Fifty-year history of the global economy and outlook for the future

Yukio Noguchi
Professor Emeritus
Hitotsubashi University

1. Introduction

Japan is facing a stagnation of its economy and a decline in its international status. These problems, however, did not come about overnight. They have been going in for over 20 to 30 years.

Therefore, dealing with these phenomena entails looking back at the past and finding out where the problems occurred. In this paper, I will look back on the history of Japan in the global context since the 1970s and see how the industrialization of China and the IT revolution had been major turning points during this period of history. I will also pinpoint where Japan's response to these major events went wrong.

In addition, I will look into the future and think about the changes in Japan's position in the global stage.

2. Overcoming the oil crisis and into the era of Japan

◆ Exhaustion of developed countries due to the oil crisis

Japan joined the ranks of developed countries in the early 1970s. Comparing per capita GDP in dollars between Japan and the United States in 1970, that of the U.S. was about 2.5 times that of Japan. However, after the shift to a floating exchange rate system in February 1973, per capita GDP of Japan rapidly increased, and by 1973, the U.S.-Japan per capita GDP ratio had decreased to about 2.

The two oil crises in the 1970s hit the world's industrialized countries hard. Until then, economic development had been dependent on "cheap crude oil". Japan, which has no oil resources, was severely affected.

Although the Vietnam War had ended, the U.S. had difficulty recovering from its aftereffects. In the wake of the Watergate scandal, the economy also plunged into a state of stagflation. Furthermore, racial issues also escalated.

The UK was also severely affected by the oil crisis. Overall, the 1970s was a time of hardship for industrialized countries.

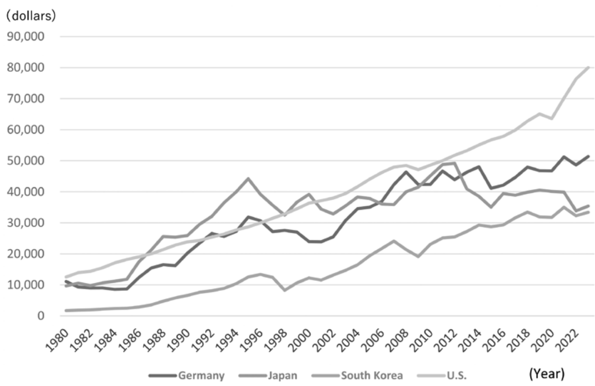
◆ Enter the 1980s, the era of Japan

Socialist states started to collapse at the end of the 1980s. The U.S. economy was also in a slump.

Japan, on the other hand, overcame the oil crisis and increased its weight in the global economy. Japanese products, including passenger cars, swept the global market. During her visit to Japan, British Prime Minister Margaret Thatcher was enthralled by Japan's robotics technology. Japan became the focus of attention at international conferences. The world wanted to emulate the Japanese way of doing things. It was the beginning of the "Era of Japan."

A bubble in stock and real estate prices then occurred. Looking at the world market capitalization rankings, Japanese companies and banks were at the top by the late 1980s, ranking higher than American companies.

Figure 1 shows the changes in per capita GDP from 1980. In the early 1980s, Japan was almost at the same level as the U.S. and Germany, but then it surpassed them by 1987 (Figure 1).



Source: Made by the author from IMF data

Figure 1. Trends in per capita GDP

3. Japan's failure to cope with China's industrialization and the IT revolution

◆ Halt of Japan's growth

As shown in Figure 1, Japan's per capita GDP grew at a high rate until the early 1990s. However, from the mid-1990s, the growth almost stopped. The refraction of its growth rate was remarkable.

From the 2000s, Japan's per capita GDP was overtaken by the U.S., and in 2013 it was overtaken by Germany. It is important to note that while those of other countries continued to increase, Japan's per capita GDP became almost stagnant since around 2000 and has declined since around 2013. On the other hand, South Korea has been steadily growing, so that the difference between Japan and South Korea has recently become almost negligible.

◆ The industrialization of China, rather than the collapse of the bubble economy, was the root of the problem.

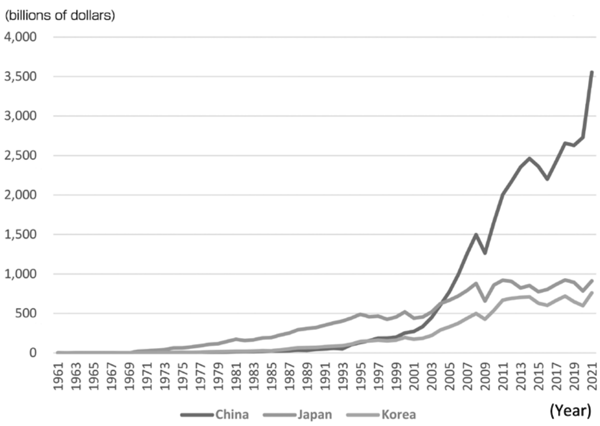
What was the reason for the refraction of Japan's growth rate?

Many people argue that the slump in Japan's economy was caused by the bursting of the bubble. However, even though the bursting of the bubble was consequential, its direct effects were mainly on financial institutions. The economic downturn of Japan had in fact been brewing for some time, and it could be said that the bursting of the bubble had only made it more apparent.

So, what was the problem? To delve into this, let us look at the trends in the value of exports of goods and services by Japan, China, and South Korea in Figure 2. The figure shows the remarkable growth of China. In the 1980s, China's exports of goods and services were already at the same level as that of South Korea (but Japan was about a single digit higher than that of China).

Then, in the latter half of the 1990s, China overtook South Korea. At the beginning of the 2000s, China reached the same level as Japan, eventually surpassing it by the latter half of the 2000s. Japan's exports, which had been increasing steadily until then, had stopped growing.

Recently, China's exports have increased to about four times that of Japan. Meanwhile, Korea is catching up with Japan amid the sluggish growth in Japanese exports.



Source: Made by the author from World Bank data

Figure 2: Trends in exports of goods and services

◆ The industrialization of China has lowered Japan's position in the global trade.

In principle, there were two alternative measures to deal with the industrialization of China. The first was to lower prices and compete with Chinese products in terms of price. The second was to differentiate from Chinese products by developing competitive technologies and business models.

Japan resorted to the first measure, i.e., to compete with Chinese products in terms of price. Doing so required reducing prices of exports in dollars. To achieve this, domestic wages were kept low, and the exchange rate was guided toward a weaker yen.

The push for a weaker yen began around the latter half of the 1990s. And from 2001, Japan actively intervened in the foreign exchange market, inducing a weaker yen exchange rate. The yen, in fact, depreciated during 2001 as a result of these interventions.

◆ What was needed was a shift to a new industrial structure in response to the industrialization of China.

There was no way for Japan to beat China through price competition. Until the 1990s, Chinese wages were so inexpensive for Japan that they could be described almost free. The per capita GDP in 1995 for Japan was 44,210 dollars, while that of China was only 603 dollars. It was impossible for Japan to compete by creating the same products made by a country with such a low wage rate.

As a result, the traditional Japanese manufacturing industry lost its competitiveness. Initially, its effects were only felt in the light industries for miscellaneous commodities, but the progress of industrialization in China eventually affected the steel industry. Its impact then extended to household appliances.

To cope with the industrialization of China, what Japan should have done was shift to a new industrial structure. It needed to change its business models and shift to manufacturing high value-added products. It should have specialized in products that would sell even if they were expensive, in high-quality products, and/or in products with no competitors, and to explore opportunities in new fields. Ultimately, what Japan needed to do was to differentiate itself from China.

◆ America's success in bringing about the IT revolution

The industrialization of China has lowered the status of industrialized countries. Although Japan was the most affected, all other industrialized countries were also greatly affected.

Some countries, however, have succeeded in transforming their industrial structure. This is exemplified by the U.S..

In the U.S., the high-value service industry grew and replaced the manufacturing industry as a driving force for the economy. This ushered in the IT revolution. Also, the trend toward fabless manufacturing (manufacturing without factories) advanced.

Ideally, Japan should have promoted industrial structure reform and bring about the same kind of changes. In Japan, however, although the contribution of manufacturing declined, no industry to drive the economy emerged to replace it. The shift to fabless manufacturing also did not progress.

Ultimately, the reason why Japan has stagnated since the mid-1990s is that it was unable to properly respond to the industrialization of China and the IT revolution.

4. Looking into the future of the world and Japan

◆ Populations are increasing in some countries and decreasing in others.

Population estimates are the starting point for envisioning the future of the world. Since the majority of the future population is already born, fairly accurate projections can be made on the population.

In Japan, estimates are made by the National Institute of Population and Social Security Research (IPSS)[1]. According to these estimates, the population between the ages of 15 and 64 will be 62.13 million in 2040 (median birth and median death estimates). This is only 82.7 percent of the 75.09 million in this demographic in 2020.

As for the world population, the United Nations conducts future population projections[2]. The population ranking in 2050 is projected to be as follows:

1st: India, 1.67 billion; 2nd: China, 1.313 billion; 3rd: Nigeria, 377 million; 4th: U.S., 375 million; and 5th: Pakistan, 368 million.

Japan ranks 17th with 104 million. Although Japan's population is decreasing, this decline is not unique to Japan. South Korea and China will also decline. However, the decline in Japan is much more severe than in these countries. Meanwhile, some other countries will increase their populations. Those of India and Indonesia will increase significantly. Somewhat surprisingly, the population of the U.S. will also increase.

[1] National Institute of Population and Social Security Research, Population Projections for Japan, April 2023

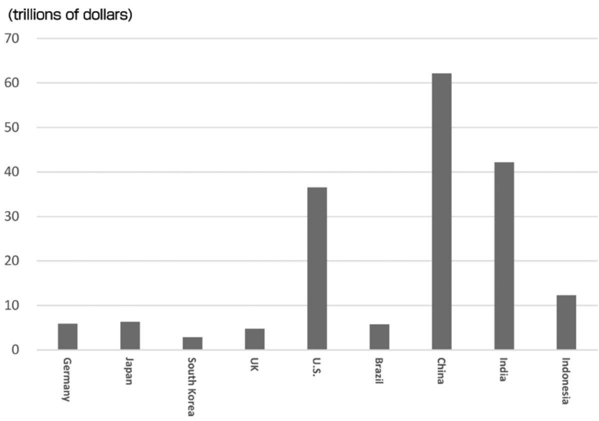
[2] United Nations, "World Population Prospects 2022."

◆ Drastic changes among the world's largest economies

Several projections have also been made regarding future economic growth. The most detailed forecast of the global economy is that by the OECD[3].

Figure 3 shows the GDP of major countries in 2060. Currently, Japan's GDP is the third largest in the world after the U.S. and China, but this will change dramatically in 2060. While the GDP of the U.S., India, and China will grow significantly, that of Japan will be about one tenth that of China. Meanwhile, the GDP of Indonesia will become larger than that of Japan.

Although the GDP of Japan, Germany, and the UK will become about the same, the populations of Germany and the UK will be much smaller than that of Japan, so in terms of per capita GDP, Japan is forecast to be much lower than these countries.



Source: Made by the author from OECD data

Figure 3. GDP in 2060

Japan's position in the global economy will be very different from what it is now. In the future, Japan will become a rather ordinary country, both in terms of GDP scale and per capita GDP, a nation no longer considered warranting special treatment. Although Japan's per capita GDP is currently lower than those of the U.S. and European countries, its large economic scale makes it noteworthy and deserving of attention in various areas. However, from now on, Japan as a country will not be particularly prominent in terms of size.

This has an important implication in the area of security. Since military power tends to be proportional to the size of the economy, the balance of power in the future will likely be quite different from what it is today. For example, assuming that military power is proportional to military expenditure, China can enhance

[3] OECD, "Long-term Baseline Projections, No.109" (Edition 2021)

its military power by several fractions of Japan's defense capacity by only slightly shifting its military expenditure as a percentage of its GDP. No matter how much Japan increases its defense expenditure, inevitably, it will be completely meaningless.

In such a world, it is highly improbable that Japan will be able to achieve security with military force alone. We need to break away from the thinking that security can be achieved through increased defense spending. Also, as the yen depreciated further in 2022, Germany's GDP became almost equal to that of Japan, wherein Japan is now on the brink of losing its position as the third-largest economy in the world. According to the OECD estimates shown here, Japan's GDP will remain larger than Germany's in 2060.

◆ Continued aging of Japan

The biggest issue when considering the future of Japan is how to deal with its aging population. According to estimates by the IPSS, the ratio of the population aged 65 and over to the total population will be 37.9% in 2060, up from 28.6% in 2020. An increase in the elderly population means an increase in social security expenses, such as medical care and nursing care pensions. Since there is no clear funding allocated for these expenses, the maintenance of the social security system will likely become a problem.

Looking at the economy as a whole, there will be a need to increase the labor force participation rate of women and the elderly to deal with the decline in the working-age population. However, that alone is not enough, so Japan must also increase the number of its foreign workers. However, as Japan's position in the global economy declines, it is doubtful whether it will be able to secure the necessary labor force from abroad.

◆ The need for a negative growth strategy

In 2018, the Cabinet Office, the Cabinet Secretariat, the Ministry of Finance, and the Ministry of Health, Labour and Welfare compiled a report on long-term projections for social security[4]. The report projects the number of workers in the medical and welfare sectors as follows. In fiscal 2018, 8.23 million people were employed in these sectors. This is 12.5% of the total workforce of 65.8 million. By fiscal 2040, however, it is projected that this number will rise to 10.65 million, which represents 18.8% of the total workforce of 56.54 million.

This means that the number of workers in industries other than the medical and welfare sectors will continue to decline. Quantitative growth, therefore, cannot be expected in these industries. As such, a management strategy based on growth will not work. This points to the necessity of establishing a business model for negative growth.

But can we, in fact, sustain this kind of unusual economic structure? We need to seriously consider what to do from now on.

5. Conclusion

What do we need to do to deal with the situation we have just looked at? Most importantly, Japan must improve its productivity. To this end, digitalization plays a significant role. A significant development has in fact recently occurred in relation to this—the advent of generative AI (large-scale language models). By making good use of this technology, we should be able to increase economic efficiency dramatically.

This is not an easy task, however. The lack of progress in digitalization in Japan is not only due to technical factors, but often the real cause lies in Japan's organizational and social structures. Therefore, we need to institute reforms in these areas.

(References)

1. Ezra F. Vogel (translated by Chisako Masuo and Takashi Sugimoto), "Deng Xiaoping and the Transformation of China," Nikkei Publishing, 2013.
2. Tony Judt (translated by Atsushi Morimoto) "Postwar: A History of Europe Since 1945," Misuzu Shobo, 2008.
3. Martin Maria (translated by Hideko Shirasu), "The Soviet Tragedy: A History of Socialism in Russia, 1917-1991," Soshisha, 1997.
4. OECD, "The Long View: Scenarios for the World Economy to 2060," 2018

Author Introduction

Yukio Noguchi graduated from the Faculty of Engineering, the University of Tokyo in 1963. He joined the Ministry of Finance in 1964. He received his Ph.D. in Economics from Yale University in 1972. After serving as Professor at Hitotsubashi University, Professor at the University of Tokyo (Director of the Research Center for Advanced Economic Engineering), Visiting Professor at Stanford University, and Professor at Waseda University among other positions, he is now an Professor Emeritus at Hitotsubashi University. His major is Japanese Economy.

4 Cabinet Office, Cabinet Secretariat, Ministry of Finance, and Ministry of Health, Labour and Welfare, "Future Outlook of Social Security for 2040," 2018.