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NEW DRIVING FORCES OF CHINA'S ECONOMIC GROWTH—INNOVATION AND ENTREPRENEURSHIP

Tomoo Marukawa

- The Chinese economy is currently going through a structural change from investment-led growth to innovation-led growth.
- In most cases, innovation in China is led by start-up firms established within the past 20 years.
- The city of Shenzhen has been the hotbed for innovation and entrepreneurship, and Chinese leaders should consider how to let other parts of China emulate its experience.

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Judgments vary on the current status of the Chinese economy. On the surface, the officially announced 6.7% GDP growth rate during the first quarter of 2016 does not seem to be so bad. However, negative growth in important industries, such as coal, cement, thermal power generation, and iron and steel, has led some observers to question the accuracy of the official growth figures. One figure that stands out among the dismal industrial statistics for 2015, though, is the growth of e-commerce, which recorded 33.3% year-on-year growth. The varied picture of growth statistics reflects, in my view, a structural change from investment-led growth to innovation-led growth in the Chinese economy. Here I define innovation as a new combination of markets and technology, following the definition by Joseph Schumpeter.

If one examines the technology used in China's thriving e-commerce, one may find few novelties. What is remarkable about China's e-commerce is its market size and the scope of businesses incorporated in it. The total amount of retail sales in China's e-commerce in 2015 was 622 billion dollars, 81 percent more than that in the US, and more than five times larger than that in Japan in the same year¹. Money deposited in Chinese e-commerce sites can be used for paying electricity charges or a ride in a car, which can be called by using the same app. The money can be transferred to someone else's account or even be invested in a fund that will yield a higher rate of interest than offered on bank deposits. Leading e-commerce retailers are now lending the money deposited in their sites to small firms. In this way, e-commerce firms are replacing conventional banks. With the huge number of people depositing their money in e-commerce sites – 260 million people in the case of the leading e-commerce payment platform Alipay – they may bring about revolutionary changes in the financial sector.

In most cases, innovation in China is led by start-up firms established within the past 20 years. Therefore, it was appropriate for the Chinese government to launch a policy to encourage "start-ups by the masses" in 2015 to promote innovation-led growth. One of the most prominent cases of innovative


¹ The data are from National Bureau of Statistics, China, U.S. Census Bureau, and Japan's Ministry of Economy, Trade, and Industry.

start-ups is DJI, the leading drone manufacturer in the world. Established in 2006 by three graduate students in Shenzhen, the company has focused on civilian drones for aerial filming. One noteworthy aspect of DJI's innovation is that it is exploring ways to use this new product with its customers. On their website, new ways of using drones, ranging from animal research to art, developed by their users around the world are introduced. In this way, users are also taking part in DJI's innovation.

It may not be a coincidence that DJI was born in Shenzhen. Shenzhen is the capital of innovation and entrepreneurship in China, where the headquarters of many innovative companies such as Huawei and ZTE (telecommunications equipment), Tencent (internet service), and BGI (DNA sequencing) are located. If we count the number of invention patents filed by industrial firms, Shenzhen even tops Beijing and Shanghai. The reason for Shenzhen becoming the capital of innovation and entrepreneurship has yet to be discovered. Having only a few universities and institutes, Shenzhen does not have the geographic advantage in drawing on academic research results for innovation that are enjoyed by Beijing and Shanghai. What Shenzhen owns instead is a sense of liberty from the shackles of state regulation, which comes from its history as an experimental city for economic reform and its vicinity to Hong Kong. Firms in Beijing may not dare develop a product like drones, which will easily attract the attention of government regulators. In a country where the government has a free hand in regulating the economy, innovators will intuitively select places where government regulations are lax to launch new products and services.

Shenzhen also has an advantage in supplying manufacturing start-ups with various manufacturing services. Situated at the core of the "workshop of the world," firms that are willing to supply dies and molds, electronic parts, assembly services, chip-mounting services, circuit design, and case design are easily found in or around Shenzhen. In addition, some facilities aimed at helping potential entrepreneurs to start their businesses have been established in Shenzhen recently. These facilities are equipped with 3D printers and measurement equipment, and help potential entrepreneurs to locate suppliers of services and parts. They also help entrepreneurs with legal procedures,

accounting, patent applications, personnel recruitment, and advertising. They may even provide seed money for start-ups. The Shenzhen municipal government is planning to increase the number of such facilities, which has just started to emerge in 2011, to 200 by the end of 2017. The existing facilities are sponsored by state-owned and private enterprises. It is noteworthy that even foreign nationals are coming to Shenzhen to enjoy these services for starting their businesses.

One cannot be so pessimistic about the future of the Chinese economy if one sees the development of innovation and entrepreneurship in Shenzhen. Chinese leaders should take the experience of Shenzhen seriously and consider how to let other parts of China emulate its experience. 

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