

## US and China Rival in GDP while Japan Ranks Fifth in 2060

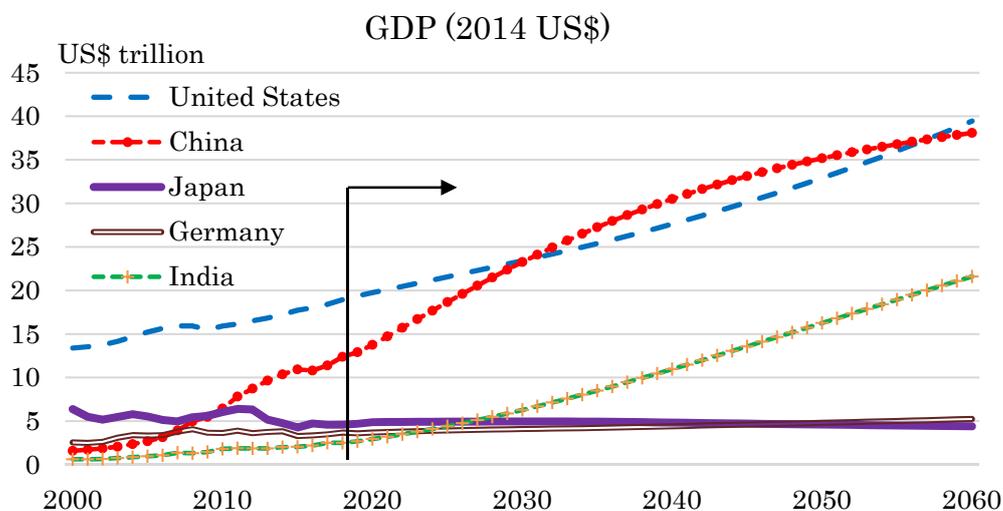
July 26, 2019

JCER Long-Term Economic Forecast Team<sup>1</sup>

- ✓ Intangible assets are the source of growth while the population may shrink and age.
- ✓ Sharing digital data is key to a healthy competition.
- ✓ Leaving income inequality unaddressed intensifies protectionism, which can cause "a great stagnation".

Digital technology holds the key to business, with US and Chinese information technology (IT) companies monopolizing the top market capitalization in the world. The US, which leads the way in the digital economy, is sharpening its "America First" principles and strengthening its confrontation with China. While the world is in a turmoil, what growth paths will the major economies follow in the long run and what should Japan do in order to maintain economic vitality? Japan Center for Economic Research has predicted the economic landscape by 2060.

Japan would lose its upward momentum as its population declines and ages, and its gross domestic product (GDP) could shrink after the 2030s, and fall to fifth place in 2060 after the US, China, India and Germany from the current 3rd place.



<sup>1</sup> Sumio Saruyama (Lead Economist), Kengo Tahara, Tatsuo Kobayashi (Principal Economists), Kentaro Inomata (Senior Economist) and Kazumasa Iwata, President of JCER. For inquiries, please contact [tahara@jcer.or.jp](mailto:tahara@jcer.or.jp)

We focused on three factors in our predictions. The first is that intangible assets are more important than tangible assets such as facilities and equipment as a basis for generating wealth. Intangible assets are invisible assets that produce added value, such as software, intellectual property obtained through research and development, and business and organizational know-how such as business models. In the US and some European countries, intangible investment already outweighs tangible investment. Intangible assets for controlling services become important as services that were conventionally face-to-face expand as they digitize, such as online trading and autonomous driving.

As a second factor, a mechanism to distribute and share data among individuals and companies is important in order to improve productivity. Unlike general goods, data has a “non-rivalry” nature that can be used simultaneously by multiple people, and thus has a large spillover effect on the entire society. If it is made available to anyone with ideas that utilize the data, the potential to create new value increases. For example, if local electric power consumption data is available to understand the movement of people, it will be easier to predict the number of visitors to nearby stores and restaurants, and streamline purchasing and staffing.

The third is the importance of maintaining a globally open economy. Globalization brings the benefits of international specialization, and enhances productivity through competition and information exchange with superior overseas companies. As the provision of cross-border services will be commonplace with digitalization, it will be important not to disturb the flow of data both at home and abroad.

We forecast the global economy through 2060, assuming conditions such as population and tangible and intangible investment trends that define the economies of major countries, and institutional factors like market openness that affect their productivity. Two distinctive global economic figures have emerged.

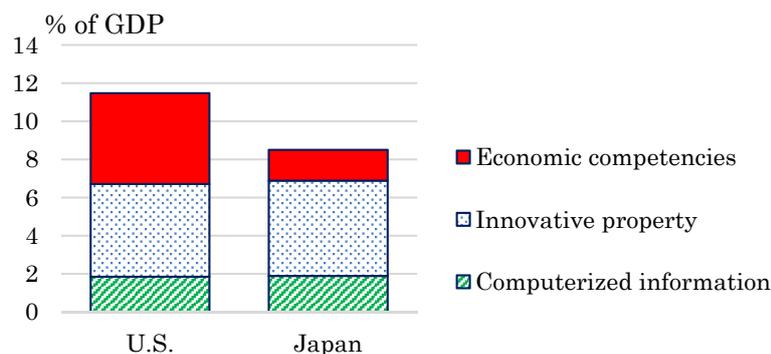
The first is that the US and China compete by economic power. China has been chasing developed countries at a high growth rate, and will overtake the United States on an economic scale once by the early 2030s, but then it will turn rather stagnant thereafter. By 2030, the population will begin to decline, and it will be difficult to increase productivity through the adoption of new technologies as the gap with developed countries narrows. Furthermore, closed systems such as preferential policies for domestic companies and restrictions on data export to abroad adversely affect productivity. As a result, the United States will catch up again and compete by 2060.

The second is the Japanese economy's diminished presence in the world. Japan's GDP will be overtaken by India in the 2020s and will be overtaken by Germany in the 2040s. Japan faces rapid aging and population decline while India continues to grow in population until 2060. Germany has low barriers with European Union countries and maintains an open system for trade and investment which leads to high productivity growth.

Japan's population will be reduced to nearly 100 million by 2060, and the ratio of people aged 65 and over, which now account for about a quarter, will account for nearly 40%. The number of workers will also decrease and get older on average. Japan falls behind other countries in growing digital services, especially its exports. While the United States has been expanding exports of publishing and video and professional services, the UK finance and India IT services, Japanese digital service exports has been small and growing less rapidly.

In addition, Japan's intangible investment is biased towards software and research and development, and the accumulation of intangible assets is smaller in area such as business model that enhance economic competencies than in other countries. Data in areas such as health and medical care, which should be abundant in the aged society like Japan, has not been utilized yet. For example, in the United States, there is a system in which one can obtain their health records and prescription history from medical institutions and pharmacies, while in Japan the use of medical information by third parties is still limited.

Intangible investments in U.S. and Japan (2012)



Sources: Calculated by JCER based on JIP Database 2015; INTAN-Invest; SPINTAN; and SNA statistics

In order for Japan to make up for the delay and overcome stagnation, it is essential to accelerate its response to the digital economy. If intangible investment is increased by 5% of GDP to a ratio higher than the US by 2060, the growth rate will be increased by 0.3 points, and positive growth can be maintained. The framework of data sharing holds the key to its realization.

By opening the door to new entrants without embedding the data in some operators, the possibility of creating new added value is increased, which also has the effect of promoting healthy competition. For example, by connecting bank client transaction information to an external system so that a third party can share it, it is possible to promote fintech's service development that integrates finance and IT, such as asset management applications.

The free flow of data across borders is also an important condition for international business. Electronic commerce and payments with foreign companies and people also involve the exchange of data. It can be said that the global value chain for sharing manufacturing processes and operations across borders and

efficiently providing production and service is also an intangible asset, and data is essential for its construction and maintenance. "Localization," which restricts data outflows, increases the cost of cross-border business and disrupts overall trade.

Protectionism is spreading with the emergence of Trump administration. In developed countries, as the proportion of manufacturing industries declines, stable employment is lost, and income inequality tend to widen with digitization. If trade wars intensify and the economy becomes blocked as in the period before World War II, there is no denying the risk that the global economy will shrink and fall into a "great stagnation."

According to the "Protectionist scenario" forecast in which the U.S. and U.K. regulate immigration and severely restrict data circulation, the entire world, including the U.S. and China, will experience negative growth. In that case, Japan which relies on external demand on the back of population decline and aging, may not only reduce the size of GDP but also greatly reduce per capita GDP.

In order to avoid such nightmare scenarios, it is essential not only to maintain openness but also to take measures to correct wealth and income disparities. As the globalization of the global economy progresses, the income of companies utilizing intangible assets such as data will increase. On the other hand, the share of the distribution to workers through wages may be smaller and labor share of income may decline. In order to reduce the widening income gap and to prevent the division of society, updating of "Digital capitalism" is required, such as the creation of a system of income distribution to individuals as producers of data.

(This is a translation of the article which appeared in the July 26, 2019 issue of the Nikkei.)

The content of this report may not be copied without permission from JCER.  
Please inquire with the General Affairs and Business Department for further details.

© 2019 JCER

---

Japan Center for Economic Research (JCER)  
Nikkei Inc. Bldg. 11F 1-3-7 Otemachi, Chiyoda-ku, Tokyo 100-8066, Japan  
Phone: +81-3-6256-7710 / FAX: +81-3-6256-7924