts, says Gale of the US Department of Agriculture, but will take decades to come to fruition. "As NetEase found out, agriculture is a long-term and very complex process that is harder than setting up a website," he says.

Meanwhile, land reform will be slow coming, says Ruan Wei of the Norinchukin Institute in Tokyo. Local governments rely on land sales to boost GDP, "one of the most important criteria for evaluation by Beijing", she says.

And in spite of the land grabs, some farmers have bought into the idea of collective ownership. A survey conducted last year by John Donaldson and Forrest Zhang, professors at the Singapore Management University, found support for China's current land system among rural Chinese households in Fujian, Heilongjiang, Henan, Shandong and Yunnan. According to their research, most farmers believe state ownership is "more egalitarian than private ownership."

A more immediate problem for Chinese farming is the disappearance of arable land and corresponding spike in agriculture imports. The widening rift between China's 95% grain self-sufficiency target and the actual rate of less than 90% prompted the central government to pledge in December that China would follow "a national food security strategy based on domestic supply and moderate imports."

Yet that goal may well prove elusive. China would need an additional 40 million hectares of arable land—almost 25% of the existing total—to grow sufficient crops to replace imported volumes, according to the Australian Farm Institute. Pollution is a major part of the problem. Vice Minister of Land and Resources Wang Shiyuan told reporters at a recent press conference that some 3.33 million hectares of China's farmland—an area as large as Belgium—is too polluted to grow crops.

The Safety Net

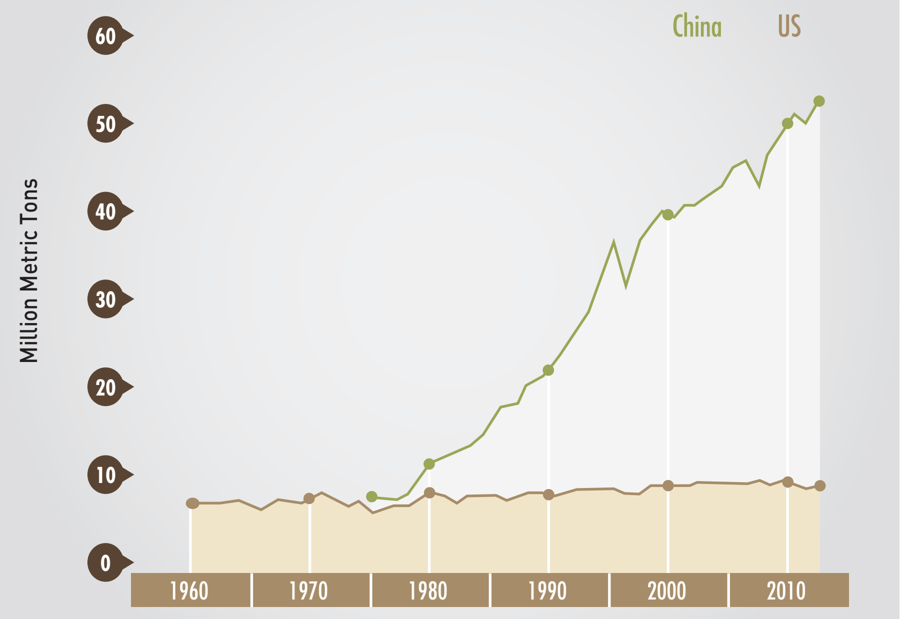
Since Beijing sees investing in agribusiness as "a kind of social responsibility", domestic investors can expect high-level backing, including favorable lending terms from the China Development Bank, Mahon says. In a nod to Chinese consumer preference for foreign goods, Heilongjiang-based Beidahuang Group reached a deal to develop 300,000 hectares of land for farming in southern Argentina in 2011. Entrepreneur Zhang Renwu is now China's largest alfalfa supplier, sourcing the crop from two farms he purchased in Utah.

In Mahon's view, Chinese policymakers face a dilemma: consumer demand for foreign food products outstrips that for those made in China, but Beijing must still safeguard the interests of its own farmers. Chinese consumer confidence in domestic agriculture and the government's ability to regulate it was badly shaken by the 2008 melamine scandal in the dairy industry and has yet to recover, he says.

In that sense, opportunities remain for foreign firms in China agribusiness "It can be done, but China has to be seen as not compromising its own domestic industry," says Mahon. "The smart thing [as a foreign investor] is to say let me build five hog farms and an abattoir, which is classified as industrial and can be taxed," he says. "There you have a strong story, you have integrated value."

Pigging Out

Pork Consumption in China and United States (1960-2012)



Source: USDA

Smog Warriors

Smog in China has reached apocalyptic levels, which is great news for the country's pollution profiteers

By Christopher Beddor

Wang Bin browses a selection of facemasks at a supermarket in central Beijing. After scanning several different styles, he picks out an intimidating, thick mask made by 3M, an American conglomerate. He's buying the mask as a replacement, he says, after he lost his last one.

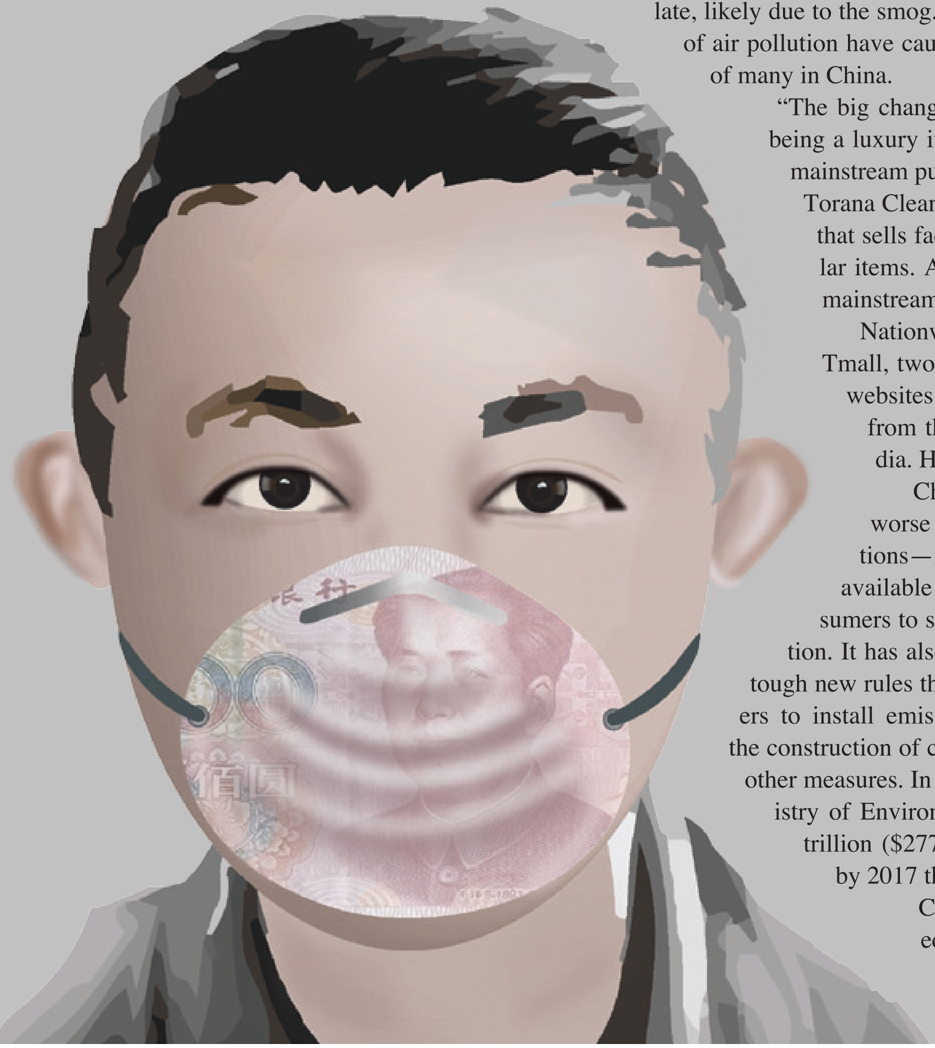
Wang and his grandmother have experienced coughing fits of late, likely due to the smog. Such immediate and tangible impacts of air pollution have caused a psychological shift in the minds of many in China.

"The big change is that air purifiers have gone from being a luxury item for 'health-conscious' people to a mainstream purchase," says Chris Buckley, owner of Torana Clean Air Center, a Beijing-based company that sells face masks, air purifiers, and other similar items. And mainstream purchasing means big mainstream profits.

Nationwide sales of face masks on Taobao and Tmall, two of China's most popular e-commerce websites, surged nine-fold in early December from the year before, according to state media. Home air purifiers were up three-fold.

China's air pollution has grown steadily worse in recent years. "Airpocalypse" conditions—including more accurate and publicly available data on air quality—have spurred consumers to snap up products that combat air pollution. It has also pressured policymakers into passing tough new rules that require power plants and auto makers to install emissions-reducing technologies, mandate the construction of cleaner residential buildings, and many other measures. In September, for instance, China's Ministry of Environmental Protection issued a RMB 1.7 trillion ($277 billion) plan to combat air pollution by 2017 through various subsidies.

China's air pollution, while undoubtedly harmful to the consumer's body and bourse, has also created unprecedented demand for such air qual-



ity-related consumer goods and clean air technologies. As China's smog will likely be here for a good while yet, savvy companies and investors are finding ways to turn smog into profits.

Deep Breath

Wang Bin has good reason to be concerned. Air pollution is often measured using concentrations of particulate matter under 2.5 micrometers (PM2.5), a level small enough to seep deep into the lungs. The World Health Organization recommends PM2.5 concentrations of no more than 25 micrograms per cubic meter.

Pollution in Beijing first exceeded the maximum levels of the US Embassy-provided Air Quality Index (AQI) (launched in 2008) in late 2010, topping 500 micrograms—a level initially labeled "crazy bad" by Beijing embassy staff (the post-500 category was quickly changed to "beyond scale"). That milestone has been surpassed many times since, and by early 2013 reached well over 800. Other northern cities have been hit even worse—Harbin registered levels above 1,000 in late 2013—and beyond-index pollution has even spread to southern areas such as Shanghai, Jiangsu and Zhejiang.

Smog that severe has clear health consequences. Air pollution cuts an average of five years off the lives of Chinese in the north of the country, according to a study published last year in *The Proceedings of the National Academy of Sciences*.

China's former health minister argued last year in *The Lancet*, a British medical journal, that between 350,000-500,000 people in China die prematurely each year due to air pollution. Independent studies, such as one also published in *The Lancet* in December 2013, put the figure as high as 1.2 million.

Local residents have taken note. Demand for air pollution-related products came in two waves, says Buckley of Torana Clean Air Center. The first was in late 2010, when foreign press coverage of the "crazy bad" air prompted many expats to buy air purifiers. The second came in late 2011, when stories about pollution began appearing with more frequency in local media and led to a surge of additional demand from Chinese consumers.

The combination has created a distinct change in how consumers view air quality products. International companies now routinely throw air purifiers into executive housing packages while big local companies, embassies and schools are installing heavy-duty air filters.

China's pollution has been good business for Torana Clean Air Center. Since its start in 2009, the company has established two brick-and-mortar outlets and significantly increased its online sales.

Manufacturers have enjoyed similar growth, especially international firms, which Chinese consumers tend to trust more than local brands. For instance, foreign brands comprise roughly 80% of the market for air purifiers in China, according to a study by Market Reports China.

3M, an American company that makes face masks, air purifiers and air filters, says it has witnessed a "dramatic increase" in demand from China over the past three years, according to a company spokesperson who declined to be named. The company has responded by promoting sales of its masks on Taobao and other Chinese e-commerce sites. But it "still can't seem to provide them fast enough," especially during the winter months.

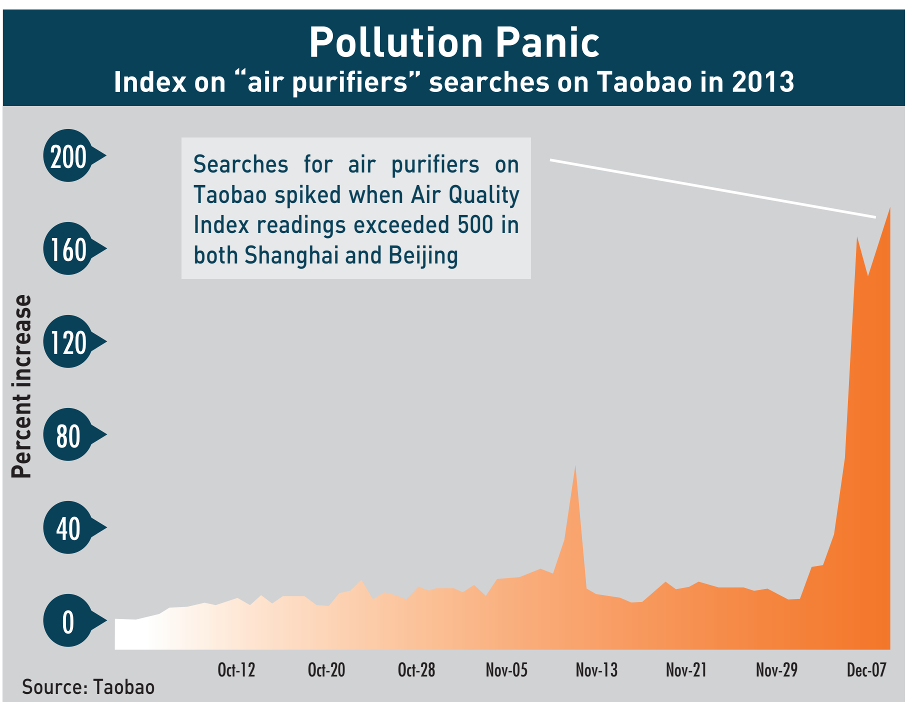
Honeywell, another American conglomerate, says that "expanded government focus at all levels on curbing pollution will result in important commercial opportunities". The company has seen its sales of air filters and purifiers increase by 50% over the past three years, says Roger Zhang, a company spokesman. Some companies, such as Broad Group, a Chinese manufacturer, estimate that the market for air purifiers alone could reach $33 billion by 2019.

One important source of growth, Zhang adds, has been business-to-business services, as commercial buyers—hospitals, hotels, train stations, and so on—look to upgrade their air filtration and purification systems.

Cleaning House

The desire to upgrade air quality has extended into the industrial environment as well. Power stations, manufacturers, and construction firms are all preparing to adopt cleaner technology to prepare for tougher emissions standards.

China's State Council announced in September 2013 a raft of measures that



included specific PM2.5 reduction targets for several northern cities. If the targets are not met by 2017, said Beijing's mayor at a press conference, "heads will roll."

Local policymakers will need to focus on the three main sources of air pollution: power stations, industrial complexes and auto emissions, says Geoff Dollard, Director of Air and Environmental Quality Practice at Ricardo-AEA, a UK-based air quality and energy consultancy that advises Chinese cities on air pollution policies.

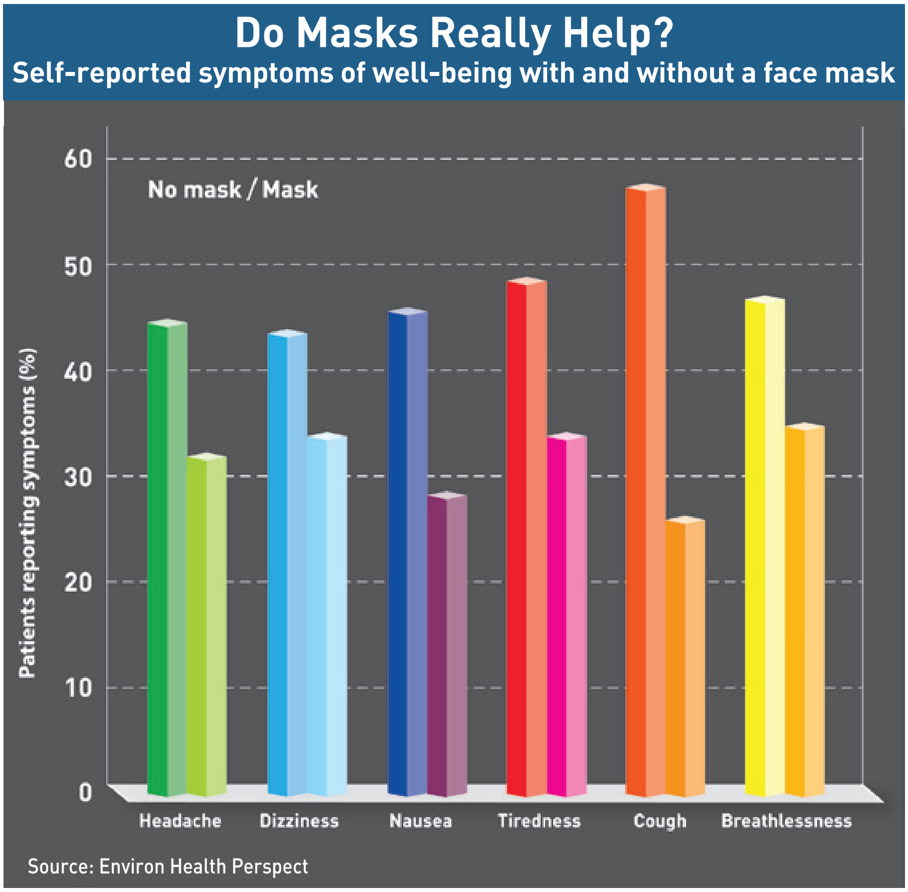
The government has taken major steps to curb pollution among the first two sources, he adds. Several incentive schemes encourage a shift from burning coal to cleaner natural gas and require retrofitting power stations to cut out pollutants. The government also announced in January requirements for about 15,000 small factories to produce real-time, publicly available information on emissions.

One beneficiary of such policies is LP Amina, a US-based tech firm that equips coal-fired power plants with technology to cut out nitrogen oxide (NOx), a pollutant. Demand in China for the company's technology is "definitely growing," says Jamyan Dudka, its Marketing and Business Development Manager.

That demand is largely policy-driven. Over the past decade, each new Five Year Plan (FYP) has targeted a different type of pollutant at power stations. China's 11th FYP, in effect from 2006-2011, took aim at sulfur emissions. The most recent 12th FYP, covering 2012-2017, is now doing the same for NOx.

After reviewing the latest FYP, "we knew there would be a big market so we decided to jump in," says Dudka. The company currently has operations at plants in about 13 provinces, and its China sales doubled last year.

A typical project was the Shajiao Power Plant located in Guangzhou. The plant's owners sent LP Amina several technical specifications of the station, including the capacity, existing technology, type of coal used and emissions target. After reviewing the specifications, LP Amina worked with the owner to choose one of its three main NOx technology solutions (each with a different price and reduction level).



The team then designed, purchased and installed the custom retrofit equipment for Shajiao Power Plant. The total time to completion was four months, compared to about a year in the US. "Just everything from engineering, procurement, to installation happens so much faster [in China]," says Dudka.

The market has its share of challenges, however. For starters, retrofitting is a one-off business: once power plants have acquired the latest NOx technology, the focus will shift elsewhere. Dudka says LP Amina is therefore working on other coal technologies, such as a system that sorts and classifies coal based on its particle size to introduce after its current retrofit projects are finished.

Another issue is corporate corruption, especially fake auctions. Big power station companies, many of which are government-owned, have learned that there is money to be made in the retrofit space and set up subsidiaries to focus on such work.

To maintain a veneer of above-board public procurement procedures, power plant companies open public bidding for firms to meet its retrofit requirements, says Dudka. LP Amina and others take time to create a proposal, but the winner (the power company's subsidiary) was actually chosen before bidding even started.

Policymakers have also taken aim at retrofitting homes and offices to cut down energy consumption altogether.

China's government has committed to making 30% of all new construction green by 2020—the government's first concrete green construction target, notes John Mandyck, Chief Sustainability Officer at United Technologies, a high-tech US manufacturing conglomerate that is involved in green construction. By comparison, about 44% of all new commercial construction in the US is green, up from just 4% in 2005.

The definition of green construction can vary, but generally encompasses standards for water efficiency, energy-saving materials (such as double-paned windows), and indoor environmental quality. Officials estimate that new green construction will save the equivalent of burning 45 million tons of coal during 2011-2015, according to state media.

Moreover, the government has mandated that some four million square meters of property in several northern cities be retrofitted for better insulation against the cold. The retrofits should cut energy consumption by around 20-30%.

Several property developers in China are benefitting from the policies. Mandyck singles out Wanda, one of China's largest property developers, as a particularly aggressive mover. The company is constructing 10 new commercial projects that have been certified green by the government. Foreign architectural firms have also been urged to design greener buildings, including Skidmore, Owings & Merrill, which designed the Chemsunny World Trade Center in Beijing with double-paned glass.

Despite the challenges, the policies are working, argues Dollard. But unfortunately reduced emissions from power plants and industry have been offset by higher emissions from more autos on the road.

According to the China Association of Automobile Manufacturers, about 22 million new vehicles were sold in China last year, up 13.9% year-on-year despite the slowing economy.

Policymakers initially hoped to combat increased emissions by encouraging the growth of electric cars and buses; Beijing set targets of 500,000 such vehicles on the road by 2015 and 5 million by 2020. But sadly consumers seem largely uninterested. Just 17,600 hybrid and all-electric vehicles were sold in China last year.

At the same time officials have been tightening emissions standards, which are "typically two years behind where we are in Europe," says Daren Mottershead, Sales and Marketing Manager at MAHLE Powertrain, a UK-based firm that consults Chinese car makers on developing engines with lower emissions.

> "It's really just a question of finding the right companies to partner with
>
> Ed Sappin
> Founder
> Sappin Global Strategies

Demand in China for emissions technology and know-how has increased steadily in recent years, he adds. Not only are local emissions standards being steadily adjusted upwards, but Chinese manufacturers are increasingly looking to sell cars in markets with already high emissions standards, especially Europe.

Moreover, Chinese car companies have generally purchased previous-generation engines from US and European auto companies and then made small tweaks to comply with local regulations. Now they are looking to develop their own engines in-house, an undertaking that can be as expensive and time-consuming as designing the car itself. That gives companies like MAHLE Powertrain an opportunity to consult services on low-emission engines—a market that will continue growing strongly in future, says Mottershead.

Here to Stay

The assumption seems a safe bet: many experts believe China's air pollution will stay for the foreseeable future.

"Effectively what China is going through is a very accelerated version of the problems Europe has faced," says Chris Dodwell, Director of International Projects at Ricardo-AEA.

Air pollution experiences tend to follow a similar pattern, he explains. Pollution builds along with the region's industrial growth. Eventually it poses a clear and unacceptable threat to public health, and a backlash—sometimes a single event or season—forces policymakers to crack down with tough legislation.

One such example was the infamous "Great Smog" in London during the winter of 1952, says Dollard of Ricardo-AEA. After around 4,000 residents died prematurely as a result of the pollution, parliament mustered the will to pass the Clean Air Act that cleared up the city.

China may soon be approaching a similar tipping point, analysts say. It could provide further opportunities for companies and investors.

"You walk outside in Beijing and not too many people are arguing whether or not you should have a clean technology industry," says Ed Sappin, head of Sappin Global Strategies, a fund that invests in clean tech firms. "So fundamentally, from an investor's standpoint, there's going to be a big market in China for clean technology."

In particular, Sappin points to smart grid technology as perhaps the next hot area for foreign investment, as China's clean energy rules and subsidies push electricity providers to squeeze more out of their infrastructure.

But companies will need strong government relations that allow them to quickly sense shifts in the political wind. On the other hand, they need to maintain an innovation edge and avoid the temptation to bank on easy money from favorable regulation and government connections—connections and policies which can easily fade or change.

Despite hurdles, as an investor in the sector, Sappin says he is bullish and anticipates demand to grow in the long run.

"China's market certainly is quite attractive at a macro level," he says. "It's really just a question of finding the right companies to partner with for the long term."

BEAUTY IS POCKET DEEP

In China's increasingly competitive cosmetics market, who will come out ahead and who should re-evaluate?

By Jill Petzinger

Stepping into the cosmetics section of any Shanghai-based department store means entering a brightly lit wonderland of shiny displays, impossibly beautiful faces plastered on the wall, and a barrage of demonstrations. Groups of young, fashionable girls cluster around the stands, trying out the latest lipsticks and lotions that promise a shot at perfection and the imagined lifestyle that beauty brings.

The news that L'Oreal would stop selling its Garnier brand and Revlon was pulling out of China completely provoked a flurry of media attention in 2013, with many predicting the gradual demise of Western personal care brands in China. While such a scenario looks unlikely—L'Oreal and Procter & Gamble still lead the field—Western beauty brands are being forced to adapt their offerings and marketing strategies to maintain their leadership in an increasingly cluttered, and increasingly digital, environment.

"L'Oreal built its brand in China based upon it being French, fashionable and finessed. It achieved a higher-end position, and selling Garnier products via supermarkets both distracted from this higher-end focus, and was increasingly unsustainable in such a competitive environment," says Matthew Crabbe, Director of Research, Mintel Asia-Pacific. He adds that the Garnier brand "became swamped in an increasingly crowded skincare market".

Revlon had been in China since 1996, but the mainland accounted for only 2% of its total global sales by the time it decided to pull the plug. According to Crabbe, it was focused only on color cosmetics, a crowded sector with low brand loyalty. Mintel's latest consumer survey data found that Chinese women tend not to wear color cosmetics every day either, as they worry about the side effects on their skin, making Revlon's challenge even tougher.

Analysts agree that the company did not prosper due to a lack of investment in marketing, advertising, and the development of products for the local market. Selling though a single channel—big department stores—meant it suffered from low visibility, and low brand recognition.

> "In male personal care categories, lots of purchasers are actually women
>
> Cindy Yang
> Senior Director
> Nielsen China

Foreign Does Not Equal Brand

Both Procter & Gamble and L'Oreal refused to be interviewed on how they are adapting to the realities of the Chinese market. According to data published in 2013 by market research firm Research In China, overall gross sales in the personal care industry fell from $24 billion in 2012 to $21.9 billion in 2013, due to economic sputter in China and slow global economic recovery. The key foreign players by market share are Procter & Gamble, L'Oreal and Shiseido. Euromonitor figures show that thanks to the company's expansion into second and third-tier cities, and intensive marketing, L'Oreal led 2012 with a 22% value share in men's 'grooming' and a 41% value share in men's 'skincare'.

"Chinese men are more open to use products these days," says Cindy Yang, Senior Director of Nielsen China. "Male skincare products have expanded from hydration and oil control segments to new categories like facial masks. In male personal care categories, lots of purchasers are actually women, as men trust their girlfriends or wives to select products for them," something to keep in mind when marketing men's cosmetics.

Reportedly, foreign cosmetics brands jointly grabbed 57.9% of the mainland Chinese market as of May 2009, but their market share fell to 44.5% as of May 2012. Procter & Gamble and Avon both lost market share in the six years through 2012, according to Euromonitor.

Foreign brands are also subject to additional pressure back home around the thorny issue of mandatory animal testing in China. L'Oreal brands Body Shop and Pangea Organics for example reject animal testing as part of their core principles and as such are barred from market entry. It's a tortured compromise for multi-brand companies like L'Oreal and Procter & Gamble, but one that so far seems to be worth overriding their principles for.

There is talk of China abandoning mandatory animal testing, but it won't happen overnight, according to Xu Jingquan, Secretary General at the All-China Federation of Industry and Commerce, Beauty Culture & Cosmetics Chamber. "Our R&D isn't as sophisticated, and the consumer here doesn't think as much about ideals such as animal testing," he said last June. "They care about the price, the brand, and the product."

The Traditional & the Trendy

While operational costs and longer timeframes of getting a product on the market affect all big cosmetic multinationals, it is the rise of confident Chinese and South Korean brands, such as China's Herborist, Chinfie, CMM, Houdy, Caisy and Longrich brands, and South Korean brands AmorePacific, Sulwhasoo and Missha, that pose the long-term threat to their profits.

Shanghai Jahwa United Co., Ltd, which made *Forbes Asia*'s "Best Under a Billion" list in 2013, has emerged as a major competitor to established Western brands. The company now has 10 brands on the domestic market, including the very successful Liushen and Herborist, and announced last August that they were looking into acquiring foreign brands to help them break into the international market. Jahwa declined to be interviewed, stating that they were in the middle of implementing a new strategy and were not granting interviews until in the final stages of that strategy shift.

Herborist, which also has a chain of spas, positions its skincare products as a combination of traditional Chinese medicine (TCM) ingredients and modern cosmetic technology, tapping into a growing trend in the demand for contemporary botanical products in China, a long-standing cultural respect for TCM and a general awareness of environmental impact.

"Both Chinese and Western companies have good understanding of Chinese women, but local brands are comparatively more flexible and faster in execution," says Yang. "Western brands are not necessarily regarded as better quality. Some local brands are preferred among consumers because they have leveraged traditional Asian ingredients well and made their products very convincing."

On cue, Estee Lauder, which already sells many of its popular brands in China, like Clinique and Kiehls, announced in 2012 that it was developing a completely new brand, Osiao, purely for the Asian market, supposedly containing ingredients derived from Chinese plants, such as ginseng. L'Oreal has had a huge research center in Shanghai since 2005, where several hundred scientists develop products that incorporate Chinese herbs in an attempt to win customers, and fight off their Western rivals.

Meanwhile, South Korean brands are taking the punk-rock approach to making their brands stand out, especially among younger, hipper consumers. With Asian skin suitability well handled, they're also seen as highly innovative, with funky packaging and reasonable price points. South Korea's largest personal care brand is AmorePacific, which produces the popular brands Laneige, Mamonde and Etude House. According to Euromonitor data, AmorePacific's market share increased from 1.2% in 2007 to 2.6% in 2012.

Keeping up with fast-changing China is perhaps harder for larger MNCs fixated on their core brands, according to Mintel's Crabbe. "Companies need to get less precious about flagship brands, and would perhaps do better to research emerging trends and acquire trending local brands to ride the wave.

"Brands exiting from China has nothing to do with lack of market growth, but rather their failure to beat the competition in making their brands relevant to the notoriously fickle local consumers."

L'Oreal's certainly taking no prisoners in its blitzkrieg to rule the Chinese market and cater to the myriad local tastes and trends. Case in point, the Paris-based company bought Chinese brand Yue-Sai in 2004, and the hugely successful Chinese face-mask company Magic Holdings for $840 million last year, all in the name of securing their hold over their target consumer.

"

Brands exiting from China has nothing to do with lack of market growth

Matthew Crabbe
Director of Research
Mintel, Asia-Pacific

Who's That Girl?

Yang says that Chinese consumers look for real value in products, paying attention to the ingredients, how they function and how effective they are. They are happy to switch brands frequently and tend to use different skincare products for different seasons. They layer products more than their Western counterparts, and look for the best products to lighten the skin and provide luminosity.

"Consumers are not as loyal as before, especially younger consumers from the post 80s and 90s," says Yang. "The market share of the top 10 skin moisturizing brands dropped by 5% from 2011 to 2013. This is partially because consumers have more choices, plus e-commerce's and cosmetic store channels' fast development has made products more available to consumers."

One of Shanghai's most popular beauty bloggers, Kristi Wang, whose blog, Little K's Diary, gets between 15,000 and 20,000 hits daily, cites Lush, Eve Lom, Albion, John Master Organic and La Prairie amongst her favorite brands. For makeup, she says it always has to be Chanel. She believes that biotech and natural, organic products will be the main trends in the next few years.

"I like both the Western and Eastern skincare brands," she says. "In my opinion Western brands do well on anti-ageing products, and Eastern brands are good in the whitening and moisture category."

May Yang, a 31-year-old digital marketer living in Beijing, says that while her favorite skincare brand is Esteé Lauder, she makes her choice based on what is best for her skin.

"Some Western products may be too rich for Chinese people due to different skin types," she says. "You need to choose wisely according to your skin condition."

Skin nourishing treatments take priority in the beauty routine of many Chinese women, including Yang, who hardly wears any makeup. "I believe skincare is more important than makeup because without a good skin base, makeup doesn't make sense and cannot help much with your facial beauty, or it can sometimes make your skin even worse."

> "In recent years more and more fake products are appearing on Taobao, so I only buy products at the counter
>
> May Yang
> Digital Marketer
> Beijing

Beautiful Bargains

Interestingly, despite the enormous growth in online shopping, both beauty blogger Wang and mother-to-be May Yang prefer not to do their cosmetic shopping online. Yang prefers to buy her products in the mall as she enjoys trying before she buys. Wang, on the other hand, has trust issues with online purchasing.

"Before, I bought a lot of cosmetics on Taobao," she says. "But, in recent years more and more fake products are appearing on Taobao, so I only buy products at the counter when I travel around."

While shopping on Taobao can be a minefield in terms of ensuring the products you buy are bona-fide, the official Tmall stores of brands such as L'Oreal can usually offer the consumer peace of mind that they are getting the real thing.

According to Euromonitor figures, online sales of personal care products increased from 4% in 2010 to 9% in 2011, while sales in the actual retail stores dropped from 83% to 74% in the same timeframe. They're leaner, with lower overheads, and have no need to employ armies of beauty consultants, something that is increasingly significant as wages rise throughout the country. These savings can be passed on as discounts to the customer, with sometimes up to 20% off premium beauty products.

Leo Chen, founder and Chief Executive of huge online beauty discount e-tailer Jumei.com told local media that Jumei claimed revenue of $400 million in 2012, up from $100 million a year earlier, declaring boldly that direct department store sales were a thing of the past. Jumei's front page now boasts brands like Esteé Lauder, Clinique, Lancome and Dior. Whether Jumei is hurting the profit margins of major cosmetics brands is a topic most are unwilling to discuss. Jumei did not respond to request for comment.

Outlets and department stores have become a testing ground for consumers before they go online and purchase the same products frequently at a cheaper price from a multi-brand platform like Tmall, not unlike what typically happens in the consumer electronic market.

But online retailing can also boost sales, especially in lower-tier cities. Esteé Lauder, for example, saw their online sales rising by 40% in the year-ending June 2012, and CEO Fabrizio Freda told state media last year that the majority of online sales are from cities in China where they don't have retail outlets.

Mintel's Crabbe says effective brands constantly interact with customers via social media and online retail sites, always offering added value, be that promotions or 'must-know' beauty tips.

In addition, cosmetic companies best not skimp on the samples if seeking demanding consumers like May Yang. "The brand needs to improve the quality and offering of its trial samples," she says. "It must have a promotional campaign with an attractive theme online and offline, to get my attention, and then I *might* stop by and check out what's going on."


SSD

The Money Matrix

As Chinese consumers show an increasing preference for easy-to-use online financing, what will happen to traditional banks?

By Ana Swanson

Like many businesses the world over, investment in China has gone mobile. Just ask Yang Ren Jun, a 26-year-old translator and interpreter in Shanghai. Yang initially invested RMB 3,000 in a new online investment service called Yu'e Bao (meaning "leftover treasure" in Chinese) in February this year, following the product's launch in June of last year. Her husband invested several tens of thousands of RMB. Yang now uses a mobile app to check the account regularly, eyeing the steady growth of her bundle as the annual interest rate of roughly 5% does its work.

"The interest rates are much higher than bank interest rates, and you can make transfers and pay utility bills. It has a lot of functionality," says Yang.

Yu'e Bao has catapulted Alipay, an online payment company that provides the product, and its affiliate Alibaba, China's largest e-commerce company, to the forefront of the financial industry. Long known for a thriving e-commerce business, the sprawling Alibaba empire now also lays claim to one of the largest, most heavily capitalized mutual funds in the world. Alipay attracts the funds for Yu'e Bao, and then turns them over to Tianhong Asset Management Co, now 51% owned by Alibaba, to invest. After launching last June, Yu'e Bao had reported amassing roughly RMB 400 billion ($65 billion) in assets under management by mid-February, making it the largest money market fund in China and among the largest in the world.

Not to be outdone, China's other major technology companies are quickly launching competing products. Tencent, a software and gaming company, has introduced a product that allows users of its popular WeChat mobile chatting app to put money directly into a fund run by China's largest mutual-fund manager, China Asset Management. Sina, which runs the Twitter-like service Weibo, and Baidu, the company that operates China's largest search engine, have released similar products in partnership with fund companies, and other internet companies as well as traditional banks are also eyeing the sector.

> "More elderly people are getting used to digital channels, even my mother-in-law [uses] online banking
>
> Zhang Yue
> Project Leader
> Boston Consulting Group

Due to their broad appeal and accessibility, these online investment platforms are changing the way consumers access financial products in China, tapping a much broader and deeper market. In the process, they are opening new business possibilities for technology companies, which are seeing their numbers of users and their access to bank accounts boom. They are changing the game for traditional banks, which must compete for funding and customers for the first time. They are also creating new challenges for regulators, who must make sure that China's economic stability isn't sacrificed in the rush toward growth and innovation.

The rapid growth of the online investment market is the product of a "perfect storm" in China, says Zennon Kapron, Managing Director of financial consultancy Kapronasia. China has a large and secluded financial market in which many middle class people lack access to investment opportunities, and a liberalizing but still very traditional financial sector, he says. It also has a vibrant technology sector that is uniquely positioned to bridge this gap.

A People's Bank of China

Yang and her husband demonstrate one of the most compelling aspects of Yu'e Bao and its competing products: their appeal to Chinese across categories, from those who earn a few thousand renminbi a month to those who earn more than a million renminbi a year.

That's in part because these online services are so easy to use and access. Most users manage their funds through their smartphones. Funds can be withdrawn or transferred nearly instantaneously and at any time of day, not just business hours—meaning customers no longer have to put up with the long lines for which Chinese banks are infamous. The platforms also have high withdrawal limits and no minimum investment requirement—Yu'e Bao users can invest anywhere between RMB 1 and RMB 1 million, as opposed to the RMB 1,000 ($165) minimum for many investment products at traditional banks.

Funds in Yu'e Bao can be used for payment at any place that accepts Alipay, China's largest third-party online payment provider. And users of these services can also expect a higher return than that offered by traditional savings accounts. At around 6% and up, the returns from online investment platforms are more akin to those from China's new generation of wealth management products. Alibaba's Yu'e Bao says it generates these returns by investing in products including cash, short-term commercial papers, bank deposits, short-term bonds, central bank notes, bonds, asset-backed securities, and money market funds.

Typical users of these services vary widely, but many are young and tech savvy enough to be more comfortable with banking through their phones than queuing at the bank. According to Alipay, the average age of Yu'e Bao's 49 million users is 28, though the age with the largest number of investors overall is 23.

Yet analysts caution that a surprising swathe of customers for online investment platforms do not fit this profile. Smartphone penetration is providing access to online services to people of all ages and demographic groups. Unlike in developed countries, many Chinese are skipping computers altogether and accessing internet for the first time through their phones, a process often described as "leapfrogging". And China's e-commerce industry is not strictly an urban phenomenon—in the country's vast and underdeveloped interior, e-commerce has taken off as a way for rural residents to access coveted products.

"Digital penetration is happening faster than people would imagine in China," says Zhang Yue, a project leader at Boston Consulting Group in Shanghai. "More and more elderly people are getting used to digital channels—even my mother-in-law [uses] online banking and WeChat."

In a country where access to funding is typically limited to well-connected and well-established people and businesses, the rise of online investment platforms is giving a wider swathe of Chinese society access to the financial system. The much lower cost of operating a digital platform means that internet companies can afford to provide investment services to consumers that banks have previously ignored, like those of lower income brackets or in rural areas.

"It meets a huge unmet need," says Zhang. "Banks don't have a reasonable business model to serve this type of people because the costs are very high."

The Next Gold Mine?

For China's technology companies, online investment platforms represent a significant source of new business—especially for the market leader, Alibaba. As of January 15, Yu'e Bao had 49 million customers—more than the population of Argentina.

Rivals like Tencent, Baidu, Sina and others are hoping to follow closely on Alibaba's heels. In courting this new market, companies appear to be sticking to their competitive advantages, whether their specialty is e-commerce, online search or social networking.

Compared with other internet companies, Alibaba was well positioned to offer financial services; in addition to operating one of the world's largest e-commerce platforms, the company has a successful online payment tool, Alipay, and a small business lending division. Last year, the total volume of merchandise handled by Taobao and Tmall, Alibaba's two main shopping sites, topped one trillion yuan ($160 billion), more than the total for Amazon and eBay combined.

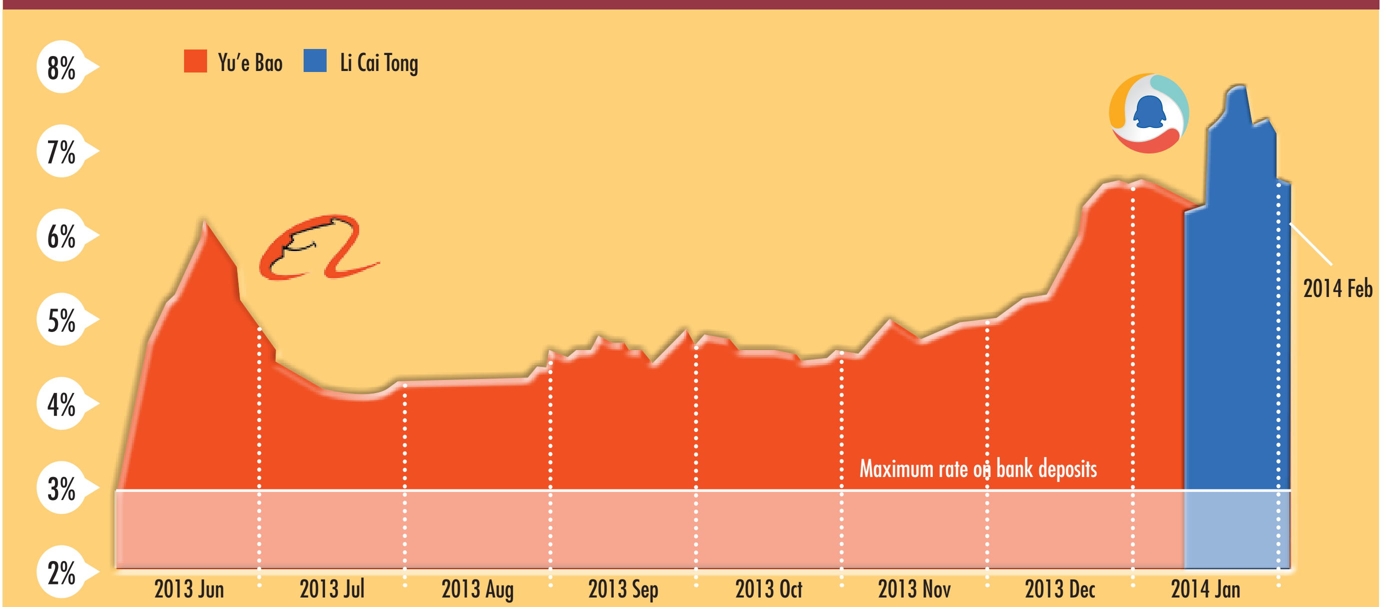
Many Alipay users took naturally to the Yu'e Bao product as a way to make some profit off the funds that were already sitting in the accounts they use to make purchases from Taobao and Tmall. As the fund grew, many began moving their entire savings into the product.

Inspired by Alibaba's success, Tencent joined the market in January 2014 with an investment platform, Li Cai Tong, which was designed to capitalize on the company's expertise in social networking. The product allowed users of Tencent's WeChat mobile application to transfer money directly to a fund run by China Asset Management. In a bid to attract users, the fund offered an initial seven-day annualized yield of 7.3940%.

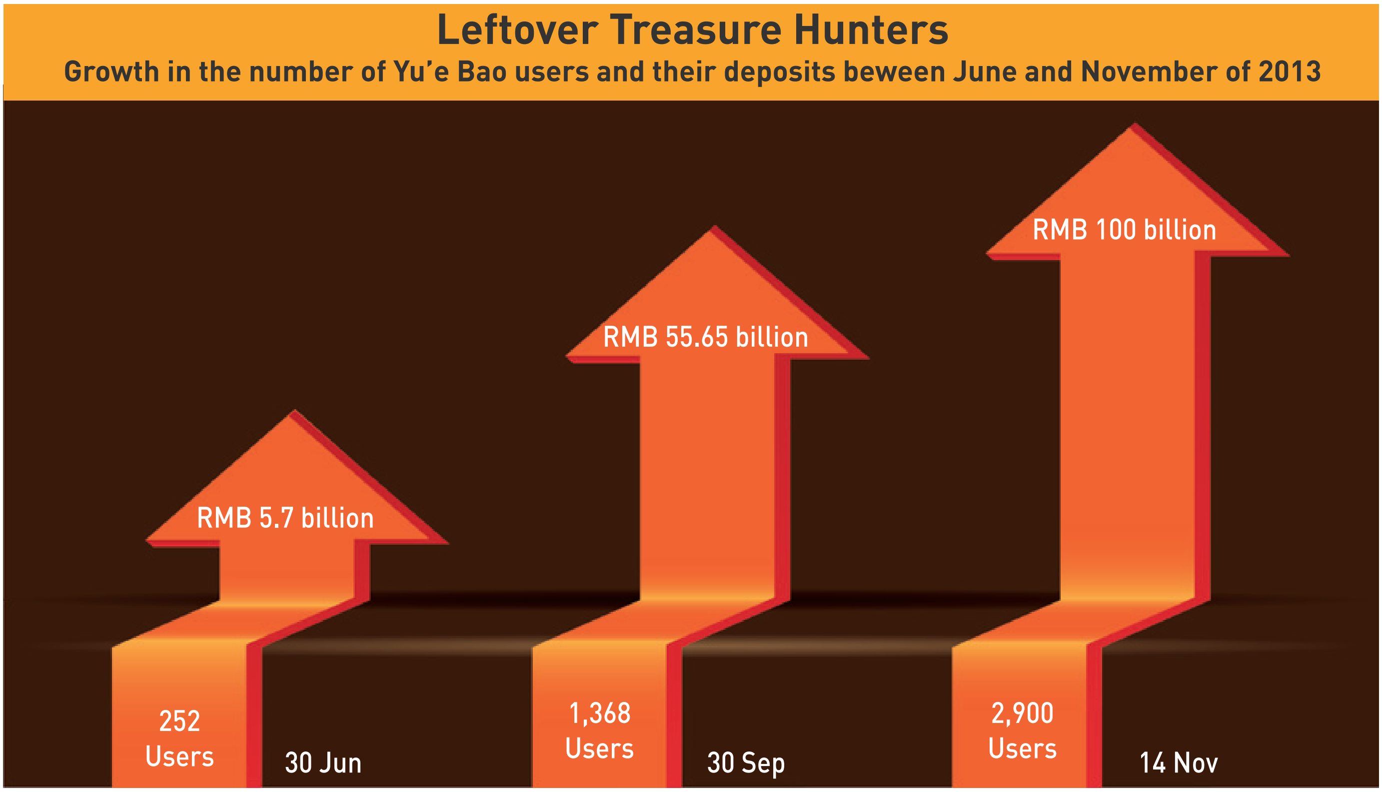
WeChat has more than 600 million users, equivalent to half of China's popula-

The E-Finance Appeal

Comparison of yields for Alibaba's Yu'e Bao and Tencent's Li Cai Tong versus traditional banks



Source: Wind Info; Reorient, *The Wall Street Journal*



Source: Tianhong Zenglibao Monetary Fund

tion, but few had linked WeChat with their bank account. But since Li Cai Tong's launch, Tencent has made progress in this regard. The company launched a successful promotion for Chinese New Year that allowed WeChat users to send each other "red packets", a digital version of the envelopes of cash that are traditionally exchanged during the holiday. The promotion succeeded in prompting many new people to connect their bank accounts to the Tencent platform—connectivity that gives the company the ability to launch a greater variety of profitable products in the future.

Baidu, the operator of China's largest search engine, took a different strategy in launching its four current investment products by initially emphasizing partnerships with traditional banks. Kaiser Kuo, Director of International Communications at Baidu, acknowledges that Baidu began with a smaller base of applicable customers than Alibaba, but describes the ventures as part of a longer-term strategy aimed at building up Baidu's payment platform. In March, however, Baidu CEO Robin Li announced that the company had formed a partnership to apply for a private banking license, which would allow it to manage investments directly.

The Bottom Line

For all of the major providers, online investment services appear to be more directed at attracting users to their payment platforms than generating profits, at least initially. Though none of these companies publish data on costs and revenues for these services, analysts speculate that online investment platforms are generating only slim earnings, if they are profitable at all.

According to Junheng Li, the founder of equity research firm JL Warren Capital, Alipay charges its depositors a slender 0.33% asset management fee, much lower than the average 0.5-1.5% fee charged by US mutual funds and the 1.2-1.5% fees charged by Chinese mutual funds. Alipay's service also offers a floating, rather than fixed, rate of return, indicating the company is passing most of the gains from their funds on to customers, says Li.

Zhang of Boston Consulting Group estimates that Baidu, which regularly offers an 8% return on its products, is likely collecting an even smaller return. "You can't earn money with that [high of a] guaranteed return," she says. "Probably Baidu is also taking money out of their own pocket to give to the customer." Both companies allow users to make near-instantaneous withdrawals from their funds, meaning they have to hold a large pool of cash on hand—a costly practice in terms of forgone investment profits.

Even so, it may be worth it for China's technology companies to absorb some losses now in order to build more effective payment platforms for the future. Li says internet companies are trying to adapt quickly to sustain profits, since many of their old revenue sources are drying up. "All internet companies in China have realized that the traditional models such as gaming and advertising have passed their tipping point," she says. And because payment platforms are crucial in determining whether a company can monetize internet and mobile services, they will likely play a prominent role in determining the fate of internet companies over the next decade.

Kuo of Baidu seconds this idea. "Online payments are a very vital piece to any kind of consumer-facing ecosystem," he says. Baidu's search platform has traditionally catered to business clients, but the company is gradually shifting toward more consumer-oriented businesses. "Obviously one key piece to that has to be the ability to take payment from them," he says. "And [online investment platforms are] a good way to ramp up the numbers of people that we've got."

Now may be an opportune time for trial and error: the regulatory environment for online investment products is still relatively lax, and new customers are plentiful. But the market will not remain rarified forever. Even as technology companies ramp up their services, new internet companies and traditional banks are jumping into the fray.

Old School vs. New School

The rise of these tech savvy competitors is putting stress on China's traditional banking system. As online investment products expand, they absorb some of the funds that would have flowed into bank deposits. In a blog post in February, an executive editor of CCTV even called Alibaba's Yu'e Bao product a "vampire" that is sucking the life out of Chinese banks.

Some traditional banks are trying to respond by evolving their own competing online services. Zhang Yue of Boston Consulting Group has been leading workshops to train banks on how to adapt to the digital age and introduce competitive online products. She says it is often a challenge for banks to be flexible and creative enough to compete with the likes Alibaba, Tencent and Baidu—companies that have built empires on their ability to quickly roll out innovative digital products. Yu'e Bao, for example, took only six months to develop, from product design to launch.

"There is a huge clash of culture—banks are risk-averse, conservative and slow. A digital firm or an internet firm is just the opposite," says Zhang. "It's very difficult to ask a banker to act and think like someone in an internet firm, but if you want to compete in that space with those internet firms, you've got to understand that culture," she says.

If banks don't find ways to compete, they risk losing some of the funding that China's tightly controlled financial system has traditionally channeled to them.

China's still underdeveloped financial system has offered few options for investment beyond savings accounts and real estate, and regulations have set a ceiling on the interest rates that banks can offer their depositors. That means that banks have had a plentiful source of cheap financing, while average Chinese have been paid little in return for their savings. This fixed interest rate system has given banks near-guaranteed profits, making Chinese banks among the most profitable in the world, says Kapron of Kapronasia.

In the last few years, however, forces from inside and outside the official banking system have begun gradually remaking these rules. Arbitrage between the traditional banking sector and China's ballooning shadow banking sector, in which companies and individuals that cannot get loans from traditional banks can access capital at much higher interest rates, is gradually pushing up overall interest rates. Meanwhile, the Chinese government is also relaxing its rules step-by-step, allowing market forces to play a greater role in setting the cost of capital.

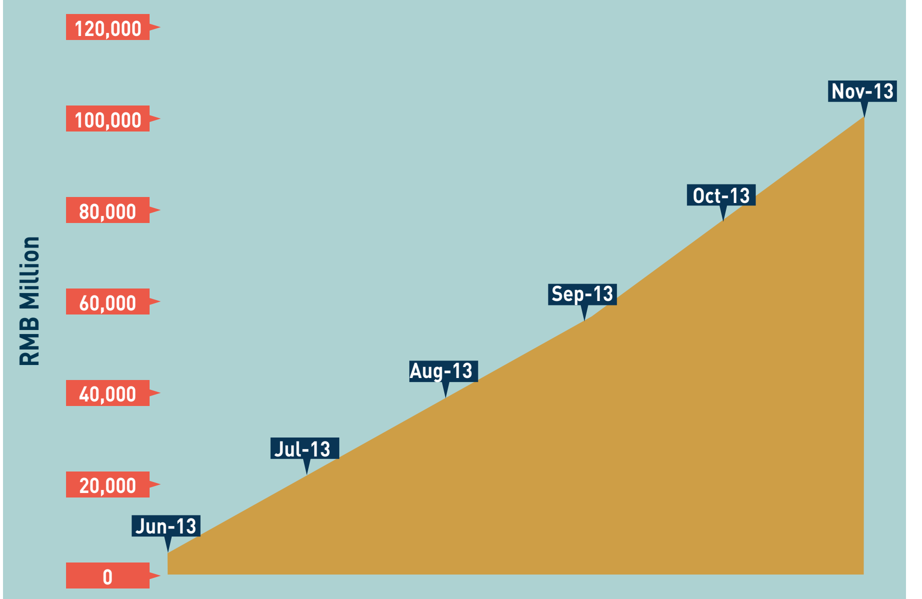
For example, regulators began allowing banks to buy and sell negotiable certificates of deposit at market-determined rates in the interbank market in December. The government has also allowed the market for wealth management products (WMPs)—bank-generated investment products that typically offer returns of between 5-7%—to bloom in recent years. Ratings agency Fitch estimated that China had roughly RMB 13 trillion ($2.13 trillion) of WMPs outstanding by the end of 2012—up 50% from the previous year.

This growing competition for capital has forced four of the country's five largest banks to raise rates on one-year fixed deposits to 3.3%, the highest return allowed by central bank regulations, Chinese media reported in January. Most analysts see these developments as steps in a long process toward the full marketization of China's interest rates.

"Banks are facing a challenging 2014,

Fund Raising

2013 growth of Tianhong Asset Management's money market fund



Source: Huxiu

because the road to the marketization of interest rates has already started," says Kapron. "Within three to five years, interest rates will be liberalized in China—at least more liberalized than they are now, and hopefully fully liberalized… That coupled with an eroding deposit base is challenging for banks."

Yet some analysts say that online investment services are not yet having much of an effect on the banking system because they are still much smaller than banks. Junheng Li of JL Warren Capital compares Yu'e Bao's roughly RMB 400 billion ($66 billion) in deposits in mid-February to the around RMB 145 trillion ($23.8 trillion) in total banking assets China had as of the end of June. "So the total is still very small, even though these products are growing like weeds," Li says.

Jim Antos, a banking analyst at Mizuho Securities, agrees. Yu'e Bao's balance sheet sounds like a lot, he says, "until you check ICBC's balance sheet. By itself, ICBC has RMB14.69 trillion ($2.41 trillion) in deposits."

If they keep expanding, however, these funds will eventually start impacting traditional bank business. According to Zhang of Boston Consulting Group, some estimates put the potential size of the online investment market at roughly RMB 2 trillion ($328 billion). China's online investment platforms still have a large scope for attracting and investing money—but their potential is not unlimited.

Running the Risk

As consumers become more educated about how to find the best return for their money and online investment funds begin to approach the limits of their market, some funds could face an increasing risk of default. Zhang of Boston Consulting Group points out that companies like Alipay and Tianhong Asset Management have no prior experience managing such massive funds. Security is an additional challenge for online funds, which like all internet services are vulnerable to the theft of personal information.

"If they really reached their limit of their management capabilities for such a large product, [and] they could not guarantee the return or their technology has a problem, then it could be a disaster for investors," said Zhang.

> "There is less awareness of what might go wrong, we have yet to see a default
>
> Jim Antos
> Banking Analyst
> Mizuho Securities

Recent defaults of WMP products—like the high-profile default in late January of a fund marketed by ICBC—have heightened concerns about these investments. Yet many Chinese consumers do not seem very aware of the potential risks with online investment products. As the market gets increasingly saturated and online companies compete to attract users with ever-higher yields, the risk of default may grow. Online companies may be padding customer returns from their own pockets, but they do not explicitly guarantee them; if defaults were to occur, it's unclear who would ultimately pay the bill.

"While consumers clearly understand and appreciate the high returns available from internet-based investment, there is less awareness of what might go wrong, as we have yet to see a default from these companies," says Antos of Mizuho Securities. But this could change if an online investment product were to default.

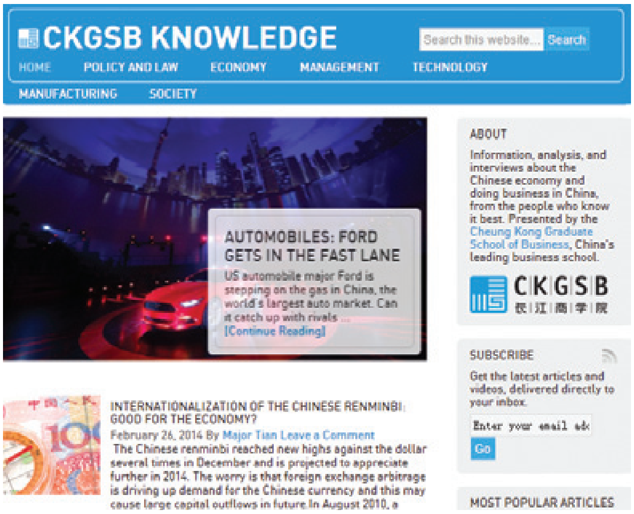
Regulators appear to be watching the sector carefully. Media reports in late February said that China's central bank is leading a government effort to develop regulations specifically for online investment products. In March, Li Keqiang said that the government intended to support online financing but would also keep a close watch on the sector.

The extent of the government's regulations may offer some clues as to how quickly Beijing plans to loosen its restrictions on the traditional banking system. By letting market forces play a more prominent role, regulators could deliver access to funding to many ordinary Chinese and smaller companies, likely helping to foster a new source of growth that China can draw on for decades.

Yet so many new users gravitating to these higher interest rate products could also pose a challenge to the traditional banking system in years to come, perhaps endangering economic growth in the process. As the lever that China uses to inject money into the system, the banking system plays a critical role in ensuring China's economic growth. Regulators will have to strike a careful balance between encouraging the sector's development and working to minimize risk.

Zhang suggests one way that the industry might reduce these risks: by emphasizing partnerships between banks and technology companies, instead of cut-throat competition. Instead of fighting to introduce higher rates that make lending unprofitable and put solvency at risk, banks and technology companies should take advantage of each others' strengths: the tech sector's ability to innovate and access new customers, and the banking industry's long history of fund management.

For their part, consumers should take advantage of new investment opportunities, but be aware that the new era of market-determined financing brings substantially different risks than China's old order, Zhang says. "We would recommend customers with a very old saying: Where there is a return, there is a risk."



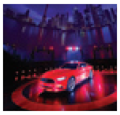
CKGSB Knowledge

Knowledge.ckgsb.edu.cn provides information, analysis, and interviews about the Chinese economy and doing business in China, from the people who know it best.

Articles & Interviews

Internationalization of the Chinese Renminbi: Good for the Economy?

While foreign exchange arbitrage drives up demand for renminbi, people are worrying that this may cause large capital outflows.
http://bit.ly/1fsFrQT



Auto: Ford Gets in the Fast Lane

Can Ford catch up with GM and Volkswagen?
http://bit.ly/N5iMnu

Online Video Killed the TV Star

The future of China's online video industry holds more consolidation—and increasingly sophisticated offerings.
http://bit.ly/1mI8mu4

The World Trade Organization's Bali Package: Good News for China

WTO's Bali deal will create up to $1 trillion in economic value, a lot of which should find its way into the Chinese economy.
http://bit.ly/1mI9n5b

Crowdsourcing: Why many heads are better than one

Harvard Business School professor Karim Lakhani on how crowdsourcing is revolutionizing the world of work.
http://bit.ly/1fsLapO

Solar Energy: The Sunny Side of the Street

Why is solar energy growing, how will it change the world, and who will profit from it?
http://bit.ly/1hAXd7G

Videos

The Pro Bono Evangelist

Aaron Hurst, CEO of Imperative and author of *The Purpose Economy*, on making pro bono part of the non-profit ecosystem.
http://bit.ly/PHgc8N

Reinventing Capitalism

Lady Rothschild, CEO of E.L. Rothschild and Co-Chair of the Henry Jackson Initiative for Inclusive Capitalism, believes capitalism is not a lost cause.
http://bit.ly/1eJ8Y9P

Leaning in with Sheryl Sandberg

Sheryl Sandberg, the Chief Operating Officer of Facebook, wants more women in the corner office.
http://bit.ly/1ic6eFG

Invisible Hand Revealed

Brian Viard, Associate Professor of Strategy and Economics, CKGSB, examines basic economic principles at work in China.

Holding Up an Airline

The peculiar problem of pilot scarcity in China might be resolved with simple economics.
http://bit.ly/NyngD6

The iPad Index: Apples and Oranges

Is the iPad Index a good way of comparing the purchasing power parity of different countries?
http://bit.ly/1kaKc9r

China Roundup

Our weekly blog China Round-up will keep you informed of all important business stories on China.
http://knowledge.ckgsb.edu.cn/category/china-round-up/

Enter a World of Opportunity
CKGSB MBA PROGRAM
The CKGSB MBA is a full-time, 14month program based in Beijing and taught in English, with courses delivered by international professors who have served on faculties such as Wharton, Stanford, Harvard and INSEAD. Our faculty ranks sixth among worldwide business schools in research contributions and our professors take up advisory roles in global policy-making bodies. We pride ourselves on unrivaled research and hands-on knowledge of the Chinese market. We are at the forefront of Chinese business education in the next economic superpower. The CKGSB MBA Program is your ideal guide into the new opportunities of this emerging giant.
Learn more > www.ckgsb.edu.cn/mba Email: mbaadmissions@ckgsb.edu.cn Tel:86-10-85181052
BEIJING | SHANGHAI | SHENZHEN | HONG KONG | NEW YORK | LONDON
CKGSB
长江商学院

A BRAVE NEW WORLD?

What bitcoin's tumultuous year has taught us about the relationship between China's investors and regulators

By Casey Hall and Suzanne Edwards

"China definitely has the capability to develop into the leading power in the bitcoin world, and to have more say and a greater impact on the global digital currency sector," says 32-year-old bitcoin investor and Shanghai-based financial adviser Luo Pu. "But it neglected this historical opportunity, which is really regretful," he says of the blow that Chinese regulators dealt to bitcoin in December of 2013.

As 2013 progressed, China became a vital battleground for the four-year-old virtual currency known as bitcoin, which isn't backed by any central bank and is created through a complicated computing process called 'mining'.

Introduced in 2008 by a programmer or group of programmers going under the name of Satoshi Nakamoto, more than 12.1 million bitcoins have come into circulation, according to Bitcoincharts, a website that tracks activity across various exchanges.

By November, BTC China, the country's largest bitcoin exchange, was on top of the world, averaging 64,000 bitcoins in daily trading volume, and in November last year, announcing a $5 million investment from Lightspeed China. Shanda Group announced in November that it would accept bitcoin payments for property sales.

At the same time, the exchange accounted for more than 30% of volume worldwide, according to industry tracker Bitcoinity. The price on BTC China had jumped four-fold in November alone, hitting a record for the exchange of RMB 7,395, or $1,214, for a single bitcoin on December 1st.

In many ways, China's role at the vanguard of virtual currency investment should come as no surprise, a position even more affirmed after the world's largest bitcoin exchange, Mt. Gox, shuttered its website in February and is currently being investigated for fraud and the loss of 750,000 bitcoins, roughly hundreds of millions of dollars. But China's relationship with virtual currency is relatively long-standing, and in a class all its own.

"There's always been an interest from the young, techy side in new technologies and new currencies, and with online gaming being so popular, along with e-commerce and mobile payments, it's just kind of a natural fit for China, more so than many Western countries," says Zennon Kapron, founder of financial consulting firm Kapronasia, which has released extensive reports on bitcoin.

But when the People's Bank of China (PBOC) announced checks on the usability of bitcoin in early December, many began to wonder if the "natural fit" would endure or if China's affair with bitcoin may be nearing its end.

The world's second-largest economy is home to most of the world's bitcoin 'miners', who help investors get their hands on the currency itself.

As a former technology lawyer and current entrepreneur working towards launching a bitcoin company from Beijing in 2014, Jack Wang has seen first-hand the excitement in cryptocurrencies from Chinese investors.

"They've witnessed the rapid development of China's economy and can see the potential rewards of early investments, such as in real estate and the internet. Bitcoin, as a speculative investment, is unique in that it is much more accessible than real estate or stocks in China. However, this can make the market even more volatile," says Wang.

There has been much discussion and media coverage of what to make of the nature of bitcoin, and whether it's legitimate or spells disaster for its enthusiasts, but little is known of the enthusiasts themselves. One unique characteristic of bitcoin investors is a philosophical attachment to the decentralized nature of bitcoin.

As Weibo user Hu Yilin, a PhD student in Science and Philosophy at Peking University, wrote: "The Bitcoin players are not just a group of investors, they are a group of revolutionaries, who believe in decentralization and freedom of currency."

David Shin, founder of Hong Kong-based DigiMex, a firm that provides institutional investment opportunities around bitcoin, as well as traditional bitcoin investing services, says that bitcoin would not be what it is today if not for the "lib-

Playing by the Rules

The regulatory frameworks for various markets in Asia

China	The bitcoin is a specific virtual good and does not have legal status or a monetary equivalent. It cannot and should not be used as currency in circulation in the market. Financial institutions and payment institutions are not allowed to: offer bitcoin as a product or provide trading services, sell or trade as a central counter-party, be covered by insurance associated with bitcoin, and shall not, directly or indirectly, provide other services associated with bitcoin.
Thailand	Illegal, and the central bank has banned all bitcoin trade.
Hong Kong	Hong Kong Consumer Council warned: bitcoin virtual currency is with high-level risk, but no central ban on bitcoin activity.
Singapore	Bitcoin transactions are commercial functions, the government has no right to intervene, and will not interfere with the use of bitcoin transaction behavior.
Taiwan	Bitcoin cannot be used in third-party payment transactions.
India	The government has warned on the risk of bitcoin. Bitcoin trading was halted in late December 2013, but re-opened in mid-January.

Source: Xinhua, *Forbes*, money.163.com, btc.cnfol.com, Taiwan's central bank ertarian" ardor of bitcoin's early adopters.

"They're very important to bitcoin, and it's great that their DNA is what it is, because if they were just money-hoarding capitalists, bitcoin wouldn't be where it is today," says Shin. It's precisely this long-game belief in the currency that has set bitcoin investors apart from traditional investors, or even investors of China's first widely adopted virtual currency: Q coin.

The 'Bit' Factor

Chinese internet behemoth Tencent introduced Q coins in the early-2000s. Valued at one Q coin to 1 yuan, netizens initially used the virtual money to make purchases within online games, but it wasn't long before the virtual currency made the jump to being accepted by many online and offline retailers for real world goods.

Eventually, as many as 100 million Chinese consumers were using Q coins and the virtual currency accounted for as much as 13% of China's cash economy.

In 2009, the Chinese government cracked down, pressuring Tencent to reel in the Q coins phenomenon and declaring the use of virtual currency to buy real-world goods illegal.

As with bitcoin's infamous association with Silk Road—a black market platform trading in illicit drugs, hit men and international terrorism—the Chinese government also "officially" emphasized its concern over Q coins that virtual currencies could be used to pay for illegal activities.

"The unofficial version is that because they were priced one-to-one with the renminbi, the government didn't want Q coins replacing the renminbi as accepted currency," Kapron says.

One important difference between bitcoin and Q coin is that while Q coins were centralized via Tencent, bitcoin is not, making it much harder for governments worldwide to regulate. This adds to the philosophical cache of bitcoin, an element of democracy that seems to figure prominently in its appeal to Chinese virtual investors.

Regulation Nation

By mid-November, with the value of bitcoin soaring, regulators were under pressure to crack down on the virtual currency markets following the arrest of three people on suspicion of stealing money from investors through a fake online exchange.

One investor, who reported the case to the police, claimed a loss of RMB 90,000, or $14,774, with a reported total of $4.1 million disappearing into the fraudulent GBL exchange from more than 1,000 investors.

Shortly after, in the first week of December, Chinese regulators stepped in to provide some guidelines for this new generation of virtual currency investments, with the People's Bank of China (PBOC) and other government authorities jointly issuing a notice that read in part:

"The bitcoin is a special kind of virtual product, it does not have the same legal status as a currency. It should not and cannot be used as a currency circulating in the market."

Virtual traders and analysts welcomed the announcement. The treatment of bitcoin as a commodity reinforced the perception of bitcoin as a kind of "virtual gold", allowing it to be traded for real-world goods.

"We're happy to see the government start regulating the bitcoin exchanges," BTC China CEO Bobby Lee said publicly at the time, adding that government recognition of bitcoin was a vital step for it to be used for buying goods and services, instead of being used for speculation.

Bursting the Bubble?

Less than two weeks later, Chinese authorities made their second announcement regarding the regulation of virtual currencies.

In just two days, bitcoin prices plunged more than 40% after the PBOC convened more than 10 of China's third-party payment companies on December 16, banning them from offering custodian and trading services to bitcoin, and other virtual currencies such as litecoin.

The crackdown on third-party operators meant that the 17 bitcoin exchanges operating in China were no longer able to accept deposits in renminbi. Overnight, Shanghai-based BTC China lost its crown as the world's largest bitcoin exchange by volume.

Despite the obvious difficulty of no longer accepting real-world currency deposits, BTC's Lee maintained that ongoing discussions with payment companies and regulators will result in a solution that allows continued operation, according to a public statement following the PBOC announcement.

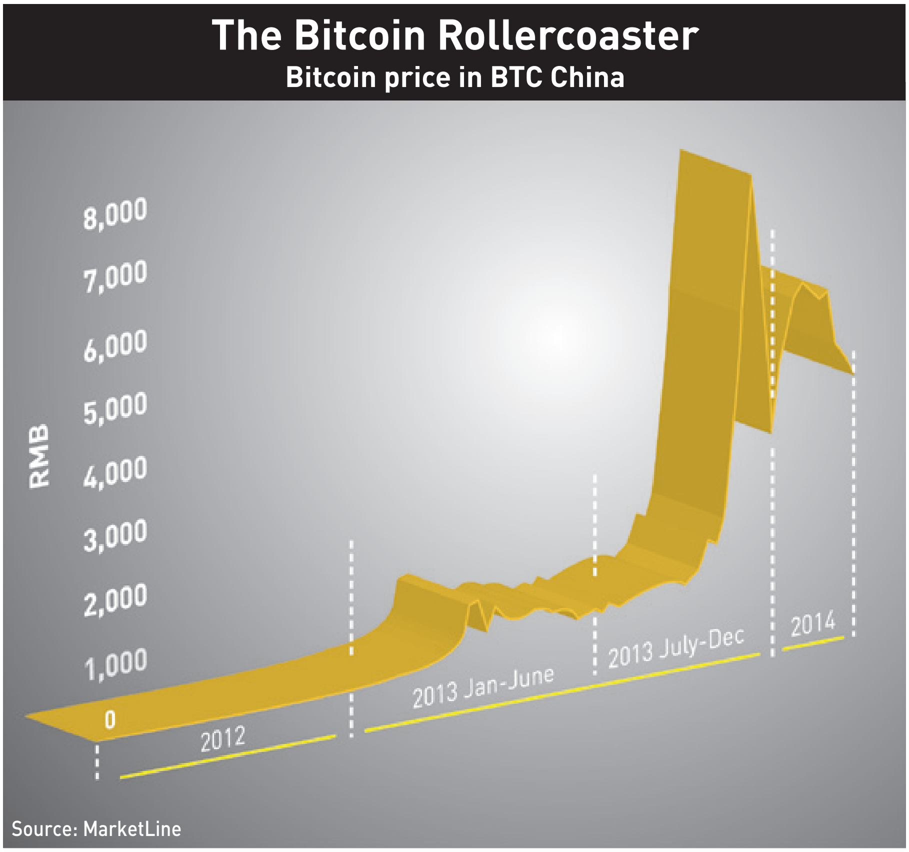
"Introducing and allowing a competing currency that the government has little control over was likely a bit much for the industry [in China] to handle without having some well thought-out regulation," Kapron explains.

But according to Shin of DigiMex, for Asian financial hubs Hong Kong, Singapore and Malaysia, it wasn't too much for the market at all; in fact the decision by regulators in those markets to keep their hands off of bitcoin was very deliberate and strategic. In November the Hong Kong Monetary Authority said it would not regulate bitcoin. Singapore fell in line in December with a similar announcement from its monetary authority and Malaysia's Central Bank has thus far only cautioned on bitcoin risk. There's an overall brighter optimism in Hong Kong about bitcoin's future, particularly with regard to the regulatory environment, which according to Shin is why they're registering their upcoming bitcoin investment platform in Hong Kong.

"Hong Kong will become the epicenter of bitcoin for Asia," says Shin. "If they [regulators] don't understand it, they'll put a halt to it, because they don't want another financial crisis, so that tells me that a) they've been plugged in, they've been talking about it, they understand it and b) they're comfortable with it. And if they're comfortable with it, the banking environment within these jurisdictions are more apt to do business with bitcoin companies, which is a huge thing."

To Shin's point, Kapron iterates that bitcoin has been stymied by the regulators in mainland China. The result is a bitcoin investment sentiment that's somewhat darker than that in Hong Kong, at least for now.

"They haven't completely shut down



bitcoin, but they have made it incredibly hard to trade. It's fairly clear that the Chinese government doesn't like what it can't control. If we see anything in the near future, it will be something that the government can control," Kapron predicts. "[But] the fact that regulators are looking at it, that is recognition that it is a potential force within the financial industry," he adds.

Popular Misconceptions

Talk of using bitcoin as a method for getting their yuan offshore has percolated in the media, but Kapron says the idea of bitcoin facilitating a rush of money offshore just doesn't hold water when moneyed Chinese can currently get money to Hong Kong easily, albeit illegally, and pay fees totaling less than 1%. In addition, bitcoin purists just don't fit the archetype of hot money pushers.

"Fundamentally, the wealthy in China have had ways of getting their money abroad, both legally and illegally, for years. Buying into bitcoin and selling out of bitcoin out of another exchange and taking the risk of moving money across, you're going to be paying 2% in fees regardless, and [in] the risk that's behind that as well," he says.

As China's regulatory dramas scare the speculators into selling their virtual currency, other naysayers have been quick to point to bitcoin's deliberate deflationary nature (from the time bitcoin was launched, it was designed so that there are a predetermined number of bitcoins that will decrease at a low rate until they're out of circulation, estimated for 2040) and its vast fluctuations in valuation as reasons for bitcoin's inevitable demise, those in the know say these critics are missing the point.

Rather than fixating on bitcoin's dollar price and volatility, which pundits claim make bitcoin too unstable to be used as actual money, people like Kapron and Shin believe that firstly, the technology is too good a deal for merchants to keep from adopting it in larger and larger numbers once the regulatory dust settles in China and around the world.

"If you think about it from a typical transactional perspective in the States, you pay 3-5% transaction fees to a credit card company to accept that transaction, bitcoin eliminates a lot of that, they charge 1% to accept the transaction, so for the merchants it's very powerful," says Kapron. "From a cash flow perspective, it's much better for merchants."

Secondly, the recent regulatory crackdown in Taiwan and mainland China has actually had a positive effect in the sense that it weeds out the speculators. Shin explains that China's investors have traditionally been of the more speculator nature, whether it be in real estate, stocks or currency. The effect that speculation was having on bitcoin was actually unhealthy for the overall ecosystem because speculative investors were buying vast amounts of coins and hoarding them all, keeping them out of the trade ring. So the new regulations in China have dealt a blow most squarely to those investors, and left standing the long view early adopters who are more egalitarian/libertarian in their views, and thus more invested in building up the entire bitcoin ecosystem. Shin says these diehards are known in the community as "whales".

Diehard Cryptofans

"If you speak to the guys who got into it in 2012, the bitcoin whales, who are out there evangelizing bitcoin, they have less of a commercial view, and more of a libertarian view," says Shin.

"The bitcoin story may have suffered a blow with the near-shut down of the China market," Kapron concedes, "but the virtual currency story is here to stay."

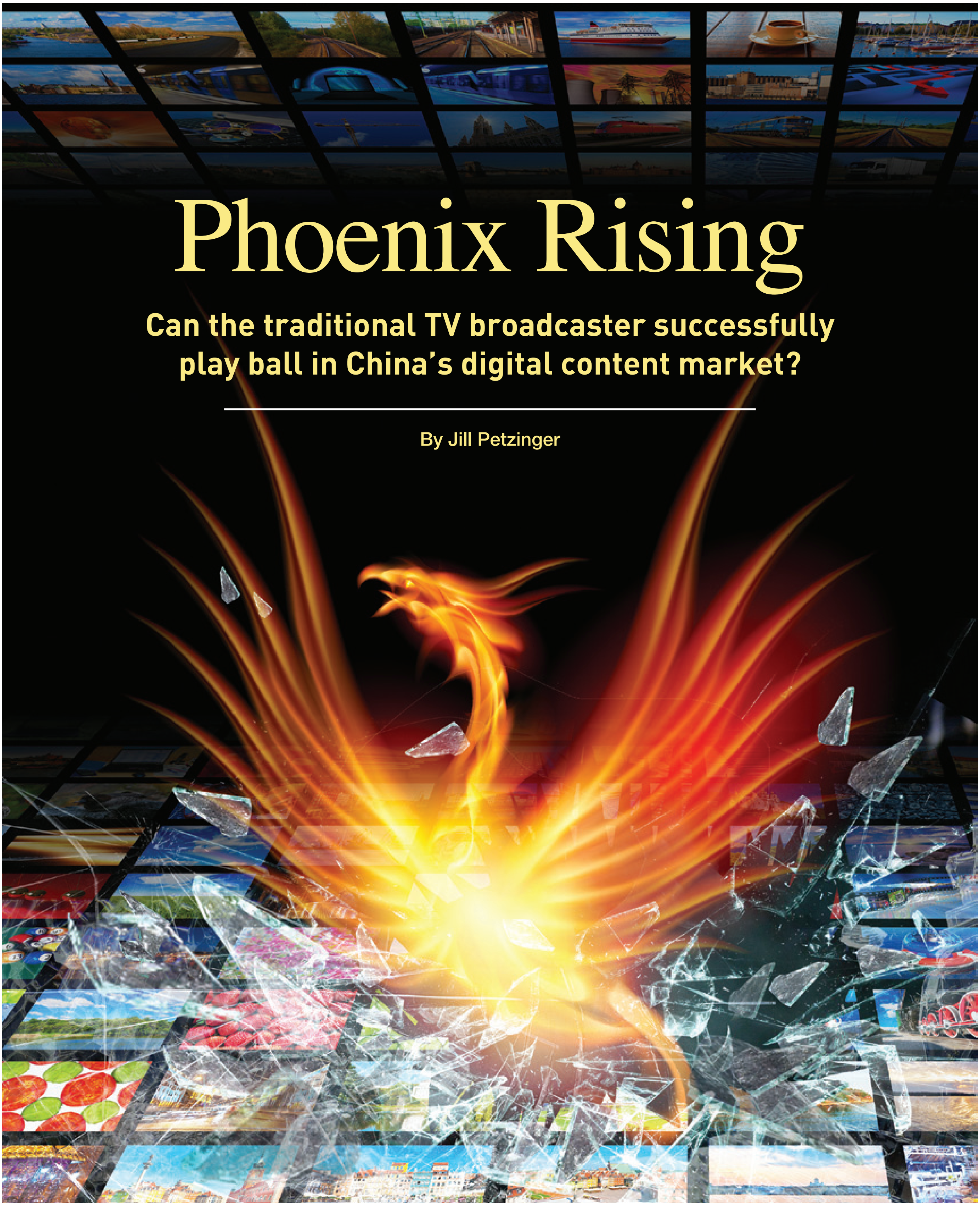
Wang is similarly positive about the potential for virtual investment in the long term.

"We are in the very early stages of the cryptocurrency industry, and there are many potential applications beyond just a virtual currency," he says. "I expect a Cambrian explosion of new business models based on these ideas, along with continued volatility in the medium term. In the long term, these ideas are here to stay."

Phoenix Rising

Can the traditional TV broadcaster successfully play ball in China's digital content market?

By Jill Petzinger



Looking around on the metro in any of China's big cities, it seems every single person is completely immersed in their cell phone screen, tapping for news reports, scrolling through online forums, playing games, catching up on soaps. From kids to grandparents, everyone is online, up-to-date and constantly consuming content on the move. It's a lucrative market for content providers, and attractive enough for satellite TV company Phoenix TV, one of the only 'independent' and non-mainland broadcasters with permission to land in mainland China, to boldly reincarnate as a digital media company with the listing of its corporate digital spin-off, Phoenix New Media (PNM), in 2011. The young digital media entity has a lot going for it, but it faces significant challenges from internet-dominating rivals and fickle audiences.

The digital media landscape in China is already heaving. Big internet portal companies like Sina, Tencent and Sohu have the experience to deliver huge amounts of video content on demand, and have led the field for quite some time now. Indeed, PNM is a relative newcomer on the scene, but it hit the ground running back in 2011 when Hong Kong-based Phoenix Satellite Television Holdings created the corporate spin-off and filed its IPO in the US the same year. PNM has several strong suits: the long heritage of its independent, parent TV company, the ability to share its quality video content across all its platforms, and a partnership with China Unicom for mobile video. But moving from a slower-paced TV company to being a responsive, agile digital provider can often be tricky, indeed a move that China's major national broadcasters, like state-owned CCTV, haven't even begun to master.

"CCTV should be dominant online but has not even made the first successful moves in that direction," says Peter M. Herford, former Professor of Journalism at Shantou University and former Vice-President of the CBS news division. "They too are concerned with stealing viewers and listeners away from their traditional broadcast channels. CCTV's challenge is that the decision of how and when to move more aggressively online is out of their hands. These are political decisions."

> "Investors have higher expectation for mobile video
>
> Xiaoyong Guo
> Analyst
> Pacific Asset Management Company

Investors' Darling

Parent company Phoenix Satellite Television was founded by Liu Changle in 1996 and now has six TV channels. Headquartered in Hong Kong, it is one of the few private broadcasters allowed to broadcast in Mainland China, but with a key caveat: Phoenix TV belongs to a category of broadcasters that need special permission to land on the mainland, joined by BBC, HBO and CNN. Similarly, hotels, offices or high-end residential compounds have to apply for the satellite transmission of these channels. This kind of regulation has more or less been circumvented by average Chinese through illegal satellite TV and digital TV. That reality does keep Phoenix TV viewership somewhat skewed to the higher end demographic, but as internet-based TV products like Xiaomi's IPTV box become more accessible in terms of distribution and price, that will also change.

The expansion of internet-based TV will also factor into the future of PNM, which did not respond interview requests, is currently comprised of a website (ifeng.com), a video channel and a mobile channel in partnership with China Unicom. According to web metrics firm Alexa Internet, a US-based company that collects and analyzes internet traffic data on around 30 million websites globally, ifeng.com ranked thirteenth in February 2014 in terms of daily page views among all websites in China. The company received $25 million worth of investment from Morningside Ventures, Intel Capital and Bertelsmann Asia Investments Fund in 2009, before it was listed on the New York Stock Exchange in 2011. Its 2012 revenue reached $1.1 billion. In the third quarter of 2013, total revenues increased by 32.3% year-on-year, reaching RMB 378.7 million ($61.9 million), according to company reports.

PNM stands out in China as one of, if not the only move by a traditional broadcaster to takeover digital media via a corporate spin-off. Two years after their IPO launch, Phoenix remains a favorite among investors, even after Rupert Murdoch sold his majority stake in the parent company, Phoenix TV, in 2011.

"I believe ifeng [FENG.NYSE] remains hot because of its differentiation from its peer portals in China," says Xiaoyong Guo, a strategic equity research analyst at Pacific Asset Management Company in Shanghai. "Firstly, it's an online media portal managed by a TV station, and you will not find a similar structure in other listed media companies in China."

PNM's revenue growth in 2013 was mainly driven by a 59.3% increase in net advertising revenues from ads appearing on its online platform.

"Online ad revenue is expanding fast in China and, as more advertisers target internet users, online monetization accelerates, so investors have higher expectation for mobile video, which is likely to generate high ad income in the future. Plus, compared with peer portals, Phoenix New Media has special content (news, video, TV programs and bullet board systems) which could be considered as a competitive advantage for the company," says Guo.

Phoenix TV can effectively play both

sides of the game to its advantage, having on one hand close ties to the government, which will ensure it gets all the necessary licenses and approvals, while simultaneously retaining a degree of independence. Audiences are hungry for information that doesn't come from CCTV and other state-run channels, which is where Phoenix can appear authentic and apart.

So Seductive...

PNM is an attractive option for advertisers as well as investors. More and more advertisers are directing their marketing budgets into digital channels, and CEO Liu Changle has stated that PNM is central to the group as a whole, because of the advertising revenue it can generate.

"Phoenix was smart to create a separate entity and avoid the trap that many organizations fell into earlier in the development of online content. The trap was to load the online challenge on top of the existing platform without a separate organization and structure," says Herford. "CBS was no different. Broadcast audiences are ageing and dying. Advertisers want the 18-35 year olds and the only source for them is mobile and online," he adds.

CCTV Online, the digital arm of China's state-owned broadcaster, would seem like a natural rival of PNM in theory. In terms of size, it dwarfs the young ifeng.com. Yet there are some key differences that give PNM the edge.

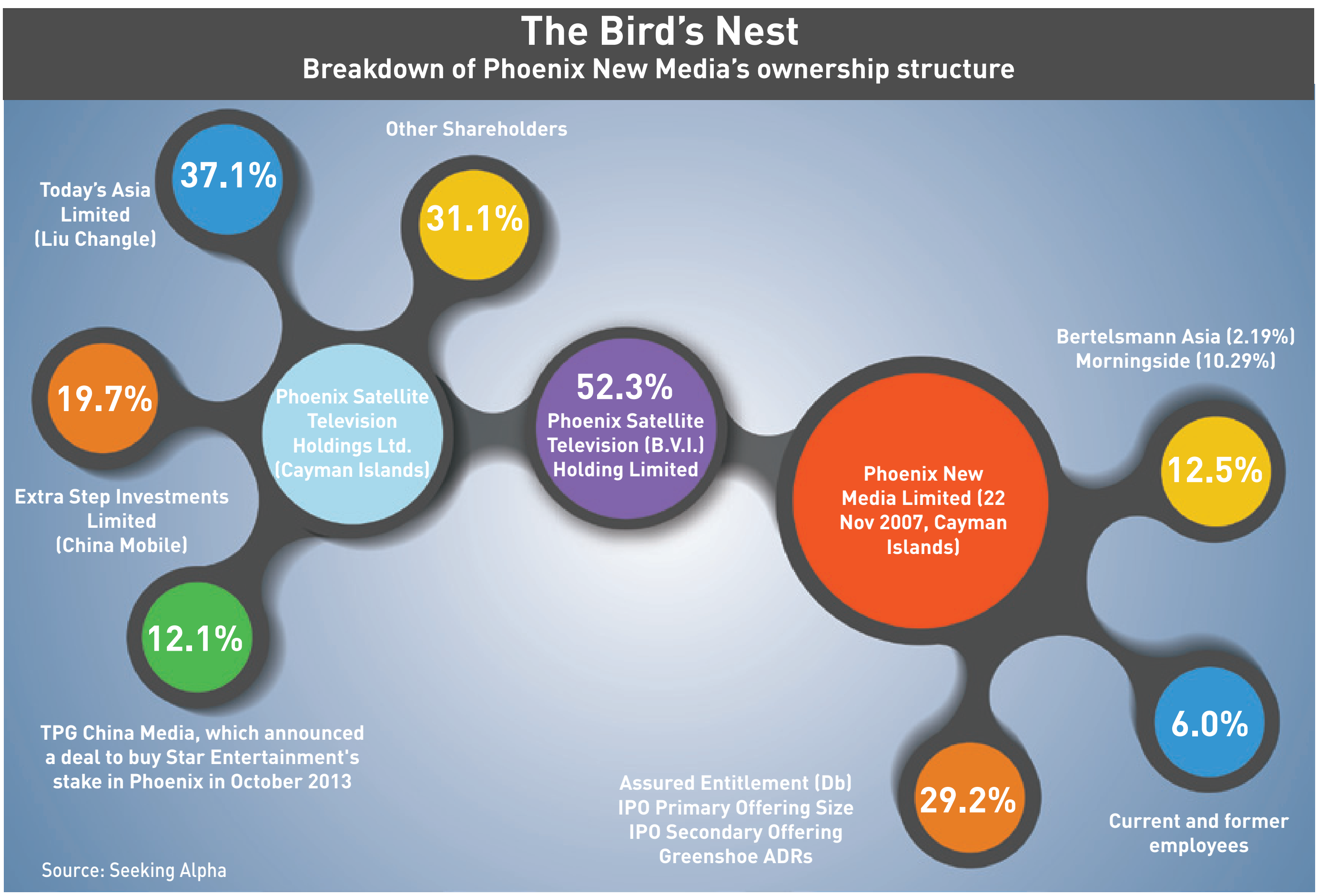
"There is no transparency to the CCTV operation," Herford says. "Not that Phoenix is wholly transparent, but Phoenix with a base in Hong Kong and some arms on the mainland is a '.com' as opposed to what the US would call a '.gov' operation. In that sense the two operations could not be more different. They serve different masters."

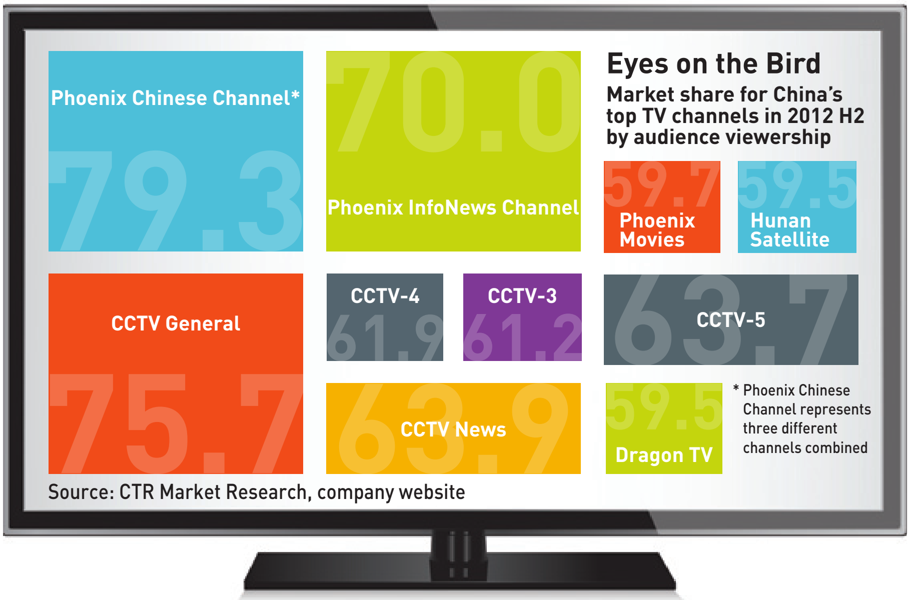
Furthermore, PNM's traditional broadcasting background affords it the clout to engineer ventures like the China Unicom mobile partnership. China Unicom's appeal relates to its relatively successful rollout of the international standard for 3G, in addition to its status as the second-largest telecoms operator in China, with the state as its biggest shareholder.

"This raised Unicom's profile significantly," says Lydia Bi, a research analyst at Canalys, a global market research firm in the IT industry.

Shan Chengjun, China Broadcast & Analysis Director at Asia-Pacific media intelligence company iSentia, says that compared with independent portals, Phoenix New Media can easily attract followers who are already an audience of different channels under Phoenix TV.

"The brand image, nature and features of Phoenix TV are naturally inherited by PNM, or at least so perceived by its existing and potential audience," says Shan. "You are not coming from nowhere, so





you are not building something from nothing."

Paradoxically, he believes that its biggest asset—the parent company's heritage—could also be a hindrance for PNM, as the online audience may consider it just an extension of the TV channels and think it has nothing additional to offer on its digital and mobile platforms.

Identity Crisis?

Many believe that PNM won't be able to really compete with the likes of search engine leader Baidu, and online video platforms like Sohu and Youku Tudou because ifeng.com is not a portal and doesn't have the sheer pulling power and variety of their competitors.

"Their challenge is: what can we offer that is different from the well established Sohu and Youku Tudou, or ideally what can we offer that they cannot?" says Herford.

While Phoenix may be able to be more cost-effective by sharing content across their platforms, Herford believes that viewing an online arm as a money-saving enterprise is a dangerous approach, not least because different skill-sets are needed, and broadcast news staff may not take kindly to having online requirements added to their duties, like online ad sales.

"The target audience of PNM, young and middle-aged white collars, could be a special attraction to certain advertisers," says Shan. "Online media can present advertisements in many different innovative formats, some of which can even directly lead to sales by linking up the advertisement to an order placing function. Even if a deal is not made, advertisers can still learn how many people are truly interested in their products by factors such as the click-through rates, which can be used as market intelligence for future product development or marketing campaigns."

Political Baggage

Making the move from TV to the highly competitive digital world will present some ongoing challenges for PNM. The privately owned parent company has very close ties with the government—Liu Changle has been on three standing committees—which could impact its image with investors, particularly those in the US who are more attuned to the government ties of companies from the greater China region.

Herford says that while foreign companies may want to invest in China-based media companies, they should consider restrictions on their investment. "Could a foreign broadcaster, one of the American or European networks, could they participate as content providers? Not likely from a political point of view. This will not reduce the foreign investment interest, but it may cripple its ability to participate."

The government-controlled business environment can challenge foreign investors, like Rupert Murdoch for one, whose News Corp announced in Spring 2013 that it would sell off a 5.28% stake in Phoenix TV (reducing its stake to 12.16%), then announced its final departure from China's TV market when it said last October that it had sold its remaining stake in the company to a US private equity firm.

Murdoch said in 2005 that his business in China "hit a brick wall" after the government tightened restrictions on foreign media companies and his son, James Murdoch, the CEO of 21st Century Fox, said in an interview with *Fortune* this year, "It's always been hard for us in the business of ideas to do business in China. That's clear and a lot of people have those issues."

Potential investor trust issues aside, historically it has always been a challenge for large, well-established traditional media agencies to show the necessary agility to adapt to the mobile/internet world. PNM also has its work cut out to demonstrate that traditional broadcasters can successfully make the leap.

"Years ago Shanghai Media Group was given the first license to do online broadcasting. There was a great deal of publicity and anticipation but the results thus far have been meager," says Herford. "*Southern Weekend* (a newspaper based in the southern province of Guangdong) had aggressive plans for a full-time video channel and quickly discovered that the costs and demands of programming a 24/7 online channel were far greater than they imagined. The pressures of political considerations and partnering with a traditional media group have proved to be too much to let the concept flourish."

"Phoenix has deep pockets, that's a big advantage. They will be able to spend money to make this work, and it is expensive. But the fact is in this day and age they have no choice. Traditional broadcasting does not have a healthy long-term future. Everything, not just news, is headed for a digital online future delivered wirelessly."

Cracks in the Ceiling

CKGSB Magazine cuts through the punditry and asks women business leaders to air their views of China's 'glass ceiling'

By Suzanne Edwards, with reporting by Greg Isaacson

The Line-Up

Lisa Pan, Vice President and CFO of Beijing-based Rekoo, Asia's largest research and development operator for social gaming

Su Cheng Harris Simpson, founder and CEO of SCHSAsia, a Beijing-based marketing and events company and Executive Director of Greater China for WEConnect International

Lucy Lei, Asia Managing Director and Vice President of Beaulieu International Group, a Belgium-based international textile manufacturing company

International media seem to relish the topic of gender roles in China, with one side of the debate insisting women are downcast while the other side insists China is a progressive forerunner in the promotion of female leaders, particularly in business. So which is it? And how does the status quo play out in China's corporate environment? In a country where men-only job ads proliferate, and hiring managers often probe female applicants about their dating life and maternal plans, it's easy to forget that China is home to some of the highest net-worth female individuals in the world, the majority of whom achieved such status through their business success. The numbers are equally confusing: According to a survey of publicly listed companies from Nanyang Technological University, fewer than 12% of senior executives at listed firms are female, but according to a Grant Thornton International Business Report, which includes private companies of obscure size, 43% of the businesses surveyed in China held women in senior management positions. To better wade through the statistics and talking points, *CKGSB Magazine* talks with several high-powered women on the ground about the trends they're seeing, and the prospects for Chinese women looking to carve out a place for themselves in today's business world.

Q. What challenges do you feel businesswomen face in China today?

Lisa Pan: The business environment in China is slightly different than in Europe. In Europe, a lot of political or business leaders are female and the public seems already used to that. However, in China, female business leaders are still rare, and the public still doubts if businesswomen [can] balance family and work: actually a lot of pressure [comes] from your own family. Another challenge is that some male business leaders are still quite traditional, they think they are more powerful than women, and they should lead the business, so it's quite hard to persuade them to accept your opinion sometimes.

Q. In the past five years or more, have you observed any interesting changes in the business environment when it comes to the role of women executives?

Lisa Pan: I think along with more and more female executives becoming successful, this topic [has] become quite attractive. [The] public is [willing] to accept successful businesswomen [more] than before. For example, 10 years ago, if a lady [was] still single [at] around 30, people would judge her in some unfair way. But now, if a businesswoman [is] single when she [in her] 30s, people would accept and appreciate that. And the power of businesswomen is becoming stronger, and men [are] getting used to working for [a] female boss.

Su Cheng Harris Simpson: In recent years we have seen a greater level of sophistication when it comes to diversity and inclusion programs in China. As a result there are greater channels of support for aspiring female entrepreneurs in China. In addition to WEConnect International, FYSE, 85 Broads, VIVA, various Chambers of Commerce, Community Business and others all provide tools, networking

> Some male business leaders are still quite traditional, they think they are more powerful than women, and they should lead the business
>
> Lisa Pan
> VP, CFO
> Rekoo

and advancement opportunities for women executives.

Lucy Lei: In the past, it was harder for women to get into senior management. There were fewer chances for women to demonstrate their management capability outside their technical skills. Nowadays it is good to see progressive corporations paying more attention to diversity. So in that way I believe that today capable women have a better chance of entering corporate senior management roles.

Q. When have you ever been aware of the fact that the rules might be a little different for you as a businesswoman than they are for a businessman?

Lucy Lei: Years ago I was working in Singapore in the regional headquarters of a multinational company as the Asia-Pacific Regional Manager for a division. I was the only women at this level at the regional headquarters. All my European male colleagues had individual office rooms, I was the only one who didn't have [one]. I sat with others in the shared area, which I did not mind. I had asked the management to provide me an office when there was a vacant one. Nothing happened for long. However, one day one office room became vacant when a colleague resigned. So I asked to move into that office. I got no as an answer because "it was reserved for a colleague coming from the UK in two months". Two months later, the office was filled by a male colleague of the same level as me! I felt this was not about me anymore, this was about a boy's club against women. In such an environment, my voice was too weak to be heard.

A few months passed, and another regional manager resigned so an office became vacant. This time I did not wait for the office to be assigned to me. I just moved in after it was vacant for two months. I plugged in my computer and I wrote an email to the managing director informing him that I had moved into the vacant office. He said, 'Oh, this will be reserved for someone', and I wrote back: 'When that new person comes, we can discuss whether I move back to the shared desk or the newcomer will take my seat'. I stayed in that office until our office relocated to a different part of the city. Afterwards they recruited another female regional manager and she got an office as well.

This tells me that working in a boys' club environment, if the first woman doesn't push, then all the women behind her [will] never have a chance.

I am very fortunate to work today in an organization where everyone is equal. Our organization values diversity and equality. We have two women in the global executive team, including myself.

Q. Journalists love to ask successful women about "work-family balance". Do you *feel this is a fair question? What do you think the meaning of "work-family balance" is for modern working families in China today?*

Lisa Pan: I think it's a fair question. In [a] traditional family, people think women should spend more time taking care of [the] family, husband and [the] children, so how to balance work [and] family is [a] challenge.

I think if the family members have international study or work experience, [then] they understand and support each other. [In that case] I don't see [that] it's an issue. You could even discuss your business with your partner and enjoy that. But I don't think [a] husband-wife business partnership is good. Everyone is independent and needs [their] own time and space.

Lucy Lei: Yes this question is always addressed to women! I believe a woman can take care of her family and career at the same time, we just need to spend time wisely in more qualitative way instead of quantitatively. When we lived in Singapore, most of the students' mothers in my daughter's international school did not work. It was reassuring to hear my daughter say, 'Mom, I appreciate your limited time spent with me more than some of my friends do with their moms [who are with them] the whole day.' She wanted quality time, not 'quantity of time'.

Q. Do you feel there is any difference between what defines a successful business man in China and what defines a successful business woman in China?

Su Cheng Harris Simpson: One of the major differences we see with women entrepreneurs is their likelihood of being local or regional suppliers rather than national or international suppliers. Women entrepreneurs in China tend to have robust local networks and are extremely competitive in this market. However, when it comes to the larger national network we see fewer women in this sector. This is due to a number of factors including access to networks, the preference for companies to stay with suppliers that they are familiar with, the struggle of work-life balance and family commitments. One factor that we have seen in women-owned companies that have made this jump is the involvement of other family members. For example, Shanghai Lanli Textiles is a first-tier supplier to many of our corporate members in addition to supplying other women entrepreneurs across the globe. They have managed to make this possible by making it a true family enterprise. This has allowed them to become competitive in terms of response times, customer relations, growth and product range.

Lucy Lei: Like yin and yang coexist in the universe, inside every woman there is also masculine power, and inside every man also feminine power. To be a successful businesswoman in a corporate world, a woman needs to place herself as an equal. I believe I am equal to a man in capability, however I share my equality in a gentle way. I don't believe in aggressive confrontation. I'm assertive in a friendly way.

Q. There's a popular stereotype that often surfaces when talking about gender and business that men are bigger risk takers, how do you interpret this idea? To what extent do you agree or disagree and is China any different from other countries in this regard?

Su Cheng Harris Simpson: In terms of the businesses that we work with in China, we have found that our women entrepreneurs are competitive and reliable. They are able to put forth competitive bids for demanding contracts. They are open and able to accommodate unique requests and large contracts. However, they are also realistic when it comes to their scope and capacity. Rather than failing to deliver on a contract, they will work with the corporation to identify a suitable alternative or make appropriate recommendations. In this case, I think our corporations appreciate the flexibility and reliability of their women suppliers.

Q. What does it mean overall to be an advocate for businesswomen in Asia?

Su Cheng Harris Simpson: It's exciting to be in Asia in the field of women's economic empowerment. This field is relatively new in China, which provides a unique set of challenges but a wide range of opportunities. In all that we have accomplished over the last three years, it is exciting to think about what the next stage of growth will bring.

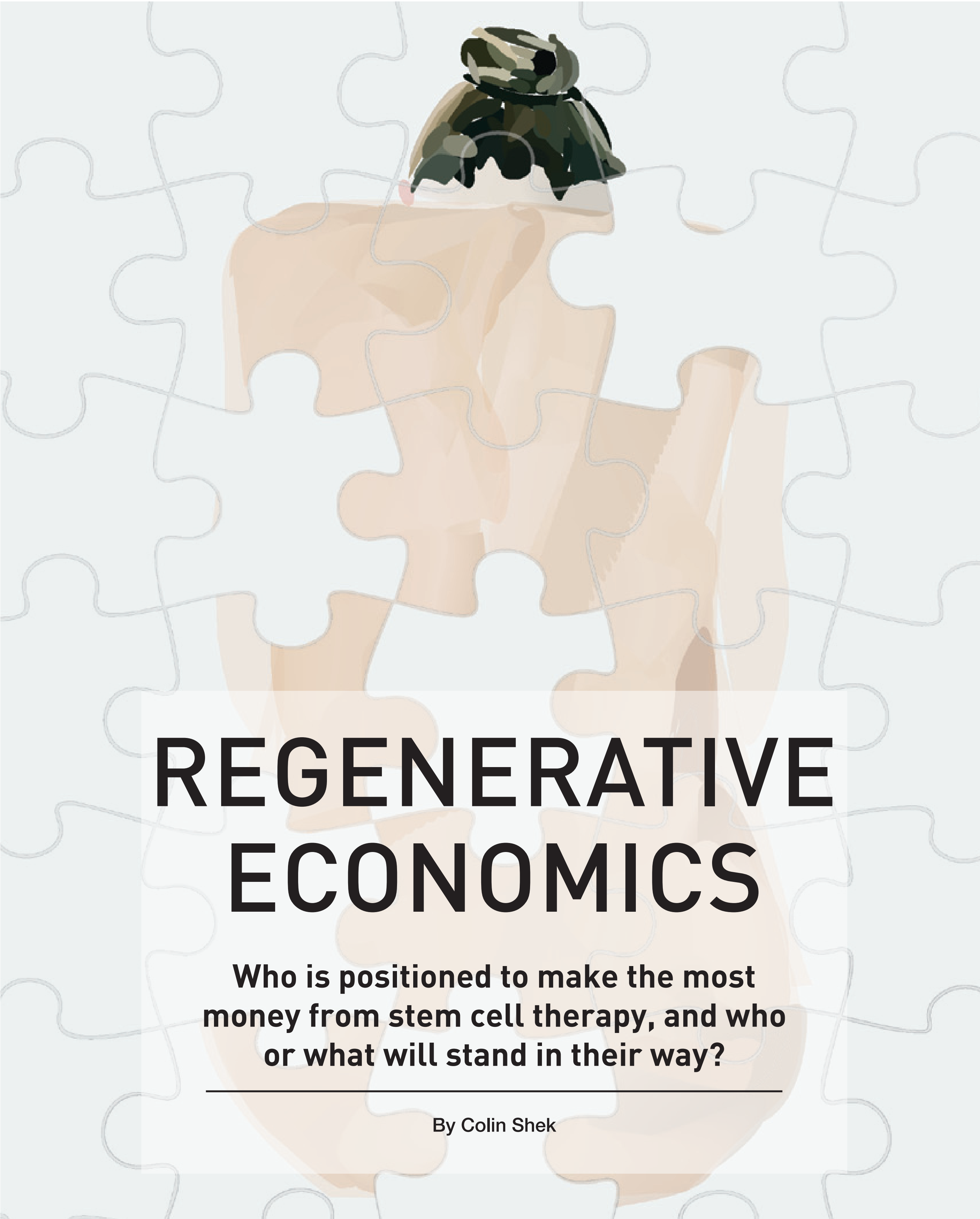
Q. What advice do you have for ambitious women who are still in the early stages of their careers?

Lisa Pan: I think they have to really know what they want in their life and [whether] they are ready to sacrifice a lot. For example, less time for friends [and] family; [being] challenged by [the] public and personal exposure to the public when you become successful.

Then you have to [always] be socializing and winning respect from male leaders. Good degrees are helpful but not enough, you must have your own opinion and be persistent.

Lucy Lei: China needs Chinese management with global experience and a global mindset, who can think laterally and who know how to play in a flat world. This demand comes from the ever-increasing numbers of multinational companies who call China their strategic markets, and also many Chinese companies expanding overseas. However there is a huge gap between the demand and supply.

The younger generation today tends to seek instant gratification. It is not unusual to receive comments like "Will I get more pay?" when management sees a potential employee and want to develop the person by changing or expanding his or her scope of work. In my opinion, when you are young and you are developing your career, a [fat] paycheck today should not be one's first criteria. I think broadening one's experience and knowledge and scope to build a foundation for the future is more important. When you have acquired the knowledge, skills, experience and mindset that corporations look for, money will come. So don't let instant paychecks limit your growth. You need to be flexible enough to move into the unknown, to walk on the path less travelled. The reward will come.



REGENERATIVE ECONOMICS

Who is positioned to make the most money from stem cell therapy, and who or what will stand in their way?

By Colin Shek

Hours after delivering her first baby, Oscar, in November 2011 at the International Peace Maternity and Child Health Hospital in Shanghai, Cecilia Huang readily agreed to store the umbilical cord at a private facility for future use.

After stumping up RMB 20,000 for the initial processing, Huang will pay an annual fee of RMB 2,000 to bank the cord and its blood until Oscar turns 18. There is a good reason for spending so much to preserve something that is usually binned after birth—a potentially life-saving reason.

Umbilical cord blood is rich in stem cells, one of the most revolutionary and controversial topics in medicine today. Stem cells are believed to have huge curative applications because they can both reproduce themselves and transform into any kind of tissue in the human body. The cells could one day be used to treat Oscar if he ever fell ill with certain diseases, such as diabetes, heart failure and liver disease. They even have the potential to treat rare conditions that affect the brain and muscles—such as Parkinson's and motor neuron disease—and autoimmune diseases like systemic lupus.

"All those diseases are incurable right now. We don't have much to do for victims. That's why stem cells have given such hope to patients," says Guo Wei, professor and researcher at the Stem Cell and Regenerative Medicine Center of Tsinghua University.

"Stem cells are of great importance. They might revolutionize our future medicine," says Xu Xiaochun, Chairman and Chief Executive of Boyalife Group, which is engaged in stem cell banking.

Cord blood is particularly rich in hematopoietic stem cells, which can be used to create blood cells for transplants. These cells also could help Oscar's family, as there is evidence to suggest the match between donors and recipients does not have to be as exact as it does for the other two sources of blood cells, bone marrow and circulating blood. Other stem cells, known as pluripotent cells, are what excite researchers today because they can potentially become almost any cell in the body—from muscle and nerve to heart and brain.

> "Stem cells are of great importance. They might revolutionise our future medicine
>
> Xu Xiaochun
> Chairman, Chief Executive
> Boyalife Group

In the US, eight to 10 in every hundred delivering families opt to preserve their stem cells, according to Xu. In Hong Kong, that rate rises to one in five families, but in China, only Beijing comes close with a proportion of 14%. "In the entirety of China, the current number of families that have chosen to preserve is 0.7%. It's almost like a brand new market."

The field of stem cells falls under something called 'regenerative medicine' that Ajan Reginald, Executive Director of Cell Therapy Limited (CTL) from the UK, calls "the 21st century breakthrough in terms of medical innovation".

"Current medicines often treat symptoms very well but they don't actually repair the underlying problem—in this case, the underlying tissue of the cell. Regenerative medicine gives you the ability to repair tissue. Stem cells are the core technology behind regenerative medicine."

Some of the touted applications for stem cell technology sound like science fiction, with talk of growing new organs and halting the aging process. But what sounded impossible a decade ago is beginning to become a reality, with the list of body parts grown from stem cells getting longer and longer—from ears and eyes to livers and kidneys, and even a heart.

"Some people say it could have an effect on aging, but this needs deeper study," says Fu Xiaobing, the Director of the Wound Healing and Cell Biology Laboratory in Beijing and President of the Chinese Tissue Repair Society.

"The sky is almost the limit, but to be realistic, [the stem cell field] is working currently on a list of 10-20 different diseases that we think have the highest potential," says Xu.

A Dose of Ethics

Perhaps more than any other field of science, the study of stem cells has been shaped by political opinion and subject to ethical objections. For much of the last decade, stem cell science was viewed negatively in the US. Devout Christians criticised the creation and destruction of days-old embryos for research, guided by their religious beliefs that embryos were emerging individuals. Elsewhere, the idea of producing embryos solely for scientific experimentation appalled people from more varied walks of life.

The debate became heated and politicised. Pope John Paul II called it a "cannibalization of embryos". Then in 2001, US President George W. Bush limited federal funding for research on stem cells obtained from human embryos. That moratorium—lifted more than seven years later by Barack Obama in 2009—has left the US "years behind" leading stem cell nations, according to Reginald from CTL.

The debate in the US and West sharpened scrutiny on the morals and ethics of Chinese stem cell research, to the chagrin of some in China who chafed at what they perceived to be smug Western lecturing and condescension.

China has debated but not dwelled upon the ethical dimension of human embryonic stem cell research. The absence of outcry has been partly attributed to a

Confucianist view that a person begins at birth, as people are shaped and defined by their closest social relationships—which embryos lack. Then there is the 'utilitarian' argument that embryo research is justifiable if it brings enormous welfare to people that cannot be otherwise achieved. Furthermore, the years of pervasive sex-selective abortions and infanticides in China could be seen as evidence of a corollary cultural detachment from the value of a fetus or embryo, which contrasts starkly against some viewpoints in the US. China's treatment of abortion may have normalized the practice, paving the way for societal acceptance of embryonic stem cell research. Also fueling interest are reports that tissue from aborted fetuses is a source of stem cells. New discoveries and advances in recent years have also dampened some of the moral controversy by sidestepping thorny ethical issues. A major breakthrough came in 2007, when two independent teams at the University of Wisconsin-Madison in the US and Japan's Kyoto University reprogrammed adult human cells to form pluripotent stem cells, negating the need to depend on embryonic tissue for stem cells. For his pioneering work at Kyoto, Shinya Yamanaka earned the Nobel Prize in medicine in 2012.

It is probable that in any case, ethical qualms would have taken a backseat to the Chinese government's desire to move from 'made in China' to 'innovated in China'. Stem cells fit in with Beijing's ambitious plans to vault the country to the top of the research ranks. In 2001, the Chinese Ministry of Science and Technology formed two independent stem cell programs under the National Basic Research Program—a special national research initiative better known by its '973' moniker.

Since 2002, China has pumped money into the field through multiple sources. The ministry has provided abundant research funding through the 973 plan and a separate '863' program—grant sizes from both can reach up to $5 million, with the difference between the two being that the former focuses on basic research and the latter on applications. The National Natural Science Foundation of China has also contributed grants, boosting funding from just over RMB 100 million in 2008 to more than RMB 450 million in 2012.

> Very few Western companies [are] coming to China to undertake breakthrough technology research
>
> Ajan Reginald
> Executive Director
> Cell Therapy Limited

Chinese researchers are forging ahead in the field, backed by the substantial grants from central agencies and local governments too. And keen to reverse a so-called 'brain drain', Beijing has enticed Chinese scientists educated at top universities in the US and Europe to return home with the promise of competitive salaries, funding and leadership of labs staffed with eager young researchers.

While China smelled an opportunity to steal a march on the dawdling West, its interest in stem cells has more pragmatic reasons. The Chinese are aging quickly, with more than a quarter of the population set to be older than 65 years by 2050.

The scale of China's graying could place an enormous strain on the healthcare system, as the number of people with degenerative diseases grows. China already has more people with dementia than any other country, while a new study suggests two out of every 100,000 in the nation have Parkinson's. Stem cells then could allow China to stave off a healthcare crisis by offering much-needed treatments for these chronic illnesses.

Celling Up

China's success in stem cells will depend on more than raw government investment in human capital like young scientists and material assets like labs. But the strategic state support and willingness to engage in stem cell science for the sake of national prestige and to ease looming healthcare problems has turned China into an attractive destination for stem cell companies to test their therapies.

Nasdaq-listed Neuralstem, for instance, teamed up with Beijing's Bayi Brain Hospital—an institution affiliated with the Chinese military—to treat motor deficits from ischemic stroke by transplanting spinal cord stem cells directly into the patient's brain near the stroke lesion. Neuralstem, which declined to be interviewed for this article, announced in January that the first patient had returned home after undergoing the treatment in late December.

CTL, meanwhile, agreed in July 2013 with Zhongyuan Union Stem Cell Bioengineering to jointly invest $8 million in a new venture to commercialize findings from their stem cell studies.

"China is an exciting, enormous market with great potential and so we wanted to be at the forefront," says Reginald. " There are very few Western companies coming to China to undertake breakthrough technology research. There're very few people considering China as an innovation centre, and that's what we wanted to do."

The number of stem cell-based clinical trials underway in China underlines the country's rush into the field. China has the third-highest number of ongoing stem cell clinical trials in the world, at 164 studies, according to the US National Institutes of Health, second only to the US and Europe.

In research output too, China is quickly catching up. A comprehensive report released last December, by Elsevier, Kyoto University's Institute and EuroStemCell for Integrated Cell-Material Sciences, found that since the beginning of 2006, China has been the "second most productive country by volume of publications". China's growth curve, said the report's authors, "is strikingly similar to that of the USA"—currently the biggest contributor of stem cell papers.

The volume is impressive, but quantity is not always commensurate with quality in Chinese research. The report noted another important development: China's citation impact, though below average, had increased during the study's assessed period of 2006-2012 and demonstrated a strong growth rate across all types of pluripotent stem cell research.

For all its progress, however, any assumption that China is helping to pioneer breakthroughs in stem cell science may be misplaced. The country is "not really" producing cutting-edge stem cell research, according to Reginald.

"China lags in medical innovation as a whole, so the lagging in stem cells is not really surprising," he says. "China is excellent at a number of things but breakthrough technological innovation, especially in the medical area, is not there yet. The government and universities are focusing on this but it takes a long time for this commitment to generate innovation."

It is China's neighbor to the east that is making great strides in stem cells. "The Japanese really are at the very forefront, and that's not just because of Shinya Yamanaka—who won the Nobel Prize recently—but there's also a halo effect," says Reginald. "A lot of the great breakthroughs are coming from Japan."

"Ten years ago Japan implemented a clever strategy in selecting the niche of regenerative medicine and a particular group in Kyoto of Shinya Yamanaka. In essence Japan decided that within medical innovation, they were going to be the leaders in regenerative medicine, and it looks to have paid off."

Chinese scientists are keen to apply stem cell research to treating patients but public awareness of stem cell therapies in the country remains on the periphery. Part of that is due to the lead time for medicines to go from theory to practice.

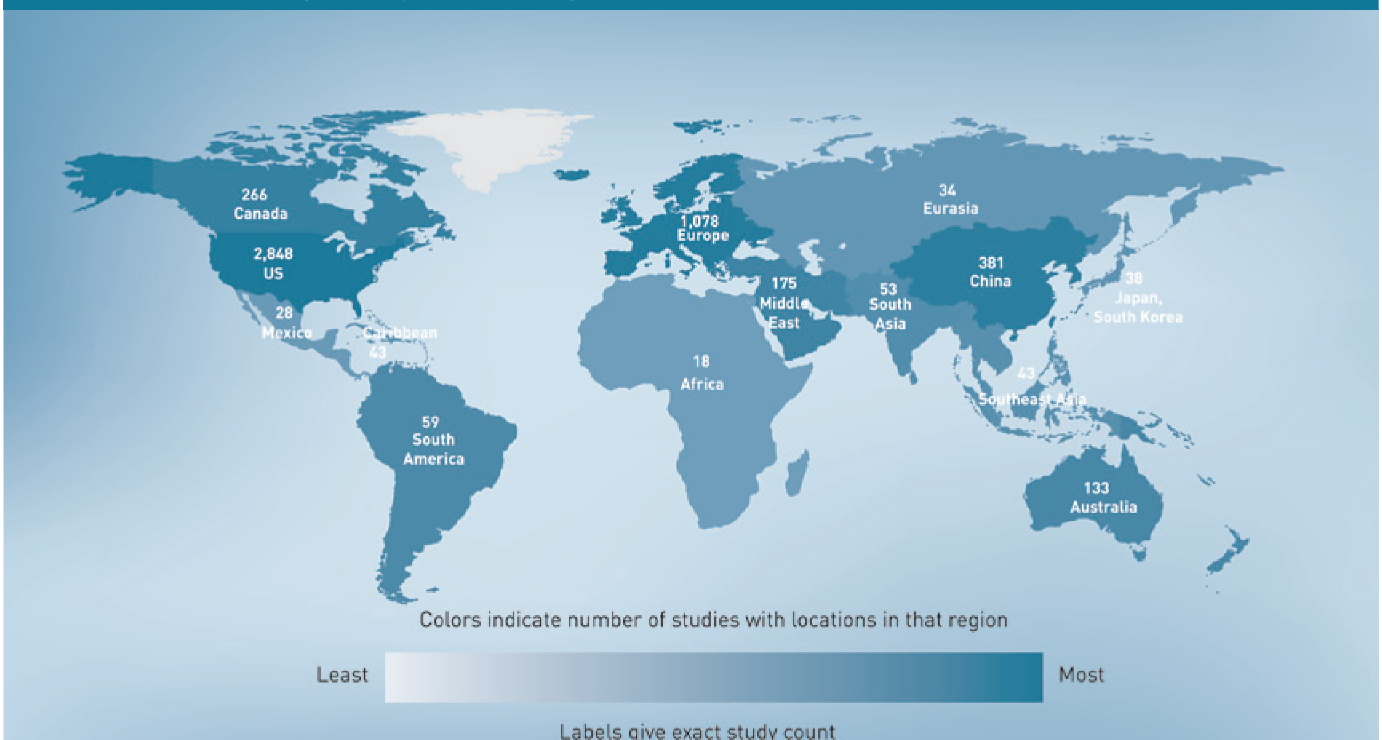
"Stem cells are still considered a cutting-edge technology. [The lack of awareness] is directly related to education. A lot of people are not aware of stem cells, and there is no good public education for letting people know there is this science called stem cells," says Xu.

He contrasts that with the US, where 24 states—covering more than two-thirds of the births in the nation—have passed laws that obligate healthcare providers to educate expectant parents about their options for saving a newborn's cord blood stem cells after birth.

"Regenerative medicines are very new. Breakthroughs in the lab may take 15 or 20 years to convert into medicines in

Who's Leading the Global Stem Cell Race?

A global snapshot of which regions and countries house the most stem cell studies



Source: UC Davis School of Medicine Professor Paul Knoepfler's blog the public domain," says Reginald.

"Doctors need to be convinced and for that safety is key. Things will go faster but we're just at the stage where the first regenerative medicines are producing compelling data. You don't just need good data—you need validated data that absolutely demonstrates that stem cell therapies are safe and effective. We're just beginning to see that now," adds Reginald.

Hazardous to Health

Healthcare providers in China have been enthusiastic about using stem cell treatments, in contrast with the rest of the world where such procedures are still undergoing clinical tests. The fear is that hospitals and private treatment centers engage in fraud by offering dubious stem cells to desperate patients without adequate oversight.

"There are rogue companies—some are pretty well-known—that have been using stem cells to treat virtually anything if you are willing to pay," says Xu. "The majority are unproven. People are paying up to half a million yuan for a completely unproven therapy."

Numerous stories abound of desperately ill patients with incurable diseases encouraged by slick sales pitches to book therapies that are backed by little or no scientific evidence and are at best experimental. In many cases, they are charged thousands of dollars.

On a tree-lined stretch of one of Shanghai's busiest roads lies the PLA 455 Hospital. In one high-profile case from 2010, Hong Chun, a 27-year-old diabetes patient from a midsized city in Zhejiang province fell ill the day after undergoing stem cell treatment at the hospital. Hong, who reportedly paid RMB 30,000 for the transplant, was rushed to another hospital and died a month later.

Authorities' efforts to tackle the proliferation of unsupervised stem cell treatments by tightening policies date back almost five years. In May 2009, the health ministry classified all therapies as "category 3" medical technologies, deemed as "high risk" and "ethically problematic", with clinical trials needed to verify their efficacy and safety.

> "The majority are unproven. People are paying up to half a million yuan for a completely unproven therapy
>
> Xu Xiaochun
> Chairman, Chief Executive
> Boyalife Group

Then at the start of 2012, the government announced a regulatory crackdown, halting new applications for clinical trials of stem cell products to improve the industry's development. But those rules went unheeded, as hospitals and private clinics continued to offer treatments.

Since May 2013, only top-tier hospitals certified by the country's State Food and Drug Administration (SFDA) have been allowed to apply to hold stem cell treatment clinical trials—with such tests free for patients involved. Experts say that has helped improve the regulatory environment, with policies now on par with those of the West.

"The regulation's pretty strong," says Reginald. "You can only undertake stem cell therapies in the most sophisticated hospitals, which are typically hospitals affiliated with universities. We've found the regulatory environment in China to be as stringent, if not more stringent, than what we have in Europe."

Other insiders disagree with that assessment and have reservations about the latest ministerial ruling that confines clinical tests to elite institutions. Xu from Boyalife argues the move has "conflicts of interest", spurring dubious firms to partner with hospitals fitting the SFDA criteria.

"Each health center will have a few clinical sponsorships, and those sponsors are most likely to influence the outcome. It creates a conflict of interest," says Xu.

Future Perfect?

Formidable hurdles remain. According to Fu, a major problem hindering the development of new therapeutics is poor coordination. "In many settings, the clinic and the basic research laboratory are often completely different," he says.

"Basic and clinical scientists, as well as scientists working in the biotechnology and pharmaceutical industries need increased awareness of the questions that must be answered before a stem cell-based product can be used clinically."

On the corporate front for both foreign and Chinese companies is the well-worn issue of protecting intellectual property (IP) in a field where treatments can take tens of millions of dollars to research and develop.

"For stem cells, the IP protection technology is more complex than for conventional drugs, as for those you can simply draw a formulation or a structure and clearly define how it's protected," says Xu.

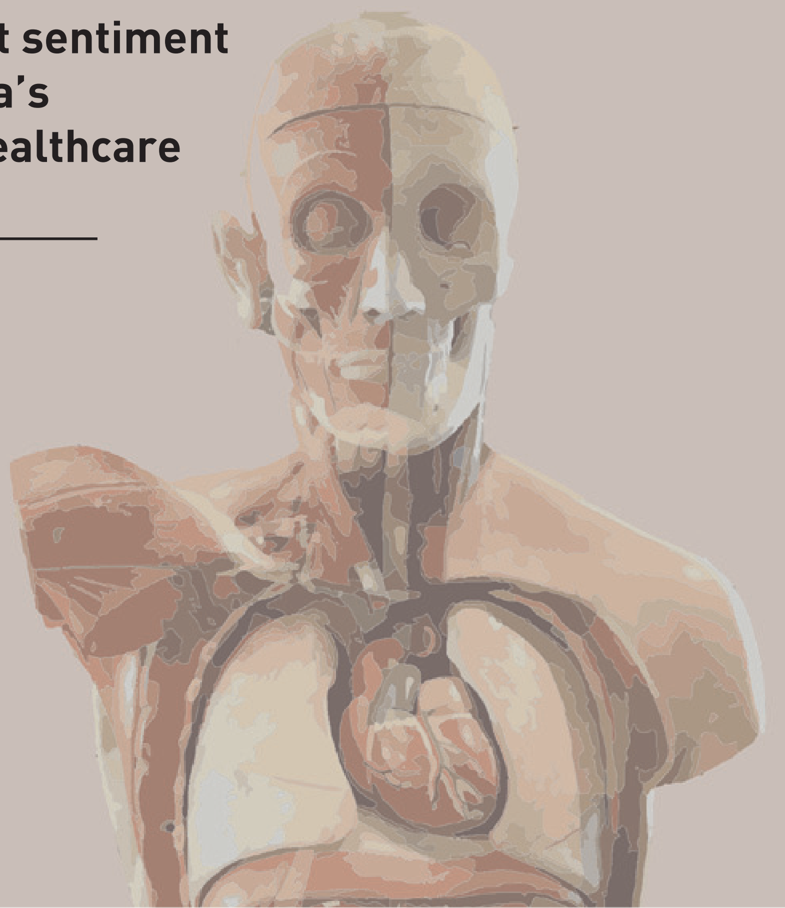
If it were only a matter of money, then China's desire to become a future hub of world-class stem cell science would be assured. But all the billions of yuan pouring into the research field will take years and perhaps decades to translate into meaningful applications, with setbacks and false starts along the way. Patience will be key for a field that promises so much but where safety is paramount, and it's a mantra that Chinese scientists are preaching.

"There's a lot of hype and expectation," says Kee Kehkooi, Professor at Tsinghua University. "That's the challenge, whether we will be able to cope from all the pressure."

Body of Business

Will investment sentiment survive in China's beleaguered healthcare sector?

By Suzanne Edwards



It's a typical scene in Subei People's Hospital in Yangzhou, a third-tier city in China's coastal province of Jiangsu. Patients that have been waiting dutifully for reception to open since 7am file in to pay for face-time with a reputable doctor. Once registered, the patients embark on a ping-pong like journey from cashier to doctor's office, back to cashier, to laboratory, back to doctor's office, back to cashier and finally to the pharmacy. Some patients tenuously carry their own 'specimen' in shallow plastic trays, collected in the centrally located restrooms which are without soap for washing up after said specimen collection. In the second doctor's consultation the patient's peers anxiously queue near the door waiting for the doctor's comments, often listening in on other consultations in the process. Consultations last an average of five minutes in China, compared to more than 20 minutes in the US.

There are many facets to public hospital care in China that could rankle developed-country sensibilities: sanitation issues, lack of privacy, over-crowding and whirlwind doctor decisions, plus a strong likelihood to walk away with saddle bags of unnecessary medicine. But this is the system that Chinese people, regardless of income level, overwhelmingly trust, more than the private hospitals and clinics that are sprouting up around the country.

"I don't trust private clinics," says 27-year-old Ye Gen, a translator based in Shanghai. "In the past I've left [those clinics] with a feeling of being sold to, and not really cared for by the doctor," she says, adding that one clinic was still sending her text message advertisements long after the appointment.

But everyone from the government to investment firms also agrees that China's public healthcare infrastructure is unable to meet demands, especially from the increasingly affluent middle class and rapidly aging population. China's leadership declared support for more private investment in the healthcare sector last December, and removed healthcare from the list of restricted investment sectors.

"For the first time there's a reference to the healthcare sector as an industry, which is sort of an evolution in terms of the thinking here, because historically it's been viewed as a social sector," says Murali Gangadharan, Head of Research at PricewaterhouseCoopers in Shanghai and co-author of a 2013 report on private healthcare investment in China.

Some private healthcare service provider firms are responding to the official green light and braving a healthcare terrain textured with inhospitable regulations, wary consumers, and doctors deeply ensconced in the nation's top class of public hospitals. These firms all believe that in the long term, the severe demand for more healthcare options will turn into a healthy business model.

Welcome to the Jungle

Healthcare companies, both foreign and local, are still largely analyzing the market, discovering the holes in the public healthcare system and how to fill them.

China's healthcare sector consists of three kinds of providers—public hospitals of varying sizes, domestically-owned private hospitals and clinics, and foreign hospitals and clinics, either through joint ventures or full ownership.

For decades, China's population has funneled into the country's large public hospitals wherever available. The top of the top are usually associated with renowned universities, such as Peking University in Beijing or Fudan University in Shanghai.

The system is in many ways inadequate in serving the public's needs. Earlier this year, there was wide media coverage of a man dying of a brain hemorrhage after waiting 90 minutes for an ambulance in Shanghai. In some second and third-tier cities there is only one general hospital serving more than half a million residents, making it overstretched even when the hospital is in top condition, which is rarely the case.

One reason for the public's reliance on large public hospitals is their monopoly on the nation's best doctors. Unlike in other markets, Chinese doctors typically only find career advancement through the sponsorship of public hospitals. Prestige, political benefits and renown are career aspirations that only public hospitals can facilitate, and the larger the better.

> The more fundamental issue is that patient-doctor trust at the most basic level has been decimated
>
> Clancey Houston
> Vice President
> Chinaco Healthcare

"These doctors in the public system, beyond compensation, there is a lot that they get, they are essentially civil servants," says Gangadharan. "In China, the hospitals do have control over essentially credentialing a physician…so you as a physician can't just go out and start your own practice, the hospital is the entity that grants the license to practice."

Accordingly, what Gangadharan refers to as "step-down" care facilities, or what US patients would call their primary care physician's practice, is something private investors should consider.

"I think that's an area of opportunity for private investors to come in and really grow this outpatient setting," he says.

The two main challenges to such expansion are one, enticing doctors to work in private settings and two, the general lack of trust among consumers in private facilities.

"The more fundamental issue is that patient-doctor trust at the most basic level has been decimated," says Clancey Houston, Executive Vice President of Chinaco Healthcare (CHC), a China-based healthcare provider founded by the Frist family of HCA Healthcare, operators of one of the largest hospital and clinic chains in the US.

The trust issue is largely traced back to doctors' pay. In 2011, newly certified doctors made an average of RMB 2,000 per month, according to the China Medical Doctor's Association, which also reported that the majority of the surveyed doctors were "dissatisfied" with pay and working conditions. In light of several recent high-profile cases of patients stabbing doctors, it is very likely these attitudes persist.

Mistrust of doctors is not without a basis in China. Many doctors have supplemented their low salaries with bribes from patients and over-prescribing unnecessary medications and treatments to generate revenue, and possibly kickbacks from pharmaceutical firms. Chinese authorities last year accused British pharmaceutical company GlaxoSmithKline of bribing doctors in exchange for prescribing their products. Meanwhile, hospitals typically reward doctors with bonuses based on volume of patients and usage of facilities. So in the absence of a reasonable salary, many doctors in China effectively become corrupt drug pushers.

Seth Yu, Chief Administrative Officer for CHC and son of two doctors, explains that the attitude of patients exacerbates the problem. "If they just hear 'go home and drink more water', the patients aren't feeling comfortable, they expect more, it becomes a really bad cycle. They think 'you have to treat me seriously, do something on me'," explains Yu.

Pilot reform schemes are underway in a number of public hospitals, such as in a performance-based pay study taking place in Ningxia Province, and the higher consulting fees and corresponding doctor salaries in Beijing's Friendship Hospital. A seemingly viable alternative is the expansion of private facilities that pay doctors higher salaries, such as in the US-headquartered United Family Healthcare hospitals in China, but the doctors' mentality that exiting the public hospital system means professional suicide limits the potential of that expansion.

But even if physician recruitment were easier, the rash of egregious profit-boosting activities of some, largely local, private facilities have left consumers largely opposed to non-public healthcare providers. There have been reports of clinics falsifying lab results in order to sell expensive treatments to the patient, going so far as to perform unnecessary heart surgery. These reports have created a serious branding problem for new private ventures.

From the perspective of foreign healthcare operators, China should be a golden opportunity. They are interested in the China market, and the government wants them to bring in their technology and best practices. But the challenges typify just where official support is falling short of real change.

Water, Water Everywhere...

The opportunities mainly involve the increasingly affluent upper-middle class above 40 years of age. They are spending more on healthcare (see 'The Cost of Health') with a projected 12.9% increase in individual healthcare spending by the year 2020, reaching roughly RMB 2 trillion, according to a 2013 report from PricewaterhouseCoopers. Increased healthcare expenditure should in theory make for healthy business models.

"The climate for senior services in China is very good," says Michael Li, Executive Director of Cascade Healthcare, which has two senior housing facilities in Shanghai. "The ground is very fertile." Li refers to local government interest and an all-but-complete absence of transitional facilities for seniors. "China doesn't have a true sense of a nursing home or skilled nursing facilities, there's no senior living industry at all."

Foreign-owned hospitals or clinics can play a role, and can do so more efficiently, in what Murali refers to as "step-down care", care that can easily be administered by a nurse or other similarly certified professional in a more dressed-down setting than a public hospital. This may include post-surgery physical rehabilitation, clinical monitoring of progressive conditions like Alzheimer's and dementia, or orthopedic care. The ideal arrangement would be the establishment of a referral system between the local public hospital and various categories of step-down care facilities.

"I'm not competing with the hospitals, I'm helping them, they don't quite get that yet," says Li, who says doctors are routinely skeptical of referring their patients to the care of a facility like Cascade, even while the option of returning home may prove more detrimental to a patient's health.

Doctors at large tertiary public hospitals are as unsupportive of private facilities as their patients, and given that the profit structure of public hospitals is partially based on the volume of patient throughput, the inherent competition between public hospitals and step-down care facilities has resulted in virtually zero referrals.

"Public hospitals are actually afforded very little incentive to actually give a referral to an outpatient clinic," says PwC's Gangadharan. "Sometimes the doctors are set up in contracts that incentivize them into not doing external referrals but doing referrals within their hospital or within their clinic chain."

But there is hope. A marketing associate for a prominent American orthopedic hospital in Shanghai, who prefers not to be named, says that they invite public hospital doctors to seminars his employer hosts to discuss the latest advances in orthopedic care, and in turn the doctors refer patients. Technology transfer is highly sought-after in public hospitals in urban centers. So while 'seminars' may seem like a soft reward for patient referrals, they do in fact fulfill certain requirements of the hospitals.

The other option is to recruit doctors from abroad and brand them as 'the best in the business', the only issue here being providing them with compensation on par with what they would earn at home. In the case of the Shanghai-based American clinic, they operate a revolving door of 'visiting physicians' whereby doctors take turns serving short stints, and are also stakeholders in the clinic.

The last serious impediment is payment. The national health insurance is the primary factor determining where patients seek their care. Public hospitals are generally permitted to reserve 10% of services for premium health insurance, or private plans that patients purchase to enjoy a VIP experience at renowned hospitals.

"There needs to be incentive to get the private insurance to become an alternative or a supplementary option to a whole range of people," says Gangadharan."If that happens you can have private sector healthcare for profit operating, you can [also] have non-profit sector with private investment, but with investors being able to get some return out of it."

Gangadharan explains that even Chinese consumers who opt to purchase private health insurance are mainly looking to be treated in public hospitals, instead of exploring care from for-profit facilities. "Public hospitals are struggling to figure out how to expand their services to more than 10% without upsetting the notion of their being public hospitals," he says.

Overall, the healthcare terrain is teeming with demand for solutions to the overcrowded public hospitals and their overworked doctors. But the lack of referrals, the inability to pull doctors away from public hospitals, a lack of alternative payment options and a crisis of confidence on the part of the patients is making it difficult to crack the market's potential.

Pioneer Providers

Many companies agree they are involved in a necessary, albeit tedious, market development process. Those already in the market are the guinea pigs, stubbornly gnawing their way through the brambles so the system may become more hospitable to other companies in the future.

"It's just a pity we have to be the ones suffering through this," says Li of Cascade. "If you really look at the financials, we're fools to come in at this point."

But Li says that at this point positioning is key, positioning a company to be ready for the private healthcare expansion that most view as inevitable.

There are various frameworks that foreign companies are using to take advantage of healthcare growth in China. One of the best-known ventures involves Chindex, the China arm of US-based health insurance company United Healthcare. In addition to its high-end hospitals in China's main cities, the company can also source management and equipment needs.

Using this model, Chindex has been pretty successful. The Beijing-based company reported a 16.3% increase in revenue from healthcare services (as opposed to equipment) in 2013 from the same period in 2012, bringing in $43.1 billion. And yet, Chindex announced in February that a consortium of private equity firm TPG and Shanghai Fosun Pharmaceutical would acquire Chindex and take it private.

Gangadharan says that as long as Chindex targets primarily the high-end consumers, their long-term growth is limited.

Another viable model is to pursue only management contracts, given the lower upfront capital investment requirements and the central government's preference for building up existing public hospitals.

"You don't need as much capital, that's an interesting way in which the private sector can come in," Gangadharan says. "That is essentially a trusty model."

Gangadharan cites Beijing-based Phoenix Healthcare Group as an example, which as of June 2013 operated 11 general hospitals and 28 community clinics in China, and has begun raising funds prior to a planned IPO in October.

The most concerted investment comes in the form of direct partnership with local governments at the municipal and county level, the chosen path of Chinaco (CHC).

In 2008, the HCA Healthcare founding family, that of Dr. Thomas Frist, started to look to China for expansion and began talks with the government of Cixi, a town in China's southeast Zhejiang Province.

The Cixi government wanted to overhaul the city's 2nd People's Hospital. CHC presented its proposal, and five years later a new joint venture hospital is due to open this June.

"It's become an increasingly important metric for provincial or even county level government to take responsibility for making sure their population is healthier," says CHC's Houston.

Good local government relationships are paramount for joint-ventures in healthcare, but this direct partnership whereby a non-Chinese company specializing in for-profit healthcare facilities is partnering directly with a government to "replace" a public hospital, is quite novel.

But importing best practices isn't without its own complications. One is the implementation of Joint Commission Accreditation standards. The Joint Commission is a US-based agency that accredits hospitals that meet the requirements necessary to effectively administer healthcare. There is also an international version of the accreditation known simply as Joint Commission International (JCI).

"JCI has very strict requirements, for the time being, it's very difficult for local staff to reach," says CHC'sYu.

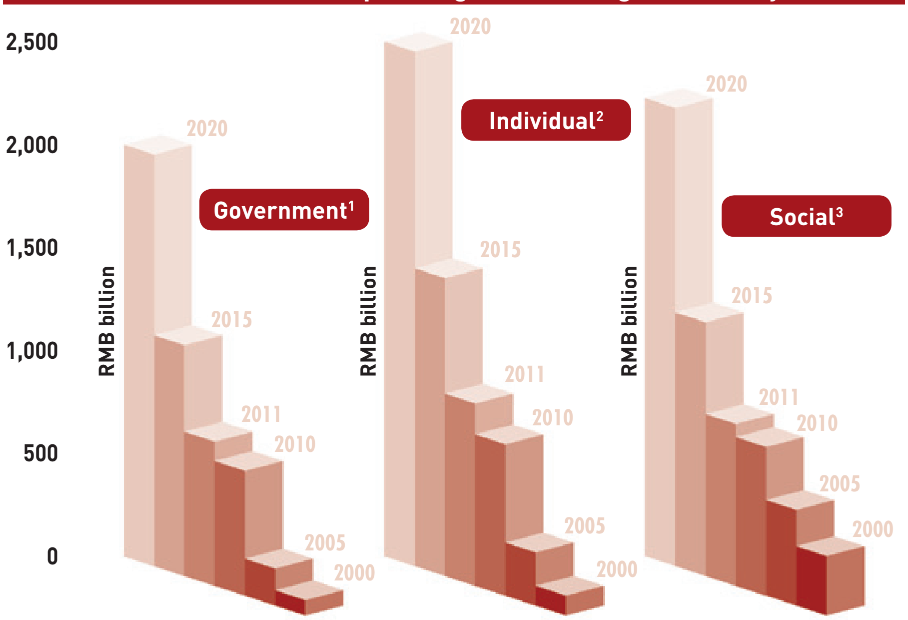
Building a community's flagship hospital won't see pay-off for 10-15 years, says Yu. But it has the unusual benefit of an automatic supply of patients and doctors that will transfer from the old 2nd People's Hospital to the new one. CHC is also taking the unusual road of accepting all kinds of insurance, from expensive private policies to the national insurance plan. The profit margin that hospitals can make off of patients using the government-provided health insurance is extremely slim. That's why the more specialized private clinics are refusing the national insurance altogether.

"We wouldn't accept the national insurance even if we could because we'd make no money from those patients, we're not targeting 99% of the population," says the marketing director for the Shanghai-based American clinic.

But Houston and Yu are confident that down the line they can partially recover expenses through supply chain optimization and higher efficiency. Of course hav-

The Cost of Health

Forecast for healthcare spending and funding in China by source

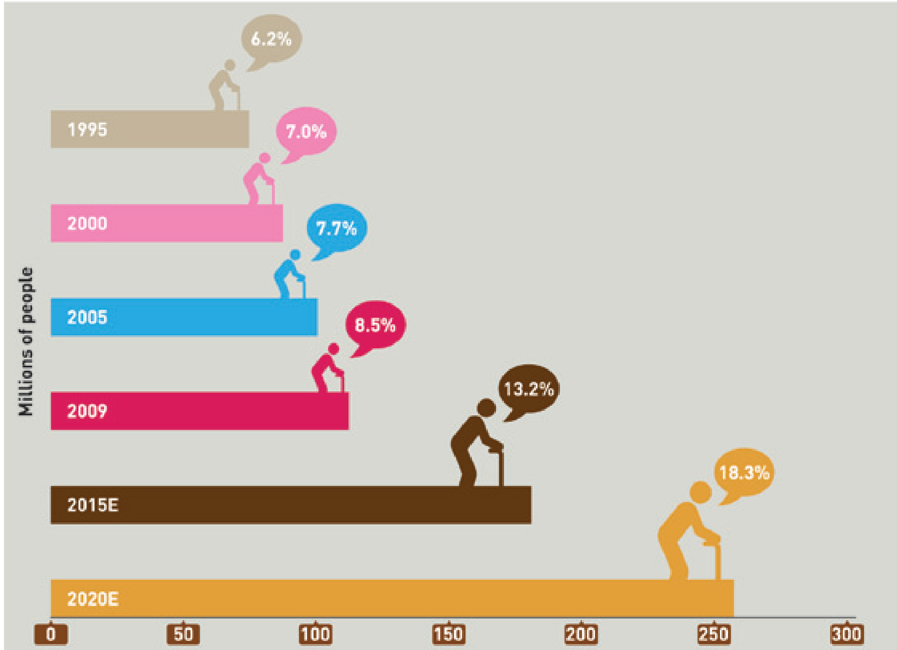


Source: China Health Statistical Yearbook 2010, P.R. China, WHO database, PwC market research

* Compound annual growth rate
1. Government spending and subsidies
2. Social medical insurance
3. Personal expenditure

Elderly Expansion

Charting the growth in China's citizens aged 65 and above



Source: China Health Statistical Year Book 2010, P.R. China, WHO database, PwC market research

ing a cash-rich local government on your side is also handy. So if you haven't hit the mother-lode, as CHC has in its municipal partnership in China's under-serviced lower-tier cities, then you're back to catering only to the affluent and their parents.

Age Before Wisdom

By 2053, the number of China's senior citizens is expected to grow to 487 million people, or 35% of the population, compared to just over 12% now, according to the China National Committee on Aging.

Jim Moore is the founder of Moore Diversified Services Inc. (MDS), a US-based consultancy in senior care, and handles market research for China entry in the field of senior housing and acute senior care facilities. He says that the adult children of aging parents are waking up to the shortcomings of traditional parental care methods, and are now ready to spend to deal with the problem.

"We're finding the same trends that we see in the US gradually evolving [in China], in that the adult child is busy, is employed, is fewer in number, and the acuity level of the aging parent is such that the housekeeper that they used to use and trust is not always able to keep up with the increasing needs of the seniors," says Moore.

As a result, families increasingly see the benefits of what are called 'nursing homes' in the US, this channel for private investment, both from within and outside of China, becomes increasingly attractive. The initial start-up costs are less than for hospitals since the equipment and personnel requirements are lower, and the pool of patients can only grow.

According to Jim Biggs, the Managing Director of Honghui Senior Housing Management Consulting, if you can't raise a facility within a five-mile radius of your target patient pool, don't bother. As a result, senior care developments are heavily skewed towards urban centers, which means more expensive land.

"Right now the land is so expensive, the numbers don't pencil out, that's the paradox," says Biggs. "Until the government says, 'hey we need to fix this, we need to give what land we have, we need to make [land] available for the seniors in these locations where the seniors want to live,' until that happens, we're all kind of just chasing ourselves." Biggs explains that there must be local government buy-in for a senior housing business model to really fly in China's urban centers.

Ventures and Gains

Most researchers and industry insiders agree that China's healthcare privatization is still in the experimental phase as far as private investors are concerned. It's a guess and check system: build, publicize, educate, wait and assess. But one thing about healthcare investors in China is that they seem to be aware that they're not going to get an instant return.

The strategy is for companies to establish themselves as early birds in the game, giving them a chance to play a significant role in what many believe to be China's coming healthcare revolution. It's all about establishing position.

Chindex is doing well in their targeting of high-end customers, but still fall short of the "Holy Grail" of the middle or upper-middle income market, says PwC's Gangadharan.

CHC is blazing a trail through officialdom by meeting the government where their needs are, which they can leverage to re-create the successful chain of their US counterpart. And the smaller ventures that cater to the wealthy Chinese and expatriates will persist, but the real impact will be in vertical integration with already established public healthcare systems.

"Either we wait for the ecosystem to be mature and favorable to us, or we have to create our own minor ecosystem, but creating your own ecosystem is easier said than done," says Li, who readily acknowledges that now is the time to push against the bureaucratic limitations of the regulators so that investment can flow more freely in the future. "Until folks like us [are] coming in, running into these problems, raising those issues and pressing the government to change, why would they change?"

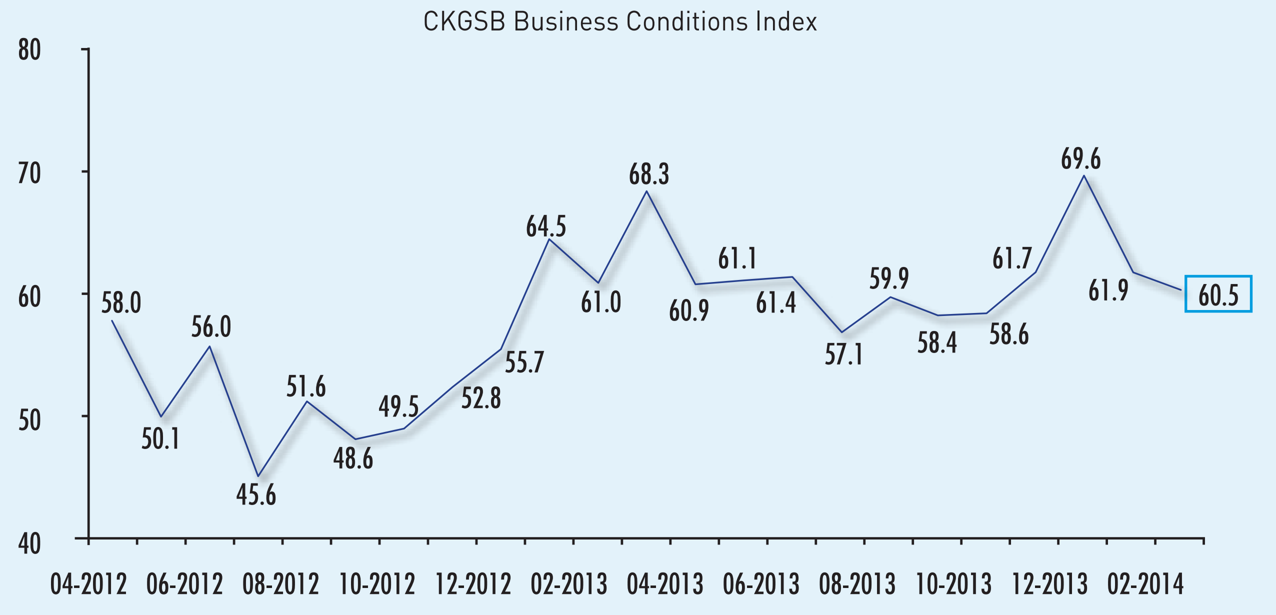
Commercial Anxiety

A second month's decline in overall business outlook reveals some nerves surrounding future risk

The CKGSB Business Conditions Index for February 2014 reads 60.5, registering a small drop on last month's index of 61.9 (see CKGSB Business Conditions Index). With 50 being the threshold between a positive and negative economic outlook, this reading shows that our sample of comparatively successful business leaders are relatively optimistic about business conditions. While the overall economy appears stable, two consecutive months of decline in economic activities shows that we may be facing heightened risk ahead. GDP growth is likely lower than previous years as the country embarks on more structural changes in the coming years. Reforms in the financial sector may continue to complicate the implementation of monetary policy. Access to financing is expected to be tighter this year.

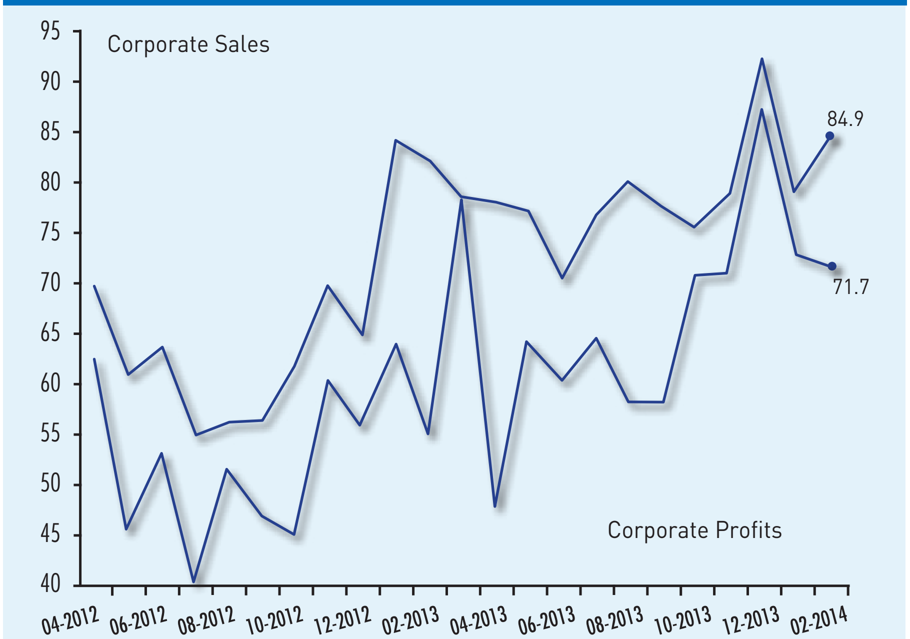
The CKGSB BCI questionnaire asks respondents to indicate whether their firm is more, the same, or less, competitive than the industry average. From this we derive a sample competitiveness index (see Industry Competitiveness Index). Consequently, as our sample firms are in a relatively strong position in their respective industries, the CKGSB BCI indices are higher than government and industry PMI indices. Thus users of the CKGSB BCI index may focus on changes over time to forecast trends in China's economy.

Confidence slightly shaken...



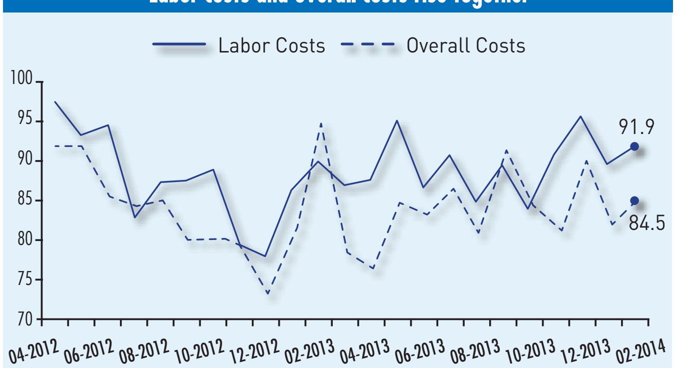
...and in need of a boost

Prospects for sales look good, profits not so much

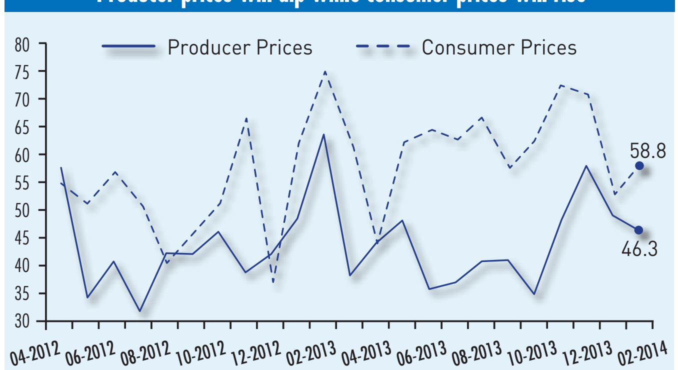


The corporate sales index registered 84.9, higher than last month by 5.3 points. The corporate profit index registered 71.7 (see Corporate Sales and Corporate Profits), 1.1 points lower than last month but higher than the confidence threshold of 50. In February, labor costs and overall costs rose to 91.9 and 84.5 respectively (see Labor Costs and Overall Costs). These two costs indices show that the majority of sample firms expect costs will rise compared with last year. The consumer prices index rose 5.6 points to 58.8 (see Producer Prices and Consumer Prices), showing a forthcoming rise prices. Producer prices, affecting mainly manufacturers, dropped 2.6 points to 46.3, showing a relaxation of exposure on last month.

Labor costs and overall costs rise together



Producer prices will dip while consumer prices will rise



Reasons to be Optimistic

China's economy's in for the long haul. Here's why

By Xiang Bing

Talk of a hard landing in China is typically overstated, but also implies short-term thinking. Even if we allow for the possibility of a hard landing, a longer term perspective on China's economy gives China the time to bounce back from short-term fluctuations.

Here are 15 reasons why I believe we should be optimistic about China's economic future.

1. China's urbanization rate was under 52% by the end of 2012. Compared to the US or Brazil, which both have an urbanization rate of close to 85%, China's market has far more growth potential than many other major economies.

2. China's service industry accounted for 46% of the country's GDP in 2012, compared to 80% for the US over the corresponding period. Again, that gives China a lot of room to grow as its markets mature.

3. The prevailing view seems to be that the dividend China can generate from reform has ended, but I beg to differ. An increasing amount of deregulation in industries, including financial services, media, sports, healthcare and telecom, can pay dividends for years to come. The US spends around 18% of its GDP on healthcare; in China, that number is less than 6%.

4. China is already the world's second-largest economy and if it continues to grow at 7% annually, it will also continue to be the most important driver for global economic growth for many years to come. China's role as the world's workshop is secure and it is here where the greatest opportunities for global growth exist.

5. Contrary to popular belief, China is very open economically and has embraced globalization. For the past two decades, it has been the second-largest market for FDI—a key indicator of economic openness. China is often characterized as employing export-led growth, but 2012 was the first year in a decade that foreign-invested enterprises contributed less than 50% of China's total exports. China's economy is not dominated by any specific management model, and every major variant of these models has played a significant role in China's economic progress. This will give China a strategic advantage as the challenges of globalization continue.

6. The entrepreneurial drive of Chinese business people is one of the most important factors in China's economic success. This drive, typified by e-commerce and mobile internet companies, will continue to keep China at the forefront.

7. The Chinese people have an incredible curiosity and ability to learn. Whether it is soaking up information from others, or innovating and localizing, I believe China is unique in this regard and has an open-mindedness about new ideas that does not exist in other countries.

8. There are more students studying abroad from China than from any other country. These students will return with new skills, along with a more global mindset. In addition, greater affluence has led to a new wave of emigration, which has resulted in more Chinese attending the world's top schools.

9. China has more experience than many other countries with a variety of political and economic systems, including communism, socialism, capitalism, planned economy and market economy. This will serve China well when faced with uncertainty, as governments are forced to reevaluate and make hard choices.

10. China's political system has some distinct advantages: the ruling by elite attracts the best and its extensive executive emphasis, under which candidates must rise up rank by rank, gives China's leaders essential experience at all levels, meaning that they are better informed and more able to represent the people.

11. Sovereign debt in China accounts for roughly 15% of GDP—far lower than in many western countries—providing more stability for China. In addition, China has the largest foreign exchange reserves in the world.

12. Mao Zedong has long since departed, but his influence continues to be felt to this day. In particular, the standardization of the Mandarin language stems from his legacy, as does the liberation of women, meaning that women in Chinese are far more literate, educated and integrated into society than in many other Asian nations.

13. The size of China's population, another of Mao's legacies, will always be an important factor for Chinese competitiveness. India may surpass China in terms of numbers, but literacy rates—especially for women—do not compare.

14. China is not 'rising' so much as it is returning to its historical position in the world order. In the 1820s, about 30% of the world's GDP came from China—equal to the sum of Canada, the US and Europe. After dipping below 2% in 1978, it now stands at around 12%, so there is a long way to go to return to its earlier prominence.

15. Finally, every dynasty in history that was open has fared very well. If China continues to open—and the government is committed to further reforms—that suggests more good things for China!

Xiang Bing is the Founding Dean and a Professor of China Business and Globalization at Cheung Kong Graduate School of Business.

Conversations

"There are certain bottlenecks that will have to be addressed for the market to realize its full potential"

56

Patrick Horgan

Regional Director
Rolls-Royce, North-East Asia

59

"The better something makes us look, the more likely we are to share with others"

Jonah Berger

Associate Professor of Marketing
University of Pennsylvania's
Wharton School of Business

"We are working on scouting the next Chinese pilot, and we really would like to be the first one to be really involved"

63

Edwin Fenech

President and CEO
Ferrari Greater China

Riding on China's Growth

Patrick Horgan, Regional Director, North-East Asia, on how Rolls-Royce diversified in China

By Neelima Mahajan and Major Tian

Unknown to many, China's engagement with Rolls-Royce, the iconic British multinational company, goes back nearly a century. In 1919 the first airmail service between Beijing and Tianjin was powered by Rolls-Royce engines on a Handley Page aircraft. In 1963, Rolls-Royce sold Dart engines to the Chinese civil aviation authorities, marking the beginning of a deep relationship with the region. In the early days, along with the sale of aircraft with Rolls-Royce's engines, pilots and technicians from China went to the company headquarters in Derby for training and familiarization. Today, Rolls-Royce's engagement with China spans not just aviation, but marine, energy and the civil nuclear industries as well. Greater China is now Rolls-Royce's third-largest market globally.

Patrick Horgan, Regional Director of North-East Asia for Rolls-Royce, oversees the company's Greater China business from Beijing. In this interview, Horgan, an old China hand himself [he has worked with various companies in China and Hong Kong since 1989], talks about Rolls-Royce's portfolio of businesses in China and the way ahead:

Q. Aerospace was the first big industry for Rolls-Royce in China. How did you start off with the others in China?

A: It's rooted in demand. China's shipbuilding industry has really begun to gather pace in the last 20 years. As that happened, we began to develop some manufacturing capacity here: we have a wholly-owned manufacturing facility in Shanghai. We also began to supply to Chinese shipyards. In the first instance, this was typically in response to overseas ship owners. Typically Nordic ship owners were interested in providing to the offshore industry, and other existing marine customers placing orders for marine equipment, for ships using aero/ship design, or using various elements of Rolls-Royce equipment. Then the contract for that was passed to Chinese shipyards as they developed additional capability and began to produce more sophisticated vessels. It was a natural part of the evolution process, and the existing relationships that we had overseas then translated into activity within China. As domestic shipyards become more sophisticated, Chinese ship owners become more sophisticated in their demands. We are also now selling to the Chinese ship owners themselves.

Similarly the key activity in our energy business here is providing mission-critical equipment on the West-East pipeline. So there you have a national project of great significance, bringing natural gas from north-west China and central Asia to the more populated eastern seaboard and coastal regions of China. That's something that the government and Petrol China cannot afford to fail in. When you build that kind of infrastructure, you want to have equipment that you can rely upon. So we have benefited from the mission-critical nature of the infrastructure which drives demand for the kind of product that we can offer.

Q. How much of Rolls-Royce's global portfolio is reflected in China?

A: The area of exception is our defense business [because of] the EU arms embargo. Every other part of our business is represented. Civil aviation is a major market for us. [In] energy we provide oil and gas applications in China, the West-East Pipeline Project. We don't do a great deal in terms of power generation, although we do have some presence there too.

In marine, we are well presented both for the offshore sector and also for more general merchant vessels. And in the civil nuclear sector, we have Rolls-Royce instrumentation and control equipment on an excess of 30 nuclear reactors either already operating or due to be commissioned in China. Over the next 10-20 years, China's nuclear generation capacity is expected to increase five or six-fold. There will be technology transition during that period, and we hope we can still be a part of the solution.

The largest single business for us in Greater China is civil aviation. The growth in that sector has been huge as domestic travel has blossomed within China, and increasing as more international markets become available for mass Chinese travel. The growth from the 1990s till now has been exceptional. [In] the period from now through to 2031-32, we're talking about 5,000 additional civil aircrafts entering this market and China going from being the world's second-largest aviation market to probably becoming the largest in a comparable time frame. This particular area of business for us, and for everybody else involved in China, has been growing rapidly.

Q. What is your assessment of China's aviation industry and its evolution?

A: The word that first comes to mind when you have this conversation is 'growth' and the challenge of meeting that growth, because there has been a great deal of latent demand for air transport in China and connecting China with the rest of the world. The infrastructure, people's support systems, and the regulatory environment have been running to catch up, or in some cases, there are bottlenecks and impediments of the growth. So everyone thinks about it, the sheer nature of demand here, the challenge that that imposes on the aviation regulator and the airlines, simply in terms of finding sufficient people that are trained and qualified to perform [their] roles. We collaborate closely with the Civil Aviation Administration of China, and help to provide training to equip the next generation of managers in China's civil aviation. In 18 years we have trained over 1,000 technicians and over 800 management personnel, equipping them with essential skills to help manage this growth period. Clearly, there are other elements that are also constraining factors: for all that China is extremely good at infrastructure and building airports at a tremendous rate, there are [still] infrastructure and air traffic control limitations. When you put all of those things together, you can see a situation where the demand is there and the growth is still there, but there are certain bottlenecks that will have to be addressed for the market to realize its full potential.

Q. The Chinese aviation market is dominated by mostly state-owned carriers. Now that that the ban on private airlines has been lifted, how will it change the dynamics of this market?

A: Airlines in China have changed over the years. There was a period of liberalization still under state-ownership where you had multiple carriers across China, then a period of consolidation where they were grouped into the three larger players [Air China, China Eastern and China Southern] operating from the key hubs in Beijing, Shanghai and Guangzhou respectively. Clearly there was a commitment for those state-owned carriers to become world-class international players. They are already players at scale and they are continuing the development process. I'm sure that the ambition is that they should continue to be successful. There is also some liberalization on the margins. We have seen some fresh arrivals in terms of private carriers and an increased level of discussion around the potential for low-cost carriers. The market doesn't stand still and we can expect that there will be further change and over time one would expect further liberalization.

At the moment, our core area of focus tends to be in the wide-body aircraft that are servicing the larger domestic region or international routes. And as yet, the private carriers, with the exception of Hainan Airlines which is a special case, are tending to operate single-aisle aircraft. At the moment, compared to the Big Three, plus Hainan, so Big Four, these other players are still relatively small and focused on shorter routes and not yet perhaps our core customer base. But without doubt, there will be further change, liberalization and one would expect an increase in the number of players across China and some new business models emerging as that occurs.

Q. How do you respond to competition from the local industry? In energy, for example, China is now promoting the localization of equipment, such as compressors in natural gas pipeline construction.

A: I have a few things to say on that. Firstly, we have done well in the competitions that we have been involved in. In some cases, there have been awards of equipment to local players, perhaps on a trial basis, to encourage the localization process, but those have not been competed. When there is a competition, we do well. The mission-critical nature of the infrastructure means that you need to look at the reliability, capability and the lifetime operating costs of the equipment. When it's analyzed in that way, we are quite confident that we do well, especially when you also consider the after-sales servicing dimension of what we can provide there. I don't think that we run away from competition. In some cases, we don't get the chance to compete.

We ourselves are localized to a certain extent. We have a global supply chain so that there will be elements of equipment that will be sourced here. And then there are some specific elements of the energy contracts that we fulfilled here that use local partners and suppliers to ensure a degree of local content.

The third thing to mention is that we have also licensed Petrol China to have an after-sales maintenance repair and overhaul facility here in China. So once again, there has been localization of our equipment in terms of the end-to-end servicing of that equipment.

Q. How important is China to the company globally?

A: If you look at Greater China, it's already generating an excess of £1 billion revenue for us. That equates to 9% [of our total revenues]. It's our third-largest market globally after the US and the UK, and clearly with great prospect for further growth. China is a priority market for us. That indicates the level of commitment and level of interest of the highest levels within the company.

Q. Is China a significant manufacturing base for you at this point? Do you have any plans to grow it?

A: China is a very significant part of our global supply chain. We have about $200 million [worth] of purchasing annually in China and I would expect that to increase dramatically within the next few years. In particular, we expect that our aerospace, purchasing activities will double within the next five years.

Q. What about research and development on the ground in China? Do you plan to set up a research center of your own?

A: We have a research collaboration initiative with the Institute of Metal Research in Shenyang, which is part of the Chinese Academy of Sciences. That has been running for several years now. We expect we will continue to have research collaboration initiatives in China in the years ahead.

We don't actually have a research center of our own. We operate research through something called university technology centers (UTCs). We have 28 of those globally. Originally they were only in the UK and then progressively we've opened up UTC relationships elsewhere in the world. If possible, we may have one here in the future.

Q. At Rolls-Royce, you often have to engage with the government and joint venture partners who are local players. What are some of the lessons that you can share about your experience so far in managing these relationships?

A: People often say that doing business in China is difficult and it's all about relationships. I'm not sure if I know anywhere in the world where business is not about relationships at one level or another. In China, because of the cultural background, and also because of where China is in terms of its development, they need to foster those relationships. Over time, it's very important. The need for one's business activities here to be very clearly in the mutual interest of both parties is very important. So sometimes, you do have to ensure that this is the context in which you are approaching your business and the framework [in] which you are approaching it.

In our case, that is a natural thing to do. Our business is intrinsically a very long-term business, a business where you can't simply expect to sell the equipment and then walk away. Our business globally is already divided very evenly between services and original equipment sales. So, typically, when we make a sale of original equipment, it merely marks a beginning of a very long-term intimate relationship with our customers. Further, there is a mutual dependency where we have to commit ourselves to very high standards of service to those customers. So, very naturally, you develop this kind of long-term relationship and customer intimacy.

Q. Recently Rolls-Royce has been in the news due to bribery allegations. How do you handle something as sensitive as that, especially in a market like this?

A: There is not a great deal I can say about that beyond what has already been said in the media. Specifically the statement that we have released to the media, which is there is an investigation going on and some other concern in China, Indonesia, and some other markets. Beyond that, there's really nothing I can say on that issue other than to emphasize the point that our CEO made which is this kind of conduct is in no way tolerable in our organization. There are many steps that we have taken to ensure that these things don't happen.

Q. What's next for Rolls-Royce in China?

A: We have to be constantly on the move to keep pace with the change that's going on here. Our global strategy summarizes [what] we are about. It breaks down to three key elements: customer, innovation and profitable growth.

China is home to many very important customers for us. We have to focus on their needs and make sure what we are providing for them matches, anticipates, and responds effectively to those needs. That will help us to continue to shape what we need to do here.

The next element is innovation. There are things that we need to do to recognize a changing profile of demand here and introduce our innovations to our customers who may not have previous experience of them. We see some of that happening: we have our first 'environship' under construction in China, a ship that combines a number of different Rolls-Royce elements, a unique wave-piercing bow, Rolls-Royce gas-powered engines and a very sophisticated propulsion systems. Taking all of these elements together, we can reduce CO_2 emissions by 40%, comparable to a diesel-powered vessel of a similar time. So, I think that we can see that there are so many things across our portfolio that we can bring to China, adjusting to anticipate customer needs and to introduce fresh innovation that will naturally be positive for us and contribute to profitable growth.

(To watch the video, please log on to CKGSB Knowledge at www.knowledge.ckgsb.edu.cn)

Reverse Engineering Gangnam Style

Jonah Berger, author of *Contagious*, on the science of going viral and how companies can use it

By Neelima Mahajan

Seoul is hardly the nerve center for all things cool. Yet when South Korean singer Psy released his sixth album in July 2012, one song—*Gangnam Style*—rocked music charts, made Psy a superstar and firmly pinned Seoul's hip Gangnam neighborhood on the world map. Within a month of release, the music video, which had Psy doing an amusing 'horse dance', was number one on Youtube's most viewed list and a couple of days later it topped the iTunes music video charts. By the end of the year, the song had topped music charts in 30 countries. US president Barack Obama tried to imitate Psy's funny dance on a TV show, and UN Secretary General Ban Ki Moon called the song a force for "world peace".

Now was *Gangnam Style* such an outstanding song? Maybe. Maybe not. So why did it become an overnight sensation?

Go back a couple of years and you'll find similar instances—remember Los del Rio's *Macarena* and Khaled's *Didi* in the 1990s? And there is Susan Boyle's more recent *I Dreamed a Dream.*

Why did these songs go viral? Most of us would attribute this to luck, chance or just random events. But Jonah Berger, Associate Professor of Marketing at University of Pennsylvania's Wharton School of Business, firmly believes that there is a science behind why things go viral.

Still in his early thirties, Berger spent the last 10 years studying why things catch on. His research spans an array of areas: ranging from content on the internet, to brands, products and ideas, among other things. The result is a book titled *Contagious: Why Things Catch On, a New York Times* bestseller.

Malcolm Gladwell is Half Right

Back in the day when Berger was studying at Stanford, his grandmother gave him Malcolm Gladwell's bestselling book *The Tipping Point*, a book that sought to explain why ideas, trends and behaviors go viral. Gladwell's thesis is simple: the 'tipping point' is a moment when "an idea, trend, or social behavior crosses a threshold, tips, and spreads like wildfire". He likens it to an epidemic, albeit a "social epidemic", propagated in large part by people he classifies as connectors, mavens and salesmen. These people help spread the idea. Gladwell's book had a profound influence on Berger and to a great extent, inspired his research.

> The size of a forest fire doesn't depend on the size of the initial spark, it depends on an entire forest being ready to catch blaze. The same is true with social influence

Ask Berger about it today and he says that 50% of *The Tipping Point* is wrong—and it is his job to tell you which half. "*The Tipping Point* is very much based around the idea that certain special people, whether mavens, connectors, or salesmen, are more likely to make things catch on. "There is just no evidence to support that," he says. "What our research shows is much more focused on the message rather than the messenger. I understand why all sorts of people, whether they have 10 friends or 10,000s, share things and how that drives things to catch on."

What Berger is talking about is not about the "special people"—Gladwell's mavens, connectors and salesmen—but the average Joes and Janes. If the message is convincing enough, it will appeal to them as well and encourage them to share. "The size of a forest fire doesn't depend on the size of the initial spark, it depends on an entire forest being ready to catch blaze. The same is true with social influence," explains Berger. Some people may have more friends or followers than others, but this doesn't necessarily translate into greater influence. "By understanding why people share, you can get all sorts of people passing along your message: [again] whether they have 10 friends or 10,000."

The Science of Viral

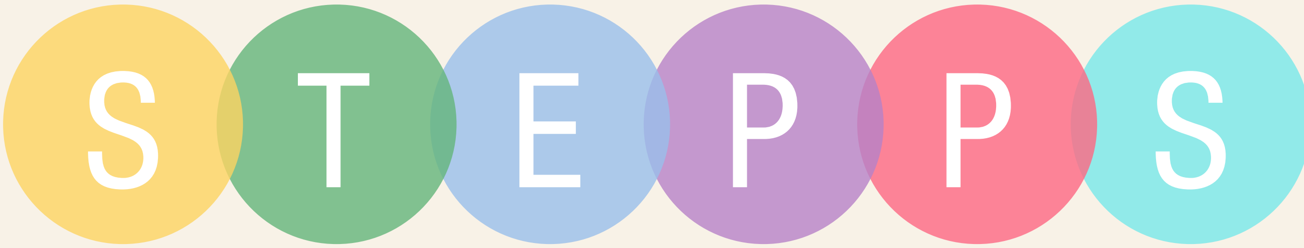
Cat memes, Jean-Claude Van Damme's 'epic split' video between two Volvo trucks, Honey Boo Boo clips, specs for the iPhone 6, the twin toilets at the Sochi Olympic stadium. Why do we share what we share? What is the psychology at work here?

The psychology of sharing is complex but Berger has boiled it down to six simple principles. He calls it his 'STEPPS Model': Social Currency, Triggers, Emotion, Public, Practical Value and Stories (See STEPPS). The idea is that if you address these principles, you'll be able to generate buzz and spread your message and idea quickly.

At the end of the day, it all boils down to common sense. Berger's first principle, Social Currency, for instance, appeals to a very basic need of human beings: the need to look good. "The better something makes us look, the more likely we are to share with others," he says. "Just like the car we drive and the clothes we wear, what we say affects how other people see us."

Take the hundreds of people who waited for the new iPhone to be released. "What did they do when they finally got the phone? They took a picture and shared it with all their friends. And if you think about why, the reason is because it makes

Jonah Berger's Six Stepps To Virality



Social Currency	Triggers	Emotion	Public	Practical Value	Stories
People talk about things that make them seem smart and cool.	Top of mind, tip of tongue. What we talk is what we think.	When we care, we share. Focus on "high arousal" emotions.	Built to show, built to grow. The more public something is, the more likely people are to imitate it.	News you can use. Useful things get shared.	Build a Trojan horse, a narrative or story people want to tell, which carries your idea along for the ride.

Source: www.jonahberger.com

them look good. Being one of the first people to get something that not everyone else has makes you look high status and in-the-know." Similarly, if we find a funny piece of content, we share it because it makes us look funny—and it makes us look good at finding interesting things on the web.

The second driver—Triggers—means that if something's top of mind, the more it's on the tip of a tongue. "If we are thinking of something more, it makes us more likely to share it," says Berger. When Hershey's was trying to rejuvenate Kit Kat, a brand on a downward spiral in 2007, it launched a campaign which positioned the chocolate wafers next to a cup of coffee with the tagline: "A break's best friend". Most Americans drink coffee a number of times in one day, and positioning Kit Kat next to coffee created a trigger that would remind people about the brand every time they had coffee. The strategy worked apparently: sales went up by around 8% by the end of 2007, and up by a third at the end of 2008.

The next one is Emotion: if something activates "high arousal" emotions, we are more likely to share it. "Usually we think about emotion in terms of positive and negative: you might think that people share positive emotions, because they make other people feel good, and avoid sharing negative emotions because they make others feel bad. But its more complex than that," says Berger. Emotions differ in how much arousal or activation they induce. Take anger and sadness. "Neither feels good, but anger is much more action-oriented. People who are angry want to throw something, yell at someone, or change something. These high arousal emotions drive people to share," he adds. "When people feel angry or anxious or when they feel excited, inspired, or laugh, they're more likely to share. It's not enough to make people feel good. If you want them to share they need to be excited or inspired."

The next driver is Public. "Even beyond what people are sharing, it's hard for people to see what they are doing. It's hard for them to imitate. We often ask others to decide how we behave," says Berger. "We've all heard that phrase 'monkey see monkey do'. But if we can't see what each other is doing, it's really hard to imitate." He cites the example of portable CD players and the Walkman that were very popular years ago. Then several other new music players came out. They all had black headphones. "But then Apple came out with white headphones [for the iPod]," says Berger. The white headphones and cords stood out among the melee of black headphones. "Suddenly you could see how many other people were using the same device. It helped it to be adopted. It's easy for people to see what each other is doing and it's much more likely that they can imitate them, because they can see what's going on."

The next driver—Practical Value—is simple. When something is useful, people share it. And the final driver—Stories—people share stories. If you can tie a narrative around your message, the likelihood of it being shared is higher.

A Million Facebook Fans

Companies are increasingly relying on social media to create a buzz around their brand. Meanwhile consider this: according to research by Statista, as of September 2013, retail giant Wal-Mart had 31.1 million Facebook fans in the US (just for perspective, Canada's population stands at around 35 million). Target came second with 21.1 million and Amazon had 19.1 million. Subway, Starbucks and Oreo also figured on the top 10 list. If you look at Twitter, you'll find similar mind-numbing figures.

So this is good news for companies, right? Not necessarily.

Companies have embraced social media with great gusto—they have established social media departments, created official Twitter and Facebook pages, and official blogs, gained followers and likes, run social media campaigns, all in the hope that this effort will translate into better sales. It may. But what they don't realize is that they are targeting a small microcosm of potential customers. "Only 7% of word of mouth is online," says Berger. "Most is offline or face-to-face."

So while social media helps create word of mouth, it is only one channel. "Rather than focusing on the technology, it's more important to think about the psychology—why people share in the first place and why people share some things more than others. That will help companies design more effective word of mouth marketing campaigns."

Companies need to also focus on the offline. And how can they do that? "The same rules apply," says Berger. The basic drivers of why we share remain the same and companies need to understand them first. Companies can design products and retail displays so that people will talk, they can make their service so noteworthy that people have to pass it on.

Do things go contagious offline the same way that they go online? "Things go contagious offline all the time. Think about the last rumor that went around your office or the last news story that everyone was talking about around the water cooler. People have been sharing all sorts of news and information offline for thousands of years," says Berger who calls face-to-face conversation the "original" social media.

The goal is to turn customers into advocates. You need each person that interacts with the brand to tell just one more person

"The goal is to turn customers into advocates. You don't need a viral video, you need each person that interacts with the brand to tell just one more person," says Berger, who has helped companies like Google, Microsoft, Coca-Cola and Disney apply the model. "We've seen some amazing returns. Everything from 400% increases in Facebook mentions to launching global brands."

The writing is on the wall: companies need to reduce their dependence on traditional advertising. "Word of mouth is 10 times as effective as traditional advertising and it's cheaper and more likely to generate sales," says Berger.

(For other interviews in this series, please visit http://knowledge.ckgsb.edu.cn/tag/the-thinker-interview)

Turbo Brand

In the face of luxury push-back from China's government and hyper competition for luxury car consumers, how is Ferrari tuning its China message?

By Suzanne Edwards

2013 was not luxury's finest year in China. The government shamed any and all ostentatious displays of wealth and decadence, and Chinese consumers are now backing off the luxury buying frenzy that shaped the decade following the country's ascension to the World Trade Organization, proving to be increasingly selective as time passes.

So how does an iconic luxury car brand navigate such a climate?

Named the world's most powerful brand in the 2014 Brand Finance Global 500 report on brand valuation, Ferrari brings Chinese consumers into "the family", favoring scarcity and exclusivity over chasing easily available sales, deliberately dropping the number of cars delivered to their global network by 5.4% to 6,922 cars in 2013. The tactic has paid off handsomely. Revenues rose by 5%, reaching €2.3 billion ($3.2 billion) in 2013 and net profits rose 5.4%, exceeding €246 million ($341 million).

Overseeing Ferrari's current China odyssey is Edwin Fenech, Ferrari's Greater China President and CEO since 2010. Within three years, the French-Italian Fenech tripled Ferrari's dealer network in China, introduced the Ferrari Pirelli Cup Challenge to Asia—running races in Zhuhai and Shanghai—and launched a dragon-striped limited edition vehicle just for the China market.

Fenech shares with *CKGSB Magazine* the thinking behind Ferrari's branding strategy in China, the logistical challenges of delivering autos from factories in Italy to buyers in the world's second-largest economy, the major international brand's survival guide to negative press, and how they go about establishing and strengthening racing culture in a country that has traditionally shrugged at international events like Formula One. Along the way, he recounts take aways from his time overseeing the European, Middle Eastern and African (EMEA) region and dismisses the notion that China is anything less than the most important growth market for luxury cars.

Q. In January 2011, Ferrari CEO Amedeo Felisa said: "For Ferrari, China represents the present and the future." And then this year Marco Mattiacci, the Ferrari North America CEO, said that "Mexico is the new China." How has Ferrari's China game plan evolved since 2011? How would you describe the importance of China currently to Ferrari?

A: China now is the second-biggest economy in the world. China is the number one market for automotive in the world. And I think now we are just scratching the surface, especially when we are talking luxury.

In terms of the market, I think we doubled [our] market's [size] in the last three to four years. This is something you're not seeing anywhere else in the world. This is the market that has all the potential to really grow.

What we're going to see in automotive, especially in luxury automotive, is there are a lot of Chinese travelling abroad, also moving abroad. We are monitoring a clear trend that Chinese are buying Ferraris abroad.

But this does not mean we will stop investing here in the country. This is the opposite [of] everything the other luxury manufacturers are doing. We are in the country where we absolutely need to disclose our DNA, our brand values, to educate people [on] the market, who we are, and why we are so peculiar.

Q. Ferrari Chairman Luca di Montezemolo said this year: "A Ferrari is not a luxury product. To buy Ferrari is to obtain a piece of art, a piece of technology." In light of the official reprimand of opulence in China, how is Ferrari integrating that into its China identity and strategy?

A: Really the anti-corruption didn't have any effect on us. In fact, since they bring this anti-corruption [crack down], we've grown. I can easily state it. I think no people under the government will ever try to be seen with a Ferrari, it's just too visible. For the rest, we have to acknowledge one thing, it's the young people who are buying. Here it's a chauffeur-driven market. People who are a certain age and wealthy they will go for [a] chauffeur, like [with] a sedan. You just have to look at the results of Rolls-Royce [Motor Cars] here in China. They are amazing. They are selling more than us. But when you come to the sports segments, it's dedicated to a smaller number of people which are generally the young guys. The average age of our customers is the lowest in the world, by far. But this is normal because in the mature countries, you've had the time to establish your brand, and also to be part of history. People now who are 60 years old [in mature markets], they've known Ferrari since they were born, they grew up in this culture of racing.

Here, the first car we sold was roughly 20 years ago, but the real implication of Ferrari in the country [came] more or less 10 years ago. In these 10 years, every single competitor came at the same time.

We absolutely need to disclose our DNA, our brand values, to educate people [on] the market, who we are, and why we are so peculiar

It has created a little bit of, I wouldn't say confusion, but imagine a customer that 10 years ago never approached the sports segments, now all of the sudden, he has a huge shopping list with everybody trying to pull him aside, saying, 'I'll give you the best,'. This is one of the reasons we are doing a lot of branding. This branding serves in two ways: one, to educate the customers, but the other side is to create loyalty. What we are seeing is that now, these young guys [have] evolved, they are evolving very fast. What's interesting is that the more they age, the more they [are] loyal to the brand. From this point here we can be very proud. We are a company that's also very able to make people loyal.

Q. How is that loyalty achieved?

A: It's like Ferraristi; you're part of a family. That's what's interesting. We have no 'customers'. We have people who live their dream which is to buy a Ferrari and they're part of the family. In China we are selling 500 cars. We have 500 new customers or repeat customers that come to us every year. We should know everybody by name.

When they start to become loyal, it's true loyalty, because they really participate in every single event. They start on racing, they buy every single model, it's amazing.

This market is in constant evolution. It's normal in this country [that] we have more first time buyers than in any other country in the world.

What is interesting to us is that the second and third tier cities are the ones that are growing faster than the rest of China, and we are taking advantage of that. When I came here in 2010, we had 10 dealers. From 2011-2013 we grew to 30 dealers. Then we tripled the distribution in only two years. Obviously, by entering new cities, [this] brought us new customers. Now I can tell you that we are approaching first time customers. But we [also] have a very big chunk of our customers that are repeat, loyal customers. Come more than one time to our events and you will see many familiar faces. We are like a family, we are together, we drink together, we go to watch Formula One together and things like this. It's very important.

Q. How would you describe the impact of Formula One in Shanghai on the Ferrari brand in China?

A: First of all, racing is not that popular in China. Obviously for us from a commercial point of view, from a media point of view, it's something that's very important. But we have to face the fact that racing is not a big interest. We cannot compare with basketball, with Yao Ming and that's really the point because there are really no Chinese drivers in racing. And that's maybe one of the reasons for the lack of interest, but this does not mean we are not doing anything.

From our side we have the duty to promote racing, and I think we are the best ones to do it because it's really part of our DNA. We started by introducing the [Pirelli] Challenge four years ago. The Challenge means huge investment. Why? Because normally how the challenge is structured is you create teams which are generally managed by our dealers, which is what's happening in Europe and US. Here, no, because you don't really have any racing culture. Racing is a serious thing. You cannot mess around with racing because it can be very dangerous. To organize the best service with the highest level of quality and safety, we decided to manage everything by ourselves, the logistics, the cars and rental of the circuit, [the] technicians, we fly 50 people from Italy for every single race all over Asia. This has a huge cost.

We are working on scouting the next Chinese pilot, and we really would like to be the first one to be really involved, to be the first to have a Chinese pilot representing [us] in different series and one day at Formula One.

Q. Is this the first time you've had to really develop the racing culture to this extent in a new market, or have you been through this before?

A: No, because even in the Middle East F1 is very popular. You can see there are already races in Abu Dhabi, in Bahrain and this is very highly followed locally. Here, we start from scratch.

But through media, we are promoting what F1 is, what our racing is.

Q. How would you describe your media strategy and general marketing ecosystem?

A: First of all just to understand when we say media, we never pay for advertising, this is all about creating news. We are targeting the national [media] but also working with the most important local media.

For instance, I travel a lot and most of the time we have interviews with local media. I think there is a strange appreciation of Ferrari, love of Ferrari and passion for Ferrari. There are some journalists who are crazy about Ferrari. It's funny, every time when they come to see me, they dress in only Ferrari gear.

But above all is the new media. New media is the one that really gives you the highest coverage by far. I don't know how it is in the other countries but for us, for Ferrari, the management of new media is very important, we have a dedicated team because it's so important.

Be very quick in reacting, otherwise things can really take a dimension that can be very difficult to manage. Be very quick in releasing your statement

Q. Along with other international brands, Ferrari had some unfortunate press exposure earlier in 2013. Could you outline a quick survival guide for large brands on how to deal with negative press in China?

A: First of all, clearly understand the context. Second you also have to be very quick in reacting, otherwise things can really take a dimension that can be very difficult to manage. Be very quick in releasing your statement, there can be different kinds of statements, but absolutely show your voice, tell your point of view. In China it's very important because Chinese pay attention to what the brand is saying. Afterward, you can be rejected, but at least you have your statement, and from your statement you can work on it. But it's very important, the context and being quick. I think the "wait and see" [approach], it doesn't work here, it goes [from] worse to worst, you have to raise your point. [Also], have only one voice, not a bunch of different people talking.

Q. Distribution is a challenge for any manufacturer in China. How does Ferrari cope with post-sale services and the logistics of shipment and delivery given the cars are manufactured in Italy?

A: Since we are [in] a growing market, we are growing in terms of network, obviously finding the people—the mechanics—it's always a challenge. There's very fierce competition on that front. But for us and this is one of my strong requests to our network and to those who are managing our network, I want stability. When I was in Paris I was also managing one of the biggest dealerships we have in the world. And there we were seeing the customer come in by themselves. Before, even if you owned a Ferrari, generally it was the chauffeur who brought the car for repairs. Now people come in because it's part of the experience of understanding, speaking, creating the relationship. This is very important.

Q. And in terms of logistics?

A: We used to have a lot of logistical problems.

The problem with Ferrari is that the cars are sports cars, they are not normal cars. They cannot go on normal trucks especially when you load it. The most common issues we had [were] scratches on the front bumpers or also another one that is really annoying is when you scratch the rims, which are very costly. We overcame in two ways: in the beginning when we had to face it, but could not solve it, we had to order a lot of bumpers and a lot of rims.

But we could not sustain this for long. Then my sales team started to scout [for] best practices, talking with people in the same field, with other manufactures, and we came to identify one [local] group, but even with this group, obviously no one had the real tools to manage Ferrari, because we need very specific trucks. So we made a deal with the company, according to the volume of cars per year, they will make the investment up front to have dedicated trucks [just] for us. Obviously it's costly, but it's less costly than to change the bumper [every] time.

The difference between then and now is night to day. Now we have much [fewer] problems. We have really improved the transportation issues.

Q. Do you envision a time when you will manufacture the cars here in China?

A: First of all, in order to build an additional plant you need significant additional volume and this is not our strategy. Our strategy is completely the opposite, because we're a very exclusive brand we want to limit our volume, even if we have huge potential to sell more, we really want to maintain the scarcity and the exclusivity. If you flood the market with too many new cars, the value drops. If you have scarcity, people want to buy a Ferrari. [If] they don't want to wait, they can easily have very good cars on the market, which are used cars. Like this, you maintain a very healthy circle of people buying first used cars, then selling back, which is a huge benefit for the customer that's driving one of the best cars in the world without losing too much money. And this has been one of the successes of Ferrari.

For us it's absolutely key to be the owner of our pre-owned car market. We are working to create a process that involves our dealers buying back the cars [from] our customers to have a pool of pre-owned cars, to [then] be offered to the market from our dealers. This has additional benefits. First of all you maintain the price of the car as you want. If you control the market then you decide how much this car is worth. Second, you propose additional business to your dealers,

We're a very exclusive brand we want to limit our volume even if we have huge potential to sell more, we really want to maintain the scarcity and the exclusivity

and when it's well done it can bring a lot of money. The only issue we have here in China is the stocking price of the car. Prices are very expensive. We have an average price of RMB 4 million. At this price level people want to buy a new car. If you want to reach the price for people that want a used car, you have to drop quite a lot.

Q. Your partner, Poly Group Corp, is not exactly an auto maker, what does each side bring to the table that benefits the other? How do you negotiate that relationship?

A: First of all we started to work together when this market was not that big. When you enter for the first time into such an unknown market, it was like stepping on the moon. When you step on the moon, you want to be very well prepared and to be sure that you will be successful. In this part of the discovery we prefer to be covered by a very important group, which is a group that's a state-owned company, very influential, and that can give us the right direction. Because in China it's not a normal market, because you're in a country that's governed by different rules than what you can understand, from the culture [and] from the political side [and] from the expectation of the customers. We want to build in the proper way, assuring the right direction. And definitely this is what Poly gets.

And we also have inside [knowledge of] exactly where the government goes, the influence of the government can have a huge impact on every single business.

Q. You've also supervised the Middle East and Africa branch of Ferrari, meaning you've covered a significant part of the globe for the company. Would you say there is a formula for integrating the Ferrari brand and products into a local market? Or does each place demand its own special process?

A: With emerging countries you are entering a market where people are discovering. To discover you have to make them understand who you are, be present where you need to be present, which means distribution with the right service. And face the competition, which means you need to do branding activities. You have to understand where you have to be present and with whom, because partners are very important. Especially when you are talking about Ferrari, we are [of a] different mindset than others. You have to explain to someone who's investing in your brand, if the guy can sell 100 cars I'm going to give [him] 50, that's a mindset that can frustrate some people. You have to find the right one that understands what luxury business is.

Then above all I think that you have to refrain from being too aggressive. We are a brand that has to be the same everywhere in the world. It's non-negotiable. We'll refrain from entering in this race of discounts. Here [in China] we never sold out. Here we have a long-term vision. The objective in the long term is to be the best brand in the country.

And the Beat Goes Online

How China's musical talent navigates piracy and red tape

By Greg Isaacson

It's around 11:00pm on Friday night at Yuyintang, one of Shanghai's main live music scenes, and an appreciative crowd of a few dozen Chinese and foreigners cheer as Duck Fight Goose finishes its last act, a compelling blend of exotic synthesized harmonies and driving beats. After the show, the four members of the experimental rock group, one of Shanghai's top bands, gather in a room on the second floor of the bar. "We all have to work nine-to-five," says half shaven front man and guitarist Han Han, whose day job entails project management at an events planning company. Just as with most local bands in the universe, Han Han and his compatriots aren't banking on making money from doing what they love. Their songs can be downloaded for a price, or streamed for free on Xiami.com, a popular Chinese music site. CDs are sold at the club entrance for RMB 30 a pop. Corporate sponsorship pays more, though still not enough to get by. "You cannot sell a lot in China," says Han.

It's a story familiar to most music producers in China—not just indie bands. At first glance, the industry's revenue figures appear to paint a dismal picture. The International Federation of the Phonographic Industry (IFPI) reports that in 2012, recorded music sales in the world's most populous country, including both domestically and internationally produced music, totaled $92.4 million—far behind the US, Japan, South Korea, and even tiny Norway. The reason, in a word, is piracy: nearly 100% of all physical and digital music products in China are illegally copied, according to the IFPI.

China's music business got off to a late start; pop and rock only began to take off on the mainland in the 1980s. As a result, the infrastructure that supports artists in the West never had time to develop here. "There was never a system in place to truly bust people for misbehaving [illegally downloading or copying music]. And they misbehaved in all sorts of ways, oftentimes in ways that didn't seem, to consumers or others, like misbehaving," says Jon Campbell, veteran of China's music scene and author of *Red Rock: The Long, Strange March of Chinese Rock & Roll* According to a Sina.com survey, 83% of Chinese netizens aren't willing to pay to download music.

Duck Fight Goose playing live in Shanghai, photo by Rachel Gouk

Where's the Money?

Chinese artists currently rely on other sources of income: live shows, touring, TV appearances and corporate sponsorship. According to Nathaniel Davis, Director of Operations at music promotion and consulting company Split Works in Beijing, state-owned telecom firm China Mobile "has been a strong source of revenue for a lot of artists through their numerous brand events across China, to the extent that a low-level pop singer told me once that China Mobile were his 'parents' in the industry—they had raised him, fed him and given him a house over his head and wheels beneath his feet." These brand events, Davis explains, consist of hundreds of small "fan" performances the company holds across the country each year, where artists perform for a local audience of China Mobile subscribers or VIP customers, as well as similar larger-scale concerts.

But state-sponsored music ventures are a mixed bag of infrastructure and events, a good portion unsuccessful by all accounts. Beijing, looking to boost China's standing as a global cultural power, is planning a "China Music Valley" with a RMB 14 billion price tag in the city of Pinggu, the product of a joint venture with US-based concert-planning powerhouse LiveNation. The valley will supposedly be an oasis of recording studios, instrument retailers and music schools. Concert halls, opera houses, and theaters are sprouting up around the country, built by provincial and local governments trying to out-do each other as cultural centers. To that end, last year also saw a proliferation of music

festivals, mostly paid for by local governments aiming to draw tourist dollars and burnish their image, with mixed results: Shanghai's JZ Festival and Hangzhou's West Lake Festival, as in years past, were lively hits, while Chengdu's mismanaged Big Love drew bigger jeers than crowds.

With government-boosted events being hit or miss, Chinese artists rely on the internet for a more assured shot at exposure. Davis points out that China largely skipped the phase of selling music as a physical product. As a result, Chinese artists have long accepted the internet, more so than their American counterparts, many of whom have railed against the disruptions that the web has wrought. "Chinese artists embrace what is available. I would say most domestic acts and bands are extremely practical when it comes to finding ways to fund their music and their hopeful careers." Among those ways are innovative apps and websites that offer new avenues for expression, as well as profit.

"Aspiring bands, rappers, singer-songwriters, electronic artists and so on have embraced online platforms like Douban where users can create their own artist pages and upload audio and video content," says Davis. "Artists of every level are active on platforms like Weibo and WeChat where they can connect directly with their fans and build their fan base." Vehicles like Xiami.com, a music streaming and subscription site, are helping funkier, more independent artists gain traction with audiences. The innovative platform YY.com, which offers a combination of social networking and amateur karaoke performance, may create new possibilities for artists like Echo Brother, a singer from Chengdu who wears a mask to conceal his identity. Echo Brother became a sensation on the website, which has 60 million monthly active users, and put on a concert in Beijing last year.

The rapid growth of digital platforms in China may be stimulating consumers' willingness to pay for music, to which China's large internet conglomerates are enthusiastically responding. Baidu, Tencent, and Alibaba, for example, are investing to gain exclusive rights to distribute music, through legal and fully licensed music streaming and downloads. At the same time, serious efforts to curb music piracy online by companies like R2G, a music distributor that purports to base its services entirely on fully licensed music where rights are secured, may be seeing results: "I think we will continue to see increased respect and compliance in this area," says Davis.

In the realm of legal music, China Mobile looms large. The world's largest telecom operator by subscriber volume offers an online service called Wireless Music Base (WMB) which partners directly with music labels and contains a vast library of licensed songs on its website, which users pay to download. Zhu Hong, General Manager of WMB, told local media in 2012 that the service generates billions of dollars of revenue per year and claims an 83% share of China's wireless music market. But artists aren't reaping the big rewards. Music producers earn RMB 2 in royalties for every RMB 100 in revenue generated by a song.

Sino-Pop?

The mainland has yet to produce any globally famous names, except in the classical world with piano superstar Lang Lang and famed cellist Yoyo Ma. Cici Ye, a 27-year-old business analyst at a foreign company in Shanghai, who listens mostly to Western music, offers a straightforward explanation for this: because English is the global language. Davis meanwhile remains hopeful: "Someone could take us by surprise," says Davis. "There are certainly star-quality artists out [here]."

But star-quality Chinese artists have to clear government checks before ascending into the stratosphere. Davis describes how a bureaucratic approval system creates huge headaches for both domestic and foreign promoters of live gigs. "Red tape does indeed make it challenging for timeframes in getting shows on sale in a timely fashion," he notes.

Then there's the whole semi-freedom of expression issue. "Government regulation and censorship certainly play a role in hindering creativity and art and expression," says Davis.

But according to Jon Campbell, it's not worrisome to would-be pop artists "The pop stars that are selling big aren't interested in anything remotely controversial, and so it's not a concern," he says. "And fewer rock artists are interested in controversy." Authorities may not be too interested either: "Censorship is only as intense as the people doing the censoring, and most of the time, it's not in their interest to care too much."

Care or no, there's a potential chicken-egg conundrum. Do artists veer away from edgy material due to censorship? Or do censors not care because there's originally a lack of provocative music out there? If illegal downloads tell us anything, it's that consumers are utterly unimpeded by "red tape". Artists just have to find a way to meet the consumers where they are while putting food on the table.

Dragons and Sutras

Sandeep Bahl, Asia-Pacific General Manager for Air New Zealand, shares business and philosophical must-reads

Sandeep Bahl

It's often the case with books that really strike a chord with readers that the books are not only captivating, but are read by readers at a time in their lives or careers when they seem particularly apposite. I am no exception. The books that have really played a pivotal role in my career, and in particular my career in China, were not only forward-thinking in their own right, but came into my hands at a very opportune time.

When I moved to China in 2003, enterprise was really just starting to flourish, particularly in my field, the aviation industry. China had not only embarked on modernizing ground infrastructure related to aviation, but also started grooming Chinese carriers to become fiercely competitive and ready to welcome international customers for the Beijing Olympics. In late 2005 I managed to get hold of a copy of *Blue Ocean Strategy: How to Create Uncontested Market Space and Make Competition Irrelevant* by W. Chan Kim and Renée Mauborgne, Professors at INSEAD. As many in the field of management studies will tell you, this book was extremely innovative in the way it discussed strategies for building a marketplace, edging out the competition and creating more customers. This seemed hugely relevant to me because the competition in China's aviation sector was there, but it wasn't strong enough to 'redden my ocean', to speak in *Blue Ocean* terms.

Another book that really opened my mind to considering Chinese companies in a more comprehensive way was *Dragons at Your Door: How Chinese Cost Innovation Is Disrupting Global Competition* by Zeng Ming and Peter J. Williamson. That book did a great job of really illustrating that Chinese companies are growing so fast, and have a way of doing business that is completely different in ways that are difficult to imagine. I found that book included extremely helpful insights into the strategies, strengths and weaknesses of Chinese businesses.

For example, the book highlighted the low-cost-based market integration approach of many Chinese businesses, which is a great example of disruptive innovation because new markets of cheap products were being continuously created. Contrast that with the Japanese model, which was based largely on manufacturing precision. Here in China, they potentially had everything: they were good in manufacturing, they had the huge cost advantage and they had the world's largest consumer base.

These two books really pushed me to consider how I would create my own consumers and alternatives to what the competition offers.

For personal cultivation, I take a lot from an old Indian text called *Chanakya Neeti*, particularly the edition translated by B.K. Chaturvedi. It has been adopted in modern day life and business much in the same way as Sun Tzu's *Art of War*. *Chanakya* has many messages, but one that resonates with me is the question: after completing your professional mission, what do you do next?

Business Bestsellers in the US

No.1 **Developing the Leader Within You**
by John C. Maxwell

No.2 **Overwhelmed**
by Brigid Schulte

No.3 **The Hard Thing About Hard Things**
by Ben Horowitz

No.4 **Strengths Finder 2.0**
by Tom Rath

No.5 **Lean In**
by Sheryl Sandberg

No.6 **Thinking, Fast and Slow**
by Daniel Kahneman

No.7 **Daring Greatly**
by Brené Brown

No.8 **How To Win Friends and Influence People**
by Dale Carnegie

No.9 **The Rise of Superman**
by Steven Kotler

No.10 **The Intelligent Investor**
by Benjamin Graham

Source: *Amazon* (not including repeats based on format)

Business Bestsellers in China

No.1 **How Will You Manage a Team?**
by Zhao Wei

No.2 **Big Data**
by Viktor Mayer-Schonberger

No.3 **Influence**
by Robert B. Cialdini

No.4 **The Effective Executive**
by Peter F. Drucker

No.5 **Currency Wars**
by Song Hongbing

No.6 **Positioning**
by Al Ries and Jack Trout

No.7 **The Solution Tango**
by Louis Cauffman

No.8 **Mobile Influence**
by Chuck Martin

No.9 **WeChat Marketing and Operations**
by Wang Yi

No.10 **My Marketing Mystery**
by Shi Yuzhu

Source: DangDang.com

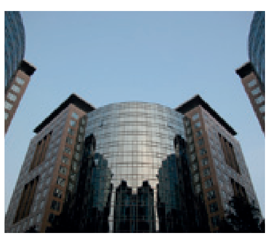
ENGLISH.CKGSB.EDU.CN

HOW DO YOU GET YOUR BOARD TO SANCTION EXPANSION INTO CHINA?

YOU LEAVE IT TO US.

What are the global implications of China's rise? How do Chinese companies compete, and what does this mean for your industry? And how should you modify your strategies to take account of competition within and outside of China?

These are probably the most pressing issues of the day for senior businessmen and women. Which is why many of them from industries across Europe are turning to us: CKGSB.



The CKGSB main campus building in Beijing, China.

Our alumni include over 2,500 Chairmen and CEOs, running companies that comprise 20% of China's most valuable brands, generate $1trillion in revenue and account for 12.7% of China's GDP. And our world class faculty represent many of the best minds from the leading U.S. and European business schools. Now CEOs and senior managers across Europe can gain the understanding needed to do business with China by attending 'The China Strategy Challenge', a three day summit in Lausanne, from 2nd to 5th September 2013, run by CKGSB, Cheung Kong Graduate School of Business, in collaboration with IMD, the top ranked business school in Switzerland.

The summit is designed for executives who want to get the latest knowledge and share best practice on how to do business with China, both from the Eastern and Western perspective.

Hence, our 'China Strategy Challenge' offers in three days the knowledge and networks that could take you years to build on your own.

To enroll in this unique event, or for further information, contact Jennifer Wang from our London office team at jenniferwang1@ckgsb.edu.cn.

CKGSB
长江商学院

CHINA'S WORLD CLASS BUSINESS SCHOOL

UNDERSTANDING CHINA'S NEXT MOVE

CKGSB
Open Enrollment English Program

UNDERSTANDING CHINA'S NEXT MOVE

HOW TO SUCCEED IN THE WORLD'S MOST DYNAMIC MARKET

OCTOBER 27 – 31, 2014 | BEIJING, CHINA

This 5-day program stands by the side of global business leaders who have entered Chinese market or planning to explore this must in area of the world economic landscape. The program allows the participants to listen to some academic pioneers; to access cutting-edge, results-oriented researches; to meet with top business elites in various industries.

The curriculum covers a wide range of business areas, including the re-emergence of China in the global economy, the development and globalization of Chinese companies and finance, strategy, innovation, and marketing.

FOR MORE INFORMATION: GlobalPrograms@ckgsb.edu.cn

CKGSB
长|江|商|学|院

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