Researchdigest

Research Digest is a clear and concise summary of main points and issues with policy implications that have been raised in RIETI discussion papers.

The Structural Causes of Japan's "Two Lost Decades"

Faculty Fellow, RIETI
Professor, Institute of Economic Research, Hitotsubashi University

Kyoji FUKAO

The "lost decade" is a term popularly used to describe the Japanese economy of the 1990s, the period following the bursting of the country's economic bubble. Yet even after the problems of nonperforming bank loans and damaged balance sheets were corrected in the early 2000s, growth has not been able to return to the level of the pre-bubble era. This has prompted Faculty Fellow Kyoji Fukao and his colleagues to call the period since the bursting of the bubble the "two lost decades," analyzing Japan's structural problems from a long-term perspective.

The U.S. economy enjoyed steady growth during the 1990s and 2000s, with sharply increased labor productivity through information and communications technology (ICT) innovations. In contrast, ICT investment in Japan has been surprisingly limited. Leading companies have been increasing total factor productivity (TFP) through aggressive R&D and internationalization since the mid-1990s. Prof. Fukao points out that to exit its long period of economic stagnation, Japan needs to make changes that would allow productive companies to expand their market share, and small and medium enterprises (SMEs) to increase productivity.

▸▸▸Personal Data

Professor Fukao's expertise includes international economics, macroeconomics, international trade and direct investment in Asia, innovation and total factor productivity. He obtained an M.A. in Economics from the Graduate School of Economics, the University of Tokyo. Prior to his current position from 1999, he served as an associate professor at the Institute of Economic Research, Hitotsubashi University and a lecturer for the Department of Economics, Seikei University. He concurrently serves as a chief research fellow of the Asian Study Division, Japan Center of Economic Research (JCER) and a member of the Statistics Commission, Cabinet Office (Deputy Commission Chair).
Major works: *Productivity and Japan's Economic Growth: Industry-Level and Firm-Level Studies Based on the JIP Database* (co-editor: T. Miyagawa), University of Tokyo Press, 2008.

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Analyzing demand-side problems

—— What motivated you to analyze the structural causes of the two lost decades?

The 1990s, which followed the collapse of the economic bubble, were often called the "lost decade." But even since 2000, economic growth in Japan has underperformed the 1970s and 1980s. Although problems that came to light after the bubble collapsed, including nonperforming loans at banks and damaged balance sheets, were basically resolved, the economic growth has not recovered to the levels before the bursting of the bubble. I think there have been structural problems in addition to bad-debt problems and damaged balance sheets, and I believe that a numerical assessment of the structural problems from a macroeconomic point of view is vital.

In discussions about getting growth back on track, some argue that if the Japanese economy pulls itself out of deflation, demand will recover, and the economy will return to growth. However, we need to check again whether investments really have been too small in the 20 years since the bubble burst and consider why labor productivity growth has been sluggish.

In order to do this, data gathered over a long period of time is necessary. As this data is now on hand, we are able to conduct our analyses.

Since 2007, I have been participating in a research project run by the Cabinet Office entitled, "The Japanese Economy and Economic Policies in the Bubble and Deflationary Periods." I have chaired the "Macroeconomics and Industrial Structure" team. Upcoming economists conducted some very clear analyses, but unfortunately we did not discuss how individual macroeconomic problems, including bad loans and deflation, affected economic stagnation and how demand will recover if the problems are solved.

We have sought to analyze problems on the demand side and to include empirical analyses at industry and corporate levels, taking a longer view.

Gathering data for international comparison

—— What kinds of data did you use in your analyses?

We used the Japan Industrial Productivity Database (JIP) and EU KLEMS database in addition to firm-level micro data of the Ministry of Economy, Trade and Industry (METI), because labor productivity, which plays an important role in economic growth, differs across industries and also varies in the same industry in different countries.

JIP is a database that RIETI manages jointly with the Global COE Program of Hitotsubashi University. It classifies all industries into 108 categories and shows the growth of the Japanese economy on the supply side in terms of productivity, industrial structure, oligopolies, among other factors by category. Since the preparation of data from 1970 to 2006 is complete, we can analyze the data over the long term. EU KLEMS is a database mainly about European economies financed by the European Union. The database was created a few years after the creation of JIP. KLEMS is an acronym referring to capital (K), labor (L), energy (E), materials (M), and services (S). The database measures investments required for production and thereby shows productivity by industry. EU KLEMS uses JIP data relating to the Japanese economy, after adjusting JIP data so that international comparisons can be made.

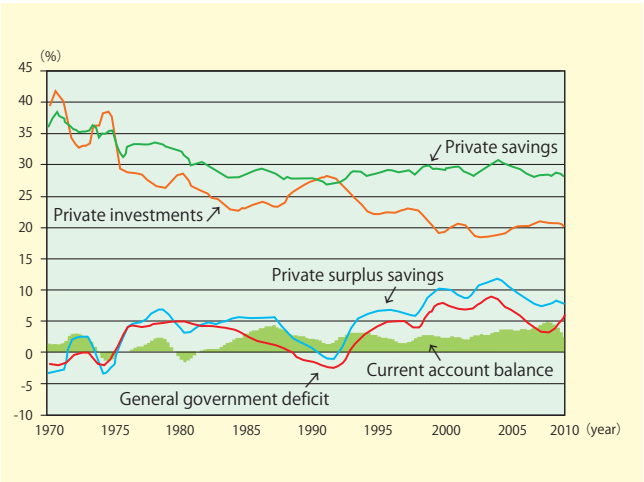
EU KLEMS also provides data from Harvard University and the KIP database of South Korea, enabling users to compare data for different countries. Although the EU KLEMS project itself ended after three years, several projects are in progress to carry on the work.

Surplus savings created bubble

—— What are the causes of the long period of weak demand in Japan?

Weak demand in Japan has been caused by continued surplus savings since the mid-1970s. Economists have been explaining that there is a demographic reason for the high private savings rate in Japan: the baby boomers were saving for retirement. Even after the baby boomers retired, however, the savings rate did not decline. Looking at the relationship between savings and investments, investments began to fall in the mid-1970s to become surplus savings.

Figure 1: Changes in the savings-investment balance in Japan



Source: Data created by Mr. Ryutaro Kono at BNP Paribas Securities (Japan); original data are extracted from the National Accounts of the Cabinet Office.

"What's wrong with surplus savings?" This question arises from a standpoint of international economics, because surplus savings are invested overseas, and as a result, current-account surpluses balance the goods markets. However, this mechanism did not work in Japan.

In the mid-1970s, when world economies sought to overcome the global economic downturn in the wake of the first oil crisis, the "locomotive theory" was put forward, namely, that Japan and Germany should become the locomotives of the world economy. With intensifying trade friction between Japan and the United States accompanying this theory, the yen appreciated, and the focus of Japanese policies shifted to domestic demand expansion, as symbolized by the Maekawa Report in 1986. Surplus savings were not fully used for investment abroad.

The bubble economy also resulted from surplus savings. Keynesian theory says that there are only three policies for using surplus savings: (1) to compensate for budget deficits; (2) to invest abroad; or (3) to promote private investment by lowering interest rates. If none succeed, the theory says surplus savings will cause an economic downturn. The Japanese government chose to promote private investment by lowering interest rates to counter the appreciation of the yen, and this resulted in the bubble economy.

Surprisingly limited ICT spending

—— Were there any problems on the supply side, including capital and labor?

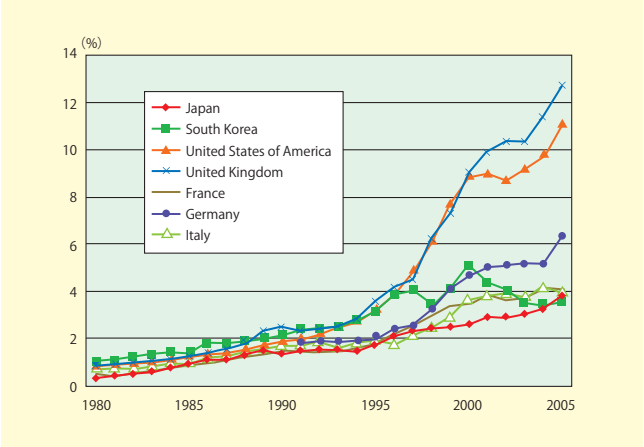
The capital-labor ratio has been rising during the two lost decades. This makes it unlikely that a lack of

investment was the culprit for the weak growth.

In the United States, ICT investments in the distribution and service industries since the mid-1990s have accelerated increases in productivity.

In contrast, using the EU KLEMS database to compare Japan with the United States and Europe, it is revealed that there is active non-ICT investment in Japan and surprisingly little spending on ICT compared with levels in Europe and the United States. We believe that this low ICT investment was one of the causes of sluggish growth in Japan.

Figure 2: Ratio of ICT investments in GDP in major industrial countries



Source: Fukao, Miyagawa, Pyo and Rhee (2009), original data are extracted from EU KLEMS Database March 2008, JIP Database 2008, KIP Database

Another factor is declining working hours per capita. There has been little discussion about this factor as a cause of relative declines in Japan, but working hours fell sharply compared with the United States. The main reason for declines up to the mid-1990s was the effect of the revision of the Labor Standards Act in 1987. Other reasons could include reductions in working hours in association with increases in the number of part-time workers and insufficient use of older employees by businesses that were not able to respond to the aging of the population. Reductions in working hours could also reflect choices by workers themselves.

Large companies losing only five years

—— What was behind sluggish TFP growth in Japan in the 1990s and thereafter?

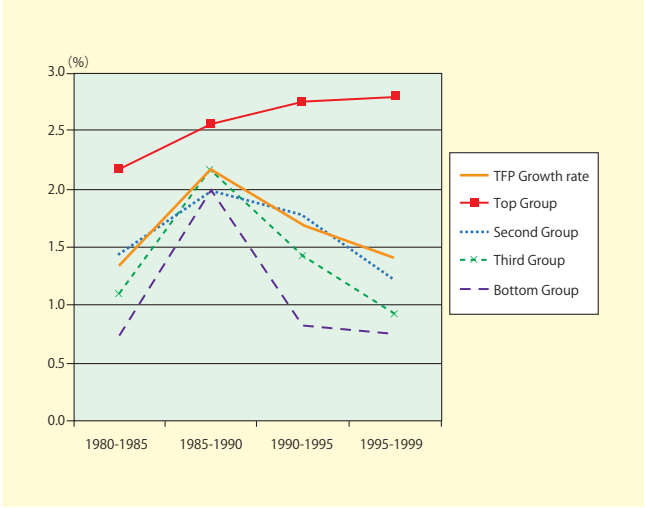
In the non-manufacturing sector, TFP growth was sluggish even before the bubble. The only exception was during the bubble economy itself. In the manufacturing sector, by contrast, many companies have set up systems emphasizing frontline workers and enhancing productivity—systems unique to Japan. The equivalent systems have not been established in non-manufacturing industries. That is considered to be a cause of weak TFP in the non-manufacturing industries.

The manufacturing industry can be separated into large companies and SMEs, and at large manufacturers, TFP growth from the mid-1990s actually outpaced any increases in the 1980s, a reflection of active R&D and internationalization. In other words, TFP growth returned to large companies in the manufacturing sector after an interval of only about five "lost" years. So for these companies, there was no lost decade, let alone two.

Overall, however, TFP growth was sluggish in Japan, since productive large companies did not expand their market share. Job security has priority in Japan, and as a result, the costs of opening and closing business establishments are high. The data suggest, however, that large companies actually made surprising

reductions to their workforces, while their subsidiaries added workers. Since average labor costs were lower at subsidiaries than at the parent companies, parent companies often transferred their employees to subsidiaries in order to cut labor costs. Meanwhile, productivity is generally lower at subsidiaries than at parent companies, and overall productivity consequently did not rise when employees and work were transferred from parent companies to subsidiaries.

Figure 3: TFP growth rate by size of business according to industrial statistics (annual rate)



Another factor was that production did not expand in Japan, because large companies readily transferred production to foreign countries.

Productivity did not rise at SMEs, since R&D was concentrated at large companies, with little undertaken at SMEs. One reason might be that large companies reviewed their vertical affiliations and reorganized transactions with SMEs during the difficult economic times in the wake of the bubble, and technology transfers from large companies to SMEs stalled. However, this is only speculation. We need to obtain data on business relationships over the long term to verify the hypothesis.

—— What are the policy implications of your research?

Many problems are related to labor issues. First, let me explain about ICT spending. The levels of ICT investment in Japan are lower than in Europe and the United States and could be linked to insufficient returns on investments.

Japanese companies invest more in customized software that only they can use, instead of highly versatile package software. Many companies can use low-priced package software in the United States because their organizations are flexible and can be reorganized. U.S. companies can change their organizations to suit the software.

In contrast, Japanese companies are comparatively inflexible, and it is difficult for them to modify their organizations in response to the requirements of software. Consequently, Japanese companies use primarily customized software, enabling them to keep their organizations as they are. Since customized software is expensive and is not competitive, Japanese companies do not often make major ICT investments.

U.S. companies often outsource part of their operations to other companies that can do the job more efficiently. In Japan, large companies outsource operations to subsidiaries, which also receive workers from the parent companies. Since these companies are not shifting operations to companies that can handle them more efficiently, productivity does not improve. Naturally, we understand the motive that companies have to protect jobs. However, the current system at Japanese companies will not improve efficiency. A similar problem is apparently arising in Germany as well.

If companies depend on part-time workers to reduce personnel costs, they do not accumulate human capital, because part-timers do not have the chance to improve their skills through in-house training. Japanese companies secure jobs for regular employees, even if they transfer them to subsidiaries, while hiring part-time workers. Is this segregation of employees appropriate? We believe companies should look for intermediate employment patterns.

Making the most of elderly people could be another option. At present, the only pattern seems to be re-employment after retirement for uniformly low salaries. However, there should be systems that enable working hours and salaries to be determined more flexibly.

The high costs of closing business establishments form one reason why industry does not change. If companies can close unprofitable establishments and expand profitable operations more easily, overall productivity will rise. Relaxing entry regulations is important to promote innovation in industry.

Sluggish TFP growth in SMEs also needs to be addressed. As opportunities for technical transfers from large companies are declining in association with reviews of vertical affiliations, policies to promote the internationalization of SMEs and their own R&D efforts, instead of policies to protect SMEs uniformly, are necessary.

In policymaking, it is also important to look at demand. With generation surplus savings there is a large supply-demand gap as a result of declines in foreign demand during the global economic downturn that took place after the fall of 2008. In other words, Japan has large surplus production capacity. In such circumstances, the Japanese government needs to take steps to stimulate demand in earnest, as the U.S. government has done.

Because Japan has been chronically generating surplus savings, the focus should be on how to address the current-account surpluses and how to achieve an external balance. I have heard that China, which is clashing with the United States over currency control, is seriously studying Japan's experiences in the 1980s.

Demand being weak across the world, Japan alone cannot keep current-account surpluses. Whatever the case, the government should consider putting a control tower in place that will give directions on exchange rates and the way in which surplus savings in Japan should flow back to foreign countries. Future subjects include financial crises and TFP.

—— What issues do you plan to look at it in the future?

I need to thoroughly analyze why industrial innovation is not progressing.

I would like to analyze the connection between financial crises and long-term sluggish TFP growth. The financial crises include the Great Depression that began in 1929, the currency crises in East Asia in 1997 and 1998, and the financial crises of Latin America. I am considering international comparisons based on Japan's experiences.

Another subject is corporate networks and technical transfers. How should we understand technological issues? TFP at large Japanese companies did not fall because they have been aggressive investors in R&D. The problem lies in SMEs, where TFP declined due to a lack of R&D. I would like to verify whether the root cause was the review of vertical affiliations in large companies.