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**Insight Report** 

# Future of Consumption in Fast-Growth Consumer Markets: China

A report by the World Economic Forum's System Initiative on Shaping the Future of Consumption Prepared in collaboration with Bain & Company

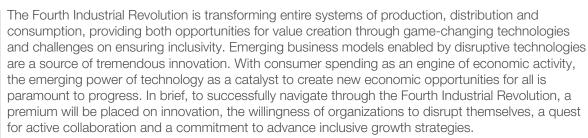
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## **Preface**



Sarita Nayyar Chief Operating Officer, World Economic Forum LLC



In this context of seismic change, the World Economic Forum's **System Initiative on Shaping the Future of Consumption** envisions a future where technology is firmly embedded in people's lives, making daily consumption experiences simpler, accessible, highly personal and more enjoyable, while also imbued with trust and in harmony with nature. It takes a holistic view of addressing the question of how technological disruption can drive enhanced models of consumption with sustainable benefits for business and society, across developed and emerging markets.



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Over the next decade, shifting global forces, the over one billion first-time consumers and the Fourth Industrial Revolution, will continue to change the landscape of consumption in the fast-growth consumer markets of China, India and the ASEAN region. Both business and political leaders will need to adapt their strategies to the changing needs and demands of connected and empowered consumers. The **Future of Consumption in Fast-Growth Consumer Markets**, a multi-year project, focuses on the evolution of consumption in emerging markets that comprise over 40% of the world population. Critical foresights around drivers of growth and levers of inclusivity can benefit global leaders as they grapple with similar issues. Efforts under consideration will ensure they are scalable.

The **2017 study focused on China** and this report provides an initial look at this project's efforts to understand the world's second-largest economy, poised to become number one by 2030. This report is based on discussions with leaders from global and Chinese companies in a range of sectors; innovators, disruptors, policy-makers and academics in China; consumers in different age groups across China's provinces (through focus groups and surveys); and extensive secondary research.

The project team of the World Economic Forum would like to extend its appreciation and gratitude to all the parties who played a key role in the development of this Insight Report: the Bain & Company team led by Bruno Lannes, the Project Steering Committee, and all participants who contributed via our workshops and interviews. We are confident that our collective effort will contribute to realizing a prosperous future with sustainable benefits for both business and society.

## **Contents**

- 2 Preface
- 4 Executive summary
- 6 Introduction
  - 6 The macro context of China
  - 6 Drivers of future consumption in China
- 8 Vision for consumption in China in 2027
  - 8 The base-case scenario
  - 14 The digital life of Chinese consumers
  - 14 The two alternative scenarios and impacts on consumption
- 16 Major capabilities needed by businesses
  - 16 Customer-centricity and data-driven personalized offerings
  - 16 Digital strategy for major elements of the value chain
  - 16 Agility and readiness for frequent transformations
  - 17 Acquisition and retention of the right talent
  - 17 Corporate social responsibility and engagement, starting with sustainability
- 18 Major challenges to overcome at the societal level
  - 18 Employment and skills
  - 19 Social inclusion across income, geography and age
  - 19 Environment and sustainability
  - 20 Trust and transparency
- 21 Conclusion
- 22 Appendix
- 24 Acknowledgements
- 26 Endnotes



## **Executive Summary**

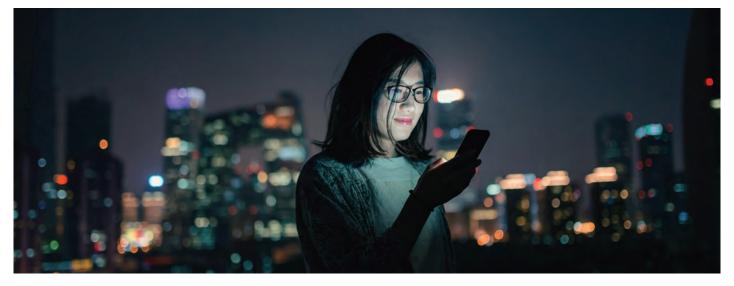
At the 19th National Congress of the Communist Party of China held in October 2017, the leadership announced that China has entered a new era of development, and reconfirmed that the government will continue to play an important role through policy and regulation. On the global stage, China will play a more visible role and will continue to be a strong promoter of cross-border trade as the Chinese economy deepens its integration into the global economy. Domestically, China will continue to focus on economic growth, but with an emphasis on restructuring the economy and improving the population's quality of life. In the context of the Fourth Industrial Revolution, China will transform from a follower to a leader, defining new growth trajectories as part of the government's "innovation, technology and entrepreneurship" mantra.

Within this regulatory and policy environment, four major drivers will shape consumption in China over the next decade: 1) economic growth: China's economy will continue to migrate from an investment-driven model to a consumption- and services-driven model; 2) demographic shifts: China will move from a relatively younger to a relatively older and ageing population; 3) technology and innovation: China will advance from being a major manufacturing power to an active leader in digital innovation – a path it has already begun; and 4) consumer attitudes: with significant growth and transformations in China, consumers will evolve from their relatively price-sensitive mindset to a more premium-seeking attitude, but distinctions between Chinese and Western lifestyles will remain.

The regulatory and policy environment and these four major drivers offer a view of the most likely consumption scenario in China in 2027. Over the next decade, China will transition to a consumption-driven development model. Chinese consumers will be richer, older and more heterogeneous than they are today. Ten headlines of a base-case scenario, summarized below, paint a vision for the future of consumption in China:

- The world's largest middle class, fuelled by income growth, will reshape consumption. In the coming decade, consumption will grow by an average 6% annually to reach RMB 56 trillion (\$8.2 trillion), fuelled by a middle class that will represent an estimated 65% of households.
- 2. Growth of the elderly population will create new demands. By 2027, an estimated 100 million people will have joined the ranks of those over the age of 60, representing 22% of the Chinese population. The sheer number of elderly people (324 million) will pose challenges to economic growth, but it will also create opportunities for products and services tailored to this demographic.
- 3. The digital "little emperors" (generations of the 1990s and 2000s) will have higher expectations. By 2027, about 200 million people born in the 1990s will start families, and about 150 million in Generation Z will transition from school or university to the Chinese workforce. They will prefer premium and personalized products and services, and consume more than their predecessors.
- 4. Consumers will share not own assets and services across many more categories. The sharing economy, which took hold so easily in China, will grow at a rate of 40% annually, and could account for 20% of China's GDP by as early as 2025. Consumers are already accustomed to paying for access rather than ownership, and by 2027 this model of consumption will become a routine part of their lives.
- 5. "Widgets to digits" will reshape retail on a much wider scale. Technological innovation will propel China's already robust e-commerce sales. By 2027, online channels will have an even wider reach and retailers will invent new roles for offline channels to create seamless online-offline integration. Most transactions will be mobile-enabled and hence digitally traceable.





- 6. Personalization will become the new mass market. Over the next decade, the personalization of products and services to serve the varying needs and demands of millions of Chinese consumers will not be an option for businesses, but a requirement.
- 7. Data will become the new oil. By 2027, China may have fewer than five companies controlling most consumer data; they will extract, process, refine, value, sell and buy this key resource. Increasingly, companies that control data will have a substantial competitive advantage.
- 8. Urbanization will take a new direction. About 70% of China's population in 2027 will reside in urban areas, with more urbanization occurring in inland provinces and in tier 2 and 3 cities instead of in saturated coastal megacities. Advances in technology will enable and support this shift, ultimately resulting in better consumption and lifestyles.
- 9. Technology will also pose a risk. In addition to providing opportunities, rapid technological development will create risks for consumers and society, including those related to tensions between digitalization and privacy, the challenge of inclusive growth, and the environment and sustainability.
- 10. Consumption will continue to have unique Chinese characteristics. The preference for a westernized vs Chinese lifestyle today in China is split approximately 50/50. Over the next decade, consumption will take two paths: one consumer segment will remain Chinese-focused while the other will opt for a more Western lifestyle. As a result, distinct divisions in spending behaviour will continue to exist.

While overall this base-case vision represents the path China is most likely to take, uncertainties definitely exist. Two major alternative scenarios could also evolve: one is a "middle-income trap" scenario that could occur if such risks as a skills gap and automation contribute to uneven income growth, and the other is a "turning inward" scenario that could occur if government policies favour protectionism, leading to a rise in nationalism.

To thrive in China over the next decade, businesses serving consumers will need to rapidly develop certain

critical capabilities: 1) customer-centricity and data-driven personalized offerings; 2) a digital strategy for major elements of the value chain; 3) the agility and readiness for frequent transformations; 4) the capability to acquire and retain the right talent; and 5) corporate social responsibility and engagement, beginning with sustainability.

In line with the vast changes, the coming decade will also bring a host of major challenges that will need to be addressed at the societal level. To ensure a better future, responsible leadership as well as potential collaborations through public-private partnership will be required to mitigate accelerating challenges:

- Employment and skills: In its pursuit of a consumptionand services-driven economy, the government is striving to provide job security and is gradually shifting the workforce from low-income to high-income jobs. However, many employees could lack the skills and training required to obtain higher-income employment.
- Social inclusion across income, geography and age:
   As the needs and aspirations of different demographic segments diverge, the digital divide could widen between urban and rural dwellers, low-income and high-income earners, and the young and elderly populations.
- Environment and sustainability: In addition to air and water pollution as well as other existing environmental issues stemming from industrial development, new consumption models based on e-commerce, online-tooffline (O2O) services and the sharing economy could create further environment and sustainability concerns.
- Trust and transparency: The next decade could see a rise in trust issues regarding fake products, and rising consumer concerns about data privacy and security.

As China marches forward, many stakeholders have the potential to shape the country's consumption future: the government with its supportive policies, businesses that exist today and emerging entrepreneurs with their innovative business models, and academic institutions with their progressive education models. Working together, these stakeholders can help deliver an ecosystem that benefits not only consumers but also society at large. By moving beyond the societal challenges in a collaborative way, China can build a consumption landscape that serves as a model for other fast-growth consumer markets.

## Introduction

#### The macro context of China

China's leadership announced at the 19th National Congress of the Communist Party of China (CPC), which closed on 24 October 2017, that the country has entered a new era of development due to continue through the middle of the 21st century. The report delivered by General Secretary Xi Jinping touched on numerous priorities, including China's transformation to a society that fosters innovation while improving people's well-being. The leadership reconfirmed its commitment to advance China on its path to adopt a consumption- and services-driven growth model, with the government playing an important role to reach this objective. Indeed, the government's regulatory and policy initiatives in the years ahead will be key for the future of consumption in China.

In this new era, three factors will have a major impact on consumption.

 On the global stage, China will play a more visible role in the post-globalization era and will continue to be a strong promoter of cross-border trade, as the Chinese economy deepens its integration into the global economy.

The current cycle of globalization has peaked and is starting to ebb. Yet, while voter dissatisfaction led certain developed countries to support protectionist policies in 2017, China and many other emerging market economies have become even stronger promoters of globalization by encouraging cross-border flows of trade, capital, information and people. Through such strategies as the Belt and Road Initiative, China can be a major force to reignite globalization.

2) Domestically, China will continue to focus on economic growth, with an emphasis on restructuring the economy and improving the standard and quality of life of the Chinese people.

According to the blueprint drawn by the 19th National Congress of the CPC, the government will endeavour to improve social inclusion and environmental protection, raise the standard and quality of life of the population and encourage consumption. This is consistent with the government's 13th Five-Year Plan for Economic and Social Development created in March 2016, in which policies were defined to maintain a medium to high economic growth rate, bridge the income gap, including at the rural-urban level, and respond to issues related to an ageing population. However, the government's exertion of influence domestically could spark a rise of nationalism, especially as its policies encourage a renaissance of traditional Chinese culture.

3) In the context of the Fourth Industrial Revolution, China will transform from being a follower to being a leader in defining new growth trajectories as part of the government's "innovation, technology and entrepreneurship" mantra.

According to the report of the 19th National Congress of the CPC, China will adopt a three-pronged approach to innovation: 1) supportive government policies; 2) investment frameworks for government and private venture funds; and 3) collaborative ecosystems in which large technology companies open up their platforms to smaller players. China's large technology companies have already demonstrated innovation prowess and new business models that bring emerging technologies to the mainstream. With entrepreneurship considered a key pillar of China's economy, the government will in particular increase its support to small and medium-sized firms.

#### Drivers of future consumption in China

Within this macro context and policy environment<sup>1</sup>, four major drivers will shape consumption in China over the next decade (Figure 1):

#### 1) Economic growth

The domestic economic and social policies outlined should result in a continued increase in household income and a parallel decline in the savings rate over the next decade. China will have an expanded middle-class population that will spend more overall, with elements of value (EoV)<sup>2</sup> similar to those of their higher-income counterparts in western markets.

#### 2) Demographic shifts

From a demographic perspective, a person's life stage and generation will be the two underlying factors shaping their consumer behaviour. Two demographic trends will contribute most to influence consumption in China: 1) an ageing population with an increased number of citizens over the age of 60; and 2) the coming-of-age of the population born in the 1990s and 2000s – those raised in a prosperous China after its "Reform and Opening Up" that started in 1978.3

#### 3) Technology and innovation

Led by the government's focus on innovation, technology and entrepreneurship, the next decade will see China leapfrog from being a participant to being a leader in technological innovation, influenced by three key factors:

1) a strong technological infrastructure backbone that will be further strengthened; 2) a supportive policy environment and active investments in leading-

edge technologies; and 3) the transition of domestic companies from "copier" to "innovator". This will create tremendous implications for consumers by giving them more choice, convenience, control and access to new models of consumption. The new technologies will create powerful ecosystems around consumer data as well as major issues in such areas as privacy, inclusion and sustainability.

#### 4) Consumer attitudes

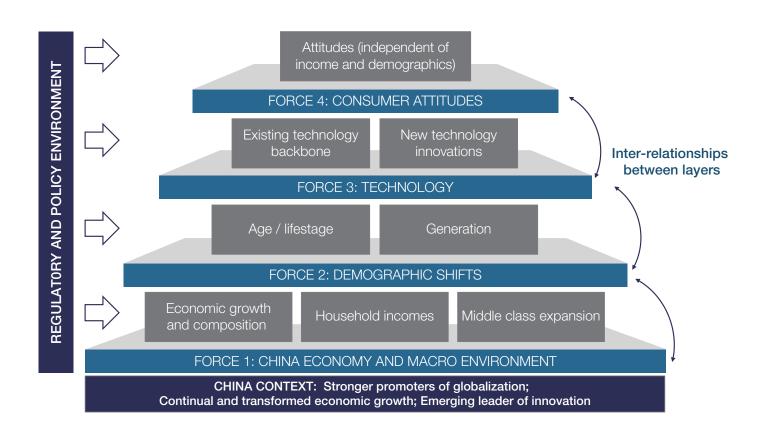
China's consumers are becoming richer, and the younger generations are advancing into new life stages. With these changes, consumers will evolve from their relatively price-sensitive mindset to a more premium-seeking attitude, but distinctions between Chinese and Western lifestyles will remain. A Bain & Company survey of various

consumer segments conducted in July-August 2017 determined that, while lifestyle preferences (Chinese vs Western) will vary across product categories, no clear difference will be distinguished across different demographic groups unless major external events interfere.

As these major drivers evolve, they will create a base case for the most likely scenario for consumption in China by 2027, presented in depth in the following section, along with two alternative scenarios based on underlying uncertainties. A discussion of these three scenarios is followed by information on the implications for business and society, along with key considerations for business and policy leaders.

Figure 1: Drivers of future consumption in China

Source: Bain & Company/World Economic Forum analysis



## Vision for consumption in China in 2027

#### The base-case scenario: 10 headlines

China is advancing towards a consumption-driven development model and is expected to maintain steady economic growth. Along with the growth, Chinese consumers in 2027 will be richer, older and more heterogeneous than they are today. At the same time, innovation and technological development will elevate consumption models to the next level.

Building on the four major drivers, 10 headlines emerge for the base-case vision of consumption in China in 2027 (Figure 2).

1. The world's largest middle class, fuelled by income growth, will reshape consumption

From 2016 to 2027, consumption is expected to grow by an average 6% annually to nearly double from RMB 29 trillion (\$4.3 trillion) in 2016 to RMB 56 trillion (\$8.2 trillion) in 2027, stimulated by the middle class that will comprise an estimated 65% of households by 2027.

China's 10% or higher miracle growth between 2005 and 2012 was largely fuelled by investment. After 2012, investment growth slowed, ushering in a new normal. From 2017 to 2027, China's government is expected to support the transition to a consumption- and services-driven economy, with direct spending intended to fill some

of the demand gap left by investment. It will also implement policies to encourage spending over saving, in such areas as health and pensions.

Between 2017 and 2027, household income is expected to grow at around 5% annually. This growth will occur as massive industrial jobs are redeployed to service sector jobs, and with population movement from rural to urban areas, where incomes are higher. As a result, the income growth will elevate about 180 million low- and lower-middle income households to a higher income bracket.<sup>4</sup> China's middle class will expand to an estimated 65% of households by 2027.

As the income is growing, Chinese consumers' saving rate will decrease by 5 to 10% over the decade to approximately 30%. The combined increase in household incomes and decrease in savings rate will result in consumption growing by an average 6% annually to nearly double what it is today. By 2027, China's economy will have transitioned to a consumption-driven model, and the country will continue to be the largest contributor to the growth of global consumption.

The increased middle-class population and consumption growth will change the consumption landscape. In 2027, it will be characterized by:

Figure 2: Vision of consumption in China in 2027

Source: Bain & Company/World Economic Forum analysis



The world's largest middle class, fuelled by income growth, will reshape consumption



Growth of the elderly population will create new demands



The digital "little emperors" (generations of the 1990s and 2000s) will have higher expectations



Consumers will share not own - assets and services across many more categories



"Widgets to digits" will reshape retail on a much wider scale



Personalization will become the new mass market



Data will become the new oil



Urbanization will take a new direction



Technology will also pose a risk



Consumption will continue to have unique Chinese characteristics

- a) An upgraded spending structure: Increased household spending will shift from "necessity" to "discretionary" categories. As total spending increases overall, discretionary categories, such as transport, recreation, education, luxury goods and financial products, will benefit the most as they will achieve a higher share of wallet (SoW). Meanwhile, the SoW for necessity items, such as food and beverages, utilities and housing, will continue to decrease.
- b) Upgraded purchasing criteria: Consumers' needs will shift from functional EoV to emotional EoV. The more affluent consumers will be less price sensitive and will associate "value" with the elements of emotional EoV, such as enjoyment, social status, self-identity and societal contribution. At the same time, consumers will develop higher standards for functional EoV, such as convenience, choice and quality.

## 2. Growth of the elderly population will create new demands

By 2027, an estimated 100 million people will have joined the ranks of those over 60 years of age, representing 22% of the Chinese population.

Like many other countries, China's population is ageing. What is unique is the scale. By 2027, senior citizens will represent 22% of the total population. Roughly 324 million people will be over 60 years of age, creating economic challenges by decreasing the percentage of working-age labour<sup>5</sup> while increasing pressure on social benefits. The ageing of China will also offer opportunities:

- a) A rising demand for products and services tailored to the elderly: In 2027, the additional 100 million people over 60 will have typical needs associated with old age:

   changes in spending: across all income groups, they will spend more on health-related expenses (health supplements, disease treatment, senior care, etc.) as well as insurance, but less on clothing, housing and education; and 2) changes in EoV: they will care more about functional EoV, such as ease of use, especially for products and services that support health and are optimally priced. By comparison, they will place less emphasis on emotional EoV, such as social status and self-identity.
- b) Increasing needs for senior care: Unlike their predecessors, many of the new elderly will not be able to rely on their children for senior care, creating a strong demand for senior housing. This is a byproduct of China's one-child policy, which was in effect for 35 years and unbalanced the ratio of adult children to parents and grandparents. Meanwhile, 35 years of urbanization and rising housing costs will make it harder for multiple generations to live under one roof.

## 3. The digital "little emperors" (generations of the 1990s and 2000s) will have higher expectations

In the next 10 years, about 200 million people born in the 1990s<sup>7</sup> will be starting families, and about 150 million in Generation Z<sup>8</sup> will transition from school or university to the Chinese workforce.

Those born in the 1990s will form 15% of the population, and those born in the 2000s will form 21% of China's population in 2027. These younger generations are different from their predecessors in two major ways: 1) they received meaningful financial support from their parents and/or grandparents; and 2) they grew up in a period of rapid improvements in quality of life empowered by technology and digitalization, which they will continue to expect as they move to the next life stages.

The emergence of these digital "little emperors" as a major consumption force will have specific implications:

- a) A higher rate of consumption: Because these younger generations tend to prefer instant gratification, they are expected to consume at a higher rate than their predecessors.
- b) Premium and personalization needs: The younger generations put more emphasis on emotional EoV and in general have higher standards for convenience, quality and variety. They are also comparatively less price conscious. Companies will need to develop premium and personalized products and services to meet these higher standards and the emotional EoV of social status and self-identity.
- c) Openness to share more digitally: The young and digital-savvy consumers are more open to new things and prefer to express their difference in perspectives and share their experiences openly, characteristics that create opportunities for new business models to attract them.
- d) Openness to having a second child: The people born in the 1990s and 2000s are the direct beneficiaries of China's second-child policy, launched in 2016. More and more multi-child families will be formed in China.<sup>9</sup> As a result, in 2027 the demand for specific products and services for multi-children families, especially housing, health and education, will have increased.

The next three headlines (4, 5, 6) relate to new models of consumption enabled by technological innovation.

The following key factors will make China a leader in such innovation.

 A strengthened technological infrastructure backbone in the area of mobile phone penetration and subscriptions and in 4G/5G network coverage

China will continue to lead the world in mobile phone penetration and subscriptions. China already has approximately 1.4 billion mobile subscribers (by comparison, India has about 1.2 billion and the United States has around 410 million). China's smartphone penetration rate stands at 52% and has room to grow due to the large gap in smartphone penetration between the estimated 80% rate in tier 1 cities (Beijing, Shanghai, Guangzhou and Shenzhen) and the approximate 30% rate in rural areas. Chinese manufacturers are already making smartphones more affordable, a move that will help bridge the gap.

China's 4G/5G network coverage is projected to reach 100% by 2027. Nearly 60% of all mobile subscribers in China are now on 4G networks. This 4G penetration will continue to grow and, according to the government's "Broadband China" initiative, all rural areas will have internet coverage by 2020. The commercial use of 5G, a technology China is actively developing, is projected to start in 2020. China will have 428 million 5G connections and will become the world's largest 5G market by 2025, according to a recent study by GSMA Intelligence and the China Academy of Information and Communications Technology (CAICT).

A supportive policy environment and active investments in leading-edge technologies

A supportive policy environment and active investments for artificial intelligence (Al), machine learning (ML), autonomous vehicles and the internet of things (IoT) will lead to their widespread use. During the next 10 years, at least half of the Chinese population will adopt these technologies as well as others, such as robotics, virtual reality, 3-D printing, blockchain and genomics.

 Evolution of local companies from "copier" to "innovator" in many technology areas

Already, many Chinese companies have evolved and created innovative technological applications and business models, such as social e-commerce platforms and online-to-offline (O2O) services. One advantage China has in innovation is its lack of legacy systems. For example, the lack of credit cards in China smoothed the path for companies to develop cashless payment methods. Over the next 10 years, this advantage, combined with its active investment in leading-edge technologies, will help China to become a global leader in innovation.

Source: World Bank data at https://data.worldbank.org/indicator/IT.CEL. SETS.P2; Newzoo 2017 Global Mobile Market Report; GSMA and China Academy of Information and Communications Technology 5G in China 2017 report; Nielson, China Internet Network Information Center (CNNIC), iResearch and Bain & Company/World Economic Forum analysis

 Consumers will share – not own – assets and services across many more categories

The sharing economy will grow at a rate of 40% annually, and could account for 20% of China's GDP by 2025.

In recent years, the growth of the sharing economy in China has been astounding. Many Chinese consumers have already accepted the sharing model of consumption in such areas as transportation (e.g. bicycle sharing, taxis) and now enjoy the benefits of greater access and/or lower cost. The sharing economy has the potential to benefit both environmental and economic development.<sup>10</sup>

Boosting the development of a sharing economy through institutional innovations is a clearly stated goal in the *Report on the Work of the Government (2016)* delivered at the Fourth Session of the 12th National People's Congress of the People's Republic of China on 5 March 2016. In 2016, the sharing economy was estimated to be worth about RMB 3.45 trillion (\$520 billion) domestically, a sum that includes spending both by consumers and businesses, and it is predicted to grow at a rate of 40% annually. The sharing economy could account for around 10% of China's GDP by 2020, and an estimated 20% by 2025, according to the National Information Centre.

China is home to more sharing economy start-up unicorns<sup>11</sup> than any other country in the world. These companies are creating new ways of sharing and are expanding sharing opportunities to new consumption categories, propelled by technology and urbanization. Technology is shrinking the convenience gap between sharing versus owning. For example, the IoT can track the location and utilization of assets, while AI can predict where and when resources need to be deployed. In addition, China's urbanization is increasing tensions between the amplified demand for resources and their limited supply, a situation that creates a greater need for sharing. The sharing economy will expand from current goods, such as cars and holiday rentals, to other categories, such as appliances, apparel and knowledge work. Existing forms of sharing will also expand. Consumers are already accustomed to paying for access rather than ownership, and by 2027 this model of consumption will become a routine part of their lives.

## Case study: ofo<sup>12</sup> – sharing economy revives bicycles as a major transportation method

Founded in 2014, ofo is a start-up unicorn in China that supplies a non-docking bike-sharing platform to users. Its bike-sharing model allows riders to offer the use of their own bicycles against access to the company's entire fleet. Users leverage the ofo app to get a passcode to unlock a bike. Once they are finished riding the bicycle, users can simply leave the bike in any area where bike parking is allowed and lock it to make it available for the next user. The company uses IoT and mobile payments to make this sharing model possible. It aims to capture value in the big data accumulated. As of July 2017, the service was available in more than 150 cities in China and four other countries, with 2 billion trips registered.

#### "Widgets to digits" will reshape retail on a much wider scale

The gross merchandise value<sup>13</sup> of online shopping in China reached around RMB 5 trillion (\$0.7 trillion) in 2016 after explosive annual growth of over 40% since 2011,<sup>14</sup> enabled by innovation and technology. Consumers made 15.5% of their total retail purchases online in 2016, and the percentage was a bit lower for physical goods, at 12.6%.<sup>15</sup> By 2027, retailers will attain a wider reach via online channels and they will invent new roles for offline channels.

By 2027, technology will dramatically reshape the retail industry in China, most notably with the IoT and Al digitalizing real-world actions ("widgets to digits"), autonomous vehicles and drones improving logistics, and augmented reality improving the shopping experience. Overall, the retail sector will benefit from the seamless integration of data and the customer journey between offline and online shopping, and will deliver an overall upgraded experience. Advances will include:

- a) The wider reach of online and ubiquitous purchase orders, as the barriers to online shopping, including lastmile delivery, the lack of sensory experiences and the challenges of product replenishment, will be resolved by such technologies as autonomous vehicles (e.g. drones), augmented reality (e.g. new glasses) and AI (e.g. smart fridges that replenish for consumers). More consumers in rural areas will gain access to e-commerce via online marketplaces.
- b) A new role for more efficient offline retailing, as the concept of point-of-sale will be revolutionized. Most small-format offline channels, especially mom-and-pop stores, will be digitalized and linked to online platforms, thus overcoming barriers related to economies of scale.
- c) Seamless integration between both offline and online sales, either through retailers owning multiple channels or through partnerships. The most successful retailers will be able to engage with customers through either online or offline channels throughout the entire customer journey.
- d) Cashless transactions and the ubiquitous traceability of consumption, with the value of Chinese third-party mobile payments having reached RMB 58.8 trillion (\$8.9 trillion) in 2016, around 80 times more than in the United States for similar transactions. <sup>16</sup> According to research conducted in 2017, <sup>17</sup> 52% of Chinese consumers use cash for only 20% or less of their monthly consumption. By 2027, almost all daily transactions are expected to be mobile payments, which also means that almost all transactions will be digitally traceable.

## Case study: Hema – experimental "new retail" backed by Alibaba

Founded in 2016, Hema is an A-round<sup>18</sup> start-up backed by Alibaba Group with an estimated \$150 million investment. The Hema store is a combination of supermarket, restaurant, distribution centre and online store. By using the Hema app, consumers can order food online and consume it in the store or have it delivered to their home in 30 minutes. Alternatively, they can also shop in-store and have goods delivered. Alipay (Alibaba's cashless payment tool) is the only accepted payment method within the store, generating consumer data for both online and offline transactions. Hema had opened 20 stores in China as of September 2017.

#### 6. Personalization will become the new mass market

By 2027, the personalization of products and services for millions of Chinese consumers will not be an option, but a must-have.

Over the last decade, many industries in China offered personalized content in niche media or personalized marketing. But the personalization of products and services and the customer journey itself will become the norm by 2027. It will change what people buy as well as how they buy:

- a) What people buy: Al, robotics, 3-D printing and other emerging technologies will significantly reduce the cost of personalizing product design, manufacturing and consumer communications. Products and services will include customized products from current mass brands as well as from niche brands targeting small consumer segments.
- b) How people buy: In 2027, consumers will receive personalized offers on a regular basis. As a result, a consumer's decision to buy will be more rational and conscious, minimizing emotional and subconscious purchasing decisions.

As personalization becomes pervasive, the platforms that own consumer data will have an advantage over brands that for years have charged a price premium for investment to determine what consumers like and need. By relying on technology and data, platforms will spend much less to understand consumers' personal needs. As a result, they will be positioned to offer personalized products (potentially private labels) and services to consumers at lower prices than brands.

Case study: Tencent WeChat "Moments Ads" – personalized marketing on the social network platform Launched in 2012, Moments (the Chinese translation is "Friends' circle") is a function in Tencent's social networking WeChat app. Through Moments, WeChat users can access and share friends' information, creating an intimate and private communication circle of friends, and companies can conduct targeted marketing. Targeted users are preselected through Al algorithms, based on analyses of WeChat users' data (including location, transactions, daily communication, etc.). Thus, the users see the ads embedded in their daily feeds of Moments (timelines).

For the three new models of consumption mentioned above, Figure 3 provides examples of how cutting-edge technologies will impact the consumption value chain. Viewed independently, each of these technologies has a specific impact on different parts of the consumption value chain. In aggregate and from the consumer's point of view, they form new ways to consume.

#### 7. Data will become the new oil

By 2027, fewer than five companies in China will likely control most consumer data, and will extract, process, refine, value, sell and buy this key resource.

The three new models of consumption discussed above will not be possible without data. Companies that have control

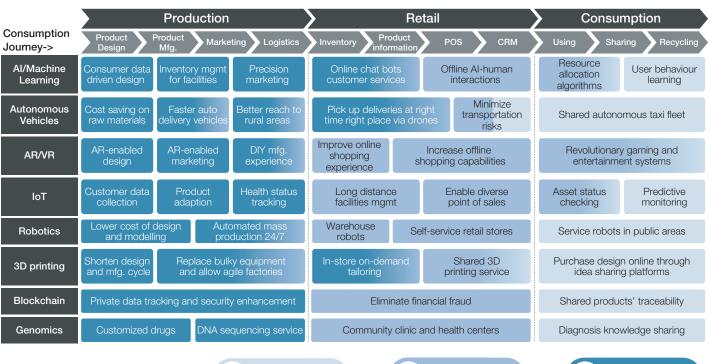
over data will gain influence and a substantial competitive advantage, as data become the new oil. In 2017, six of the ten largest public companies by market capitalization (Apple, Alphabet, Microsoft, Amazon, Facebook and Alibaba) are technology and digital companies. They accounted for 66% of the total market capitalization of the top ten.

There is a big difference between owning data, and sharing and integrating that data across platforms. Today, terabytes of data are captured, but the analytical capability and insights generated by the data are still lagging. Emerging technology that makes data more usable, such as machine learning, will resolve this challenge. Building on progress already made by companies such as Alibaba, Tencent, Baidu and JD.com, by 2027 only a handful of companies in China may control most consumer data and decide how to make it available to others.

On the one hand, this situation will benefit consumers, as the insights generated from the data will help companies develop more convenient services, such as personalized offerings and credit-based financing. However, risks will also exist. The expected growth trajectory of the small group of data companies – technology providers, digital platforms and "new retailers" – may result in a massive shift in profit pools in their favour at the expense of brands. As in the oil and gas industry, consumers will find emerging in China many companies that extract, process, refine, value, sell and buy data and form a digital ecosystem around it.

Figure 3: Effect of disruptive technologies on the consumption value chain

Note: AR/VR = Augmented reality/virtual reality; POS = point of sale; CRM = Customer relationship management; DIY = do-it-yourself Source: Bain & Company/World Economic Forum analysis



Potentially resulting in 3 disruptions to consumption:







#### 8. Urbanization will take a new direction

About 70% of China's population in 2027 will reside in urban areas, with more urbanization occurring in inland provinces and in tier 2 and 3 cities instead of in saturated coastal megacities.

China's urbanization rate will continue to increase over the next decade, from 57% in 2016 to around 70% in 2027. However, urbanization will occur differently than in previous decades. The Chinese government will spur urbanization away from megacity centres towards newly established economic clusters, such as Xiong'an New Area and the Yangtze River Delta City Cluster. This effort will be supported by drastic declines in the costs usually attributed to distance, the result of three major technological shifts: (i) **high-speed trains and drones** will make transportation and logistics cheaper and faster; (ii) high-speed internet connectivity will enable a range of new advances, with e-learning becoming an attractive alternative to travelling to classrooms, and working from home becoming more commonplace; and (iii) 3-D printing will enable low-cost small-scale production anywhere, cutting transport costs and allowing instant delivery.

These technology shifts will bring about:

- a) A different migration pattern: More migration to lower-tier cities will take place, instead of to saturated megacities. With such megacities, the population will disperse away from city centres towards satellite suburbs.
- b) Better consumption and lifestyles: Consumers in these new frontiers will still want the same access to consumption as in megacities. Many of the advantages of big urban hubs will become available to the populations in lower-tier cities. There, residents will enjoy a lower cost of living, more recreational space and less pollution.

#### 9. Technology will also pose a risk

The development of technology will bring about not only new opportunities for business but also risks for consumers and society.

Three major risks are expected to surface:

a) Tension between digitalization and privacy: With the ability to track and trace almost all personal data back to a specific person, privacy infringement will become a growing concern in China, all the more if a small group of companies owns billions of consumer data points. Potential government access to the data can be a valuable tool against economic crimes and tax evasion by businesses but citizens, too, will be open to total surveillance – and that may be a problem in certain cases.

- b) The challenge of inclusive growth: Bridging the digital divide between those who have access to technology and its benefits and those who do not will be a priority. Creating inclusion and equality requires considering the different needs and aspirations of urban versus rural dwellers, the young versus the elderly, and low-income versus high-income earners.
- c) The challenge to the environment and sustainability:

  New sustainability challenges to the environment will also emerge. For example, during the 2017 "Single's Day" sale, 19 at least 331 million packages were shipped, with overall orders from major e-commerce platforms totalling 850 million, according to China's States Post Bureau. As the retail industry becomes more digitalized, explosive growth in the number of packages delivered will occur. The abundance of packaging material and additional vehicles and drones for delivery will create significant environmental and infrastructure-related challenges that will need to be mitigated.

These risks are discussed in-depth in the section on societal implications, with suggestions for approaches that various stakeholders can take to mitigate them.

#### Consumption will continue to have unique Chinese characteristics

The preference for a westernized vs Chinese lifestyle today in China is split approximately 50/50. It is unlikely that by 2027 consumers in China will either homogenously favour a Chinese-focused lifestyle or follow exactly in the footsteps of western countries.

The split of consumers' lifestyle preference demonstrated in the research<sup>20</sup> cuts across income groups, generations and geography. Indeed, the past decade witnessed two forces continually shaping Chinese consumers' attitudes towards culture and lifestyle: 1) on the one hand, consumers are more affluent and have more access to Western culture and lifestyle, thanks to China's open policy and technological development; 2) on the other hand, the government encourages the strengthening of China's cultural heritage by promoting extensive activities to popularize traditional culture and incorporate it into national education.

These two opposing forces will persist over the next decade such that the division between a westernized and Chinese lifestyle will continue to exist in 2027. This implies that:

a) The division in spending behaviours will continue: Within the same income level and generation, consumers leaning towards a Western lifestyle are expected to save at a lower rate than those preferring a Chinese lifestyle, according to a survey of 2,300 Chinese consumers. Respondents of the same age group (1980s generation) and income (lower-middle income) who self-identify as preferring a Western lifestyle spend 4% more than respondents who prefer a Chinese lifestyle. This division of lifestyle preference will have a greater impact on some consumption categories than on others. It will have the biggest effect on food and beverages, health and wellness activities and recreation, for example, and less impact on categories such as apparel. According to the survey, incremental spending among those leaning towards a Western lifestyle is mainly on premium food and dining out, sports and fitness, and overseas travel. For those leaning towards a Chinese lifestyle, incremental spending is mainly on organic and healthy food, disease treatment and offline recreation (hiking, going to the cinema, etc.).

b) The division in sources of information and trust will continue: Consumers oriented towards a Chinese lifestyle tend to rely more on word of mouth from friends and family than their counterparts who favour a Western lifestyle. Those leaning towards a Western lifestyle tend to rely more on the media when forming attitudes about consumption.

Overall, while these divisions remain, in 2027 they could be less apparent than they are today as China continues to be open to the world and exports its culture to the West.

#### The digital life of Chinese consumers

Enabled by government and private-sector investment in a strong technological backbone, Chinese consumers advanced to a connected era almost overnight. From being heavily connected on social media (for example, in 2016, 33.9% of its 889.3 million active monthly users spent more than four hours per day on WeChat, with the average totaling 66 minutes<sup>21</sup>), shopping online, moving from cash directly to mobile payments and bypassing credit cards – Chinese consumers have a digital footprint that surpasses that of many developed countries.

In the base-case vision for consumption in China in 2027, more Chinese consumers will be able to enjoy the benefits of the Fourth Industrial Revolution. In the Appendix, the representation of four archetypes of consumers, accounting for an estimated 50% of the Chinese population in 2027, illustrates the digital lives of these consumers.

# The two alternative scenarios and impacts on consumption

While overall the base-case scenario illustrates the most likely path for China, changes in both global and local forces, such as the speed of technology adoption and the direction of China's policies, would affect how consumption evolves.

Two major alternative scenarios are possible:

#### 1. "Middle-income trap" scenario

This alternative scenario predicts that around 25% of manufacturing jobs would be automated by 2027,<sup>22</sup> creating displaced workers. Given the skills gap among manufacturing workers, a slower shift to higher-paying

service jobs will result in slower middle-class growth and reduced consumption expenditure that could total RMB 15 trillion (\$2.3 trillion) less than in the base case.

Two key risks cause high uncertainty about inclusive income growth over the next decade:

- a) Skills gap: The lack of skills could prevent low-income workers from moving to higher-paying jobs. A key assumption in income growth is that lower-income industrial workers can shift into higher-paying and fastergrowing service jobs. However, a major uncertainty is whether these low-income workers will have the skills required or the ability to learn the new skills needed to fill these jobs, especially as service jobs become more tightly integrated with technology.
- b) Automation: The adoption of AI and robotics could replace more middle-income jobs than they create in the medium term. The base-case vision assumes that automation will not be widespread enough to have a significant net impact on jobs in the next 10 years. However, this is a significant uncertainty as automation could happen faster than expected and replace many manufacturing jobs. China is already the largest buyer of industrial robots today, accounting for around 30% of robots sold worldwide in 2015.

Displaced workers may have great difficulty finding comparable jobs without new training or education, which would result in much slower middle-class growth, with approximately 40 million fewer low-income households advancing to lower-middle-income status compared to the base case, and about 50 million fewer lower-middle-income households achieving upper-middle-income status. Without this middle-class growth engine, and with the spectre of job automation depressing consumer confidence, total consumption expenditure in this alternative scenario may be lower than the base case by an estimated RMB 15 trillion (\$2.3 trillion). In addition, there would be significantly less premiumization<sup>23</sup> than predicted for the base case. For example, recreation and education consumption growth would slow down, with consumers refocusing on functional needs, such as value for money.

Even if automation is not widespread by 2027 as predicted in the base case, it will eventually happen. This means that addressing the skills gap challenge will be unavoidable for China.

#### 2. "Turning inward" scenario

In this scenario, overall consumption expenditure will be an estimated RMB 5.5 trillion (\$0.8 trillion) lower than in the base case due to an increased savings rate and a decrease in net exports. The negative impact will be biggest for foreign brands, as EoV will reflect traditional Chinese attitudes, which favour local brands.

Given the uncertainty surrounding whether the Chinese government will continue its opening-up policy and whether China will experience a rise in nationalism, two developments could occur:

- a) A rise in protectionism: The Chinese government could respond if other countries enact protectionist measures that start trade wars. A reversal of policy would create a much less friendly environment for foreign brands as well as for the importing culture. It would also place greater emphasis on control, including a reversal of privatization and deregulation, for example.
- b) A rise in nationalism: The "Chinese Dream of National Renewal", announced at the 19th National Congress of the CPC, is to build a moderately prosperous society and realize national rejuvenation. This could imply a more inward-looking set of policies going forward, as exemplified by "Made in China 2025".

Overall, these more protectionist and nationalistic policies would have the effect of reducing consumption and shifting Chinese consumers' attitudes away from a Western lifestyle.

In this scenario, the household savings rate would be higher

than in the base case. However, incomes would grow at a slower rate due to a decrease in net exports. Overall, consumption expenditure would be an estimated RMB 5.5 trillion (\$0.8 trillion) lower than in the base case. The negative impact would be biggest for foreign brands, especially for the food and beverage and alcohol and tobacco industries. The EoV will reflect more traditional Chinese attitudes: greater emphasis on price and other functional needs, and lesser emphasis on being connected and recognized. The longer-term impact of "turning inward" may be even greater if it leads to a slowdown in innovation.

The lack of inclusive growth created through alternative scenario 1 (middle-income trap) could lead to scenario 2 (turning inward), compounding the negative effects on consumption. However, the reverse is not necessarily true – the turning inward scenario may not lead to the middle-income trap scenario. A snapshot of the three scenarios is provided in Figure 4.

**Turning inward** 

RMB 50 trillion

( ↓ ~RMB 5 trillion vs. base case)

• Total middle class ~315M HH

income HH pulled up by one

• ~160M low- / low-middle-

Figure 4: Comparison of drivers and their impact on consumption of the base-case and alternative scenarios

Note: HH = households

Total consumption value

Middle-class expansion

Source: Bain & Company/World Economic Forum analysis

# SCENARIOS AND IMPACT ON CONSUMPTION Middle income trap

RMB 40.5 trillion

( ↓ ~RMB 15 trillion vs. base case)

• Total middle class ~285M HH

income HH pulled up by one

• ~90M low- / low-middle-

income class

	Base case	Middle income trap	(policy driven only)					
WHAT HAPPENS IN CHINA FROM 2017 TO 2027 IN A CONSUMPTION DRIVEN ECONOMY								
Total household consumption growth rate	6%	3%	5%					
Household income growth rate	<ul><li>5.0%</li><li>Economic growth drives income growth</li><li>Growth is inclusive, pulling up low-income HH</li></ul>	2.5%  • Economic growth does not translate to income growth for low-income HH: skills gap and job automation	<ul><li>4.5%</li><li>Same assumption as base case, incomes grow 0.5% faster than GDP</li></ul>					
Savings rate change	<ul> <li>↓ 8pp = 1%</li> <li>• Govt policies succeed in encouraging spending</li> <li>• 90s generation and 2nd child also drive spending</li> </ul>	<ul> <li>↓ 4pp = 0.5%</li> <li>Pessimism and job uncertainty causes people to save more than in the base case</li> </ul>	<ul> <li>↓ 4pp = 0.5%</li> <li>• Shift to Chinese attitudes, who tend to save more</li> </ul>					
Other components of GDP growth rate	3.5% • Lower investment spending – "new normal"	3.5% • Same as base case	3.2%     Protectionism globally lowers net exports					
GDP growth rate	4.5%	3-3.5%	<ul><li>4%</li><li>Could be lower if closing off slows innovation</li></ul>					
IMPACT ON 2027 VISION								

RMB 55.5 trillion

• Total middle class ~325M HH

income HH pulled up by one

• ~180M low- / low-middle-

income class

income class

## Major capabilities needed by businesses

China will not only be a great consumption story, but will also be notable for its unprecedented pace of change. Companies will need to adapt quickly and in multiple ways. Multinational firms in particular will have to change significantly, bringing their learnings from China to other operations worldwide. Critical capabilities required for all companies include becoming customer-centric, more digitally driven, highly agile and open to rapid transformation, being able to recruit and retain the right talent, and being socially responsible as an organization. Key considerations for the private and public sectors as they develop these capabilities include:

#### Customer-centricity and data-driven personalized offerings

As a new generation of consumers shapes consumption in China, businesses will need to be even more customercentric while delivering data-driven personalized offerings to customers.

In 2027, customer advocacy will become more important, with word of mouth spreading faster than ever and exerting more influence over consumer decisions. Customercentricity is all about designing experiences from the customer point of view and orienting the organization around the customer. To build a customer-centric organization, companies will need to embed a customer-first mindset that starts at the executive suite and flows to all levels and areas in the organization.

Companies will have access to data never before available or leveraged. The best businesses will have the capability to be customer-centric by generating data-driven personalized offerings. This means that companies need to be able to integrate all consumer data and translate the big data into insights, then convert insights into both personalized products and services and targeted methods of engagement along all touchpoints, whether online or offline, of the end-to-end customer journey.<sup>24</sup>

## 2. Digital strategy for major elements of the value chain

If not already happening at scale, businesses will need to digitalize their strategy – embrace the new technologies that are most relevant for their respective businesses, digitalizing the different elements of the value chain and not just the consumer-facing activities.

As illustrated in Figure 3, China's advances in high-speed connectivity and digital technologies will transform a range of capabilities, including R&D, manufacturing, logistics and warehousing, and customer service. Businesses will be required to think about the strategic fit of the different technologies – either as generating value individually or in combination with one or more other technologies. A related consideration, businesses will need to think in terms of their ecosystem (i.e. collaborators, partners, vendors) as opposed to just their own assets and investments, and start mapping their ecosystem by activity. This will help to assess

the strength of their capabilities in each activity within the overall ecosystem.

Compared with technology giants and new technology-focused businesses, incumbents will have more difficulty with this transformation as they are often constrained by complexity. These companies will need to radically simplify their operations in tandem with their digitalization. Only then can they position themselves to delight customers and employees while reducing operational costs.

## 3. Agility and readiness for frequent transformations

One of the most critical competencies for any business will be developing agility and the capability for frequent transformations in the coming decade of unprecedented change. Such agility will separate the winners from the losers.

The next 10 years will be a period of rapid change across almost all consumption categories in China. To succeed, businesses will need to make agility in innovation a core competency. Agility will allow them to ride the wave of winning trends without being the first-movers. They will also need to be just as quick to exit losing trends without the long, drawn-out processes typically associated with incumbents.

Developing rapid responsiveness means migrating to agile ways of working, establishing faster decision-making and taking more risks. This requires companies to focus on specific assets within the operating model related to both processes (e.g. customer feedback cycle, time to market, etc.) as well as people (e.g. organization structure, culture, etc.).

#### How to master agility as a way of working

#### Being agile

Agile neither means anarchy (everybody does what he or she wants), nor "doing what the bosses say, but only faster". Agile innovation comes in several varieties, which have much in common but emphasize slightly different elements. They include *scrum*, which focuses on creative and adaptive teamwork in solving complex problems; *lean development*, which focuses on the continual elimination of waste; and *kanban*, which concentrates on reducing lead times and the amount of work in process.

#### The solution

To transform the conventional way of working to being agile, businesses need to start by learning its basics; understand the conditions in which it does or does not work; start small and let it spread organically; allow "master" teams to customize it; employ agility at the top; and destroy the barriers to agile behaviours.

Source: HBR article "Embracing Agile", May 2016

#### 4. Acquisition and retention of the right talent

Fast and frequent transformation of the consumer market in China over the next decade will pose a great challenge to companies' talent strategies.

Regardless of the capability being developed, businesses will need to find talent with the appropriate hard skills, such as data science. That may be the easy part. The harder task will be finding talent with the fundamental soft skills of self-motivation, entrepreneurship, creativity and an eagerness for lifelong learning. Yet the hardest part is that businesses will not only need to find best-in-class talent in an ever-changing landscape of evolving talent needs, but will also need to retain them, reskill them as required and keep them motivated. The best companies will rethink their talent strategy through the entire process, from requirement definition to recruiting, and from role allocation to talent retention.

# 5. Corporate social responsibility and engagement, starting with sustainability

Environmental and sustainability challenges introduced by new technologies and business models will be widely acknowledged among connected and empowered consumers in China. Socially responsible companies will earn more respect and enjoy a competitive advantage.

A focus on sustainability can bring several sources of competitive advantage to companies. Consumers in China will care more about sustainability in the years ahead, motivated by the increasingly serious effects of pollution and

the government's determination to mitigate environmental deterioration. Consumers will increasingly look for sustainable brands. Also, potential employees will seek companies that have a broader mission that values society and the environment. In addition, a focus on sustainability can bring potential cost reductions from reduced resource usage or waste. Businesses should incorporate social responsibility into their strategy by setting clear targets and launching initiatives to deliver against those targets.

## Key considerations while building these capabilities

Building these five critical capabilities essentially means creating a "Firm of the Future" that will be significantly different in how it is organized and operated. The key highlights of such a firm are:

- a) Scale and customer intimacy will no longer be mutually exclusive, and both will be must-haves.
- b) Talent will need to be managed differently, with the best talent deployed in mission-critical roles.
- c) Partnerships among brands, platforms and outsourcers will no longer be optional.
- d) Businesses will need to excel at both growing the core business and innovating to spur future growth.
- e) Agility and flexibility will become core competencies.

Only after assessing a businesses' life stage and needs for change will leaders be in a position to determine where and how to make the best use of these capabilities going forward.



## Major challenges to overcome at the societal level

The positive view of consumption illustrated in the base case will only happen if business and policy leaders ensure the right enablers are in place and if the barriers to creating a richer, more inclusive and open China are removed.

Delivering a better future requires responsible leadership and potential collaborations through public-private partnership to mitigate mounting challenges in employment and skills, social inclusion, environment and sustainability, as well as trust and transparency.

#### 1. Employment and skills

To advance to a consumption- and services-driven economy, the government's goal is to provide job security and gradually shift the workforce from low-income to high-income jobs. However, significant skills building and training challenges that involve urbanization and technological development exist.

- a) Job requirements for new urban migrants: Over the next decade, an estimated 180 million new migrants will move to cities, an exodus that will create a huge demand for jobs. This new wave of urbanization will develop along a new trajectory. According to the government's plan, the population of megacities like Beijing and Shanghai will be strictly controlled, while city clusters around megacities will be developed. Under this new urbanization plan, agglomeration, connectivity and specialization will be strengthened in some megacities, which will serve as gateways to international markets. There, service as a percentage of GDP will significantly increase. As manufacturing industries relocate to surrounding lower-tier cities, local governments will need to coordinate industrial development and planning to promote a flexible and efficient labour market and secure employment.
- b) Threat from technological development: Over 50% of China's urban employed population currently works in labour-intensive industries, such as mining, manufacturing, construction and logistics.<sup>26</sup> These relatively low-income jobs are quite vulnerable and easily replaced by new technologies such as robotics and Al.

## Key considerations for private- and public-sector leaders

Securing a healthy employment rate and advancing China from low-income to higher-income jobs require shifting the economy's industrial mix by growing the services industries. That means increasing the ease of entrepreneurship and tackling the skills gap in the workforce. This migration will take time and prove challenging, requiring public-private partnership to improve the overall education and vocational training system, while continuously reforming the policy regime.

- Transforming the policy regime and letting the market play a greater role in labour allocation: To create a more mobile and versatile labour force, policy-makers in China should continuously promote the reform of the *Hukou*<sup>27</sup> China's household-registration system. This barrier to labour mobility (from rural to urban areas, as well as between cities) should be eliminated to let the market play a greater role in labour allocation. Reforming the *Hukou* will also provide equal access to quality public services, such as education and healthcare, for all citizens, especially the migrants from rural areas. These moves will have the effect of boosting migrant household incomes, helping to propel the transition to a consumption- and services-driven growth model.
- Upgrading the quality of overall education and vocational training systems through public-private cooperation: This will help prepare the future workforce for new technology and business models and in turn help advance employees to higher-income jobs. Both the government and business leaders in China are now taking action to prepare for this transition.

On the government side, the Next Generation Artificial Intelligence Development Plan issued by China's State Council in July 2017 calls for more Al-related and coding courses to be offered in China's primary and secondary schools. This will require cooperation between academia and business to guarantee the quality of Al courses, as high-tech companies introduce more and more cutting-edge Al applications.

On the business side, China is seeing an increase in the number of corporate universities. According to statistics from the Overseas Education College Shanghai Jiao Tong University, over 2,600 corporate universities exist in China. Mature corporate universities can play a more important role in professional training by opening to the public, as they themselves understand better the evolution of the workforce's needs.

## Case study: JD University plays a role in education and job creation

As one of China's e-commerce leaders, JD.com uses such advanced technologies as AI, robotics, autonomous vehicles and drones to improve retail costs and become more efficient. This comes with the downside of replacing many labour-intensive jobs. The company's current 120,000-member workforce may be reduced to approximately 80,000 full-time employees by 2027, according to a recent public statement by the company.<sup>28</sup>

To mitigate this risk, JD University, the company's corporate university, plans to train its executives and lower-skilled workers in technology transformation. By leveraging its first-hand expertise in e-commerce, JD University is also exploring cooperation opportunities

with public schools to promote education and services related to e-commerce. The goal is to prepare China's future workforce and create new jobs in the e-commerce ecosystem. This is a win-win for business, academia and the employees of the future. The programme serves as a model for other organizations.

# 2. Social inclusion across income, geography and age

As the needs and aspirations of different demographic segments vary, it is critical to bridge the growing digital divide between urban and rural dwellers, low-income and high-income earners, and the young and elderly populations.

- a) Income and geographic inequality: China has one of the world's highest levels of income inequality, a situation that poses a big threat as the country strives to become richer over the next decade. China's Gini coefficient for income, a widely used measure of inequality, was 0.465 in 2016, according to China's National Bureau of Statistics. While urban income is rising rapidly, rural incomes are increasing at a relatively slow rate, widening the gap between the two groups. Inequality in income across coastal versus inland regions is also significant and may threaten stability during periods of slow growth.
- b) Exclusion of the ageing population: A digital divide created by rapid technological development also poses a challenge for the social inclusion of the elderly. Senior citizens, regardless of their income level or where they live, may lose out on the benefits made available through new technology and innovative business models. For example, smartphones a key enabler of how comfortably consumers can live, work, shop and play are sometimes difficult for the elderly to adopt.

## Key considerations for private- and public-sector leaders

- Providing public goods and social services to ensure inclusive benefits: To address the challenges of unbalanced development and to bridge the digital divide, public-private partnership will be required to offer public goods and social services, especially to those who may miss the benefits that technology has to offer. This will allow a wider swath of the population to share the fruits of economic growth and technological development. One approach that could help: adjusting local officials' performance evaluation to reward efficient, inclusive and sustainable development plans. The government can optimize welfare programmes that redistribute wealth to manage stability and stimulate modest, vet inclusive. growth. In parallel, private forces can support the government in reducing the burden of senior care in an ageing China through affordable, simple and accessible products and services.
- Continually improving mobility and connectivity in underdeveloped regions and rural areas: High mobility and connectivity through solid infrastructure are key factors in inclusive development. China has a strong track record in infrastructure – its infrastructure

is notably better than countries at a similar level of development. However, in many parts of China, such as inland provinces and rural areas, infrastructure access and quality remain low. Both public and private attention is continuously required to improve the infrastructure in these areas, especially the bedrock infrastructure for new technologies, such as the 5G network.

In addition to investing in infrastructure, business leaders can also play an important role by applying new technologies and business models to enhance the coastal-inland and urban-rural connections for broader social connectivity.

#### Case study: Alibaba's plan to digitalize millions of mom-and-pop stores in China via a data-powered B2B system

China has nearly 6 million small retailers, ranging from street stands and kiosks to street corner stores selling groceries, most of them located in rural or rural-urban fringe areas.

Over 2017, Alibaba digitalized more than 600,000 local neighbourhood convenience stores and 30,000 Rural Taobao service centres before its "Single's Day" sale in November. Through Alibaba's B2B system (LST), these stores can benefit from enhanced marketing, delivery and inventory management relying on big data and algorithms. This is the first step in Alibaba's broader plan to turn millions of traditional trade stores into smart service centres equipped with Alibaba's e-commerce infrastructure and capabilities in financial technology, logistics and travel services. In the future, consumers in the lower tier cities, townships and villages can shop, pick up packages, place orders online or even apply for small loans and arrange personal travel in these newly digitalized outlets.

#### 3. Environment and sustainability

Environmental protection and sustainability issues have been a growing concern among Chinese consumers, as air and water pollution have become an increasing challenge in their daily lives. In the future, new challenges created by the evolution of new consumption models will compound the existing issues.

a) Challenges due to the development of ecommerce and O2O services: Online shopping and in-home food delivery have been booming in China. The number of express delivery packages reached 31.3 billion in 2016, according to the State Post Bureau. Also, the number of users of O2O food delivery services in China reached around 300 million in 2016, with about 80% of online consumers ordering in-home delivered food at least once a week. This shift in consumption activity results in significant waste from packaging materials and overall environmental damage due to increased CO<sub>2</sub> emissions. Unmanned trucks and drones might bring additional new challenges by squeezing out public transportation space, including aerial routes, while also exacerbating environmental issues.

b) Challenges due to the rise of the sharing economy: The sharing economy will flourish in China, given the spread of smartphones and a surge in mobile users. While this business model is convenient, efficient, economical and environment-friendly, it is also introducing new sustainability challenges to communities. For example, the number of shared bicycles reached an estimated 16 million in July 2017, according to the Ministry of Transport. This excess supply is especially significant in megacities (Beijing has 2.35 million shared bicycles and Shanghai has over 1.5 million). The number of bicycles in circulation has rapidly dwarfed the capacity of parking locations, with massive clusters of bicycles along the side of the road often blocking traffic. In August 2017, megacities such as Beijing and Shanghai imposed a temporary ban on adding shared bikes to the pool.

## Key considerations for private- and public-sector leaders

- Enforcing regulations through public-private cooperation: Both the public and private sectors will need to work together to mitigate the environmental risks created by rapid economic growth. On the public side, China already has tough environmental laws, regulations and standards, so the most important task is enforcement. Market-based tools, such as taxes and/or credits and trading systems for carbon, air and water pollution, and energy, can also be used to a greater extent to meet environmental targets. On the business side, companies will be required to continue to act responsibly, especially by proactively cooperating with policy-makers to address and mitigate the challenges created by new technologies and innovative business models.
- Engaging tomorrow's consumers on sustainable lifestyles: Businesses also have the opportunity to engage consumers around sustainability issues related to e-commerce, and partner with consumers to offset the negative impact of packaging. For example, businesses could encourage recycling and more conscientious consumption. Businesses in China also can be pioneers in making sustainability aspirational to the growing number of young Chinese consumers who are buying premium products. They can introduce sustainable products and services, including new business models that will be both economically viable for the business and sustainable for society. Over the next decade, businesses will need to embrace sustainability as a core part of their brand value going forward.

#### 4. Trust and transparency

As their disposable incomes have grown, many Chinese consumers have started to worry about the safety and quality of the goods they consume. To ensure high consumer-confidence for a consumption-driven growth, trust issues around consumer data privacy and security will also need to be addressed.

- a) Trust issues around fake products across different categories: Over the last five years, a rapidly growing number of Chinese consumers cite food and medicine safety and product quality as major concerns. While such concerns are common across all segments of Chinese society, they are especially widespread among those who in many ways have benefited the most from the country's long run of economic expansion – wealthier Chinese, urban residents and people under the age of 30. Also, the historical role of "fake" products in China, combined with the increased demand for premium goods, intensifies the issue around consumer trust in the intellectual property of what they buy.
- b) Concerns around data privacy and security:
  According to the Internet Society of China, cyber fraud resulted in an economic loss of an estimated RMB 92 billion (\$14 billion) in 2016. As new technologies evolve and business models leveraging personalization gain scale, they will generate more and more data. This will make consumer privacy protection even more challenging than it is today. Also, as more consumer data become stored in a digital format, data security including the prevention of leakage or misuse will become a growing issue.<sup>30</sup>

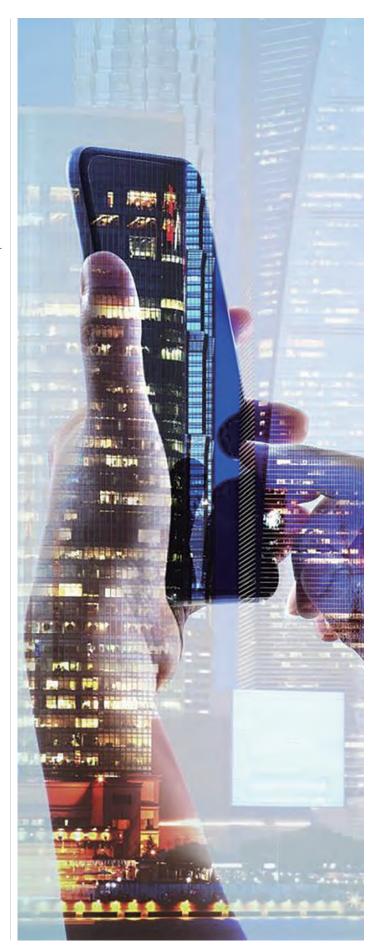
## Key considerations for private- and public-sector leaders

- Improving regulatory frameworks to address data privacy and other trust concerns: The Chinese government will need to keep improving its regulatory system and framework to keep pace with technological development and evolving consumption models. In some cases, it is already happening. Consider China's new Cybersecurity Law, which took effect on 1 June 2017. In addition to focusing on cybersecurity, the new law details how companies must handle personal information and data. Further iterations of policy frameworks and new protocols - such as those related to intellectual property as well as consumer right protection in the digital world - will be required over the future. China also aims to build a "social credit" system to rate individual citizens, businesses and organizations in China based on big data, with the hope of promoting trustworthiness.31 While such regulations are important, it is equally important that they do not discourage innovation and entrepreneurship.
- Ensuring transparency in supply chains: Businesses will also need to take the lead by establishing transparent supply chains and communicating the benefits to make consumers aware of the entire product life cycle and journey. This will mitigate concerns around fake products, both for low-cost products and high-engagement products such as food, beverages and medicines, as well as for premium products such as apparel.

## Conclusion

China will continue on its path as the world's most dynamic consumption environment, propelled by four major local drivers: economic growth, demographic shifts, technology and innovation, and consumer attitudes. As these drivers move China forward, many stakeholders have the potential to shape the country's consumption future: the government with its supportive policies, businesses that exist today and new entrepreneurs with their innovative business models, and academic institutions with their progressive education models. Working together, these stakeholders can help deliver an ecosystem that benefits not only consumers but also society. But success will only be achieved if these stakeholders start addressing looming societal concerns - related to employment and skills, social inclusion, environment and sustainability, and trust and transparency head-on.

Moving beyond the challenges in a collaborative approach is the surest way to establish a consumption landscape that will serve as a model for other fast-growth consumer markets.



## **Appendix**

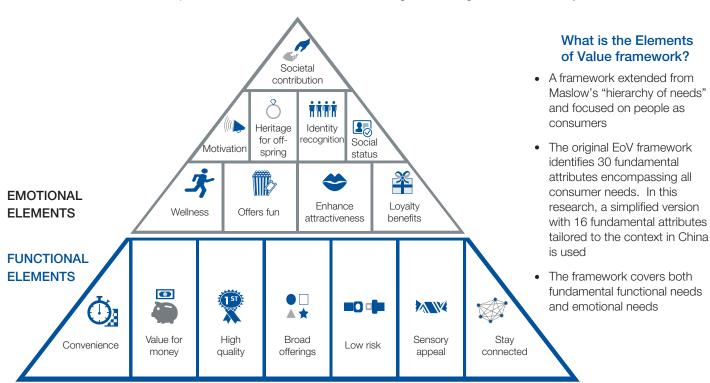
#### 1. Examples of recent policies and plans that have an impact on the four drivers of consumption

Source: Bain & Company/World Economic Forum analysis

RECENT POLICIES	IMPACT ON 4 DRIVERS	POLICY HIGHLIGHTS
The 13th five-year plan for economic and social development (March 2016)	<b>Driver 1</b> : Supports the transition to the consumption-driven economic growth model	<ul> <li>Maintain a medium-high rate of economic growth by upgrading the structure of consumption (increasing consumer buying power and stimulating spending in more premium categories) and growing the service sector</li> <li>Bridge the income gap: secure a significant increase in the earnings of low-income earners; promote urban residency for rural households</li> </ul>
	<b>Driver 2</b> : Provides public solutions for demographic challenges	• Respond to population ageing: uphold the two-children policy; establish a multilevel elderly care service system based on at-home care and supported by communities and elderly care institutions
	<b>Driver 3</b> : Increases the speed of leading technological advancement	<ul> <li>Direct action: strengthen the development of strategic leading-edge technologies and design programmes aimed at finding technological solutions for societal issues</li> <li>Support the private sector: maintain the 100 Most Innovative Enterprises initiative to support small/medium businesses in technology fields</li> <li>Revamp education: encourage higher learning, vocational colleges and research institutes to jointly develop a national innovation system</li> </ul>
	<b>Driver 4</b> : Encourages traditional culture renaissance	Strengthen cultural heritage: carry out extensive activities to popularize fine traditional culture and incorporate it into national education
<b>Made in China 2035</b> (July 2015)	Drivers 1 and 3: Increases the risk of job automation (and at the same time supports innovation)	<ul> <li>Increase automation: build a comprehensive intelligent manufacturing system with the support of intelligent manufacturing equipment; greatly increase manufacturing digitalization</li> <li>Increase manufacturing innovation: develop innovation design clusters and relevant education support; build a platform for engineering data sharing among enterprises and strengthen IP rights</li> </ul>
Artificial intelligence development plan (July 2017)	Driver 3: Increases the speed of leading technological advancement	<ul> <li>Leverage AI as a new major economic growth engine: until 2020, keep China's AI at the world level; by 2025, generate over RMB 400 billion per year from the AI industry; by 2030, become a major centre for AI innovation and lead the world in AI applications (target RMB 1 trillion in AI core market and RMB 10 trillion in related markets)</li> </ul>
Guidelines for big data development (August 2015)	<b>Driver 3</b> : Provides guidelines for how to deal with privacy challenges	• Establish a new model for social governance in the next 5-10 years, through key initiatives: 1) from a transdepartmental data sharing platform; 2) establish a unified platform for government data; 3) build competitive products in big data processing and analysis; 4) set up a comprehensive support system in the big data industry

#### 2. Elements of value (EoV)

Source: Harvard Business Review, September 2016: The Elements of Value: Measuring and delivering what consumers really want



#### 3. Four archetypes of consumers in China in 2027

Source: Bain & Company/World Economic Forum analysis

	YOUNG GENERATION IN NEW LIFE STAGE	NEW BENEFICIARIES IN URBANIZATION TIDE	TYPICAL MIDDLE-CLASS COUPLES	SENIOR CITIZENS
	Ms Wang 2000s generation young woman from affluent family starts a family	Mr Lin 90s generation rural man moves to city for better job	Mr Li & Ms Sun 80s generation couple living in inland city both find higher paying service job	Mr Liu & Ms Zhao 60s generation elderly couple, retired and in need of senior care
Profile in 2027	<ul> <li>Aged 27 (born in 2000); Female</li> <li>Living in Shenzhen - megacity in south-eastern China</li> <li>Married, mom of a 1-year- old and planning to have a second child</li> <li>Both she and her husband work, with an annual household income of \$40K</li> </ul>	<ul> <li>Aged 36 (born in 1991); Male</li> <li>Living in Nanjing - tier 2 city in eastern China; capital city of Jiangsu Province</li> <li>Married, father of a 10-year-old</li> <li>Both he and his wife work, with an annual household income of \$20K</li> </ul>	<ul> <li>Aged 44 (born in 1983) and 42 (born in 1985)</li> <li>Living in Zhengzhou - tier 2 city in central China; capital city of Henan Province</li> <li>Parents of a 16-year-old</li> <li>Both work, with an annual household income of \$40K</li> </ul>	<ul> <li>Aged 67 (born in 1960) and 65 (born in 1962)</li> <li>Living in Wuhu - tier 3 city in Anhui Province, eastern China</li> <li>Parents of a 34-year-old</li> <li>Both are retired from work, with an annual household income of \$20K</li> </ul>
	Approximately <b>6%</b> of people in China are like her (urban middle income aged 20-29)	Approximately <b>8%</b> of people in China are like him (urban middle income aged 30-39)	Approximately 23% of people in China are like them (urban middle income aged 40-64)	Approximately <b>9%</b> of people in China are like them (urban middle income aged over 65)
Live	Received a big house from husband's parents as a wedding gift. Has equipped her home with smart furniture that can send purchase requests and recycle trash automatically. Has a service robot to take care of the chores, especially those associated with her young child.	Planning to buy an apartment and settle down in the city area. Pays utilities and rent via online platforms and uses mostly shared home appliances. Bought wearable Al assistant devices for his parents to connect them to the "smart" city around them.	Currently living in an apartment in the city centre for the convenience of their schoolattending son. Are planning to move to the suburbs to live in a larger house due to expected income increases in the coming years.	Own two properties but are planning to trade them for a larger suburban house. Prefer old-fashioned furniture but have a cleaning robot at home and an internet of things healthcare system for their son to respond in case of an emergency.
Work	Used to work as a nutritionist in a hospital but now works as a personal health consultant, providing clients with diet suggestions. Created a data analytics tool using a shared programming service, allowing her to serve more clients and scientifically predict their needs.	Works in a repair shop as a robotic maintenance specialist, in charge of maintaining delivery drones, service robots and autonomous cars for a large retail company.	Mr Li works as a video game programmer, having learned programming after quitting his previous job as a tax auditor. Ms Sun is a primary school teacher, who also teaches basic programming to her students.	Work as college professors and now also offer Chinese culture introductory courses through an online knowledge-sharing platform via virtual reality technology to other students around the world.
Shop	After having a child, became a member of an organic food club, which offers personalized dietary advice to young mothers and children, and delivers fresh food daily through drones.	Mostly buys online via drone delivery through handheld devices; his parents are still buying with cash but from self-service stores.	Like to purchase clothing in offline experience centres with augmented reality dressing rooms; their son designs his own clothes and gadgets via online stores, sometimes using their 3D printer.	Prefer to go to the farmer's market on weekends to buy fresh food; the market is sponsored by an online platform to showcase its advanced logistics in fresh food management.
Play	Has an in-home virtual reality gaming studio, and a personal trip planner for vacations. Bought an insurance plan for data privacy because much of her personal data are loaded in these service platforms.	Bought a smart TV that allows watching movies at home. Goes to self-service cinemas and karaoke, taking public transportation to get around the city.	Watch their favourite gourmet show on a video platform and can order the food they see for delivery at home; their son formed a band with friends and an Al-based digital musician, and often posts his videos on WeChat.	Have an autonomous car to take them to nearby places; Like to play the abstract strategy board game Go online, sometimes with Al players that help them improve their skills.

#### 4. Source of insights

- 25 interviews with leaders from global and Chinese companies in a range of sectors, innovators, disruptors, policy-makers and academics
- 14 in-depth conversations with experts and advisors in Bain & Company
- Proprietary research conducted by Bain & Company in July-August 2017: a survey of 2,300 Chinese consumers and 7 focus groups covering 20 cities in China
- Extensive secondary research of public databases and approximately 60 reports

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The World Economic Forum would like to acknowledge and extend its sincere gratitude to, first and foremost, the Project Steering Committee. Thanks also go to the broad community of contributors across Partner companies, technology start-ups, academicians and experts, who attended meetings, provided input during interviews and helped in the overall research. While the views expressed in this report do not reflect the totality of opinions, their participation and guidance were critical.

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## **Endnotes**

- 1. Specific highlights of recent policies and plans can be found in the Appendix.
- 2. Elements of value (EoV) is a Bain & Company proprietary framework extending from Maslow's "hierarchy of needs" and focusing on people as consumers. In this research, a simplified version with 16 fundamental attributes encompassing different consumer needs is used. It covers both functional needs, such as value for money and reducing risks, as well as emotional needs, such as improving social status or making societal contributions. A detailed visualization of the EoV in the context of China can be found in the Appendix.
- 3. In China, economic reforms introducing market principles began in 1978 and were carried out in two phases. In the first stage in the late 1970s and early 1980s, reforms included the opening up of the country to foreign investment, and permission for entrepreneurs to start businesses. The second stage in the 1980s and 1990s involved the privatization and contracting out of much state-owned industry and the lifting of price controls, protectionist policies and regulations. From 1990 to 2015, China's GDP grew at an average annual rate of approximately 10%.
- 4. Low income is defined as households earning less than RMB 66,000 or \$10,000 annually; lower middle class includes households earning RMB 66,000-198,000 or \$10,000-30,000; upper middle class includes households earning RMB 198,000-363,000 or \$30,000-55,000; and high income is defined as households earning over RMB 363,000 or more than \$55,000.
- 5. It is important to note that, while the future retirement age may increase further from the 55-60 age group, the assumption is that, over the next 10 years, only a small portion of the post 55-60 age group will pursue active careers.
- 6. The Little Emperor syndrome is an aspect of China's one-child policy in which only children gain seemingly excessive amounts of attention from their parents and grandparents. Combined with increased spending power within the family unit and parents' general desire for their child to experience the benefits they themselves were denied, the phenomenon is generally considered to be problematic.
- 7. Those born in the 1990s form a major part of the millennials. The millennials are defined as those with birth years in the 1980s and 1990s.
- 8. Those born in the 2000s.
- 9. In the consumer survey launched in 2017 by Bain & Company for this report, around 60% of the interviewees from the 1990s generation said they are willing to have a second child.
- 10. As an example, according to the World Economic Forum report, Understanding the Sharing Economy, published in 2016, in 2015 the average number of rides on Didi's Kuaiche, Banche and Shunfengche totalled 1,143,000 per day. This was the equivalent of removing 2.1% of Beijing's taxis from the road and 1.6% of Guangzhou's taxis. Over the course of that year, this model resulted in a net savings of 510 million litres of fuel and reduced carbon dioxide emissions by 14 million tons.
- 11. Private companies valued at \$1 billion or more.
- 12. See ofo at https://www.ofo.com/.
- 13. Gross merchandise value is the total value of merchandise sold over a given period through a customer-to-customer exchange site. It is a measure of the growth of the business or the use of the site to sell merchandise owned by others.
- 14. According to iResearch in its 2016 China's E-commerce Vitality Report.
- 15. According to China's National Bureau of Statistics.
- 16. According to June 2017 estimates from iResearch in China, without including transactions through banks or China UnionPay. In the United States, mobile payments in 2016 totalled \$112 billion, according to Forrester Research.
- 17. Based on Tencent WeChat Pay data and an online survey of 6,595 respondents conducted by Ipsos, an independent worldwide research group, in 2017.
- 18. A series A round is a company's first major round of venture capital financing.

- 19. Also known as the "Double 11" or "11.11" sale, 11 November is the largest offline and online shopping date in China.
- 20. Surveys and focus groups were conducted by Bain & Company in July-August 2017 with different consumer segments.
- 21. According to Tencent research division Penguin Intelligence in its 2017 WeChat User Behavior Report. As a comparison, people spent more than 50 minutes per day on Facebook's suite of apps (Facebook, Messenger and Instagram), according to Facebook 2016 Q1 earning report.
- 22. In the base-case scenario, it is assumed that job numbers in the manufacturing industry will not significantly change in the next 10 years. Automation will occur and replace jobs on the production line, but it will also create new jobs and at the same time raise the efficiency of labour.
- 23. As consumers become richer, their spending shifts from "necessity" to "discretionary" categories and their needs shift from functional EoV to emotional EoV. This change is called "premiumization".
- 24. The customer journey is the end-to-end customer experience consisting of all touchpoints that start with a need and end with need fulfilment.
- 25. The Firm of the Future is a Bain & Company publication that highlights the emerging themes in the way that firms will change in the next era. Bain's research shows that the concept of a firm evolves approximately every 50 years, and that the current era of shareholder primacy is coming to an end.
- 26. As reported in the China Statistical Yearbook 2016, compiled by the National Bureau of Statistics of China.
- 27. The Hukou system designates a resident's status as being either rural or urban based on their registered birthplace. In practice, this means a migrant worker from the countryside is not entitled to public services in the city, despite working and living in the city.
- 28. See "JD.Com CEO Says Al Will Cut Staff By 1/3, Grow Revenue 1,000% In Ten Years", China Money Network, 21 July 2017; available at https://www.chinamoneynetwork.com/2017/07/21/jd-com-ceo-says-ai-will-cut-staff-by-13-grow-revenue-1000-in-ten-years.
- 29. See "Alibaba Group Launches 2017 11.11 Global Shopping Festival", Business Wire, 19 October 2017; available at http://www.businesswire.com/news/home/20171019005594/en/Alibaba-Group-Launches-2017-11.11-Global-Shopping.
- 30. See the base-case scenario headline "Data will become the new oil".
- 31. China's State Council issued the "Planning Outline for the Construction of a Social Credit System (2014-2020)" on 14 June 2014. The planned system focuses on four areas: honesty in government affairs, commercial integrity, societal integrity and judicial credibility.



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