

New fuel for a new economy

- China produces the most data globally from its vast internet user base;
- Data access gives Chinese companies an advantage when delivering innovative products and services;
- Insurance, healthcare, and retail are three sectors where data-driven innovations are most prevalent;
- Further growth in user bases and the adoption of 5G technology will reinforce China's advantage and sustain growth in 'new economy' sectors.

China produces between nine to 10 zettabytes of data annually, accounts for between 20% and 25% of all data produced globally¹ and has the largest pool of online user data of any country globally.

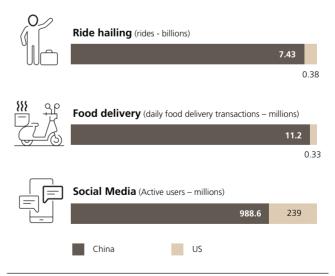
That means internet users supply a steady, sizeable stream of data to Chinese companies, particularly those in new economy sectors, like IT, e-commerce, financial services, and retail, that speeds the development of new products and services.

China's data superiority rests on three key growing fundamentals:

- 771.9 million internet users, or about 15% of total internet users globally². Though large this still has room to grow because 55.8% of China's residents are online, compared with 95.6% in the US³. When that rate grows to around 80%, it will bring an estimated extra 350 million users online.
- 1.47 billion smartphone subscribers, or about 18% of total global subscribers⁴. Smartphones offer real-time tracking of consumer behavior and give apps and operators a wealth of diverse and detailed data on user habits.

• **USD 15 trillion in cashless payments**, compared with less than USD 2 trillion⁵ in the United States, Chinese consumers are putting a huge amount of business through cashless channels, delivering a wealth of data points to retailers about behavior, preferences, and spending patterns.

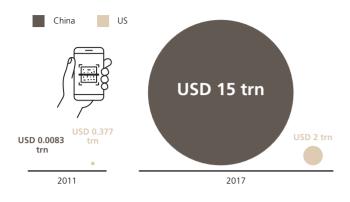
Key operational metrics, US and China companies compared, 2017



Source: Bloomberg: China Great Tech Leap Forward, September 29, 2018

- 1 Goldman Sachs, September 4, 2018
- 2 China Internet Network Information Center, July 11, 2018
- 3 Internet World Stats, November 1, 2018
- 4 China Internet Network Information Center, July 11, 2018
- 5 KKR, August 2018

Cashless payments (USD trillions) US vs. China, 2011 vs. 2017



Source: KKR, August 2018

But while having data is an opportunity, turning it into marketable products and services is a challenge. In this respect, Chinese companies are proving adept at turning data insights in cash, and a recent news story about a newly-launched chocolate bar can explain.

One leading Chinese internet platform used data from millions of daily transactions to map consumer tastes and analyze buying behavior and built it into a product specification for a foreign chocolate firm. The rsult – a spiced chocolate bar – became an instant hit in China, generating sales of USD 1.43 million⁶.

This ability to gain deep insight into consumer preferences and develop finely targeted products is one that Chinese companies are increasingly applying in lots of different industries, with three particular sectors standing out:

- Healthcare: access to healthcare data enables medical researchers to assess patients health in detail and gauge the risks they face in contracting particular diseases or conditions, while opening the opportunity to deliver precision medical care to patients. This is a huge opportunity because it targets a growing market for healthcare in China, where patients are increasingly willing to spend more on higher quality treatments.
- Insurance: data-rich insurers are applying their analysis to create a whole range of new tools for customers. One such example is a car insurance scoring app developed by one of China's leading internet services companies that users personal information, like credit history and profession, together with real-time data readings, like on

spending habits and driving behavior, to more efficiently m easure driver risk and deliver estimated savings of 6% to 10% on claim costs and non-claim costs⁷.

• **Ride-hailing**: car ownership is growing fast in China but costs can be prohibitive, especially in China's largest cities where annual licenses in cities like Shanghai can cost as much as USD 14,022⁸. App-based ride hailing has developed into a huge business in China, with one company reporting 7.43 billion rides per year⁹.

A 5G-driven future

And while China's data prowess is formidable, improvements in telecoms technology look likely to boost it in the future, particularly in the roll-out of 5G technologies.

5G technology is the next generation in mobile technology – it means more advanced telecommunications networks that can handle much larger and more diverse range of data communications.

5G networks offer the foundation to connect an unlimited number of machines and will significantly improve not only the amount of devices that a network can handle, but can offer significantly faster communications speeds.

And China is taking the lead in installing the infrastructure and developing the hardware that will give it an advantage in 5G technology. By mid-2018, China had 1.9 million 5G enabled wireless transmitters installed, compared with 200,000 in the US¹⁰, and had 14.1 installed transmitter sites per 10,000 people, compared with 4.7 in the US and 8.7 in Germany¹¹.

New fuel will drive the new economy

What this all means is that Chinese companies capable of harnessing, processing, and analyzing new dataflows, as well as developing new products to suit them, will have a huge advantage in developing the tech products of the future.

So with China's data superiority, and the prospect of growing it in the future as China's online user base expands and companies innovate, is one of the key reasons why it will see good growth prospects for 'new economy' companies.

'New economy' sectors currently mining China's rich seam of data and developing innovative products include healthcare, IT, insurance, and consumer discretionary spaces.

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