US-Japan Forum 2017:
Economic Policy Challenges in the US and Japan

On June 2, 2017, the 2017 US-Japan Forum was held at Stanford University. The forum started with opening remarks from Takeo Hoshi, Director of the Japan Program at Stanford's Asia Pacific Research Center (APARC), and Kazumasa Kusaka, Chairman and CEO of the Japan Economic Foundation (JEF). The forum discussed three main topics: growth strategy; populism, globalization, and social equity; and technology innovation.

Session One: Growth Strategies of the US and Japan

The first session provided an overview of the current status of the Japanese economy. The real side of the Japanese economy is doing well: the economy expanded by 2.2% in the first quarter of 2017, above the expected growth potential; with an unemployment rate of 2.8%, Japan is close to full employment; nominal wages also increased by 2%; and although the working age population has been declining by 1% each year, it has been made up by increasing labor force participation of the female and elderly. In particular, female labor force participation rate has reached a historical high, even surpassing that of the US.

Yet the Japanese economy is also facing challenges. First of all, the inflation rate is still near zero, suggesting that Japan's QQE policy might be reaching its limit. Secondly, the Japanese government has high fiscal deficits, with a debt-to-GDP ratio as high as 240%. Meanwhile, despite the increase in nominal wages, real wages are not rising enough, which can lead to weak domestic consumption. Finally, Japan continues to face a severe labor shortage problem due to its demographic transition.

To address the above challenges, the third arrow of Abenomics, namely the growth strategies to increase productivity and wages, was proposed. Several key areas were pointed out that need structural reforms. First of all, Japan needs to improve the global competiveness of its workers through education and labor reforms, in particular, by increasing the workers' English proficiency and IT skills, as well as by introducing a more flexible hiring and firing system. Secondly, to optimize capital allocation, Japan needs a capital market reform to improve its corporate governance and pension fund management. Thirdly, Japan needs to further open up its domestic market, especially its agriculture sector such as the rice and dairy product industries, to promote international trade. Finally, the medical and healthcare industry also needs a reform to lower Japanese people's medical expenditure but not lower the quality.

Following the topic of debt, a model of how excessive debt in the private and public sector can lead to persistent stagnation was proposed after a review of Japan's debt problem in history. During the high growth era in the 1980s, Japan's debt problem took the form of asset bubbles. After the bubble economy collapsed in the early 1990s, the Japanese economy was then plagued by non-performing loans. And as the non-performing loans problem began to be resolved in the early 2000s, Japan's public debt has been rising since then and is exploding in the 2010s. A new model was then developed in which excessive debt can depress the economy persistently and simulation results were shown in comparison to the US and Japanese economic data.

This model then has several policy implications for economic growth. Since private-sector debt may cause persistent stagnation, like the case of Japan in the 1990s, debt reduction may be the direction to go for. In particular, for corporate or household debt, bank recapitalization and write-off of non-performing loans as well as debt forgiveness and restructuring of the borrowers could be helpful. On the other hand, for public debt which may also cause persistent stagnation, fiscal consolidation is the way out. Nevertheless, the current policymakers may not have the incentive to implement fiscal consolidation since it is an inter-generational investment by nature: while the current generation pays the cost, i.e., higher tax, it is the future generation that enjoys the return, i.e., economic stability. Therefore, it is necessary to have a political reform to create an independent fiscal agency that represents the interests of the future generation.

Management practice is another area that speaks to the third arrow of Abenomics aimed to increase productivity. The World Management Survey (WMS) dataset provides valuable information. This survey is carried out by a 30-person survey team every three years and has covered more than 20,000 firms since 2002. There are three key components of the survey methodology. First, researchers developed scorecard for 18 management practices, covering such topics as track of performance, targeting, and the promotion system. This information is then collected through a 45-minute phone interview with the plant managers. Second, to get firms into the interview, this survey is introduced as a "lean-manufacturing" interview without any financial details. Meanwhile, this study has received official endorsement, such as from the Deutsche Bundesbank, the Reserve Bank of India, the World Bank, etc. Third, this survey uses a "double-blind" method to obtain unbiased comparable responses: interviewers do not know in advance the company's performance and managers are not informed in advance that they are scored.

The survey results reveal the impacts of management practices on economic performance. Overall, a huge spread is found in management practices across firms and countries. Furthermore, the management scores are positively correlated with measures of firm performance such as productivity, profit, output growth, export, R&D per employee, and patents per employee. To examine whether a causal relationship exists, the researchers then conduct a randomized control trial and find that on average management practices account for 31.4% of total factor productivity. For Japan, however, this number is only 8.82%, far below other OECD countries.

This project also has policy implications. First, foreign direct investment should be encouraged, because multinational firms tend to bring good management practices to wherever they are located. Second, since family-run and government firms are found to have poorer management, promoting professional ownership can be helpful. Third, raise the education level of both non-managers and managers, as higher education seems linked to better management. Finally, deregulation may also help, as more regulations are correlated with less effective management practices. In particular, it is suggested that attracting multinationals and minimizing regulations are more relevant for Japan, while the U.S. should consider improving education and also minimizing regulations.

The first session concluded with a comparative analysis on growth strategies in the US and Japan. The reason why growth is important is that it helps solve the problems of debt, income inequality, among many others. As an example, the work of Raj Chetty shows that while growth is slow, the ability of children to surpass their parents drops significantly.

Then a comparative overview of growth around the world was provided. First, it is emphasized that the US and Japan are still the richest countries in per capita terms, well ahead of other large economies such as China and India. Nevertheless, the contribution of developed countries to gross world product has indeed been diminishing. The decrease mainly comes from Europe and the share of Japan has remained almost the same.

There are several reasons why other countries have been catching up. On the one hand, the quality and quantity of labor in developed countries are not sufficient to sustain growth – they are not only falling behind in education, but also their people work less on average. Besides, the room for growth is much smaller today since most US and Japanese large firms have already adopted the good management practices that greatly increase productivity. On the other hand, Asia is developing rapidly because they are investing a lot in capital, labor, and technology. They are at an advantageous position as they can leverage the existing ideas in developed countries.

The first secession concluded by speaking to the future. Three different views of innovation were mentioned: the pessimistic view that all innovations are past, the positive view that technology is the key, and the classical knowledge diffusion view. In particular, attention was paid to the relationship between demographics and entrepreneurship. It seems that younger countries have higher levels of entrepreneurship, probably because younger people are more creative and they are not given enough opportunities in large companies. Finally, the policy package of the Trump administration was discussed. Among all the measures, tax cuts, deficit reduction, and deregulation in certain areas are on the agenda of Trump. Yet he is not doing enough on many key issues such as investment, trade, rule of law, good governance, and especially immigration.

In the Q&A session, participants discussed the key issue of how to increase the productivity of labor, capital, etc., in the US and Japan. For example, when answering the question why structural reform has been slow in Japan, one speaker mentioned how the political system had been unfavorable for reforms, and another speaker pointed out how the low interest rate had suppressed people's inventive to change. Much discussion also went around demographics and innovation. It is considered important to get older workers back into labor force. Participants also talked about the impact of automation. There is increasing skepticism as labor productivity seems to remain low despite technology improvement. Finally, it is mentioned that large companies may be one of the factors of declining entrepreneurship and therefore it is important to help small- and medium-sized firms do better.

Session Two: Globalization and Inequality

The second session started with a discussion on the definition of inequality from different perspectives. While economists view inequality as a problem because of the welfare loss from a utilitarian approach, common people perceive inequality as when they do not get things they deserve or someone get things they do not deserve. It is from this point that tension arises and why it is difficult to measure inequality both temporally and geographically. For example, it used to cost $2,000 to buy the Encyclopedia Britannica, but now everyone has free access to Wikipedia – and this change is not entering any economic statistics. Also, although there has been a trend of convergence among global population since 1976, it is only due to the catch-up of China and India.

Discussions also went around the causes of inequality in the era of globalization. The causes of the decline in manufacturing employment in the U.S. can be decomposed into several parts – manufacturing employment dropped from 30% to 12% because the U.S. failed to improve its education along with technology. The rate further dropped from 12% to 9% because of the fiscal policy mistakes during the Reagan and Bush administrations. The China shock then explains the decrease from 9% to 8.7% and the NAFTA accounts for the rest from 8.7% to 8.6%. That is to say, technology and education are the real causes of inequality, and globalization is just a scapegoat.

After an empirical description, the social and political implications of globalization and inequality were discussed. Two differences between the US and Japan as well as other OECD countries were pointed out. Firstly, poverty in the US is associated with ethnicity and political parties. For instance, although white males in the South are the largest beneficiaries of Obamacare, they voted against their own interests in favor of racial and ethnic minorities. Moreover, poverty is not the pure driver of inequality. Instead of the poorest population, it is the second-to-bottom class who lose their positions are most unsatisfied with the current situation. Secondly, inequality in the US is related to gender division. The official unemployment rate is 4.4%, yet male labor force participation has not risen.

The above issues have several consequences. Socially, the drop in male labor force participation has huge negative effects on families. Now there are a majority of white teenagers living with single mothers. Also, drug abuse has been rising and life expectancy decreasing in the past decade for the working class males. This change has further political implications. The Democrats used to rely on the working class voters, but now they are losing supporters to the Republicans. And identity could be the channel – it is the perceived unfairness rather than absolute poverty that affects voters' attitudes towards issues such as immigration.

Finally, discussion was also held about the varieties of populism around the world. It is argued that populism has not become a globalization problem because it takes different forms in different regions. In particular, two factors render populism less an issue in Asia. It is partly because there is no large-scale immigration in Asia, and partly because Asian country leaders, such as Xi of China and Abe of Japan, are good at mobilizing nationalism in a way such that identity is not a destabilizing factor.

More insights on globalization was then offered from an industry perspective. First, an overview about the manufacturing and service sectors in a globalized era was provided. For instance, the supplier map of an iPhone 6 or a Boeing 787 well demonstrates that globalization has been widely spread and deeply rooted in today's supply chains. Similarly, fast food chains such as McDonald's, fast fashion brands such as H&M, and IT service providers such as Uber and Airbnb also speak to the magnitude of globalization.

The current landscape of free trade agreements (FTAs) and regional cooperation is also mentioned. As of December 2016, there are 286 FTAs that are in effect, with additional 18 agreed but not ratified, 79 in negotiation, and 22 in preparation. In particular, although the US abandoned the Trans-Pacific Partnership (TPP), the remaining 11 nations are working together ahead while leaving the door open for the US.

Finally, the relationship between globalization and inequality was addressed. In the manufacturing industry, the utilization of cheap labors in developing countries might have deprived developed countries of blue-collar workers, but has also created profits for designers and managers. For example, the bulk of value-added of iPhones goes to the software engineers and designers in the US, while manufacturers in China receive a much smaller proportion. Similarly, the effect of globalization is also two-sided in the service industry. Although large multinational companies entering local markets might deprive local merchants of business opportunities, they are also bringing new business models and values.

This discussion raised two open-ended questions for discussion: first, whether globalization will slow down due to the political pressure as embodied in the rise of nationalism and anti-globalism in the US, Britain, France, etc.; second, it is proposed that inclusive growth is the solution to anti-globalism, but it is still unclear what inclusive growth stands for and how to achieve that.

In the open discussion session, questions focused on the implications of income equality and policy measures to achieve inclusive growth. Participants talked about the issue of the overclass. One speaker thought that superstar firms are not understood well, even though the overclass is not a new phenomenon. Another speaker said that American politics is increasingly dominated by the most powerful interest groups. It is also mentioned that the role of unions has been declining. As for how to address the problem, most of them referred to international examples such as Germany and East Asia.

Session Three: Is Technology the Answer?

The last session started with a discussion on employees' economic security and their innovation productivity. The discussion started by pointing out the limitation of the current conceptual framework, in which the relationship between household wealth shocks and employee innovation is ambiguous: some argue there is no effect, some argue for a decrease in innovation, yet still others argue there will be an increase in innovation. Then two empirical challenges of the study were mentioned: first, it is difficult to measure employee innovation output; second, it is unclear how to identify the effect of housing wealth shocks. The researchers overcome the difficulties by constructing a unique dataset that links employees' patent output with their housing transactions from deed records. Moreover, they identify home ownership of inventors and their precise residual location using deed records and then exploit zip-code level variation in housing prices.

Then the identification strategy and main results with different measures of innovation output were presented. The identification compares employees within the same firm and metropolitan areas to alleviate the concerns regarding variation across firms and geographical locations. The researchers first observe a decrease in innovation following housing price shocks using different metrics, such as number of patent, citation of patent, etc. They then find that inconsistent with the risk preferences channel, increases in housing prices are not correlated with employees' risk aversion. Instead, consistent with the decreased willingness rather than ability to innovate theory, decreases in housing prices lead to lower probability of employees' departure from the firm. It suggests that employees are less willing to innovate due to desire to maintain job security and avoid fault. It further suggests that employees have autonomy within firms to select projects, in support of the "bottom-up" innovation theory.

Finally, there are several additional results of the study. For example, it is found that employees with better outside option or more equity in the house are less sensitive to house price declines. On the other hand, increase in housing prices does not affect employees' innovation productivity.

As for the question if technology is the answer, several questions to which technology may be the answer, such as economic growth, productivity slowdown, income inequality, and sustained rises in real wages, were proposed. It is then emphasized that technological deployment and diffusion depends largely on specific social, economic, political, or technological context.

The idea of the "Algorithmic Revolution" was then introduced as the core driver behind innovation. It refers to the transformation of human activities with algorithms. In particular, once human activities are algorithms, they can be split apart, transformed, recombined, and magnified. Sharing economy, Agritech, Fintech, robotics, Internet of things, Artificial Intelligence, etc., all fall into this category. It is said that the algorithmic revolution is enabled by the transformation of computing resources from scare to abundant resource. Although human beings have the ability to store and process information throughout most of the history, it is the advent of computing power, such as the global-scale cloud computing technology, that transforms information into abundant resource.

Finally, artificial intelligence (AI) was discussed in details as an example to demonstrate the power of abundant computing. For example, Google's Deep Mind not only beat the world's best

Go players, but also optimized the cooling of Google's datacenters such that energy efficiency is increased by 40% and electricity consumption decreased by 15%. If such technology becomes available to the general public, such as in the form of a subscription service, the impact would be enormous.

In the end, the discussion addressed the debate whether AI could replace humans. One answer was that AI could be turned into IA, intelligence augmentation, so that low skilled workers would not be replaced by machines but rather provide high skilled work with the help of IA. Last not but least, it is also mentioned that the US and Japanese contexts are different: while the US is worried of technology robbing workers of jobs, Japan hopes to leverage technology to fill its labor shortage.

Technology's growing influence on business was also discussed. First, the results of an international survey of CEOs were introduced. Technological breakthrough is the top of the five global megatrends that are fundamentally disrupting business, with 86% of US CEOs saying that technological advances will transform their business over the next five years. The proportion of CEOs who expect their industries to be reshaped by technology becomes larger than 20 years ago.

The survey also showed how Japan is lagging behind by highlighting the results of Japanese CEOs. When asked about their confidence in their company's growth prospect over the next 12 months, only 14% of Japanese CEOs are very confident, lower than the 38% global average and actually ranking among the lowest. Also, only 29% of Japanese CEOs said they have strong digital skills, as compared to the global average of 55%. Besides, while 71% of US CEOs are already addressing the risks around digital, governance, and risk management, only 47% of their Japanese counterparts are doing so.

Then the results of another survey on the global trends of Fintech with over 1300 respondents from 71 countries were shared. There are several key insights: first, 88% of existing financial businesses, such as payments, banking, insurance, and wealth management, are increasingly concerned they are losing revenue to innovators; second, financial institutions are embracing the disruptive nature of Fintech, with 56% of them having put disruption at the heart of their strategy; third, financial institutions are also learning to partner and integrate, with 82% of them expecting to increase Fintech partnerships in the next three to five years; fourth, incumbents and Fintech companies are facing challenges around security, regulatory uncertainty, and differences in their management, culture, business models.

Finally, it is revealed that financial institutions in Japan are embracing Fintech at a slower pace than the global trend. For example, Japanese financial institutions only invest 6% of their annual revenue in Fintech-related matters, as compared to the global average of 15%. Also, only 6% of their expected annual return on investment is related to Fintech, much lower than the global average of 20%. Japanese financial institutions also have different expectations on the benefits of Fintech: while globally 60% of respondents expect Fintech to help grow revenue by expanding products and services, in Japan 58% expect Fintech to help reduce headcount costs. Besides, while globally respondents worry most about loss of market share with the advent of Fintech, the majority of Japanese respondents worry about information security and privacy threat. Overall,

Japanese financial institutions are slower in adopting digital channels, whether it is web-based, mobile, or social media, to interact with customers. Finally, Japanese financial institutions also report different regulatory barriers to innovation in Fintech. From there, a question was asked of how to promote business along with the development of technology.

The last presentation answered to the above question by providing an industry example. Three points are considered fundamental to innovation: knowledge, creativity, and action. Knowledge not only refers to technology knowhow, but also creative business models. Creativity then requires that the connected ideas are based on diversity and a well-designed innovation platform. Finally, the best way to learn about innovation is through action of concepts and accumulation of experiences.

Then the M-Lab of Mitsubishi Corporation was introduced as an example of how business can tap into the Silicon Valley ecosystem. M-Lab adopts a horizontal integration strategy by promoting collaboration across different industries. Its business development is based on solid research and feasibility check with industry experts from various member companies. Through much prototyping and presenting, M-Lab then creates business models with speed and flexibility. Eventually, M-Lab also becomes part of the Silicon Valley ecosystem.

In particular, several sample projects were used to demonstrate how the member companies of M-Lab are collaborating with each other and connecting ideas from different industries. One of them is a concept car called AKXY. It is developed by the chemical company Asahi-Kasei to showcase a wide array of automotive-related materials and technologies. The concept car utilizes the digital tools developed in the Silicon Valley.

The final session also showed the strong interests of Japanese companies in technology and the Silicon Valley. It is believed that while Japanese firms learn new ideas there, they can also contribute to the whole Silicon Valley ecosystem. For that to work, there needs a better alignment among different regulatory agencies across countries.

The last discussion session focused on various factors of innovation, and especially the difference between Japan and the Silicon Valley. One speaker mentioned that Japanese companies face language obstacles, and another speaker added that regulatory barriers, especially in emerging fields such as Fintech, also constrain Japanese firms. It is further mentioned that the Japanese miss a culture of accepting failures. The discussion also mentioned the uniqueness of the Silicon Valley that there is a balance between key factors such as money and people. For example, California has a customer base that is very willing to try new products, while Japanese consumers are quite conservative. Japan also differs from the US in that organizations play a critical role in business. Therefore, to promote innovation, Japanese companies have to come up with solutions by having innovative people in each organization. This point speaks to the presentation around employees' job security and innovation. It is therefore important to establish a favorable culture, such as tolerance of failures, in organizations for them to be innovative.