

## Annual Review 2021

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### *Main Developments in Political Economy in FY2021*

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16 articles have been selected for the Annual Review 2021 from the six issues of the past year.

- #237** May/June 2021 Issue
- #238** July/August 2021 Issue
- #239** September/October 2021 Issue
- #240** November/December 2021 Issue
- #241** January/February 2022 Issue
- #242** March/April 2022 Issue



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(Listed in alphabetical order by surname as of April 2022)

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<p><b>Sota Kato</b>  <i>Professor of International University of Japan &amp; Executive Director of the Tokyo Foundation for Policy Research</i>  After working for the Ministry of Economy, Trade and Industry for nearly a decade, Sota Kato started to pursue an academic career with Japanese universities and think tanks such as the International University of Japan, the Research Institute of Economy Trade and Industry (RIETI), and the Tokyo Foundation for Policy Research. Though generally considered a political scientist, his notable strength as a researcher lies in an interdisciplinary and quantitative approach to economics and politics. His expertise makes him a sought-after commentator on the Japanese political scene.</p>	<p><b>Mukesh Williams</b>  <i>Professor, Soka University &amp; Visiting Faculty, Keio University</i>  Mukesh Williams is a university educator, media writer and poet. He has taught modern literatures, media studies and cultural history at St. Stephen's College Delhi, Soka University and Keio University Tokyo. He is presently advisor to the South Asia Research Center, Soka University. He has conducted seminars on global cultures and counseled Japanese universities on academic exchange and PR strategies.</p>
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<p><b>Keiichi Kobayashi</b>  <i>Professor of Department of Economics, Keio University</i>  Keiichi Kobayashi has experience in the economic policy-making process as a former government official at the Ministry of Economy, Trade and Industry. His interest in economic research led him to join RIETI and pursue an academic career. He has been an active commentator on economic policy issues, in particular fiscal and monetary policies, such as how to eliminate non-performing loans after the bubble economy in Japan. His current interest covers areas such as innovation and income inequality.</p>	<p><b>Jillian Yorke</b>  <i>Interpreter &amp; Translator</i>  Co-author of several books, Jillian Yorke worked for the Public Relations Office, Minister's Secretariat of the Ministry of Economy, Trade and Industry in Tokyo as an English editor and checker for more than a decade. She now lives in New Zealand, where she is curator of the Japan Library: Pukapuka, as well as a freelance writer, translator, and interpreter, and often visits Japan.</p>

# Introduction

By Naoyuki Haraoka

Throughout FY 2021, the fight between the Covid-19 variants and vaccines has been continuing. In February 2022, we do not know yet its outcome. With thousands of new daily infections from Omicron, we do not yet know how we will exit from this global pandemic. In the second year of the pandemic, FY 2021, we are beginning to see what the shape of the post-pandemic world will look like. It is certainly built on digital technology and a digital economy will have consequences. We could take note of the social and economic impact of digital technology even before the pandemic, but it is true that the pandemic has increased the speed of the change with society's growing dependence on digital technology. Teleworking, a new working style established during the pandemic, is one example.

Digital technology is certainly one of the most promising areas of innovation. Assuming that economic growth is the sum of the growth of the labor force, of capital and of Total Factor Productivity (TFP) – a measure of the contribution of technological innovation to the economy – we cannot expect high growth in the labor force among developed nations due to their aging populations, nor high growth of capital investment as capital equipment has already been sufficiently accommodated and thus technological innovation will be key enhancing economic growth in developed nations. Under the pandemic, has innovation progressed or been stimulated? As challenges emerge, will innovation be accelerated? These are key questions to be tackled at this time. Vaccines in the war against the Covid-19 variants are certainly the most valuable innovation not only for containing the pandemic but also for leading us to new possibilities in containing other diseases. Innovation in digital technology has been surging during the pandemic to maintain our economic activity with much less personal contact in business.

It is true that we are in the midst of a great structural change in the economy. Evolving capitalism may indicate that our market-oriented economy is facing various challenges and will need to adapt to social concerns such as income inequality, supposedly a source of political populism. But it is also worth taking note of the effectiveness of market functions and market-oriented policies in our economy. Free and open competition will still play a key role in sustaining economic growth. We have challenges to peace and prosperity ahead, geopolitical uncertainties and global climate changes, in addition to rising income inequality. But it is still important to pursue a rules-based international trading system in which free trade is the principal goal to be pursued in enhancing total social welfare.

The US-China confrontation had already emerged before the pandemic and has now been elevated into a struggle for global hegemony between democracy and authoritarianism. This conflict is a menace to countries' national security and in globalized business where security and the economy are closely linked through trade and investment in sensitive technology sectors, it has ended up raising the need for clear rules on trade and security. This means that in such

conflict between political systems, the biggest challenge for businesses is a rules-based approach as the only solution. Upgrading the Free Trade System will have to be started at this historical turning point.

Global climate change is another challenge to humanity in need of a solution. How to achieve a zero carbon emission economy in 2050 will need to be examined from different perspectives – energy, economy and the environment. The roadmap to zero carbon emissions will not be a simple one but must be a solution consistent with reality.

Overall, in FY 2021, we started to examine solutions to these issues and challenges rather than just indicating them by analysis.

We hope our solutions will have productive responses from readers and subsequently contribute to the formation of more effective solutions. In this light, we have selected the following articles from the six issues of the past year as examples of the main pillars of our work in FY 2021.

### **1. Capitalism Evolving to Reach Solutions for Current Challenges, Successful in Strengthening Merits**

- 1) Interview with Dr. Jonathan Haskel, Professor of Economics, Imperial College Business School, co-author of the book *Capitalism Without Capital* “What Does ‘Capitalism Without Capital’ Look Like?” by *Japan SPOTLIGHT* (May/June 2021 Issue, #237, Cover Story 2)
- 2) Interview with Prof. Fuhito Kojima, Director of the Market Design Center, University of Tokyo “Economic Theory Supplementing Price Mechanism” by *Japan SPOTLIGHT* (May/June 2021 Issue, #237, Cover Story 5)

### **2. Innovation – a Solution for Activating the Economy**

- 1) Interview with Larry Clark, Managing Director of Global Learning Solutions at Harvard Business Publishing Corporate Learning “A Crisis Could Provide Ideal Conditions for Deep Innovation” by *Japan SPOTLIGHT* (July/August 2021 Issue, #238, Cover Story 2)
- 2) Interview with Dr. Yo Iwami, CEO of MedPeer “Collective Intelligence from IT to Support Doctors & Help Patients – the Story of Japanese Healthcare Venture MedPeer” by *Japan SPOTLIGHT* (July/August 2021 Issue, #238, Cover Story 4)
- 3) Interview with Renee Graham, Chairwoman of the APEC forum Policy Partnership on Women and the Economy “APEC: Driving Innovation & Female Entrepreneurship” by *Japan SPOTLIGHT* (July/August 2021 Issue, #238, Cover Story 9)
- 4) “Digital Asia: Responding to Challenges from GVCs Digitalization, US-China Decoupling & the Covid-19 Pandemic” by Lurong Chen (Nov./Dec. 2021 Issue, #240, Cover Story 2)

- 5) “Asia in the Global Dynamics of Embracing the Digital Revolution: Performance & Strategic Priorities for Policy Action” by Khuong Vu (Nov./Dec. 2021 Issue, #240, Cover Story)

### **3. Free Trade Is a Solution for Saving Capitalism from Social Challenges**

- 1) Interview with Dr. Stefan Kooths, Director of the Business Cycles & Growth Research Center at the Kiel Institute, Germany “Free & Open Competition Would Play a Key Role in Maintaining Sustainable Growth in Europe” by *Japan SPOTLIGHT* (Nov./Dec. 2021 Issue, #240, Cover Story 4)
- 2) Roundtable with Prof. Fukunari Kimura, Prof. Junko Shimizu & Kayo Matsumoto “White Paper on International Economy & Trade 2021: Trade Policy at an Historical Turning Point” by *Japan SPOTLIGHT* (Sept./Oct. 2021 Issue, #239, Cover Story 2)

### **4. Solutions for Geopolitical Challenges**

- 1) Interview with Adam Tooze, Kathryn & Shelby Cullom Davis Professor of History, Department of History, Columbia University “An Historian’s Views on Present Geopolitics & Geoeconomics” by *Japan SPOTLIGHT* (Jan./Feb. 2022 Issue, #241, Cover Story 1)
- 2) “Will a Taiwan Emergency Happen? Analyzing the Challenges Facing China” by Yasuhiro Matsuda (Jan./Feb. 2022 Issue, #241, Cover Story 5)
- 3) “Management that Embodies Sophisticated Rules & Democracy as Keys to Economic Security” by Toshifumi Kokubun (Jan./Feb. 2022 Issue, #241, Cover Story 9)

### **5. Solutions for Global Climate Change**

- 1) Roundtable with Teiko Kudo, Prof. Yukari Takamura, Tatsuya Terazawa, & Masakazu Toyoda “Assessment of COP26 & the Challenges Ahead on Japan’s Path to Carbon Neutrality” by *Japan SPOTLIGHT* (March/April 2022 Issue, #242, Cover Story 1)

### **6. Stories of Cultural Exchange – A Long-Term Solution for Geopolitical Crises**

- 1) Interview with Roland Kelts, contributing editor of *MONKEY* Magazine *MONKEY* Magazine “Exchanges Literatures Between the US & Japan” by *Japan SPOTLIGHT* (May/June 2021 Issue, #237, Culture 2)
- 2) “Hariprabha Takeda’s Diary – an Indian Woman’s Observations of Taisho & Meiji Japan” by Mukesh Williams (Sept./Oct. 2021 Issue, #239, History of Relations of Asian Countries)

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Interview with Dr. Jonathan Haskel, Professor of Economics, Imperial College Business School, co-author of the book *Capitalism Without Capital*

# What Does “Capitalism Without Capital” Look Like?

By Japan SPOTLIGHT

We are increasingly seeing a rise in intangible assets and are curious about what the consequences of this will be for capitalism. As the coronavirus pandemic continues and the use of software related to IT rises significantly, its impact could be enormous. To talk about this issue, Japan SPOTLIGHT held an interview with Prof. Jonathan Haskel, who recently co-authored the book *Capitalism Without Capital* on the intangible economy with Dr. Stian Westlake, senior fellow at Nesta, the United Kingdom’s national foundation for innovation.

(Interviewed on Jan. 20, 2021)

## The Rise of Intangible Investment

**JS:** What has changed the nature of investment from the tangible to the intangible these last three or four decades? Is the IT revolution the only reason or are there others?

**Haskel:** It is a good question to understand why the economy has become intangible and I think there are at least two reasons. One, the rise in information technology is deeply complementary with intangible capital. Complementary is a term in economics which says that if you have inputs used in production like fast computers, they are going to need software and databases and may need the restructuring of businesses in order to become more effective. Two, the nature of business organization, especially in developed countries, has changed. A lot of the production process has been sent offshore, for example from the City of London to East Asia and to closer countries like Eastern Europe. Those companies have become different kinds of companies – they are not really doing manufacturing at home anymore, rather they are organizing and coordinating and managing. That requires a much more intangible group of assets such as the organizational capital, reputation, and all the knowledge that goes into coordinating large supply chains. That change in the nature of businesses has increased the amount of intangible capital that they need.



Dr. Jonathan Haskel

## Measuring Intangible Investment

**JS:** Your book tells us that investment in intangible assets is significantly increasing, and in some developed nations has become key to economic growth. How can we quantitatively compare tangible and intangible investments?

**Haskel:** Let us start with national accounting. For national accounting, that is compiling GDP, we have got a lot of experience in measuring investment. We survey firms and ask them how much they are investing in plant, equipment, and vehicles. Firms are

used to answering those kinds of questions. More recently, firms are also investing in intangible items such as R&D and software. One way is to ask them the same kind of questions, and many companies can answer these questions. Software, for example, is quite often bought either off-the-shelf, or firms might be renting software services from the cloud, and so on. That is one approach. Where that gets more difficult is that for many intangible assets, especially R&D and market research, these are quite difficult for firms to buy in. They want to do somewhat the opposite, which is to develop them internally so that the secret of R&D or knowledge of the market does not leak out. So, if you take a conventional questionnaire and ask “How much are you spending on buying this in?”, firms don’t know what to do with that. So in terms of how we are going to measure the intangible assets, we have to get a bit cleverer when we ask firms, and that is what statistical agencies do. They ask how much

they are spending on the internal generation of these assets if you have a unit of your firm writing software, for example. We have to ask what costs were incurred in that unit. That is one area around national accounting and GDP, and what statistical agencies are doing is to increasingly move to count these intangible assets.

Regarding company accounting, company accountants are very reluctant to count intangible assets. They dislike putting it on the balance sheet essentially because those internally generated assets are very difficult to measure. It is a situation in which national accounting is going a little bit faster than company accounting and for that reason we think a problem with company accounts is that they are not very informative about a very intangible intensive business because they are limited in the extent to which they count these intangible assets.

## Impact on TFP

**JS: Turning to total factor productivity (TFP), many people seem to be irritated about its low growth, especially governments, but this should not be the case given the technological advances in software. How can we take account of these intangible assets for TFP?**

**Haskel:** You are absolutely right that the performance of productivity growth and in particular TFP growth has been very disappointing in more or less all countries since the financial crisis. This is a great puzzle because it does seem like we have wonderful new technologies, for example those that help discover a vaccine for coronavirus, which should speed up TFP growth. So there are a number of things going on with the fall in TFP. One possibility is that we are having to do as a society a lot of investment in technologies which have not yet brought about the goods we are hoping for. An obvious example would be driverless cars; lots of companies are spending money on software but so far, at least in the UK, we don't have any driverless cars on the road. The trouble with this hypothesis is the evidence suggests otherwise. There is a lot of spending on software and these other goods, but even if you were to include that spending in various ways into GDP, you still don't get much boost to GDP.

Another hypothesis is that productivity growth has just finished. We were very lucky as a society over the last 200 years; we had an industrial revolution and an information technology revolution but now that's all finished, and we have nothing left. A third hypothesis is around intangible assets and starts with the observation that since

the financial crisis, the pace of investment in intangible assets has slowed down. In the countries where it has slowed down the most, those are the countries that have had the biggest falls in TFP – the UK and Finland are two examples. Maybe what is happening is that with the slowdown in investment in intangible assets, there is less productivity coming, and if that is true it might be quite optimistic for the future because if we can raise investment in intangible assets we would therefore be able to reverse this and restore productivity to higher levels of growth.

## Key Characteristics of Intangible Assets

**JS: You describe the four key characteristics of intangible assets as sunk cost, spillover, scalable and synergy. How might these characteristics increase uncertainty and conflicts?**

**Haskel:** Intangible assets have got these interesting economic properties. You can scale them up; they can spill over from one firm to another; if you combine them, they are very powerful. They are often sunk costs that are difficult to recover. They also raise a big puzzle – in an intangible economy with lots of spillovers, companies can copy intangible ideas from others. For example, when the iPhone first appeared, within about 18 months every smartphone looked like it. Before the iPhone, smartphones had little keyboards and aerials sticking out and so on but in 18 months that was all finished. This is a clear example of a spillover where an idea can be used by others, the idea being the design in this case, which is an intangible asset. You might conclude from that that intangibles are a great force for equality, because firms can converge in the type of products they offer. On the other hand, what we have seen is a divergence between the performance of the top firms and the lower firms. What is going on here is that the other properties of intangibles are forces for inequality. For example, scale means that if you have a very valuable intangible you can scale up. Apple has a very valuable intangible asset called reputation, so it can scale up and make not only phones but watches and other goods too. Synergies mean that if you combine the intangibles together you are even more productive. Google, for example, has the intangible asset of an enormous database that everybody is searching and they can combine that with maps, to offer programs for navigation, or could offer advertising. So the force of spillovers is a force for equality, while the force of synergies and scale is a force for inequality, and it looks like the force for inequality is winning out at the moment.

All of that combined together means that you get the kind of

conflict referred to in your question. If you have a very unequal distribution of firm performance, those high performing firms probably might be more profitable, probably attract more workers, and probably the types of conditions and economic circumstances involved in those firms are going to be more if you hold stocks and shares in those firms, or if you have a job in those firms. So the conflict might come from the outcome of those very different intangible forces.

**JS: Intangible investment would be high risk with high returns, because it has high sunk cost and high scalability. So if you are smart enough, you can earn lots of money, but if you are not smart you would lose money. This could be a source of conflict and uncertainty.**

**Haskel:** I agree, and it makes these kinds of intangibles deeply complementary to talent and skill in the workplace. I mean the kind of talent and skill that can combine those intangibles together. What is interesting is that you can imagine a very talented chemist might have the talent and skill to combine chemistry elements together, gain the synergies, scale up and do very well in the intangible economy. On the other hand, maybe a very talented person who is not a brilliant scientist or mathematician can bring together the designers and scientists and marketing people and succeed greatly in the intangible economy. So the skill to succeed in the intangible economy is the skill that combines those intangible assets together.

**JS: Synergy, for example, could create monopolies, as with the GAFA companies.**

**Haskel:** Let us talk about Amazon. One of the great synergies it has is its own platform. It has an enormous database, so if you are a company selling shoes and brown shoes happen to be doing better than black shoes, you know that as a company because you know what your sales are, but so does Amazon because it has that information too. The synergies that Amazon has are that information, and the network of other information and computer programmers, so they can then enter the brown shoes market and grow very big because they have that information combined with the other things they can do. That would appear to be a situation in which Amazon would get a permanent monopoly. In order to do that it might be able to offer them cheaply, or deliver with other items, for example. There are two forces – one force for monopoly because of the synergies, but the other force is that if they can scale up and offer these more

cheaply, that might be beneficial. We don't quite know how this is going to work out. There is some academic research evidence on the Amazon side that it does indeed enter into the markets where it gets the information, but it does offer very cheap prices in those markets where it enters. These different effects would give you more types of monopoly, but it might end up with consumers getting a better deal.

**JS: Another possibility might be caused by massive spillover. Would that force firms to strictly protect their patents?**

**Haskel:** That is correct. In all developed countries we have a well-established intellectual property protection system which is controversial in some ways. Everybody accepts that if you are a company and you spend billions developing a vaccine, for example, you need protection from other companies copying that vaccine, otherwise you would not spend billions in advance. On the other hand, we have seen companies using patents in a somewhat strategic fashion, for example taking out lots of patents in technologies that they might not use, making the ownership of patents extremely complicated. That means that other companies that want to either license or use information from those patents to develop other medicines or products might find it very difficult to do so and if they are challenged on a legal point of view, that may take away from the amount of follow-up information. Many people take the view that maybe as a society we might have gone too far in allowing companies to patent in a way that would stop this kind of follow-up innovation. In the book we are cautious about having more patenting, because of that possible bad effect.

## **Significant Impact on Macroeconomy**

**JS: The macroeconomic impact of this intangible economy does seem to be enormous, because low investment and low interest rates and low growth rates in the long run could be explained by rising intangible assets. Would you concur with that view?**

**Haskel:** Yes, we think that is part of it. As you observe, one of the great puzzles for current day economics is that investment and demand in economies seem to be extremely low, even though interest rates are very low. Usually when interest rates are low and profits are high and there is lots of technology, you would expect a lot of investment by companies to take advantage of these conditions. The puzzle is that over the last 30 years, interest rates



have been falling and falling with no apparent offsetting rise in investment. We think that part of the answer may be that the change that there has been to a more intangible economy has meant that the investment climate for firms has got riskier.

When we say investment interest rates have gone down, we typically refer to the interest rates on safe assets like government bonds, but the interest rate that companies face has gone up somewhat for reasons we don't quite understand, but it could be partly to do with the more risky type of economy in the intangible assets area and might mean the firms require a higher hurdle rate of return. Therefore, all those safe interest rates have been going down, and investment has not been going down for that reason.

**JS: Do you think this issue is known by macroeconomic policy practitioners such as central bankers?**

**Haskel:** Not so much. I think that mostly, central bankers look at the fall in real interest rates over the last 30 years and describe it as being to do with demographics, namely more people coming into the labor market and saving for their future. We think that an additional element is the rise in intangible assets which has raised the risk hurdle that firms have to cross.

**JS: During the pandemic, with working from home and IT utilization, the intangible economy has been rising further. Does this mean an economic depression would negatively affect economic growth?**

**Haskel:** A few thoughts on this question. What we have seen especially in developed countries is a gigantic switch to working from home. Before the pandemic in the UK, we had about 12% of the workforce working from home; now we have 30% or possible 35% working from home. How did we achieve such a considerable structural change in the economy? If we go back to industrial times when people mostly worked in factories, if you were to have a third of the factory workforce working at home, they would have had no machines to work with and the output of the economy would collapse. We have not had a total collapse of output and so the transition to working from home has cushioned the economy slightly, and so it is a source of some resilience because some people have been able to leave their factory as it were and carry on working from home. In terms of the role of intangibles, the capital – the machines they work at home on – is not old-fashioned capital like blast furnaces or diggers; they are using their MacBook and their

Internet connection, and the software has to power the connectivity that brings all that capital together. The ability to work from home is deeply connected with the intangible economy. The intangible economy has given us some resilience in the economy and protected us from some of the worst effects of the pandemic.

What does all of this mean in the future? One thing we do know is that productivity growth and innovation and improvement do not drop out of the sky – firms have got to spend money on it and experiment and spend actual resources. The pandemic has helped more people work at home but has been very difficult for firms financially and to plan in the future. The fall in investment would be bad news for productivity and so everything hinges on whether investment goes up and bounces back, and will that burst of intangible investment bring some more productivity growth? We don't know the answer to that yet but the faster we can roll out the vaccine and get back to normal, the faster that would be a possibility.

## **Income Inequality**

**JS: On the question of the possible expansion of income inequality due to the expansion of the intangible economy, this inequality will happen not only between companies but also between individuals. That would affect democracy. The intangible economy has a deep impact on the economy but also on politics. Would you agree?**

**Haskel:** I think that is a very interesting point that we don't cover in the book. You are absolutely right that the growth in inequality in the intangible economy might be very considerable. My favorite example coming from Britain is the great British invention that everybody in the world has heard of, namely Harry Potter – and if you ask who has got rich from Harry Potter, the answer is the woman who wrote the book, J. K. Rowling. What asset does she own? She owns a very valuable intangible asset which is the idea behind Harry Potter and the copyright to the books. That asset has been combined with other intangible assets like the software that generates the computer things in the movie, or the design to make a theater performance. It's a sort of case study where the ownership of that asset and the combination of the assets have given you something extremely valuable. That leads you to an unequal world, but it leads you to an unequal world on the basis of an asset that everybody likes in the case of Harry Potter.

The political aspect that follows is that, if we have societies where campaign finance is extremely important, then we have the

possibility that richer people might be able to influence economic policy in a way that might be felt to be undesirable, and this is taken up in Thomas Philippon's book where he argues that the importance of campaign political finance in the United States leaves its anti-trust and other systems very vulnerable to spending by very rich people, and then for putting influence on the law. Part of the difficulty is that the increase in inequality possibly from intangibles – if it breaks down the political consensus around anti-trust and other types of public policy – could be very difficult.

### Impact on Other Public Policy Issues

**JS: Regarding the intangible economy's impact on a wide range of public policy issues, could education policy or infrastructure provision policy also be affected? How about human resources and business management?**

**Haskel:** There are lots of implications for education and managerial policy also. As part of the intangible revolution, the whole structure of delivering education itself has surely completely changed – the use of online resources. Maybe it is time to change the education business model, if I may call it that, and do something different. There is a wonderful illustration in the front of a very good book by British writer David Willets called *A University Education*, and it is an illustration of a university lecture in Italy in the 16th century. In other words, 500 years ago. It has a lecturer standing at the front and students sitting at the front paying attention and other students sitting at the back fast asleep, having a drink or not paying any attention. We have had exactly the same method of teaching, the same business model for 500 years and so maybe it is time to do something different with teaching and the Internet. That is one thought on how intangibles affect education.

Another thought goes back to what I said earlier on. You might say that from an education policy point of view, what we need to do in an intangible economy is for everybody to become a scientist or a computer programmer. You might say that because perhaps everybody needs to be writing software and discovering new chemical compounds. That is surely what a knowledge economy is about – there is no need for historians and poets because they have no future in this kind of economy. We reject that hypothesis quite strongly. The reason is this. If you have a lot of synergies in the intangible economy, that is to say combinations of intangible assets – going back to Harry Potter, the terrific script and the software and the design – then valuable people in the economy are those who can

combine those synergies together, work with different people and in a team, with human communication and motivation skills. These are going to be very valuable people in the intangible economy so let's not have a complete shift in education policy only to scientists and only to chemists and biologists. Let's have other people as well.

**JS: The intangible economy has a wide range of implications for politics, economy, business management, and so on, and your book is invaluable for pointing these out. But maybe the next step would involve specific solutions for the issues arising from the intangible economy. How do you assess your book's contribution to the future of the intangible economy and how would you elaborate on your contribution from now on?**

**Haskel:** Thank you for the question. I would say two things. Firstly, we hope the book has raised a set of questions and helps people to understand an economy that a lot of people find very puzzling. Why it is that Harry Potter is so successful and more traditional companies making cars and steel are not so successful? They don't understand why it is that Apple is so dominant and more traditional companies are not. It is helpful to think about those companies and individuals as having very valuable intangible assets. We hope it contributes to thinking about these kinds of issues.

The second thing is that in terms of understanding what is going on in the future, the biggest issue is if we end up with a very divided society. Then the consensus around the type of economy and democracies that we run in developed economies – open, fairly liberal market economies – may run out. So understanding that kind of conflict is very important. What follows from that is if I had to think of one thing, I just wonder whether something about the financial system is going to be very important in the future. At the moment is very difficult for an intangible intensive company to borrow money and start up. If you are company that has a building, then you can go to the bank and offer the building as security and they will give you a loan. If you are a company and you have an idea for a movie or some software, banks will find it more difficult to lend to those kinds of companies and so we may be holding back those companies from starting up. That passes the advantage to the existing companies and so understanding how we can improve that could turn out to be very important.

**JS**

Written with the cooperation of Joel Challender who is a translator, interpreter, researcher and writer specializing in Japanese disaster preparedness.

Interview with Prof. Fuhito Kojima, Director of the Market Design Center, University of Tokyo

# Economic Theory Supplementing Price Mechanism

By Japan SPOTLIGHT

Capitalism evolves with the study and research of economics. Fuhito Kojima, professor at the University of Tokyo, began his research in 2020 on the social implementation of his theory of market designs to supplement the price mechanism in areas where the function of such a mechanism is limited. His research is conducted at the Market Design Center at the University of Tokyo, where he is working as a director. His pioneering contributions are introduced in the following interview.

(Interviewed on Jan. 25, 2021)

## Limitations of the Price Mechanism in Fulfilling People's Needs

**JS:** There seems to be a keen sense today of the limitations of the price mechanism in our contemporary economy. Do you think there are more areas than ever where the price mechanism does not function very well, and do you think this could be a driving force for the evolution of capitalism?

**Kojima:** It is a difficult question. With the evolution of capitalism so far, the price mechanism has achieved what was not possible in ancient times. For example, earning interest by lending money was prohibited by Ecclesiastical law in Christianity in Europe in the Medieval Age, but as the influence of Catholic churches in Europe diminished around the 16th and 17th centuries, this prohibition worked less and less. In particular, as Protestantism expanded in the 17th and 18th centuries, earning interest by lending money became increasingly accepted. With the emergence of mercantilism in the 17th century and the Industrial Revolution in the 18th and 19th centuries, capitalism was born and now as capitalism evolves, market mechanisms are allowed to function in such financial business.

However, there are businesses that are banned for ethical reasons in our own age. Slavery or indentured servitude used to be allowed and merchandized in the market, but not any more in our age. So there are some that were prohibited by law or customs from market transactions in the past but now can be transacted in the market, whereas there are some that used to be allowed in the market in the



Prof. Fuhito Kojima

past but are now prohibited. Therefore, it is not clear whether the areas where the price mechanism fails to work are expanding or diminishing.

One thing that is clear is that a naive economic theory advocating permanently for the effectiveness of the price mechanism in making everything go well in any given area, which was accepted by many during much of the 20th century, is not considered valid anymore in spite of some of its merits. Whether a deal is to be done by the price mechanism or not will be determined by human ideas or social ethics. In our contemporary age, there are some deals in which the price mechanism is not used. So our economy is not moving towards one in which price mechanisms are almighty as once envisaged by economists who believed in their omnipotence.

**JS:** Recently, I think income inequality is an issue which the price mechanism has failed to resolve. We cannot achieve a sustainable economy without tackling the increase in income inequality. Is your theory of market design something that could supplement the price mechanism?

**Kojima:** In reality, even among capitalist nations, governments have been playing an important role in the economy for social reasons since the middle of the 20th century. We call it a mixed economy and it is not possible to leave everything to the price mechanism and let income inequality continue to grow, as that would make society unstable. I am working now on matching the need for daycare facilities and their supply. I note the thought in the government that

daycare services should not be left only to the price mechanism but should be provided to all people including the poor. Yes, how to provide such socially basic services like licensed daycare facilities among the people as equally as possible will be an important issue.

## Brief Introduction of Market Design

**JS: You are working on market design supplementing the price mechanism for a certain good or service to achieve the best match between people who need it and people who supply it. Could you explain briefly and exactly what market design is?**

**Kojima:** Yes. There are markets for some goods or services where the price mechanism does not work. For example, in case where monopolies or oligopolies like GAFA can control market prices, or in cases where there are too many players in the market as in the case of the labor market and there is no rule to be applied to fix the prices and it would be difficult to achieve matches between so many job applicants and firms in need of workers, price mechanisms would not work well to achieve desirable market outcomes, as is assumed by classical naïve economists.

We economists working on market design theory would not pursue socialism in those failed markets but try to assist the players in those markets to design an orderly framework to match their needs and supplies among themselves. To be more specific, in the case of daycare facilities in Japan, most of them are licensed and once they get a license from the government they get a subsidy. But they would have to observe regulations such as fixing a monthly fee and thus they cannot determine monthly fees on their own; instead they have a fee fixed by the local government. With a price fixed lower than the market price, there would be excess demand for daycare facilities and some kids would have to be on the waiting list. In that case, they would have to rely on rationing rather than price. Each local government receives a preference list from the parents and rations the kids to each daycare facility accordingly. Among more than 1,000 local authorities in Japan, some adopt a good rationing method, some do not. Our job at the Market Design Center is to study these different rationing methods and advise them on how to improve the methods.

For example, some local governments limit the number of wishes to three or five. In such cases, they would not have information about wishes with priority lower than three or five. That could hinder the best matching. We can show them in theory or quantitatively that it would be better not to limit the number of wishes on the list. We

design a system where each kid would be accepted by some daycare facility with a limitless preference list. There are largely two frameworks for rationing provided by us. One is based on the order of wishes and the other is based on the priority index of each family fixed in accordance with its need for a daycare facility.

The first one is to look at only the first wish on each applicant's list and assign those wishes among the available facilities. We would have to assign those left out from the first rationing to the facilities in the second on their preference lists if the first wishes are full.

The second one is to look at those with a better priority index for a facility first and assign them to the best facility among those with vacancies. The first one may look better. However, many parents would think about their priority of facilities after considering each facility's popularity. For example, if I have two facilities in mind as the first choices but both of them are very popular, I would see a large likelihood of failure to be accepted by both of them. So thinking about the risk of failing to be accepted by both of them, I would mention in the priority list my third choice as the first one. This risk-averting choice would eventually result in frustration and dissatisfaction with the rationing and in the worst case there would be kids on the waiting list.

We can mathematically prove that the second method would eliminate such concerns. What the applicants have to do in this method is just to tell their preferences honestly. Our mathematical theorem proves that nobody would be annoyed by this method. In reality, economists in the United States recommended such methods in school selection systems. I hope we can see a sign of change in the Japanese daycare facility system through communication with local governments.

**JS: This looks like one of the applications of game theory.**

**Kojima:** Yes, it is. In terms of game theory, the authentic preference list-oriented method would not achieve optimal equilibrium. The index-oriented method was invented by economists David Gale and Lloyd Shapley, and we call it the Gale-Shapley algorithm. In this method, in terms of game theory terminology, the dominant strategy would be to tell the truth about the wishes in order to achieve the optimum. This theory has been developed most extensively in the US.

## Application of Market Design

**JS: Has the theory of market design been applied to**

## the US education system in practice?

**Kojima:** Yes. The preference-list oriented method was adopted in the school selection system in Boston and we call it the Boston method. With the economists' suggestions, reforms were achieved in the middle of the 2000s. Thus, in Boston, this method is not used anymore, nor in New York or Chicago.

## JS: Can market design be applied to the Covid-19 vaccine distribution as well? If so, how?

**Kojima:** This is a domain where we cannot give a clear answer yet. However, I can tell you points for consideration. In market design, first of all, we need to listen to an applicant's wish and his or her personal situation and then we would provide the relevant framework to satisfy the applicants' needs.

This is the basic idea of market design. In the case of vaccine distribution, we would need to consider each applicant's personal situation, such as their underlying health condition, age, whether they are medical staff or not, as well as their preferences. We would need to consider different vaccines as well. For example, whether we could keep the vaccine at normal temperature or not would make a difference. In thinking about what combination of the different vaccines would maximize the number of vaccine recipients, this difference is crucial. Whereas the Pfizer vaccine needs a deep freezer for preservation, AstraZeneca's is preserved at normal temperature. Therefore, giving the AstraZeneca vaccine to people who could have the Pfizer one would be a waste of vaccines. AstraZeneca's vaccine must be sent with high priority to medical facilities where a deep freezer is not available. We use advanced mathematics for the relevant combination for those different vaccine rationings.

## Market Design Center at the University of Tokyo

## JS: Could you give an outline of your center's mission and work at this moment?

**Kojima:** Yes. The Market Design Center is a research organization studying market design as an economic theory. However, its other mission is the social implementation of market design theory. We are working with people outside the university as well as people inside it to explore the application of matching theory or market design theory to real-life issues and get feedback from those applications. The example of the daycare facilities that I introduced is exactly one

of those applications and we are now about to move to social implementation of this issue in collaboration with some local authorities and business firms providing daycare services.

As to the application of matching theory for arranging contact between people, we are also about to start a project on allocation of medical doctors all over Japan. A matching algorithm is already used for assignment of medical residents who have just graduated from a faculty of medicine at university, a little more than 9,000 per year, among medical institutes all over the nation. We have been working on possible improvement of such assignment and we are now pursuing its social implementation.

Another project for social implementation is the application for organizational personnel assignment, which is strongly requested by the business side. It has long been a key issue for business firms to mobilize human resources and assign employees to the jobs they are most suited to. In recent years, they found that it was very difficult for any personnel management expert to achieve a perfect allocation of human resources among the relevant jobs. Then, in some companies, an algorithm was attempted to be introduced for personnel assignment. The case of Google is well known. They introduced a matching algorithm for personnel assignment five years ago. We are now talking with some Japanese companies to explore such applications.

## JS: Would mathematics help realize “the right person in the right place” rather than a human personnel policy expert?

**Kojima:** Yes. If a firm's personnel affairs department orders an employee to be transferred to some post, there will be some cases when they are unhappy about the transfer and quit. On the other hand, in some companies, they create an artificial labor market inside the company. In those companies, divisions or departments are asked for open recruitment for any vacant posts and employees are recommended to apply for those posts freely. But this system does not work well either, since recruit information is not well managed and in some cases there are very few employees available at the time of personnel transfer or in some cases employees are not well informed of where to go to access such open recruitment information.

In the case of Google, they stopped such open recruitment within the company once a year and created three occasions for personnel transfer in the company every year and asked all the sections to issue open recruitment on those occasions and employees wishing for a new assignment to go to a job interview for recruitment in one



of those sections. After those interviews, any assignment would be ultimately fixed by a matching algorithm. This system, I believe, would be well accepted by a Japanese company making regular personnel transfers customary. So we started collaborating with some Japanese companies on its application.

This is an interesting project to meet an employee's wishes for job assignment and job satisfaction as well as a business section's needs for the best and fittest for the job simultaneously.

## **Expansion of the Applications of Market Design**

**JS: The role of local governments will be more important in Japan as decentralization increases. Do you think the application of market design will increase accordingly?**

**Kojima:** Yes. I think there are some local governments in Japan that are very active in engaging in ambitious initiatives. They are ready to listen to our proposals. I am not quite sure about the role of local governments in Japan in the future, but I believe we should pursue the best allocation of roles between local governments and the central government. In the case of daycare facilities, local governments have good connections with each facility and detailed information about each facility's specific situations, and taking advantage of these they establish new facilities or ask some facilities to increase their capacity to accept more kids.

What's more, there would be room for improvement to standardize the matching method which is now left to each local authority's own decision. If it is standardized by the central government or any other public policy organization, the cost of matching would be enormously reduced. With the introduction of standardized software for matching algorithms, all local governments could use it.

**JS: What you have mentioned so far about market design's social implementation is totally related to social policy issues such as education, healthcare, daycare facilities, and so on. Would that lead to a modification of inequality?**

**Kojima:** Yes. And I would like to add one more thing. For the question of medical residents I mentioned in particular, as medical service is of a public nature, we will need to provide a minimum sufficient medical service for remote areas. In Japan, medical doctors are not allowed to go anywhere to work. In order to maintain

a minimum medical service for a remote area, the government has set a cap on the number of medical residents assigned to large cities like Tokyo or Osaka. The current system or algorithm in Japan leaves some room for improvement to meet those medical residents' wishes for job assignments.

At the Market Design Center, we want to pursue a reform of the system that better balances their personal wishes with the social need for minimum medical services even in remote areas. We hope we can accomplish our mission to contribute to social policy making to meet both personal and social needs. In areas where the price mechanism works well, resource allocation should be left to prices; but in areas where it does not work well, we should introduce market design and promote it for social implementation.

## **Future Mission of Market Design Center**

**JS: Will the Market Design Center's work increase from now on in fields where market design will have expanded application?**

**Kojima:** Yes. In Japan there is much potential for expansive use of market design, as its social implementation is far behind that in the US or other advanced nations, probably because it is not socially acknowledged yet. I believe we will have lots of work to do in filling up the gap.

**JS: What would you like to do in order to enhance public perception of market design in Japan?**

**Kojima:** We would like to publicize our views and analyses as much as possible. Our center was opened in autumn 2020. We organized an inaugural symposium then for the public. Recently, one of our research fellows, Dr. Shunya Noda at the University of British Columbia, issued a policy report on market design for Covid-19 vaccine distribution. We would like to continue such efforts in communication for the interest of the public. I would also like to issue my views on the economy and business in the light of market design in the media. Such efforts to expand exposure of our center to the media would help us raise the social perception of market design.

**JS**

Written by Naoyuki Haraoka, editor-in-chief of *Japan SPOTLIGHT*, with the assistance of TapeRewrite Corporation.

Interview with Larry Clark, Managing Director of Global Learning Solutions at Harvard Business Publishing Corporate Learning

# A Crisis Could Provide Ideal Conditions for Deep Innovation

By Japan SPOTLIGHT

Another distinguished business management expert believes that a crisis could be a mother of innovation. *Japan SPOTLIGHT* held the following interview with Larry Clark, managing director of Global Learning Solutions at Harvard Business Publishing Corporate Learning.

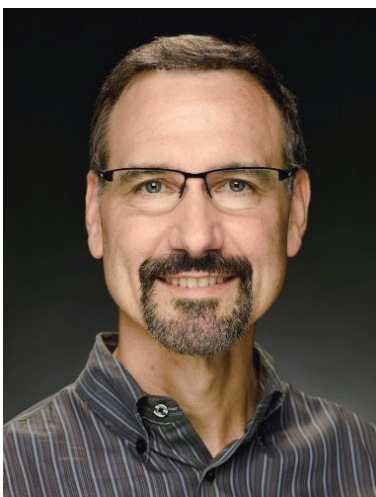
(Interviewed on March 30, 2021)

## Self-Introduction

**JS:** Could you please introduce your work at Global Learning Solutions at Harvard, as well as your various backgrounds in business and education, in particular at Comcast and Microsoft and so on.

**Clark:** Just to understand what Harvard Business Publishing (HBP) is about, we are a non-profit wholly owned subsidiary of Harvard Business School. We take the research and ideas that come from Harvard's research centers as well as the external thought leaders that we work with, and we bring that thought leadership to a much larger global audience. A lot of people know us from the *Harvard Business Review*, and the leadership books that we publish but we also work directly with organizations helping them leverage Harvard's thought leadership and developing their leaders, so my role is leading the part of the organization that supports all our leadership and development efforts around the world.

Personally, I came to HBP about three years ago, as a customer. Just before that I was leading talent management, leadership and professional development at Comcast which is a Fortune 50 cable and telecom firm that is based in the United States, where I spent six great years. Prior to that I was with Microsoft for 12 years and worked in a number of different areas – in talent, learning development, organizational development, including several years leading all the learning content development for the Microsoft Global Field organization. I have had a lot of experience with organizations needing to innovate just to survive and so innovation is a topic dear to my heart.



Larry Clark

## Key Factors for Innovation in a Crisis

**JS:** We are particularly interested in innovation and entrepreneurship during the current pandemic crisis. We think such difficulties would encourage innovation and entrepreneurship. What are the key factors for creating innovative thinking and entrepreneurship during a crisis?

**Clark:** Many people think that is all about solving a big new problem. I think that is partly true. A crisis presents a very novel situation that forces us to solve complex problems, usually really fast. I don't think that gets to the heart of the innovation opportunity that is presented during a crisis. There are four factors that a crisis presents that work together to provide ideal conditions for deep innovation.

The first is what I call unfreezing the organization. Most organizations have created structures so that they can get things done and save time and money, but that structure can over time start to stifle innovation. The Covid-19 crisis upended the way that grocery chains manage inventory, a process that they have been refining for years to maximize profitability and efficiency. But with a huge spike in demand for certain products at the start of the pandemic, purchasing managers bypassed this so that they could source much larger quantities of products much more quickly. This wiped away bureaucracy and allowed for fresh thinking.

The second factor is uniting around a purpose. Leaders are always trying to get more discretionary effort from people and to get more engagement from employees. During a crisis, you don't have to work so hard to inspire engagement, and that spike in energy can be easily

directed towards a clear purpose, which is of course addressing the crisis. In a recent global study we conducted with HR and talent leaders, they told us that despite the disruption from the pandemic, employee engagement was up significantly just because of the crisis.

The third is about how people can start to see the system of their organization differently. In normal times, companies leverage consultants to get an outside perspective, but in a crisis a lot of the things in an organization that we don't really think about – how basic processes work or aspects of our products and technology – suddenly we see them in a completely different light. So this new perspective reveals big opportunities for change and innovation.

The last factor which is probably the most obvious to everybody is this bias towards action. A crisis demands movement and change so the pace of ideation, the pace of decision making, and implementation go well up. Organizations are willing to test new ideas and experiment, to fail fast and move on. One organization took a project that was slated to last for four months and completed it in a day because the pandemic gave them this bias towards action, to just do things and do them quickly.

**JS: You mentioned “unfreezing the organization”. That seems to be necessary even in normal times.**

**Clark:** All of these are necessary but unfreezing the organization is a hard one. Tech firms such as Microsoft operate in a very unfrozen way. I was there for 12 years and had 13 different leaders, as it was a much more fluid organization always looking to innovate. Other organizations that are more built like machines for efficiency are the ones that struggle with this unfreezing process.

## **Flexible Working Style in the Pandemic & Innovative Minds**

**JS: The pandemic has transformed working styles and life-work balance. Do you think a flexible working style will encourage innovation?**

**Clark:** I think it depends on how leaders manage the flexibility. If the increased autonomy that people feel by not being in an office environment gives them the breathing room to come up with new ideas, it will help. On the other hand, if people find themselves scheduled on video calls 10 hours a day which is happening more and more, then innovation could actually go down. Some people are finding work-life balance easier under this environment, and some people are struggling. The other point is that we may need to recreate the informal ad hoc conversations that were common in a shared working environment. How do we replace two people running into each other in the hallway, having a quick conversation or jumping into a conversation room with a whiteboard. Those are the

kind of opportunities that we need to weave into how people work today in this more remote and disconnected environment.

Direct encounters between people definitely create innovation. We find that many of the leaders who foster the most innovation in their organizations aren't necessarily that innovative themselves. It is not the case that innovative people create a lot of innovation. We found many situations where people who are leading very innovative groups who are not necessarily the innovators, but are rather creating an environment where they feel freedom and a sense of purpose, and the autonomy to execute that purpose. There is a lot of psychological trust in that environment and people will feel that they are able to take risks. That is a critical part of working together.

**JS: This new working style has already created a lot of gig workers. Will they be a new source of entrepreneurship?**

**Clark:** Gig workers are entrepreneurs. They are running their own businesses and the good ones are looking at ways to maximize their value in the market. In some cases, they are engaging with multiple businesses in their work, just like consultants, and they gain new thinking from one organization and carry that into a new client. Depending on the nature of the gigs that they do, they can be like bees, cross-pollinating different organizations with new ideas. It's an advantage that gig workers have, to bring in and add more value because they are seeing more environments just like consultants do. If it is something that a gig worker is willing to offer, they can bring a lot of innovation to an organization.

**JS: On the management side it might be challenging to manage those gig workers.**

**Clark:** It can be; it is just becoming more common to have gig workers, contractors, short-term assignments. We are even finding a trend of hyper-specializing towards jobs, as you can source talent from anywhere in the world. It is so easy to connect globally, so you can take certain types of work that may have been done by one person and break it up among different specialists around the world. So that is a more common trend these days. Managers are getting used to the idea that they don't have to do everything just with the people that report directly to them. HR is also learning how to source the kind of talent they need, so the more they become used to it, the easier it will become.

**JS: You mentioned that face-to-face meetings would catalyze entrepreneurship. We are now living in an IT-dominant world and perhaps this online communication is becoming more common. Maybe the challenge for management today would be how to**



**mix face-to-face meetings with online conversations. What would be the best strategy for management to combine the two?**

**Clark:** We have been doing some of that for a while but now have moved so much so quickly. Part of what is helping right now is that the technology is starting to get better, and people are becoming more comfortable with it. Where some people a year ago could not imagine being online all day and having meetings, now it has become part of their day-to-day operation. Leaders need to be more proactive. They need to think about the nature of engagement because the people aren't just down the hall, so they have to think about the kind of environment they need to set up. Organizations are finding ways to do that, but the leaders that we find are working well in this environment are the ones who schedule the time, and also organize informal happy hours, get-togethers and team lunches online, which make a huge difference in creating informal conversation and getting people to share ideas.

### **Moving Towards a Knowledge-Based Society in IT-Driven Economy**

**JS: The IT sector would be the principal area where innovation and entrepreneurship are created by the pandemic. Would this make our economy more software service-oriented? Would our society become a more knowledge-based society?**

**Clark:** I think so. Speaking with HBP clients, the work to innovate in operations or business models was already underway for them but what shifted is the pace of innovation with tech. The pandemic has forced leaders to look at their organizations and markets through a completely different lens, and that puts a lot of constraints on them like moving to a remote workforce or not being able to service customers face to face. So tech has been a very flexible tool that people have been applying to work around these constraints.

So through this, I think what has begun to change is that leaders have started to become more digital savvy, they have had to start thinking about how to leverage technology to create new opportunities and innovate their operations. Now that they are making that shift, I don't think there is any turning back.

Every firm is now a tech firm. Software and connected systems already hold the world together but our dependence on them will continue to grow so I think we are becoming more knowledge-based. That said, we still need to build automobiles and manufacture pencils. There is still work that needs to be done that is completely knowledge-based and that will continue, but we are becoming more knowledge-based and technology-centered.

**JS: Besides the IT sector, what other sectors do you think would be most promising for entrepreneurship and innovation at the moment?**

**Clark:** We are all becoming tech firms; everyone is heavily dependent on technology. Large operations that do supply chain management, logistics – pretty much every industry can leverage technology to a greater degree than they have. The ones that are tech-based already such as software and telecoms are sprinting ahead with their plans, but I think we are going to see innovation coming out across multiple industries. Pharmaceuticals has fundamentally changed, where you are using genetic material or code and actually synthesizing something through software that we can use to stem a pandemic. So, I think it is happening everywhere.

### **Role of Education in Knowledge-Based Economy**

**JS: How do you perceive the role of business leadership education in the IT-driven or knowledge-based economy? What would be the role of business leadership education during an era of crisis like a pandemic?**

**Clark:** I would say my answer to both is probably the same. Tech firms run like they are in a crisis all the time. Leadership development needs to play a key role. Our research shows that while some leaders have been struggling in the current environment, others are thriving. So we want to understand the difference and we identified three key areas of capability.

The first is leading through uncertainty. This area is about continuously making sense of what is emerging. These leaders are comfortable with ambiguity, they can synthesize information quickly, they can make decisions when there is imperfect information or a lot of unknowns.

The second area where leadership development plays a big role is in cultivating trust. This is focused on building a climate of purpose and belonging for people in their organization. Leaders who cultivate trust demonstrate empathy, authenticity; they listen really well, and they demonstrate that they value people as unique individuals. Everybody brings something unique. Most importantly, they help their team focus on a common purpose or a north star, and that clarity is critical for them.

The third area that we found where leadership education can be really helpful is this area that we call re-scaling for opportunity. Leaders who do this well are great at fostering innovation; they also drive new value through the use of data, analytics and technology. This area is about how to lead the business into the future while the other two areas are more about how to lead in the present. If

leadership development efforts can focus on these three areas – especially with middle managers who tend to have the most difficulty in these areas – learning development functions can have a powerful impact in supporting the organization throughout the crisis, and beyond. All of those factors apply to an IT-based organization.

**JS: In terms of the kinds of knowledge which business leaders should have, engineering knowledge must be key but what other kinds of important knowledge do leaders need to have?**

**Clark:** You don't necessarily need to have business acumen; but you do need to understand your domain and cultivate trust. We are finding that the breadth of things that leaders need to understand seems to be growing, and we hear about T-shaped leadership where you can be deep in a certain area and know that area very well, but you need to be conversant in other areas too. For me as a leader in my organization, I am not expected to be able to do the job a web developer might do, but I do need to be conversant in technologies and understand how they affect my business. Digital savvy is a key piece of what is going to be used to innovate your business model or your operations. There are other capabilities that leaders need to have, including finance, economics, marketing, and product lifecycles, but you need to be able to lead through that and be conversant in technology and to create a sense of purpose across your organization.

**JS: In this knowledge-based economy, employees might need to be more highly educated; otherwise they might lose jobs and not be paid well. In that sense, how do you value the role of education in general – in particular to mitigate income inequality, which does seem to be a political question today?**

**Clark:** The pace of change today requires people to be learning constantly. So having a good foundation, for example a broad understanding of business, economics, and technology is a great starting point, but it is not enough. To stay current, everyone needs to set aside time for learning. It also needs to be continuous – watching for new trends, being curious about how to increase your impact and value in the market. With this trend towards hybrid jobs that have to span a number of specialties, like creative and analytical work together, the people who will do well will always be immersing themselves in learning. Formal educational institutions are seeing this need for continuous learning and are adopting their offerings to meet that.

In terms of inequality, some have said it has been exacerbated by the pandemic while others assert that it has just made existing inequalities more visible; both points are true. We have so much

work to do to unwind all the social injustice that exists in our society today. As painful as it is for everyone, I find a lot of hope in the fact that we are finally talking about it and starting to listen to each other. My dream is that one day in the future we can look back on this pandemic and say we had one beautiful outcome of this – starting the hard work of confronting the injustices in society and really addressing them in a meaningful way.

## **Post-Pandemic Innovation Continuing**

**JS: Could you tell us how can a good business leader maintain innovation and creativity in normal times without a crisis? It is often said by economists that after the pandemic, unfortunately economic growth will not be so high because people won't spend much money, causing the recession to continue. After the pandemic, we might need more innovation than ever.**

**Clark:** I agree. The four conditions I mentioned earlier are things that we can foster in our organizations as leaders without a crisis. We just have to embed them in our thinking going forward. Companies that grew up in the tech industry like Microsoft do those things well all the time because the business environment they are in is like a crisis. Tech has thrived in the crisis not because of its inherent value but because tech firms are purpose built to operate in these kinds of conditions. If leaders can think and lead this way all the time, imagine the impact they could have on the world – it could be truly incredible.

**JS: Do you have any future plans in your organization to deal with questions of innovation and entrepreneurship during the pandemic?**

**Clark:** We have projects around fostering innovation that we bring out to our clients and learners. Within our organization, fostering innovation is one of our key leader capabilities, so we are always publishing and researching that topic which overlaps with many other topics. Innovation involves collaboration and how we think about technology and having a digital mindset and other key capabilities, so it is something that we are working on all the time.

**JS**

Written with the cooperation of Joel Challender who is a translator, interpreter, researcher and writer specializing in Japanese disaster preparedness.

Interview with Dr. Yo Iwami, CEO of MedPeer

# C collective Intelligence from IT to Support Doctors & Help Patients – the Story of Japanese Healthcare Venture MedPeer

By Japan SPOTLIGHT

The medical and healthcare business is an area where we can find great innovation and entrepreneurship, especially during the current pandemic, as necessity is indeed the mother of invention. Vaccines have certainly been the most remarkable inventions during the pandemic. Telemedicine is another innovation in progress under the pandemic, born of an increasing need for people to maintain social distance, as going to crowded hospitals for medical consultations carries the risk of spreading infections.

MedPeer, founded in 2004, started to explore the sharing of medical knowledge and know-how among doctors and patients through IT, aiming at creating collective intelligence among doctors and helping patients with this collective knowledge. Thus it is a pioneer in the application of IT for medical and healthcare work. Japan SPOTLIGHT interviewed Dr. Yo Iwami, CEO of MedPeer.

(Interviewed on March 24, 2021)

## Introduction

**JS: First of all, could you please introduce yourself and your company briefly?**

**Iwami:** I am from Sakura city in Chiba Prefecture and graduated from the Department of Medicine of Shinshu University in Nagano in 1999, and then joined the Section of Cardiology at Tokyo Women's Medical University Hospital. I was then thinking about my career as a clinician and never thought about starting a business. However, between 1999 and 2004 there were an increasing number of medical litigations and distrust in medicine was spreading across the nation. Reflecting on this situation, I started thinking about how to address this distrust in medicine as an individual as well as a medical doctor. One way of contributing might have been to become involved in the policy making process in a public organization such as the Ministry of Health, Labour and Welfare. But then I thought there ought to be a way for a private business to help resolve such a social issue, and so I founded Medical Oblige Inc. in 2004.

In 2007, I started up a specialized website for medical doctors called "Next Doctors" (now called MedPeer) in the hope of achieving our mission of "Supporting Doctors, Helping Patients". I thought that strengthening collaboration among medical doctors on the basis of shared information and know-how would lead to supporting doctors



Dr. Yo Iwami

and helping patients. At the beginning, the business did not pay well and I was struggling for satisfactory outcomes, but "the bulletin board of assessment on medicine" that started in May 2010 on the MedPeer site was a major breakthrough for our business. That was a service providing information on assessments of medicine on behalf of medical doctors. There had been no service as such in Japan thus far. Thanks to this, our company finally had a surplus for the first time in 2012 since its foundation, and then in 2014 it got listed on the Tokyo Stock Exchange Mothers. With the increased main pillars of our services, we moved onto the First Section of the Tokyo Stock Exchange in 2020.

## Main Pillars of MedPeer's Business Services

**JS: When you started your business, your goal was the renewal of medical services by promoting shared information among doctors and achieving collective intelligence. Meanwhile, in this time of pandemic, we see "telemedicine" is suddenly a topical issue nationwide. Would this be in your business territory now?**

**Iwami:** There are three main pillars of our business. The first one is what we call a collective intelligence platform. This is a platform for

information provision for expert groups such as “MedPeer”, our website restricted to the community of medical doctors, or “Yakumed” restricted to pharmacists. The second one is a platform for preventive medicine, a service related to preventive medicine providing guidance on meals by registered dietitians for those with concerns about their health following medical examinations or occupational health support for business firms. The third is a “primary care platform”, providing supporting services for primary care doctors or primary care pharmacies.

This third category started only two years ago, but we are now convinced of its utility. More specifically, we provide two kinds of services, one for primary care pharmacies called “Kakari” and the other for primary care clinics called “Kakari for Clinics”. We started in 2020 an online medical consultation service within “Kakari for Clinics”. Our business is often considered to develop as one that provides customers with online consultation services, but we believe that online consultation is not a goal but a means for treatment. What we believe to be the most important merit of our services is that medical doctors and patients, or pharmacists and patients can get connected with each other through smartphone applications. Our “Kakari for Clinics” is a smartphone application with functions such as reservations for consultation, two-way chat and online diagnosis. A patient can choose an online consultation or face-to-face consultation depending upon their situation in the process of searching for a hospital and consulting with a primary care doctor. So as a result of this online communication with primary care doctors there could be a case of online diagnosis, which is what we call “telemedicine”. This is the uniqueness of our service.

## IT & Japanese Medical Service

**JS: Do you think online medical information provision or communication between doctors, pharmacists and patients will continue even after the end of the pandemic?**

**Iwami:** I do not think we will return to the situation before the pandemic. It is certainly true that the pandemic has radically transformed the nature of our medical service provided on the spot. But this change had already started even before the pandemic. Certainly, sometime before, doctors would not have had much to do but sit in a chair in their consultation office and wait for patients. But now this is over. At that time, doctors had an absolute authority comparable to paternalism in an ancient family, but now they are expected to increase the quality of their services as a reliable advisor. Doctors and hospitals are thus asked to have more dialogue with patients now. In this light, it is good for them to have an online means of communication to connect with patients, even though it was the tragedy of the pandemic that triggered this change.

**JS: In general, the adoption of IT in Japanese medicine has not made much progress. With the pandemic, will this change or will there be any obstacles to prevent it?**

**Iwami:** I think IT will prevail in Japanese medicine and I believe we have to promote it. This pandemic has reminded us of healthcare workers being exposed to a high risk of mortality from the pandemic. They must work in a place where they could die. In order to avoid such risk, we need to promote online tools for consultation and diagnosis. If there is any factor preventing the progress of IT utilization in Japanese medicine, it would be a medical service provision system too well accommodated. Everyone is guaranteed under public healthcare insurance free access to medical services in hospitals, and any patient can meet with any doctor at any time, which is relatively unusual in the world.

This has enabled patients to have face-to-face meetings with doctors and thus digital transformation has not made good progress so far.

## Pandemic & Ventures in Medicine

**JS: We believe this pandemic could create the seeds of innovation in various areas. Do you think start-up companies will increase in the area of medicine?**

**Iwami:** Even before the pandemic, we have seen start-ups increasing in the area of medicine and health care in Japan, as well as in other countries. We are the co-sponsor with the *Nihon Keizai Journal* of a global conference called “Healthtech/Sum” (healthcare technology summits) and thus observe the latest trends among medical start-ups in the world, including those in Silicon Valley. We have seen a drastic decrease in medical and healthcare start-ups in Japan in 2020 as well as in cases of their financing. It looks like all development stopped in this area in 2020. Meanwhile, in the United States, such start-ups recorded their highest level in 2020. Thus, we see the perception of risk or risk money in Japan is very contradictory to that in the US. But I think that in Japan we will now see a rapidly rising number of start-ups.

**JS: The most significant innovations under the pandemic must be vaccines. There are now a variety of vaccines developed by some pharmaceutical companies and R&D of therapeutics for Covid-19 is also under progress. Are you prepared to provide information on these vaccines and therapeutics?**

**Iwami:** In the light of our mission “Supporting Doctors”, it would be important for us to provide unbiased information on them. On the

difference between these developed vaccines, there would be some information made public only by each vaccine producer and some not to be made public. In this light, the information to be shared without any bias by the doctors taking care of patients having the vaccines would be most likely a possibility of the vaccines causing a side reaction in a person in good health. Also, I believe that Japanese in general tend to be extremely afraid of risks. Based on a good understanding about such a particular national character of Japanese, I think it would be necessary to be prudent in providing the information about the vaccines.

**JS: Looking at your board members, there seems to be a great diversity in their backgrounds. Does this mean you are determined to promote Japanese medicine through diversity of knowledge regardless of specialty?**

**Iwami:** I think we need three kinds of human resources for board members of a health tech company. The first is medical doctors working inside the medical service, like myself. This area is extremely professional and their unique professional knowledge would be hard to access from outside of the medical professionals' community. Only medical professionals could see the business issue in this area. There are also many stakeholders in this business and the working experience of a medical doctor would be important in this regard. The second one is a Chief Operations Officer (COO), a business professional, an expert in earning stable profits, which is a challenge in this healthcare business. Thirdly, we need technology experts in IT to achieve a big impact on the business. Without these three kinds of experts, we would not be able to achieve a stable business performance. So our board member structure reflects this belief.

**JS: In Silicon Valley, there are a variety of medical ventures starting up. It does not seem to be unusual to see a completely new medical and healthcare business with collaboration between IT experts and medical experts. Do you think such ventures will increase?**

**Iwami:** To our knowledge, there are a little less than 90 doctors in Japan who have started up a business. This means that starting up a business could be an alternative career path for a doctor in Japan now, even though there are not so many pursuing it.

**JS: There will be many gig-workers born as telework prevails under the pandemic. They work on a job without being bound by an organization's interests. Could such a change of working style trigger an**

**increase in start-up companies?**

**Iwami:** In our age, that happens regardless of a pandemic. We live in an age where a side-business is recommended. If a side-business contributes to the performance of the principal business, we will see a change of perception about side-businesses, which would encourage side-businesses among employees in a company. So I think the psychological barriers to start-ups will be lowered. In addition, we now have a working environment for collaboration without having face-to-face meetings. So we do expect a rise in start-ups through collaboration.

## Future Goals & Plans

**JS: Could you please tell us of your future goals or plans?**

**Iwami:** We are now finally starting to see a clear perspective of the three main pillars of our business. I believe each of them will have a substantive social impact and then we would be actively working on those three principal jobs. On the other hand, having worked on services for sharing medical and healthcare related information to supporting services for primary care doctors or pharmacists, we are now dealing with more valuable but high-risk information like that on the medicine that an individual person is taking. This is a highly sensitive area of work for our health tech industry. In the future, it will be possible for us to deal with genetic information vital to human life and considered ultimately personal information. In this light, we have a grave responsibility to protect the security of such sensitive personal information.

**JS: You started up a company triggered by increasing social distrust in medicine, as you mentioned. This means that you are a social entrepreneur. Do you think social entrepreneurs will increase from now on?**

**Iwami:** As I believe that all companies are working to resolve social issues, I think anybody in connection with a company must be some sort of social entrepreneur. If changes happen in the future, there will be increasing numbers of people contemplating starting a new business rather than just trying to be a principal player in the business. There does seem to be a generation gap in thinking about business. I think people in succeeding and future generations would respect more the social contribution of business. I think this current trend among young people is encouraging.

**JS**

Written by Naoyuki Haraoka, editor-in-chief of *Japan SPOTLIGHT*, with the cooperation of Naoko Sakai who is a freelance writer.



Interview with Renee Graham, Chairwoman of the APEC forum Policy Partnership on Women and the Economy

# APEC: Driving Innovation & Female Entrepreneurship

By Japan SPOTLIGHT

The contribution of women to revitalizing the economy today is key to enhancing its growth potential. Underutilization of women's abilities and talents will lead to a serious loss of human resources and hamper the competitiveness of industries. In particular, women are good at creating new businesses related to consumer products. International discussions have been encouraging female entrepreneurship, with the OECD and APEC providing notable venues. APEC, in particular, has a special forum focusing on empowering female entrepreneurship called the Policy Partnership on Women and the Economy.

Renee Graham has been chief executive of the Ministry for Women, New Zealand, since June 2017. During her tenure as chief executive, the ministry has successfully gained agreement for an increased 50% target for women on public sector boards and an action plan to eliminate the gender pay gap in core public services. A key focus of the ministry's work program is to improve outcomes for wāhine Māori. She contributes to a number of public sector-wide steering groups and committees, including the Papa Pounamu board for Diversity and Inclusion and the Women in Public Sector Summit organizing committee. Prior to this appointment, she was policy director at the Ministry of Education.

In an interview granted to *Japan SPOTLIGHT*, she gives an insight into the role of APEC in encouraging innovation and entrepreneurship among member nations, the APEC women entrepreneurs' contribution to the economy in the pandemic, and her future targets.

(Interviewed on April 22, 2021)

## Mission & Role

**JS:** Could you please tell us a little bit about yourself and your mission and role?

**Graham:** My name is Renee Graham. I am secretary for women and chief executive at the Ministry for Women, New Zealand. We are a small government organization, and we work as the government's principal advisor on achieving better results for girls and women in New Zealand. We bring the voices, experiences, and priorities of different groups of New Zealand women to the government and other agencies regarding what to do on these issues. Our vision in New Zealand is that New Zealand is a great place to be a woman or girl, that wāhine Māori, our indigenous population, succeed as Māori, and that gender is not a barrier to well-being. That is our mission; that is what we aim for in New Zealand.

A lot of other countries do not have a Ministry for Women. But we have been around since 1985. We work alongside other agencies. For example, the education agency is responsible for improving the education outcomes for girls. We work with them on that. So that's



Renee Graham

kind of a broader system role and the role we play in New Zealand. That is my job in New Zealand.

My other role is to be the chair of one of the APEC forums, which is the Policy Partnership on Women and the Economy (PPWE). I have been elected to the chair for two years. I have taken over from the Chilean chair. Nowadays we have to work on a virtual platform, and that is a big challenge for us.

The goal of PPWE is to advance the economic integration of women in the APEC region for the benefit of all members and to coordinate gender activities across other APEC working groups. There are 12 other working groups attached to APEC working on a range of things like human

resources, illegal trade, etc. PPWE focuses on gender and women's economic empowerment, and its other responsibility is to ensure that the other groups across APEC are supported to ensure that they too have a focus on enhancing outcomes for women. In PPWE, we work to address the five key pillars impacting women's economic empowerment. We focus on access to capital, access to market, skills and capacity building, women's leadership and agency, and innovation and technology.

One other key area that I am focussed on as the chair for PPWE this year and the next year is the implementation of last year's roadmap. That was the ninth roadmap named after the city we had PPWE in. We developed the roadmap in Chile. The roadmap sets out what we should be doing not only in PPWE but across the APEC economies in other workstreams – get some action within the economies and the other streams of work. We call it greater inclusive economic development and participation of women in the Asia-Pacific.

We have five key areas of action in this roadmap: empowering women through access to capital and markets, strengthening women's labor force participation, improving access of women to leadership positions in all levels of decision-making, supporting women's education, training and skills development and access in a changing world of work, and advancing women's economic empowerment through data collection and analysis. So that is my role at APEC – to ensure that economies are focusing on the implementation of the roadmap.

## **Enhancement of Women's Capabilities**

**JS: Nations are working hard to enhance the status of women. Women constitute a country's largest potential human resources. Even Japan is working hard in this area. Could you please let me know the background of New Zealand's project for enhancement of women's capabilities? What made New Zealand adopt a policy of enhancing women's capabilities at such an early stage of its development?**

**Graham:** I think it goes way back to the 1890s. New Zealand was the first country to grant women the right to vote. It happened in 1893. While we haven't always gotten it right, we have always been a little bit progressive.

It is about how organized we can get and what we want from gender equality. With the passage of time women have become more advanced in terms of gender equality; and in the last three or four years, in particular, both society's values and wants around gender equality and the political environment gave us a big opportunity to advance and get what women had been talking about during that time. So we took the opportunity and were able to drive in changes in New Zealand. But we still have a long way to go. We still have issues that face other economies, such as domestic violence and family violence. We still have a lot to do in those spaces. That's why we find instruments and mechanisms like APEC helpful, and what that means is that we can come together and share ideas, problems, and solutions and help each other out in those areas. I think one of the advantages of APEC is that we can do all that together. We live in different economies, but we all want to achieve the same results. So that means that we should have good discussions whenever we are together, really sharing our advice and problems during the APEC sessions.

## **Role of APEC in Encouraging Innovation & Entrepreneurship**

**JS: How do you assess the role of APEC in encouraging innovation and entrepreneurship so far?**

**Graham:** I'd like to hold off until about after June. What we are doing this year is that across APEC all members are going to let us know what they are doing in their particular workstream in order to support women. In June, I'll look at all the information, which would give us a good picture of the steps we are taking across member economies to empower the economic achievement of women. I am quite optimistic. And I'm really taking on board last year's roadmap – the goals that we have for women. I am taking on board what each of the workstreams is thinking about how they can achieve better outcomes for women through the work they are doing, which is really powerful. That means it's not just PPWE where they are working to improve the outcome for women but the whole of the APEC. After June, I'll find out what they are actually doing to get better outcomes for women. We do have other PPWE activities like the BEST Award. That is about sharing success stories of women in businesses. So the business side is quite encouraging as well. That's an example of the good work that is being done, and that's why I am quite optimistic about the future.

## **Pandemic: New Challenges & Opportunities**

**JS: In your country, the pandemic has been very well contained. But it continues to pose a major challenge to many other countries. Do you think the ongoing pandemic can offer us opportunities for innovation and entrepreneurship?**

**Graham:** The pandemic has had a disproportionate impact on women and girls not only in New Zealand but across the world. It does not affect all women equally. In New Zealand, there were a few disadvantaged groups before the arrival of Covid-19, and there are more disadvantaged groups now – after the pandemic broke out. From what we know from previous labor market shocks in New Zealand, some of those disadvantaged groups will take three to six years to get back to the level they were prior to the pandemic, which gives quite a challenge to do something about it now – help those, especially the women, who have been hit by Covid-19. There is a common purpose among APEC members that we should be doing something to respond to the current situation. We have a clear opportunity to collectively improve the situation for women and girls. The La Serena Roadmap is an important tool which sets high level benchmarks in this area that we are focusing on. We're taking stock shortly of what economies are doing and that will be an important assessment of where we're at,

**JS: As you said earlier, women are suffering due to**

the new employment situation, which seems to be increasing difficulties in New Zealand. In Japan, for example, non-permanent employees are mostly women, and hence their service or income is unstable. In many cases, they face the risk of being fired. In this regard, what kinds of policies are needed to help women in New Zealand overcome the challenges they face? Do you think your entrepreneurship program can help them in overcoming the difficulties they currently face?

**Graham:** There were women in the tourism sector who lost their jobs because there weren't any tourists in New Zealand. That is what generally happened in the country after the pandemic broke out. The response from the government was quite generic and women had access to the generic kind of support and tools that the government implemented. So, for instance, we had wage subsidies – that helps employers to keep people employed. If they had to take sick leave, the government must pay for that. The generic response has benefitted women. Nearly half of the wage subsidy was taken up by women. And then we had the job creation programs as well that women could benefit from. So the shown response from the government in particular was generic, and that seemed to work. I think that the response in New Zealand and in other countries may need to move into gender-responsive policies and processes – policies and approaches that are specifically needed for women. At least we should have a dialogue and discussion about it, as women's needs might be different from men's needs.

## Female Entrepreneurship in New Zealand

**JS:** What have you to say about female entrepreneurship in your country?

**Graham:** We have found that in New Zealand the number of entrepreneurs slightly increased over the last year or so. Women and men have capitalized on the availability of new ways of working and opportunities with the pandemic. You can now show a little bit of entrepreneurship here. We also found women taking more unpaid work in child care. Some of the women here have come out of the labor market completely, and there has been a rise in family violence.

During the Covid era, many women in New Zealand took a leap into entrepreneurship. Quite a few of them started their own businesses after a wave of pandemic-related redundancies. Around 5,000 new businesses were registered with the New Zealand Companies Office in 2020 – the only rise in the number of companies in New Zealand in the past five years. There has been a sharp rise in the number of businesses appearing online since the pandemic broke out, as consumers have made a conscious effort to support local products. Covid-19 caused 10,000 women redundancies, and that is reflected in the number of women-led new businesses.

## Popular Sectors for Female Entrepreneurship

**JS:** In Japan, IT business or digital business seems to be quite popular in the area of entrepreneurship. What are the popular sectors for female entrepreneurship in New Zealand?

**Graham:** I think digital businesses are becoming quite popular here. In this connection, I would like to make special mention of some of the successful Pacific women in business. Manukau-based chartered accountant Ruth Sio-Lokam believes that it wasn't until she went into business for herself that she felt able to express the core Pacific values in her professional life. Kristy Morgan is a barrister, mother of three, and director of the Pacific dance company *Embrace*. Inspiration for going into business came early for tech company founder and director Falute Lene, who grew up in Samoa. A desire to be able to work from home and care for her two children led Fijian-born Renuka Kumar to start a successful Pacific clothing business. And New Zealand-born Sao Timaloa is a successful family lawyer. This is a report on Pacific women in business in New Zealand; there are case studies on pages 12-16: [https://women.govt.nz/sites/public\\_files/Pacific%20Women%20and%20Men%20in%20Business.pdf](https://women.govt.nz/sites/public_files/Pacific%20Women%20and%20Men%20in%20Business.pdf).

## Contribution to APEC in the Near Future

**JS:** As the new chair of the group, what do you think will be your group's contribution to APEC in the near future assuming that the pandemic will continue for a while?

**Graham:** All APEC members recognize the potential of women's contribution across the Asia-Pacific, and that potential remains untapped. Women's empowerment is quite high on APEC's agenda, and it is likely to remain there for some time. I think we have capitalized on some of the instruments that we have, such as last year's roadmap. I also think that having a workstream like PPWE, which is focussed on women, means that you will always have a focus on women-related issues and that you can make sure that women are not overtaken. And that's more important in a pandemic or post-pandemic environment. By using the roadmap, we can monitor what is really going on and use that as evidence to bring women to the forefront and to tell people about how women are faring across the Asia-Pacific.

**JS**

Written with the cooperation of Rajesh Williams who is a professional editor and a writer with a background in instructional design, technical writing, technical editing, and teaching.



# Digital Asia: Responding to Challenges from GVCs Digitalization, US-China Decoupling & the Covid-19 Pandemic

By Lurong Chen



Author Lurong Chen

Digitalization, US-China decoupling, and the coronavirus (Covid-19) pandemic represent the three remarkable sources of change faced by the world economy. Asia's response to these challenges will determine its economic prosperity and regional stability, as well as the reconstruction of global value chains (GVCs) and the establishment of a new world order. Digital transformation is not just about disruptive innovation and technology adoption. More importantly, it represents a new wave of massive technological progress that will drive socio-economic transition and the changes in international relations in the 21st century. This article proposes ways in which Asia could harness the digital economy as part of its response to the long-term, medium-term, and short-term challenges of regional development.

## Digitalization as a Global Trend in the Long Run

Digitalization can affect economic growth via its effect on reducing trade costs, similar to the effect of the industrial revolution in the 18th and 19th centuries and that of the information revolution in the 20th century. In the first wave of massive technological progress during the industrial revolution, the use of steamships and railways drove down the cost of transportation. Mass production, economies of scale, and industry-wide division of labor became feasible. Producers and consumers in different countries benefited from trade with each other. But at this stage, international trade was dominated by trade in goods, and the main content of trade was final goods or raw materials.

In the second wave of massive technological progress during the information revolution, the applications of information and communication technologies (ICTs) – mainly through their effect of reducing the cost of communication – set the stage for the birth of GVCs and lowered the threshold for countries to join the international division of labor. Since then, GVC participation has become the new thinking on development, and the idea of economic liberalization became widely accepted as the way a country could facilitate its involvement in GVCs to pursue economic prosperity and development. To meet the needs for coordinating GVCs, service links – especially those of business and financial services – were making great strides forward as well. As a result, the world economy became further interconnected via GVCs. Increasingly, there is more to trade, and countries trade more.

Digitalization tends to extend the coverage of GVCs and increase

their sophistication by lowering the cost of people-to-people connection, increasing information transparency to all GVCs, and blurring the boundaries between different links of the value chains. Moreover, with the application of digital technologies and related business models, the service sector will become much more innovative and productive. Digital-armed service links – either digital enabled or digital born – will improve the capacity of GVC coordination, facilitate the network extension, and allow GVCs to evolve toward an ecosystem that is better connected, smarter, and more efficient.

However, the changes triggered by digitalization could be wider, deeper, and less predictable than ever before, especially with the development and the use of Artificial Intelligence (AI), big data, and the Internet of Things (IoT). For instance, at the early stage of the Internet's development, it was relatively easy for Internet users to have their real life and that in the cyberspace separated.

But with the advance of digital technologies, the boundaries between cyberspace and reality tend to evaporate over time. For individuals, the virtual identity in the online world has to be mapped with the physical one; while for countries, cyberspace, which was conceived as borderless, is becoming an ever more integral part of national sovereignty.

On the one hand, news, opinions, and speech disseminated via the Internet and social media have increasing influence on real-life activities and decision making. On the other hand, rules and regulations on online behavior, such as that of data flow, privacy, consumer protection, competition, and cybersecurity, are reshaping the cyber landscape and extend the current international order to cyberspace. Unavoidably, the diversity of countries' attitudes towards the governance of cyberspace ("cyber-governance") and the consequent policies represent the differences of the economic and legal systems, institutions, social values, and even the ideologies that are ubiquitous amongst countries.

For that reason, digital transformation will be a process marked by strong competition and conflicts between different values, cultures, and social systems, and the ongoing dispute between the United States and China will be discussed in this broader context. Asia will be the first to bear the brunt of the consequent shocks from their possible decoupling.

## Interpreting US-China Decoupling in the Context of Global Digital Transformation

The economic cost of decoupling is high for the US, China, and the rest of Asia. It is very likely that Washington's restrictions on imports from China will generate more trade diversion than trade creation effects. That means American producers will have to find alternative supply locally or from elsewhere in the world. Either means higher costs and lower efficiency. Moreover, Beijing's trade retaliation could damage American exports to the world's most populous market. Ultimately, consumers will have to bear the burden in terms of higher prices.

Similarly, consumers and producers in China will also suffer higher costs due to the trade war. Given the role that international trade and foreign investment have played in promoting Chinese economic reform, from a Chinese perspective, decoupling with the US means not just the loss of the world's largest market, but more importantly, cutting off its main channel of gaining know-how.

For the rest of Asia, the network of regional production sharing that involves both the US and China has been the cornerstone of Asian development. In the past, the cooperative competition between the US and China created a development friendly environment for other Asian countries, allowing them to benefit from capital inflows and technology diffusion, as well as access to both large markets. US-China decoupling will introduce uncertainty and probably make the region less attractive to international capital and outsourced activities.

In particular, the rising distrust in the high-tech area, especially that of digital technologies, symbolizes some deep-rooted difference between the US and China. During the honeymoon period of the US-China relationship, the existence of wide technology gaps and high economic complementarity provided plenty of space for collaboration. For example, innovation and new designs from Silicon Valley and Original Entrusted Manufacture (OEM) activities in Shenzhen are linked via GVCs, creating a win-win situation for both sides as well as the rest of the world. At the time, China was eager to learn from the American experience and adopt best practices from the West as useful guidelines for its domestic reform, while the US saw a rising China as a favorable factor in global stability and development.

The 2008 credit crunch seemed to have foreshadowed today's US-China dispute. The outbreak of the subprime crisis exposed some deficiencies of the US economy. Although the crisis may not have completely destroyed America's image as a reference for Chinese market reform, it seemed to have served as a wake-up call for Chinese leaders and made them rethink whether those

supposedly good practices are really that good. China was cooperative in supporting the US to tame the fire in the capital market, but has since then become more cautious in market opening, especially in the fields of finance, media, and the Internet.

Increasingly, the US has felt the pressure of competition from China, especially in the development of the digital economy. China has started to take the lead in areas such as 5G infrastructure, e-commerce, and fintech. Chinese companies such as Huawei and ZTE are amongst the frontrunners in the global race to 5G, together accounting for over 20% of global 5G technology patents. The Chinese e-commerce market has maintained two-digit growth since 2015. In 2019, China owned the world's largest online marketplace and contributed over two-fifths of global total e-commerce revenue. The country also has the world's largest group of e-payment users. Its central bank, the People's Bank of China, issued a digital currency, the e-RMB, in April 2021. With such clear signs of progress, China is expected to be the first country to realise a cashless society.

China is also catching up quickly in areas such as AI, big data, cloud computing, industrial Internet, and smart city building. But the way the Chinese government promotes its digital economy has been questioned by foreign competitors. For example, China's restrictive data policy and regulations on news censorship have acted as de facto barriers that have stopped major foreign digital giants from entering the domestic market. While Baidu, Alibaba, and Tencent were allowed to compete in the US market and even raise funds via IPOs there, their American competitors – Google, Amazon, and Facebook – still see their door to the Chinese market remain locked. Another example is that the overseas expansion of Chinese companies is often backed up by the government, giving them advantages in global competition.

Such outstanding problems of non-reciprocity in market access have aggravated the distrust between Beijing and the White House, especially when the US and China see accelerating digital transformation as part of the strategic focus of economic development. On the one side, the White House may have read *Made in China 2025* as a declaration of China's ambition to challenge US leadership in GVCs; while on the other side, Beijing may have interpreted Biden's upholding of a hardline China policy as a sign that in bilateral relations carrots from the White House will be scarce but sticks will be plenty.

Asia's development faces the challenge from the reconstruction of GVCs resulting from US-China decoupling, combined with disruptive changes triggered by new digital technologies. The Covid-19 pandemic provided a beta test on the effect of digitalization on increasing the GVCs' resilience.

## The Covid-19 Pandemic: a Supply Chain Crisis

In the economic area, the Covid-19 pandemic can be seen as a global supply chain crisis, with shocks coming from both the supply and the demand sides. It started with a negative supply-side shock. The world supply chains became fractured when China locked its borders to prevent wider spread of the virus. Exports from China suddenly halted, causing a shortage of supply of goods and services, either final or intermediate, to the global market. As orders from their downstream clients in China were either cancelled or postponed, foreign suppliers in the upstream of value chains encountered a negative demand-side shock. When Covid-19 turned into a pandemic, countries' lockdown measures worked like pushing a "Pause" button on GVCs, causing the global contagion of plummeting of international trade and a short-term economic recession.

Digitalization has been rising to prominence during the Covid-19 pandemic when digital technologies and related business models backed up the government's emergency response to the crisis, such as the implementation of social distancing and lockdown measures. The world's number of Internet users increased by more than 100 million in 2020. More people have adopted online learning, working, and shopping, which has become an integral part of their daily lives and has replaced offline activities. Without digital solutions that empowered people and businesses, the Covid-19 pandemic could have caused far greater harm.

The world economy had shown strong signs of recovery by the first half of 2021, thanks to China resuming production, as well as the efforts of countries' stimulus measures, such as fiscal aid and an easing of monetary policy, that had meant to pull the economy out of depression by stimulating demand. However, the Covid-19 pandemic may persist for longer and harm the economy more deeply than policymakers expected. Unless the supply side can quickly regain its productivity and enter a growth track, the stimulus-driven recovery will only be temporary, and the economy will face the risk of high inflation.

## Digitalization in the Post-Covid-19 Recovery & Growth

Accelerating digital transformation will be of help to deal with this supply side problem. First of all, GVCs' digitalization (blending digital technologies into the GVCs), especially with the application of big data, AI, robotics, and IoT into production and management, tends to strengthen the connection within the network and improve its overall resilience. It is not the Covid-19 pandemic but policy measures in

response to it that have caused supply chains to disconnect and transformed a global public health crisis into an economic crisis. Measures like restrictions on people's mobility and border lockdowns seemed to affect more the links that involve intensive labor participation than those with automatic control. The idea is to make GVCs "smarter" by adopting digital tools, services, and business models into the network and increase its resilience by reducing the risk of introducing shocks to the system through their effect on humans.

Second, digitalization is the most important source of economic power in the 21st century. The annual gross output of Silicon Valley has been higher than Finland's national GDP. Research and Development and applications of digital technologies can unleash market potential not only by giving birth to new industries, but also via the combination with technologies in new materials and new energies. Taking Industry 4.0 (4IR) in ASEAN as an example, projections suggest that adopting 4IR will contribute 35%–40% of incremental market value added to ASEAN within 10 years. For the whole region, 4IR could bring an increase of about \$210–\$230 billion in output and a \$40–\$45 billion increase in revenue.

Digital technologies are normally interlinked and compatible with one another. Combining different technologies could further give birth to new products and new services, and generate new markets. This could then multiply the market potential, create new job opportunities, and provide a steady flow of innovation and productivity improvement. As an example, AI – defined as a set of technologies that enables machines to perform human-like functions – has a great variety of applications in our economy and society. Some have started being widely used in our daily life, such as augmented research, intelligent agents, generative product design, robotic process automation, autonomous vehicles and drones, speech and image recognition, biometric recognition, recommendation systems, and predictive systems.

## Digitalization to Mitigate Shocks from US-China Decoupling

To Asia, the cost of losing either the US or China will be very high. Asia's economic achievements in the past were inseparable from the interlinkages of global demand, supply, and regional production sharing via GVCs that supported the region to be the world's largest platform of exports. Regional production sharing in Asia, the so-called Factory Asia, functions on the basis of a multi-layered network intertwined with intensive cross-border activities. Close links with both the US and China contribute to increasing the region's overall competitiveness in the global market.

Although possible US-China decoupling cannot and will not change the direction of the long-term trend of economic digitalization, a long-lasting dispute would affect the trajectory of digital transformation and probably alter the resulting patterns. The countries of ASEAN and East Asia should get ready for the changes. It is important to strengthen the connection with both the US and China, even though both sides have kept drifting apart. Slowing down the pace of decoupling could win them more time to make the needed adjustments. In case the decoupling forces GVCs to split into two competing blocs, the region needs to make sure that the two blocs overlap in Asia. The region shall have economic gravitation so large that both the US and China will stick to the Asian market despite their decoupling.

Developing the digital economy can help increase regional cohesion and strengthen the region's market gravitation in the global economy. Unleashing Asia's potential in the digital economy needs regional collaboration in areas such as data flow, consumer protection, cybersecurity, IPR protection, and dispute resolution. With regional integration and digital transformation mutually reinforcing, Asia could increase its weight in GVCs in the digital era and have a greater say in regional and global affairs.

### Accelerating Digital Transformation in Asia

In short, deepening regional integration and promoting the digital economy will stay at the core of Asia's long-term development strategy. This is in line with the global trend of digitalization in the long term. It could also help Asian countries work more closely together to mitigate the negative impacts of the US-China dispute. In the short run, this will be an important part of the region's policy response to deal with the economic shocks triggered by the Covid-19 pandemic and possible inflation afterwards.

To accelerate digital transformation in Asia, policies in terms of the following four aspects are worth considering. First, the digital economy is also known as "creative economy" or "innovative economy". Supporting innovative economic growth needs innovative policy thoughts. The diversity of Asian countries in their stage of development and the structure of their economies will provide policymakers with more flexibility and an enlarged policy space. In addition to efforts on nurturing their own digital unicorns, a policy focus will be the polish of the countries' competitive edges by embracing digital technologies in traditional sectors, i.e. agriculture and handicrafts.

Second, by changing the manner of people-to-people connections and lowering its costs, digital transformation is not just an economic transformation, but also a process of social transformation that

contains changes in the way people live, work, and study. For East and Southeast Asia, improving people-to-people connections will be a policy focus, as they can provide necessary conditions to realize the ambitions of regional development, such as eliminating development gaps and promoting inclusive growth.

Third, rule setting to enable free flow of data with trust represents a bigger challenge in improving digital connectivity, which remains at the core of digital transformation and GVCs in Asia, when compared to building data-related infrastructure. Improving connectivity means not only better infrastructure for physical connectivity, but also a smoother and safer information flow in cyberspace.

Thanks to the widespread use of smartphones, the Internet, and technologies that facilitate data collection, processing, storage, and distribution, technological barriers to data flow have been effectively reduced. More data and information today are already digital-born – they were born to be borderless, and their life cycle exists in cyberspace. But "trust" highlights the increasing concern about data accuracy and safety and privacy protection. While the advance of ICT facilitates the use of data, it also increases the risk that data could be illegally leaked, stolen, or misused. Free flow of data needs to be safeguarded by a series of backup policies, especially when data has become the main carrier of value in the digital economy.

Asia is known for its gradualism and pragmatism in pushing forward the process of regional cooperation. A similar strategy could be applied to "trust building" in the field of cooperation in the digital economy. For example, Asian countries could start with collaboration in harvesting the low-hanging fruits of the digital economy, such as promoting e-commerce and facilitating digital trade, and then extend to areas where cooperation requires greater mutual trust.

Fourth, promoting the digital economy calls for a broader regulatory framework comprising a wide range of related issues – from consumer protection to competition. Although most of these issues are not new and have been regulated previously, digitalization has introduced new content and challenges. Unless it is accepted by the market and adopted by the private sector, any proposed regulatory system may fail to achieve its original goal of promoting the digital economy. Preserving the voice of the private sector in the cycle of policy design and rule-making will be useful, and so is balancing the interests of digital giants with those of small and medium-sized enterprises.

JS

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# Asia in the Global Dynamics of Embracing the Digital Revolution: Performance & Strategic Priorities for Policy Action

By Khuong Vu



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## Asia's Efforts in Embracing the Digital Revolution

Asia is a major contributor to the rapid progress and penetration of the digital revolution.

### Contributions to frontier technology innovation

Four Asian economies – Japan, South Korea, China, and Taiwan – are among the leading nations that are at the forefront of the digital revolution. According to the Statista online database (2021), these

four economies are in the list of top 10 countries by patenting activities in at least one of three frontier technologies: 5G, Artificial Intelligence (AI), and the Internet of Things (IoT).

In addition, statistics from the European Patent Office (EPO) show that China, Japan, and South Korea together with their companies are among leading innovators in the two fundamental drivers of the digital revolution – computer technology and digital communication (*Table 1*). Furthermore, the number of worldwide patent applications grew from 2018 to 2019 at two-digit rates, which were faster for

TABLE 1

## Patent applications in 2019 in European office by country & company in fields of Computer Technology & Digital Communication

Country	Rank	2019	2019 vs 2018	Share	Company	Rank	2019	Share
<b>Computer Technology</b>								
US	1	4,866	+13.6%	38.1%	Alphabet	1	673	5.3%
China	2	1,356	+18.7%	10.6%	Microsoft	2	673	5.3%
Japan	3	1,212	-0.9%	9.5%	Samsung	3	630	4.9%
Germany	4	1,130	+13.8%	8.8%	Huawei	4	382	3.0%
South Korea	5	830	+6.4%	6.5%	Intel	5	339	2.7%
OEPO2*	6	824	+3.5%	6.5%	Siemens	6	324	2.5%
France	7	587	-3.0%	4.6%	Sony	7	284	2.2%
UK	8	467	+24.5%	3.7%	Philips	8	215	1.7%
Netherlands	9	411	+5.7%	3.2%	Alibaba	9	173	1.4%
Sweden	10	252	+24.8%	2.0%	Apple	10	167	1.3%
Others	–	839	+4.9%	6.6%	Others	–	8,914	69.8%
<b>Total</b>	<b>–</b>	<b>12,774</b>	<b>+10.2%</b>	<b>100%</b>	<b>Total</b>	<b>–</b>	<b>12,774</b>	<b>100%</b>
<b>Digital Communication</b>								
China	1	3,736	+64.6%	26.4%	Huawei	1	2,260	15.9%
US	2	3,684	+14.6%	26.0%	Ericsson	2	1,227	8.7%
Sweden	3	1,301	+11.8%	9.2%	Qualcomm	3	1,061	7.5%
Japan	4	1,270	-5.6%	9.0%	Samsung	4	567	4.0%
South Korea	5	1,230	+36.1%	8.7%	LG	5	545	3.8%
Germany	6	744	+12.9%	5.2%	OPPO	6	496	3.5%
OEPO1*	7	558	-6.5%	3.9%	Sony	7	424	3.0%
France	8	403	-18.3%	2.8%	Nokia	8	388	2.7%
Finland	9	347	0.0%	2.4%	ZTE	9	287	2.0%
UK	10	240	+7.1%	1.7%	Intel	10	236	1.7%
Others	–	662	+4.4%	4.7%	Others	–	6,684	47.2%
<b>Total</b>	<b>–</b>	<b>14,175</b>	<b>+19.6%</b>	<b>100%</b>	<b>Total</b>	<b>–</b>	<b>14,175</b>	<b>100%</b>

Note: \*EPO states consist of 38 member states of the European Patent Organisation, including the 28 states of the EU at the time; OEPO1 are the EPO states other than Germany, France, Finland, and UK; OEPO2 are the EPO states other than Germany, France, UK, the Netherlands, and Sweden.

Source: Author's compilation using data from European Patent Office (EPO), Patent Index 2019; available at <https://www.epo.org/about-us/annual-reports-statistics/statistics/2019.html>



digital communication (19.6%) than for computer technology (10.2%). In this global innovation vibrancy, China far outperformed the world aggregate, growing at 64.6% in digital communication and 18.7% in computer technology, while South Korea grew faster than the world in the former (36.1%) but slower in the latter (6.4%).

*Table 1* also shows that Asian companies hold leading positions in digital innovation in the business sector. In the list of the world's top 10 companies in computer technology innovation, four are from Asia (Samsung, Huawei, Sony, and Alibaba); while in the list for digital communication, six are from Asia (Huawei, Samsung, LG, OPPO, Sony, and ZTE).

### ICT development and adoption

Regarding development and adoption of Information and Communications Technology (ICT), Asia has made remarkable achievements in both scale and speed. As shown in *Table 2*, the Asia-Pacific accounts for more than 50% of the world's total in most key indicators on ICT adoption, including mobile phone (55.3%), mobile broadband (56.6%), and fixed broadband (54.7%). In terms of speed, the compound average growth rate (CAGR) over 2000-2018 for the Asia-Pacific is higher than the world average across ICT adoption indicators: 27.7% vs 21.7% for mobile broadband; 11.7% vs 8.4% for fixed broadband; 18.8% vs 15.6% of population covered by 4G networks; and 41.9% vs 34.0% for international bandwidth.

The fact that Asia's share in the world's population covered by 4G networks (61.7%) is larger than that by 3G networks (57.2%) supports the claim that Asia has tended to move faster than the world average in embracing new mobile technologies.

Asia is also a leading player in adopting digital applications. For example, Asia handled a total online purchase of \$2,448 billion in 2020, accounting for 57% of the world total value of retail e-commerce. For comparison, these respective figures are \$749 billion (18%) for North America and \$498 billion (12%) for Western Europe.

### Investment in frontier digital technologies

Investment in frontier digital technologies is an important measure of efforts to advance in the digital age. Three noteworthy observations are salient in *Table 3*.

First, the Asia-Pacific accounts for more than one-fifth of the global market in each of the core frontier digital technologies, which is 23.2% for Cloud Computing, 22.0% for Big Data and Analytics, 23.5% for Mobility/Social Media, 22.5% for Cybersecurity, 23.9% for AI, and 22.4% for IoT. In addition, from 2014 to 2019 the region grew faster than the world in the total investment in all the core digital technologies (21.2% vs 18.4%) and in five of them the figures were: Cloud Computing (18.6% vs 15.0%), Big Data & Analytics (23.5% vs 18.7%), Mobility/Social Media (24.7% vs 19.3%), Cyber Security (21.7% vs 19.0%), and IoT (19.1% vs 17.7%).

TABLE 2

### Key ICT development & adoption indicators by region in 2020

Region	Mobile	Mobile Broadband	Fixed Broadband	3G	4G	International Bandwidth (Tbit/s)
Total subscribers/users/covered population (million)						
Africa	882	354	6	829	475	11
Arab States	427	261	35	396	270	35
Asia-Pacific	4,503	3,296	644	4,139	4,057	301
CIS	360	213	47	215	196	19
Europe	847	689	227	679	671	153
The Americas	1,129	1,010	218	972	903	141
<b>WORLD</b>	<b>8,148</b>	<b>5,823</b>	<b>1,177</b>	<b>7,230</b>	<b>6,571</b>	<b>660</b>
World share						
Africa	10.8%	6.1%	0.5%	11.5%	7.2%	1.7%
Arab States	5.2%	4.5%	3.0%	5.5%	4.1%	5.3%
Asia-Pacific	55.3%	56.6%	54.7%	57.2%	61.7%	45.6%
CIS	4.4%	3.7%	4.0%	3.0%	3.0%	2.9%
Europe	10.4%	11.8%	19.3%	9.4%	10.2%	23.2%
The Americas	13.9%	17.3%	18.5%	13.4%	13.7%	21.3%
<b>WORLD</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
CAGR (2010-2020) *						
Africa	9.2%	37.8%	16.1%	11.5%	39.9%	45.8%
Arab States	3.2%	25.0%	17.0%	6.0%	29.6%	43.2%
Asia-Pacific	5.5%	27.7%	11.7%	4.8%	18.8%	41.9%
CIS	1.2%	13.6%	9.4%	5.5%	14.3%	31.0%
Europe	1.1%	13.7%	4.1%	1.2%	6.1%	25.6%
The Americas	2.5%	15.6%	5.0%	1.8%	4.9%	29.4%
<b>WORLD</b>	<b>4.5%</b>	<b>21.7%</b>	<b>8.4%</b>	<b>4.7%</b>	<b>15.6%</b>	<b>34.0%</b>

Notes: CIS=Commonwealth of Independent States; \* the period of compound average growth rate (CAGR) is 2015-2020 for population covered by LTE/WiMAX networks and International Bandwidth.

Source: ITU

TABLE 3

## Digital transformation market size & growth by region

	World	North America	Europe	Asia-Pacific	MEA	Latin America
<b>Market size in 2020 (US\$ million)</b>						
Cloud Computing	129,589	44,944	31,555	30,015	13,787	9,288
Big Data and Analytics	83,015	28,893	21,846	18,224	8,082	5,971
Mobility/Social Media	104,901	35,314	26,700	24,655	10,935	7,297
Cybersecurity	61,811	20,867	16,991	13,936	5,705	4,312
AI	49,265	16,052	13,350	11,792	4,754	3,317
IoT	23,965	8,026	6,068	5,360	2,853	1,659
Others*	17,244	6,421	4,855	3,216	1,426	1,327
<b>Total</b>	<b>469,790</b>	<b>160,517</b>	<b>121,365</b>	<b>107,198</b>	<b>47,542</b>	<b>33,171</b>
<b>Market share in 2020 (%)</b>						
Cloud Computing	100.0	34.7	24.4	23.2	10.6	7.2
Big Data and Analytics	100.0	34.8	26.3	22.0	9.7	7.2
Mobility/Social Media	100.0	33.7	25.5	23.5	10.4	7.0
Cybersecurity	100.0	33.8	27.5	22.5	9.2	7.0
AI	100.0	32.6	27.1	23.9	9.6	6.7
IoT	100.0	33.5	25.3	22.4	11.9	6.9
Others*	100.0	37.2	28.2	18.6	8.3	7.7
<b>Total</b>	<b>100.0</b>	<b>34.2</b>	<b>25.8</b>	<b>22.8</b>	<b>10.1</b>	<b>7.1</b>
<b>2014-19 growth, CARG (%)</b>						
Cloud Computing	15.0%	11.2%	13.8%	18.6%	17.3%	18.0%
Big Data and Analytics	18.7%	17.8%	15.8%	23.5%	20.4%	18.2%
Mobility/Social Media	19.3%	17.2%	16.6%	24.7%	22.1%	19.0%
Cybersecurity	19.0%	15.2%	20.7%	21.7%	19.4%	22.4%
AI	22.7%	24.7%	24.5%	18.1%	15.7%	25.8%
IoT	17.7%	16.1%	19.4%	19.1%	17.2%	21.1%
Others*	17.5%	18.1%	19.1%	13.6%	11.4%	21.2%
<b>Total</b>	<b>18.4%</b>	<b>16.8%</b>	<b>17.6%</b>	<b>21.2%</b>	<b>19.0%</b>	<b>20.0%</b>

Notes: MEA=Middle East and Africa; \* Others include blockchain and robotics.  
Source: M&M (2020)

### Exports of ICT goods and services

Asia is a major player in the global supply of ICT goods and a significant contributor to the world's ICT services exports. From [Table 4](#), the following observations stand out.

First, East Asia and the Pacific (EAP) accounts for more than 70% of the world's total ICT goods exports, with a total value of US\$1,608 billion in 2019. The main contributors to this performance are China (\$662 billion; 30% of the world's total), South Korea (\$140 billion; 6.3%), Singapore (\$115 billion; 5.2%), Vietnam (\$93 billion; 4.2%), and Malaysia (\$77 billion; 3.5%), Japan (\$56 billion; 2.6%), Thailand (\$35 billion; 1.6%), and Philippines (\$35 billion; 1.6%). It should be noted, however, the world share of EAP in this measure slightly declined from 2017 to 2019 as the world's total grew faster (from \$1,992.4 billion to \$2,207.9 billion or 5.3% per year) than EAP (from \$1,493.8 billion to \$1,607.7 billion or 3.7% per year). This trend is also observed for most EAP countries, with the exception of Vietnam, the Philippines, and Malaysia.

On ICT services exports, India stands out as the noteworthy outlier with a total value of \$78.5 billion, accounting for 14.6% of the world total in 2017. Other significant Asian players in this front are China (\$27 billion, 5%), Singapore (\$11.3 billion, 2.1%), the Philippines

(\$5.8 billion, 1.1%), Japan (\$5 billion, 0.9%), South Korea (\$4.3 billion, 0.8%), and Malaysia (\$2.7 billion, 0.5%). In total, Asia claims more than a quarter of the world ICT services exports, with a total value exceeding \$134 billion.

### Asian Countries in the Global Dynamics of Digital Evolution

To capture a nation's position in the global dynamics of digital evolution, the Digital Evolution Scorecard developed by scholars at Tufts University's Fletcher School in partnership with Mastercard provides valuable insights. This approach ("Which Economies Showed the Most Digital Progress in 2020" by Bhaskar Chakravorti, Ravi Shankar Chaturvedi, and Ajay Bhalla, *Harvard Business Review*, Dec. 18, 2020; <https://hbr.org/2020/12/which-economies-showed-the-most-digital-progress-in-2020>) assesses the digital evolution of 90 economies along two dimensions: digital evolution state (DES) and digital evolution momentum (DEM). While the DES indicates the digital state of an economy, the DEM captures the country's progress on this measure over the past 12 years. Based on the DES in 2019 and the DEM over 2008-2019, Chakravorti *et al.* classify the 90

TABLE 4

## Asia's ICT goods & services exports

Economy	ICT goods exports						ICT services exports		
	Value (US\$ Bil.)		% of goods exports		Share in world (%)		Value (US\$ Bil.)	% of services exports	Share in world (%)
	2019	2017	2019	2017	2019	2017	2017	2017	2017
China	662.4	612.7	26.5	27.1	30.0	30.8	27.0	12.7	5.0
India	6.5	2.6	2.0	0.9	0.3	0.1	78.5	42.4	14.6
Indonesia	4.7	5.0	2.8	3.0	0.2	0.3	1.0	4.0	0.2
Japan	56.4	58.3	8.0	8.4	2.6	2.9	5.0	2.7	0.9
South Korea	139.7	141.9	25.8	24.7	6.3	7.1	4.3	4.8	0.8
Malaysia	77.4	67.7	32.5	31.0	3.5	3.4	2.7	7.2	0.5
Philippines	34.8	24.6	49.0	35.9	1.6	1.2	5.8	16.5	1.1
Singapore	114.5	119.6	29.3	32.0	5.2	6.0	11.3	6.6	2.1
Thailand	35.3	38.1	14.4	16.1	1.6	1.9	0.5	0.6	0.1
Vietnam	92.5	71.9	35.0	33.5	4.2	3.6	–	–	–
<b>EAP*</b>	<b>1,607.7</b>	<b>1,493.8</b>	<b>25.2</b>	<b>24.9</b>	<b>72.8</b>	<b>75.0</b>	<b>&gt;54</b>	<b>6.4</b>	<b>&gt;10%</b>
<b>EAP &amp; India</b>	<b>1,614.2</b>	<b>1,496.4</b>	–	–	<b>73.1</b>	<b>75.1</b>	<b>&gt;134</b>	–	<b>&gt;25%</b>
<b>Memorandums</b>									
OECD members	754.8	726.2	6.8	7.0	34.2	36.4	370.1	9.5	69.0
US	143.6	146.6	8.7	9.5	6.5	7.4	42.2	5.1	7.9
<b>World</b>	<b>2,207.9</b>	<b>1,992.4</b>	<b>11.5</b>	<b>11.2</b>	<b>100.0</b>	<b>100.0</b>	<b>536.0</b>	<b>10.4</b>	<b>100.0</b>

Notes: data on ICT goods exports are for 2019 and on ICT services exports are for 2017; data for Taiwan is not available. \*EAP= East Asia & Pacific.  
Source: WDI (2021)

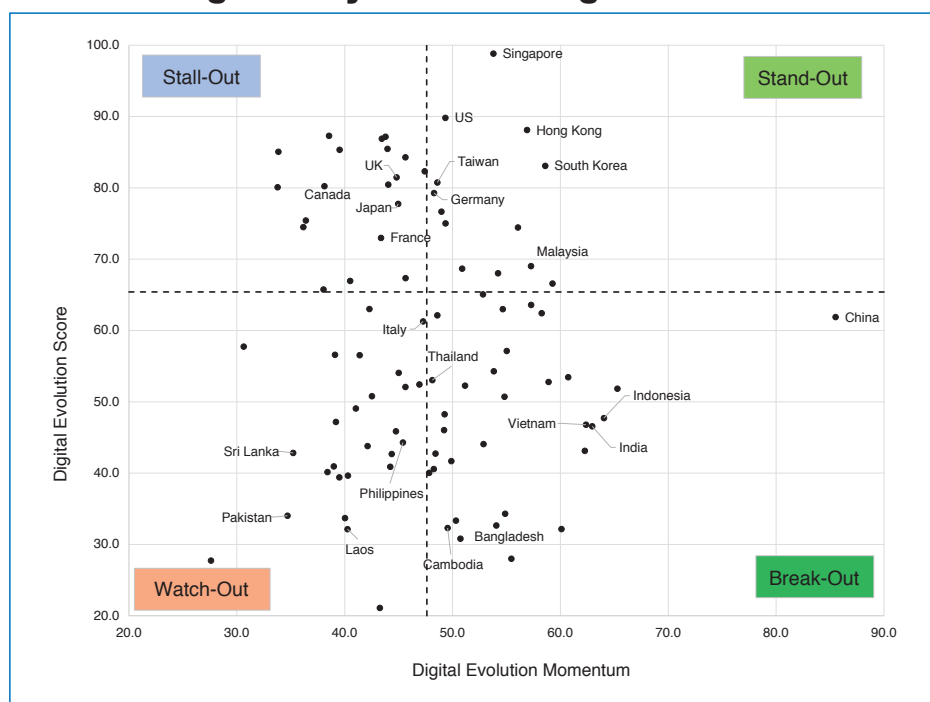
economies into four groups: Stand-Out, Stall-Out, Break-Out, and Watch-Out (Chart).

The Stand-Out group includes economies with both high levels of digital evolution and a strong momentum in making their digital evolution advancement. Among 13 economies in this group, five are from Asia: Singapore, Hong Kong, South Korea, Taiwan, and Malaysia. Note that only two G7 economies – the US and Germany – belong to this group. The authors identify six common features shared by the Stand-Out economies:

- Expanding adoption of digital consumer tools such as e-commerce and digital payments.
- Attracting, training, and retaining digital talent.
- Fostering digital entrepreneurial ventures.
- Providing fast, universal, fixed and mobile broadband Internet access.
- Specializing in the export of digital goods, services, or media.
- Coordinating innovation between universities, businesses, and digital authorities.

CHART

## Asia in the global dynamics of digital evolution



Source: Compiled by the author based on Bhaskar Chakravorti, Ravi Shankar Chaturvedi, and Ajay Bhalla

The Break-Out group includes the economies that are limited in existing levels of digital evolution but are making rapid progress in digital advancement. Among 32 economies in this group, seven are from Asia – China, India, Indonesia, Vietnam, Thailand, Bangladesh, and Cambodia. It is worth noting that China is a noteworthy outlier in



this group with far stronger performance in the digital advancing momentum. According to the authors of this study, the countries in this group share the following four characteristics in policy prioritisation:

- (i) Improving mobile Internet access, affordability, and quality to foster more widespread adoption.
- (ii) Strengthening institutional environments and developing digital regulations.
- (iii) Generating investment in digital enterprises, funding digital R&D, training digital talent, and leveraging digital applications to create jobs.
- (iv) Taking steps to reduce inequities in access to digital tools across gender, class, ethnicity, and geographic boundaries (though many access gaps still remain).

The Stall-Out group comprises countries with high levels of digital evolution but lacking vigour in making continuous digital advancement. Among 19 economies in this group only Japan is from Asia. According to the authors of this study, to regain their digital evolution momentum, the Stall-Out countries should take the following four strategic policy priorities:

- (i) Safeguarding against “digital plateaus” by continuing to invest in robust institutional foundations, regulatory environments, and capital markets to support ongoing innovation.
- (ii) Continuing to use policy tools and regulation to ensure inclusive access to digital capabilities and to protect all consumers from privacy violations, cyberattacks, and other threats.
- (iii) Attracting, training, and retaining professionals with digital skills, often through reforming immigration policies.
- (iv) Identifying new technological niches and fostering environments friendly to innovation in those areas.

The Watch-Out group consists of economies that face limitations in both digital evolution and momentum to make digital advancement. Among 26 economies in this group, four are from Asia: the Philippines, Sri Lanka, Laos, and Pakistan. According to the authors of this study, the Watch-Out economies can look to Break-Out economies as role models, prioritizing the following policy measures:

- (i) Making long-term investments to address basic infrastructure gaps.
- (ii) Creating an institutional environment that supports safe, widespread consumer adoption of digital products and services, especially those that enable productivity and job creation.
- (iii) Promoting initiatives (particularly through public-private cooperation) that invest in digital access to historically disadvantaged segments of the population.
- (iv) Promoting applications that solve pressing needs and could therefore act as catalysts for widespread adoption of digital tools.

To have a rough assessment of the dynamism of digital evolution for a given geographic region in the global dynamics described in this study, one can use the ratio of the number of its countries in the Stand-Out and Break-Out groups to its total number of countries. For Asia, this ratio is  $(5+7)/(5+7+1+4)=12/17=71\%$ , which is much higher than the ratio for the world sample, which is  $(13+32)/(13+32+19+26)=45/90=50\%$ .

## Contributions of ICT to Economic Growth in Asia

### The channels through which ICT affects economic growth

As the ICT revolution has profoundly transformed the way people communicate, work, and spend time, it has also significantly contributed to economic growth in most nations. The ICT revolution can affect economic growth through several channels, which include the following.

First, ICT boosts learning and innovation. ICT evolution has enabled billions of people to have unprecedented opportunities and capabilities in accessing global knowledge, exchanging ideas, and distributing their innovative products and services. This development, which substantially reduces the costs of learning and innovation while increasing their speed and potential rewards, is an important channel for ICT to have long-term substantial effects on economic growth.

Second, the digital revolution fosters investment in digital technologies, which improves operational efficiency and expansion across sectors, especially in banking and finance, manufacturing, energy, and retail. Through this channel, ICT has a direct tangible effect on economic growth.

Third, ICT bolsters the effectiveness of markets and institutions by fostering transparency and predictability, improving the quality of investment decisions, and cultivating attitudes about embracing change. These capabilities collectively enhance the quality and sustainability of growth.

Fourth, ICT fosters the creation of synergistic value through collaboration platforms and sharing economy models. Through this channel, ICT enables individuals and companies to employ global resources to meet global demand in real time. Uber, Grab, Airbnb, Amazon, and Alibaba can serve as prominent examples.

Fifth and finally, the ICT revolution opens a new era, in which all stakeholders – from governments to businesses, from academics to industrial associations – have to rethink and reform their traditional development models and approaches. As a result, not only existing resources will be used more productively but many new resources will surface for value creation. For example, smart city development and green transformation are new areas of growth that many countries are embracing in economic strategies.

### Measuring the contribution of ICT to economic growth

One can quantitatively capture the contribution of ICT to economic growth, using different approaches and assumptions, which may not produce the same estimates. In the literature, growth accounting and measurement of the digital economy are the two main existing methods.

TABLE 5

## Asia's ICT goods & services exports

Region/Group	2000-2010								2010-2018							
	GDP Growth (%)	Sources of Growth (% point)							GDP Growth (%)	Sources of Growth (% point)						
		Capital input			Labor input			TFP		Capital input			Labor input			TFP
		Total	ICT	NICT	Total	LQ	Hrw			Total	ICT	NICT	Total	LQ	Hrw	
World (120 Economies)	3.83	2.26	0.51	1.75	0.73	0.35	0.38	0.84	3.57	2.14	0.37	1.77	0.86	0.30	0.56	0.57
G7 Economies (7)	1.56	1.30	0.48	0.81	0.18	0.31	-0.13	0.08	1.89	0.98	0.36	0.62	0.94	0.25	0.68	-0.03
Non-G7 (19)	1.98	1.78	0.52	1.26	0.73	0.26	0.47	-0.53	1.61	1.15	0.34	0.81	0.71	0.27	0.44	-0.25
Developing Asia (16)	7.61	3.92	0.64	3.28	1.00	0.38	0.62	2.69	6.42	3.50	0.41	3.09	0.75	0.35	0.40	2.17
Latin America (16)	3.09	1.76	0.34	1.42	1.53	0.57	0.96	-0.19	1.51	1.71	0.25	1.46	0.86	0.34	0.52	-1.06
Eastern Europe (27)	4.69	1.02	0.42	0.59	0.48	0.27	0.21	3.19	2.33	0.99	0.23	0.76	0.42	0.20	0.22	0.92
Sub-Saharan Africa (20)	5.72	2.66	0.42	2.24	1.26	0.22	1.04	1.79	3.55	2.48	0.28	2.20	1.29	0.16	1.13	-0.22
North Africa & Middle East (15)	4.34	3.94	0.56	3.38	1.89	0.48	1.42	-1.49	3.28	3.40	0.52	2.87	1.45	0.45	1.00	-1.57
G7 economies																
Canada	1.84	1.73	0.56	1.17	0.76	0.17	0.59	-0.65	2.07	1.17	0.25	0.93	0.88	0.15	0.73	0.02
Germany	0.90	0.90	0.34	0.56	0.18	0.29	-0.11	-0.19	1.78	0.79	0.23	0.55	0.61	0.10	0.51	0.38
France	1.24	1.13	0.33	0.80	0.45	0.24	0.21	-0.33	1.27	0.85	0.34	0.51	0.44	0.31	0.12	-0.02
UK	1.60	1.36	0.42	0.94	0.53	0.35	0.18	-0.29	1.91	0.96	0.19	0.76	1.07	0.26	0.81	-0.11
Italy	0.31	1.09	0.26	0.83	0.40	0.23	0.17	-1.18	0.08	0.26	0.19	0.07	0.05	0.11	-0.06	-0.22
Japan	1.22	1.23	0.51	0.72	0.13	0.38	-0.25	-0.13	1.28	0.73	0.27	0.46	0.42	0.25	0.18	0.12
US	2.03	1.41	0.57	0.84	0.02	0.32	-0.30	0.60	2.40	1.19	0.47	0.71	1.33	0.31	1.02	-0.12

Source: Author's calculation, using results from Dale Jorgenson and Khuong Vu (2021)

### Growth accounting

The growth accounting method allows one to estimate the contribution of investment in ICT assets as a source of economic growth. Table 5, which is based on the data and method used by the G20 and the world economy ("The G20 and the world economy: Performance and prospects" by Dale Jorgenson and Khuong Vu, *Journal of Policy Modeling*, 2021; <https://doi.org/10.1016/j.jpolmod.2021.02.006>), reports results of growth decomposition for developing Asia and other groups of countries over two periods, 2000-2010 and 2010-2018. The sources of GDP growth over a period for a given group are decomposed into the contributions of capital inputs, labor inputs, and total factor productivity (TFP). The contributions of capital inputs, in turn, include those of ICT capital and non-ICT (NICT) capital, while the contributions of the labor inputs come from two sources: labor quality (LQ) and hours worked (Hrw). Table 5 also reports the growth decomposition results for Japan and other G7 economies for comparison. Several observations are notable.

First, the contribution of ICT capital to economic growth in developing Asia, which is 0.64% points for 2000-2010 and 0.41% for 2010-2018, is larger than that for other groups in each respective period.

Second, developing Asia also outperformed other groups on TFP growth in both the periods, which may imply that the regions' strong efforts to embrace the digital revolution as presented above have enhanced its economic growth not only through the direct

contribution of ICT investment but also by increasing the efficiency of resources allocation and use.

Third, developing Asia was also stronger than other groups in the contributions of NICT capital and labor quality, which implies that creating a favorable environment to promote investments in analog assets and human capital development are also needed to enable a country to benefit more from investment in digital assets. This, to a certain extent, explains the high GDP growth of developing Asia in both periods.

Table 5 shows that the contribution of ICT to GDP growth is larger for Japan (0.51% points in 2000-2010 and 0.27% points in 2010-2018) than for most G7 economies, with the exception of the US (in both periods), Canada (2000-2010) and France (2010-2018). Furthermore, Japan's growth in the second period (2010-2018) was stronger than in the first period (2000-2010), with significant improvements in both Hrw and TFP growth, which tends to suggest overall effects of ICT investments in Japan's economy.

### Measurement of the digital economy

Examining the digital economy is an increasingly important approach to capture the effect of ICT to economic performance. "Defining and Measuring the Digital Economy" by Kevin Barefoot, Dave Curtis, William Jolliff, Jessica R. Nicholson, and Robert Omohundro (US Bureau of Economic Analysis (BEA), 2018; <https://www.bea.gov/sites/default/files/papers/defining-and-measuring-the-digital-economy.pdf>) introduces a framework for

measuring the digital economy, which is based on the OECD's digital economy measurement work. This framework estimates the digital economy in its three major components: (i) the digital-enabling infrastructure, which include communication and computer hardware, Internet-enabled devices, computer software, cloud computing services, and other ICT support services; (ii) the digital transactions (e-commerce), which include economic gains from online trade and sharing economy transactions; and (iii) the content that digital economy users create and access ("digital media"), which include online education and entertainment, social media, and big data. It should be noted that this approach is a low-end estimate of the size of the digital economy given the fact that digital technologies have penetrated across economic sectors and activities.

According to the estimates provided by the authors, the US digital economy totaled \$1,209.2 billion in 2016, which accounts for 6.5% of total US GDP (\$18,624.5 billion). Furthermore, during the period from 2006 to 2016, the US digital economy grew (in real terms) at an average annual rate of 5.6%, which is much faster than the growth rate of 1.5% observed for the overall economy.

While this method is a good start, it appears to underestimate the size of the digital economy. Dr. Sun Ke, who is from the China Academy of Information and Communication Technology (CAICT), combined the growth accounting and the study by Kevin Barefoot and others ("A CAICT Approach to Measuring Digital Economy: Definition, Methodology and Key Findings", 2018; <http://www.stats.gov.cn/english/pdf/202011/P020201103357050683304.pdf>) to seek a more comprehensive measurement of the digital economy. According to him, in 2014 the digital economy was estimated at \$7,490 billion (accounting for 44.7% of GDP) for the US, \$2,180 billion (26.1%) for China, \$1,580 billion (32.3%) for Japan, and \$764 billion (30.3%) for the United Kingdom. In addition, China's digital economy increased at two-digit growth rates, amounting to \$3,600 (32.9% of GDP) in 2017. Although the method used by Dr. Ke may have overestimated the size of the digital economy, it suggests that China and Japan are among the world's largest digital economies and that the growth rate of the digital economy has been much faster than that of the overall economy.

### Impacts of the Covid-19 pandemic on Asian economies

The Covid-19 pandemic has forced people, businesses, and governments across countries to take a quantum leap in digital adoption. The pandemic has also posed strategic challenges to multinational companies in strategies for supply chain deployment and management, which requires the companies to give a higher priority to resilience and sustainability in addition to the traditional objectives of efficiency and competitiveness. The Covid-19 pandemic, therefore, is expected to have more substantial impacts on Asia, where the momentum of ICT adoption is relatively stronger and the share of global manufacturing activity is larger in comparison to other parts of the world.

Thanks to the stronger momentum of Asian economies in the digital revolution, the surge in digital adoption triggered by the Covid-19 crisis is expected to be more sustained. That is, ICT

development and digital transformation in Asia is expected to advance faster in the post-pandemic era.

As a hub of exports of ICT goods and services, the rapid expansion of markets for digital goods and services during the pandemic has also benefited ICT-exporting Asian economies. In fact, FDI inflows to the ICT industry in developing Asia, which ranges from M&A to green field investment projects in data centers and ICT production, increased in 2020 amid the global slowdown in FDI activity. In the long term, however, many multinational companies may consider reshoring, nearshoring, and diversification of their production facilities to enhance the resilience of their global supply chains, which will affect the FDI-reliant Asian economies.

The practice of work from home (WFH) and work from anywhere (WFA), which has become increasingly accepted since the Covid crisis, is expected to work in favor of Asia's abundance of skilled labor supply. WFA will allow high-skilled workers from Asia to virtually join the workforce of developed nations, which foster the region's employment, learning, and productivity growth.

## Strategic Priorities for Policy Action

The digital revolution has profoundly changed the world and its transformative effects are expected to be even more revolutionary in the decades to come in every nation. As one of the most proactive and dynamic places in embracing the digital revolution for economic advancement, Asia has been reaping tremendous benefits from ICT development and digital transformation. However, the opportunities and challenges will be much greater and more unpredictable in the time ahead, which requires governments to promote the embrace of the digital revolution with a more effective digital strategy for policy action. In this endeavor, governments need to work closely with representatives from business, academia, and society to discuss and decide the key issues concerning the six components of an effective strategy: strategic objectives, global mega trends, core challenges, strategic positioning, coordination, and continuous renewal.

### Strategic objectives

These objectives are based on a comprehensive and integrated set of measures, which include quality of life, productivity, efficiency, sustainability, and resilience. Note that while quality of life should be the ultimate goal of the strategy, sustainability and resilience are becoming important strategic priorities in addition to the traditional strategic objectives – efficiency and productivity.

### Global megatrends

Policy makers must deeply understand and appreciate the global megatrends, which are shaping the world, to make their digital strategy and policy initiatives to best leverage the forces of change in responding to development challenges. These global megatrends include the following:

- (i) The VUCA: volatile (V), uncertain (U), complex (C), and ambiguous (A), the trend globally observed in the digital economy
- (ii) Globalization
- (iii) The rise of Asia
- (iv) Urbanization
- (v) Population aging
- (vi) The imperative of sustainable development
- (vii) Corporate social responsibility as the norm
- (viii) The 4th industrial transformation.

### ***Core challenges***

Identifying the core challenges facing a country in its endeavor to make leapfrogging advancements in the digital age is a critical component of digital strategy. For a typical country, these core challenges are the old-fashioned mindset and cybersecurity. They would pose insurmountable problems if not fundamentally addressed. If governments are saddled by an old-fashioned mindset, they would tend to rely on established assumptions and traditional approaches, which would not be most effective in the digital age. For example, the traditional approach of deregulation to promote economic growth may not work best for the development of the digital economy. Instead, governments need to work closely with business, creating a sandbox for policy experimentations, to formulate the most effective regulatory framework that is critical to digital transformation.

Similarly, fostering competition and supporting infant industries also require fundamental changes in conceptual thinking. Building digital ecosystems and standing on the shoulders of tech giants to address the most challenging problems, ranging from climate change and the Covid-19 pandemic to cybersecurity and terrorism, may be far more meaningful than imposing heavy fines on the “monopoly behaviors” of some tech firms.

To develop a mindset most suited for the digital age, governments should embrace three strategic shifts in their strategy and policy action. The first shift is in positioning, which changes a government’s role from a regulator to a convener, who brings all social stakeholders, especially tech firms and users, together to find the most effective and forward-looking solutions to the most daunting shared problems. The second shift is in the way a government supports the digital sector and digital transformation, which changes from subsidizing selected groups to enabling them to create more value from digital transformation. The third shift is in the role of government in managing change, which should shift from promoting to pioneering. As a pioneering embracer of the digital transformation, a government will be far more effective in inspiring the nation to advance faster in the digital era.

While the old-fashioned mindset will phase out over time, cybersecurity is the core problem that will be persistent, extensive, and increasingly formidable. The most effective way to deal with this core challenge is to give it the utmost priority in strategy formulation, resource allocation, and operational and preparatory activity. If the world, from governments and businesses to

academics and ordinary people, consider cybersecurity threats as a type of Covid-19 pandemic or a looming terrorist attack, it will work together most vigorously and innovatively to develop an effective defense system to minimize losses caused by this problem.

### ***Strategic positioning***

While making substantial investments in digital infrastructure is essential, an effective digital strategy needs to establish a wise strategic positioning to best leverage a country’s strengths and turn its physical vulnerabilities/limitations to new advantages in the digital age. For example, Japan’s strengths in innovation and technological capabilities should be leveraged to promote Industry 4.0 transformation worldwide. At the same time, Japan can turn its constraints in labor immigration to vigorous efforts to make the country virtually borderless in engaging skilled labor around the world to work with local businesses.

### ***Guiding principles***

An effective digital strategy establishes a clear set of guiding principles for policy formulation and action. Among them, the following seven principles are essential:

- (i) All strategic plans or actions should start with a clear reimagination of the future with robust foresight.
- (ii) Knowledge acquisition and innovation are the most powerful drivers of digital advancement.
- (iii) People must be at the center of digital transformation.
- (iv) Market mechanisms, competition, and incentives are essential forces to promote development.
- (v) Embracing globalization and digital partnerships provide a strategic move necessary for making leapfrogging progress.
- (vi) Enhancing transparency and good governance is a foundational priority.
- (vii) Promoting synergistic value creation should be of top priority.

### ***Coordination, learning, and continuous renewal***

This component requires the government to establish a national steering committee or an agency in charge of coordinating nationwide efforts in embracing the digital revolution and monitoring the country’s progress in this endeavor. The government also needs to work closely with the ICT sector, especially global tech giants, businesses, academics, and experts to build a robust digital ecosystem for ICT development and digital transformation. Vigorous efforts to reflect on past experiences, learn from international best practices, and develop foresights into the future are essential for the country to make continual strategic renewals for rapid advancements in the digital age.

**JS**

Dr. Khuong Vu is an associate professor at the Lee Kuan Yew School of Public Policy, National University of Singapore.

Interview with Dr. Stefan Kooths, Director of the Business Cycles & Growth Research Center at the Kiel Institute, Germany

# Free & Open Competition Would Play a Key Role in Maintaining Sustainable Growth in Europe

By Japan SPOTLIGHT

On the outlook for the economy in the European Union, we interviewed Dr. Stefan Kooths at the Kiel Institute, a distinguished German think tank. He is an expert on macroeconomic forecasting.  
(Interviewed on Aug. 12, 2021)

## Optimism for Global Economic Growth with the Pandemic in 2022

**JS:** Most economists seem to be optimistic about the economic growth of developed nations in 2021-2022, but do you share this optimism?

**Kooths:** It very much depends on what you mean by optimism. If optimism means the crisis that was provoked by the Covid-19 shock can be overcome much quicker than that in the aftermath of the financial crisis in 2007-8, then I fully agree, yes. This time, the crisis is of a different nature; it was more an interruption of all-in-all workable production structures, and from a purely economic point of view, those kinds of production interruptions are much easier to overcome than to solve the problems that become apparent during a financial crisis. Why is this so? Well, a financial crisis is typically just the symptom of hardcore distortions within the economy, with a history of many years before they finally manifest in such a crisis. Whereas the Covid-19 crisis was more of an exogenous shock, and economic agents can cope much easier with those exogenous shocks, rather than with endogenous shocks which are much harder to cure.

In terms of overcoming the crisis, the optimism is well-founded, but we should also pour some water in the wine because we have tremendous stimulus programs in particular in the United States at work, and we currently believe that they are overdosing to a large extent. It is not only to compensate or to get the economy running again – that would not need such a tremendous stimulus program; therefore the question of overheating is on the table, in particular for the US economy. In the medium-term, the world economy faces more and more tensions, in particular in the face of already



Dr. Stefan Kooths

extraordinarily high public debt-to-GDP levels.

We have seen these debt positions typically only after war periods, and it is for the first time in history that we see these pronounced debt levels in peacetime. They are so far only manageable because central banks keep interest rates at extremely low levels, and the big question for the years to come is, what happens if market pressures would push for higher interest rates because capital becomes scarcer, such that central banks should increase interest rates in order to prevent an overheating of the economy; but, given the high debt positions, the fiscal and financial situation might turn out to be too fragile to swallow rising interest rates. And the problem is not limited to a couple of small countries –

and we are also talking about large countries. Then the situation for the world economy in the 2020s can become quite difficult in light of the starting point that we currently have achieved.

**JS:** The IMF recently issued a forecast that there will be a serious divide between developed and developing nations in light of vaccine distribution. Do you think that overcoming the pandemic and achieving robust global economic recovery is dependent upon the extent to which developed nations could aid the developing nations?

**Kooths:** It would seem that vaccination is the key factor in overcoming the economic consequences of the pandemic. The no-Covid strategies seem to be extremely fragile because they are vulnerable. We have just seen an example where a whole port was closed due to a single Covid-19 case, and so the world must learn to live with this virus. As far as I can understand, the medical experts



tell us that this virus will not disappear whatever we do and however long we close down our economies.

The shut-down strategy is clearly not the way to go for and therefore we must protect people from getting seriously ill from the virus, so the key factor here is vaccination. However, we should not make the mistake of giving up all property rights for vaccination production to have a short-term procurement for the developing world for two reasons. First, the property rights themselves are not the key bottleneck, rather the production possibilities. We are talking about high-tech here, nothing that can be produced without sophisticated production infrastructures. Second, we must think about the incentives that we would set if we now told those who ran serious risks in investing in vaccine development if we just absorbed their results for free. It is important to distribute vaccinations all over the world, but this can work fully hand-in-hand with market forces. Market forces mean that of course they will first serve those economies where the willingness to pay is the highest and these are the advanced economies where you can sell your product for the highest price.

Once the developed world is vaccinated, the next group of customers comes on the stage and there is no reason why we should believe that the producers of vaccines would not be willing to provide them with their product. The development costs are already earned by the sales in advanced economies, so we will see prices going down because prices are connected to the willingness and the ability to pay and therefore yes, we do need global vaccination programs, but we do not need a severe government intervention in property rights to achieve this goal.

## Euro Economy in 2022

**JS: How do you envision economic growth in 2022? The IMF and other economists have predicted around 4.5% for economic growth in the euro area in 2022.**

**Kooths:** This is more or less in line with our numbers; we have 4.4% for the euro area next year. We had a slump of 6.7% in 2020 and our current estimate for 2021 is 5.3% so we still have a way to go. Plus, we must not forget that in a counterfactual scenario without the Covid-19 crisis, the economies would have grown so we are only catching up at best to the growth path that we had seen prior to the crisis.

Although the numbers look remarkable, it is a long time since we have had 5 or 4 before the decimal point when talking about GDP growth numbers, but, again, this is a catching-up process, and it is a different story when it comes to the potential growth rates that we can expect for the years ahead. In many parts of the world, demographics will show up in the potential growth numbers in a substantial way.

To give an example for Germany: we come from a 1.5% growth rate of potential output over the most recent three or four decades.

So this was the normal number – German GDP grew year by year on average by 1.5%. We are expecting this number to shrink to something like 0.5% until the end of the 2020s.

The trend here is similar in all aging economies, so we are facing a situation with much slower potential growth, and at the same time – and this *per se* is good news – populations are aging, so people live longer but they also must be supported by social security systems for longer or they must run down their savings. Either way, while they are no longer contributing to production they continue to live as consumers.

This will put a lot of tension on the social redistribution schemes, and I can currently not see that the economies and in particular the governments have prepared themselves in an adequate way to face this challenge. Plus, we must not forget again that we enter this period with very high debt-to-GDP ratios; we are used to extremely low interest rates that make the high debt positions appear sustainable but every extra percentage point in terms of interest which may well go hand in hand with the aging of populations will make the whole situation more difficult. The medium-term outlook in terms of macro-economic stability is rather gloomy, I am sorry to say.

**JS: The pandemic caused deflation in 2020, and there was huge negative economic growth in European economies. Even though the growth potential is getting lower, is there a huge deflationary gap?**

**Kooths:** No longer in 2022. We expect that the output gap next year will be practically closed. Obviously in the US it will already be in positive territory, which could mean overheating of the economy, but even in the EU context we are talking about a more or less closed output gap then. This is also the assessment of others such as the European Commission and the OECD. The recovery is rather strong – we have seen a by-and-large V-shaped development – so yes, the slump was heavy, but the recovery was also very strong. We are back at normal capacity utilization rates rather quickly, again compared to other types of crises like the financial crisis.

**JS: Are you concerned about inflation in the euro area economies?**

**Kooths:** Indeed – we still see an ultra-loose monetary policy stance. Last year, the euro system absorbed all extra net debt that was issued by governments in the euro area. This was a 100% monetization of public debt. Liquidity is vast – we have unused liquidity positions in the banking system that are at an absolute historic high.

During the crisis, a couple of extra spending programs were adopted, and these will only work once the crisis is over. We would be back at normal capacity utilization levels anyway, but then there comes an extra stimulus from fiscal policy makers. Even in 2022, the

fiscal rules have been switched off so we will see remarkable fiscal deficits, even in a situation that is no longer shaped by the crisis. There are a couple of ingredients that should make macro economists look very closely at what is happening with inflation. What might be misleading is that there are very good reasons that the current inflation numbers are heavily influenced by temporary factors like reemergence of energy prices, and a couple of other reasons which work only temporarily. The current inflation numbers are 4% in Germany, and this is driven by temporary factors.

But, this does not mean that other factors might not have a medium-term impact on inflation – just because we have some very prominent temporary factors does not mean to say that there are no other factors that we should be concerned about.

## **Fiscal Debt a Key Structural Issue**

**JS: Turning to the issue of cumulative fiscal debt, this is a very pressing structural issue not only for Europe but other developed nations too. What should be done in particular for EU members to reduce such cumulative debt stemming from the pandemic?**

**Kooths:** Well, the extra debt that was produced by the pandemic is not really the key factor here. This was only another element that came on top of an existing high debt position. So we should not narrow down the problem to saying that the pandemic caused a lot of extra debts. The debt positions were already at an alarmingly high level, and this crisis has only aggravated the problem.

The root cause of the problem is that policy makers all over the world think that they should not consolidate because it is almost free to take on extra debt. Policy makers are very much short-term oriented, and it is unpopular to consolidate and much more popular to distribute money or reduce taxes and therefore they are just relying on these very easy financing conditions, and they do not consolidate enough to give monetary authorities more leeway in their primary mandate which is that of price stability.

This had already been the problem prior to Covid-19, so we must not mistakenly assume that all our problems are due to the pandemic. The root causes of our macro-economic problems are more of a hardcore type. The extra debt that comes from the crisis can be swallowed; this is not really something that would be a macro-economic game-changer. The mechanisms behind fiscal policymaking in general are causing the accumulation of more and more debt.

**JS: What do you think of the new 15% corporate tax rate adopted by the G7 in Cornwall?**

**Kooths:** I don't think it will be a game-changer for the world economy. There are still a lot of loopholes, plus the overall story that is told that we have a problem with tax evasion in the corporate

sector is not really convincing on a broad basis; yes, there are some very prominent examples. We all know about Google and Apple, but if you look at the corporate tax-to-income ratios in OECD countries, we do not see something like a race to the bottom. What we see is that they are becoming already more similar, so the dispersion within corporate tax rates has already declined prior to this agreement and therefore I really do not see that this will fundamentally change the global tax landscape. This is more of a success for communication towards national voters, in my interpretation.

## **Impact of Low Interest Rates**

**JS: Low interest rates could have some impact on the economy. Some economists would claim that this low-interest policy could increase inefficiency in the economy because it could provide a stimulus to so-called “zombie companies”.**

**Kooths:** I share these concerns on “zombification”. Of course, from an individual point of view, every insolvency looks like a failure, like a disaster even from a personal point of view. But from a systemic economic point of view, it is important that those companies that have lost a viable business model leave the market. Easy credit conditions make it easy for them to survive. By staying in the marketplace, they are still absorbing scarce resources that could be used much more productively elsewhere in the economy.

The most important scarce resources that we have are our employees. Typically, the turnover in the labor market has a lot to do with corporations that must close down, and the longer we keep people in occupations where they are not really productive or not as productive as they could be elsewhere, the longer they weigh on overall productivity growth. Given the aging of our populations, we should make sure that those people of working age are at least working in the most productive way. Therefore, this negative side effect of ultra-low interest rates should be taken seriously.

## **Open Economy – Key to Raising Productivity**

**JS: How do you see the role of innovation in encouraging high productivity in the EU?**

**Kooths:** Innovation is very popular in the political debate – people say they want to make the EU the most innovative place to be – but innovation does not come from government interventions, it comes from the players and entrepreneurs in the marketplace. To support this innovation process, policy makers must keep markets open to keep the competitive pressure as high as possible, which in turn stimulates new ideas, products, and processes. Unfortunately, the answer to all these problems that we can currently see on the EU policy level is rather that we want to become more protectionist.

They call it “economic sovereignty” and what they mean is to bring

back supply chains within the EU borders. Giving up the high degree of global division of labor would mean that we cut into already existing productivity. In order to give productivity growth a chance, we should not become more protectionist but more open to the rest of the world. This is where a substantial part of our overall wealth comes from – the open market and the global division of labor. This is not a new economic insight but is still true.

An extra concern that I have is that we have now started a period with very challenging climate policies. Given that the decarbonization is already a huge task, we should make sure that we are as open as possible for any technological way to achieve the emission goals; but here again, we see a rather interventionist approach which tries to promote some technologies at the cost of others, and this brings the risk that the overall decarbonization project becomes much more costly than it needs to be, because we are too interventionist and instead of just setting the framework we intervene very specifically in decisions about technologies that should be taken by entrepreneurs and not by bureaucrats.

**JS: Turning to the labor market situation in the EU, you have stressed the importance of open market policy as well as promoting efficiency. There could be some concerns about the unemployment rate in Greece – for example, due to the policies aiming to enhance efficiency with an aging population.**

**Kooths:** I'm not concerned about rising unemployment; on the contrary, the labor market will be quite differently shaped in the new decade in the EU rather than in the most recent decade. Labor will become more and more scarce, and therefore we need an increase in productivity to at least mitigate some of the problems caused by the aging process. We have never seen anything in any country that could be described as technology-induced unemployment. First, the empirical results are clear; this has never been observed as a massive problem.

It can hit a particular branch, yes, but never the total economy and for good reasons. Because innovation takes place, because labor is so scarce – so the scarcity of labor triggers innovation, and the perception in some parts of the public debate is that labor-saving innovations might cause unemployment. I can reassure you that technology-induced unemployment will not be a major problem in the coming years. We should rather think about how to be competitive in the global labor market in terms of attracting net immigration of well-educated people.

This is more or less the global labor market already, so we must make the European economies competitive such that people immigrate into the European countries on a net basis. We should not take it for granted that the EU is such an attractive place to be, and that all the talents of the world would want to go there; they will not want to come here for the sake of helping us cope with our aging problems and for financing our social security systems. If they

come, then they want to build their future here.

They might want to establish their own companies and be productive, they will not come to help us with our legacy problems. They want to see an attractive place for their personal future, or they will go to the United Kingdom or parts of Asia or to the US and they will start their lives there. Instead of being concerned about technology stealing jobs we should focus on attracting people from all over the world. Thus we must make the EU economies attractive as a place to be and as a place to work and to do business.

Of course, the emphasis must be on attracting well-educated and high-skilled people rather than people who will need to be supported by the social security systems. The need is to attract medium- and high-skilled people, not pure numbers of immigrants. If we opened the border to everyone who wants to come here, many would of course come but these are not the people who would be able to help us economically.

## **Income Inequality Is Not Necessarily High in the EU**

**JS: There would seem to be high income inequality in the EU, which some critics say is causing increasing political populism. Will income inequality continue to rise after the pandemic?**

**Kooths:** First, it is simply not the case that income inequality is particularly high in the EU, actually the opposite is true compared to the US or UK or China. The EU economies with their welfare state model are rather an example of economies where a lot of redistribution is going on and overall inequality numbers are low. It is often repeated in the news that inequality is increasing but this is just not the case.

In a country like Germany, from the early 2000s onwards and till today, income inequality is flat. There is no increase in inequality in income flows. This is the wrong perception of the statistics, and if at all there might be an issue with wealth inequality – but then we must also talk about the impact of monetary policy which of course increases the wealth positions of those who have net wealth dramatically, whereas those who do not have any net wealth do not benefit from these low interest rates.

We should be very cautious with the numbers, and a lot of people are scandalizing the inequality as such, but many of those people do not really work with the numbers or understand them well. There is an ongoing trend over decades in many European countries that the average household size is shrinking. We have many more single households than 40 or 50 years ago. In particular, single parents – from a purely statistical composition effect – are contributing to an increase in inequality.

This is a structural factor that comes from individual decisions that have been taken, and you can even go a step further and say that 50 years ago for a female it was economically unfeasible to leave her



husband and live alone with her children. Today, it is possible. You could even interpret this as a side effect of economic growth that people have more possibilities to make a free choice about how they want to live. Statistically, it increases inequality numbers, but it does not mean that the individual circumstances of living have decreased – on the contrary.

Take the inflow of about 1.5 million asylum seekers in 2015 and 2016; these are people with typically very low incomes. Most of them do not have any income when they come here. This increases of course the inequality measure. But it would be completely absurd to assess that German society has become more unfair because inequality numbers are increasing when, in fact, we are giving shelter to asylum seekers. The whole debate is highly politicized and if you look into the root causes and what is really shaping the development you would come to quite different results.

**JS: Japan is also concerned about its aging population, particularly over productivity. However, we are also concerned about rising income inequality due to the aging population. Is there a similar concern in the EU?**

**Kooths:** It is rather a redistribution conflict between the already retired people against those who are still economically active, which creates problems. We must adjust our pension system – which means primarily we have to increase the pensionable age – this is more or less a no-brainer.

We have to keep more people in employment, but what we see from a couple of studies is that a society that is aging on average is losing productivity growth just because the age composition is different. This is a problem that should be addressed by lifelong learning and our education systems in general. We should also think about what happens to people who have done a physically challenging job for a couple of years but who cannot work at the age of 65 or 70 in their old occupation, but maybe we can find new occupations for them. Making more flexibility possible is one way to cope with it, but the inequality problem from my personal view is not the key problem but rather the inter-generational conflict around it.

## **Some Skepticism About Ameliorated EU-US Relations**

**JS: You mentioned that openness would be key to achieving economic vitality between the US and the EU. Would the current EU-US relationship stimulate growth of trade and investment in Europe and eventually enhance growth?**

**Kooths:** Obviously the atmosphere is more relaxed now. It is easier to communicate over the Atlantic and overall political relations have improved. However, we must not overlook that US President Joe

Biden is not a free-trader and is as protectionist as his predecessor. One could even say that his predecessor was quite frank in what he wanted as a protectionist; he just increased tariffs. Whereas the much more difficult problems in the debate on protectionism are the non-tariff barriers to trade, and they have been gaining importance over many years, the WTO is reporting this on a regular basis and year by year the non-tariff barriers to trade are increasing.

There are more new barriers each year than old ones being removed. I would rather warn that we might see an Atlantic coalition of protectionists who try to cut links to the rest of the world by imposing their standards on other regions. This is something that cannot work. We have recently decided upon a supply chain law in Germany, and we will see something similar on the EU level coming very soon which holds corporates responsible for human rights violations in other countries, in their supply chains. This is a tremendous barrier to trade and would rather lead to Western companies withdrawing from countries where it is hard to control whether suppliers play according to Western standards or not.

This will not improve the situation in these countries but make it worse, and we are also opening the door for all kinds of lobbying, for people who want to see competitors from other parts of the world banned because they do not have the same standards in terms of working standards, social security, or environment protection as the Western world. Why do we have these high standards? Because we have already achieved a very high degree of wellbeing; therefore, we can afford these high standards which are the flipside of our high productivity and high per capita income.

Other parts of the world that are less developed just cannot afford these standards, and it would be completely unfair to impose our standards on others. We could also criticize this from a political point of view, because respecting the sovereignty of lawmaking in other countries means we can trade with each other without any approach that imposes our points of view on others.

I am rather skeptical that the new friendship between the US and EU will really make the world a more open place; I am rather concerned about a coalition of protectionists – people who are achieving economic sovereignty, but which will at the end turn out to be the same protectionist policy approach that we have seen many times in history. The names may change, the mercantilist attitudes do not.

**JS**

Written with the cooperation of Joel Challender who is a translator, interpreter, researcher and writer specializing in Japanese disaster preparedness.

Roundtable with Prof. Fukunari Kimura, Prof. Junko Shimizu & Kayo Matsumoto

# R oundtable Discussion on the White Paper on International Economy & Trade 2021: Trade Policy at an Historical Turning Point

By Japan SPOTLIGHT

A Roundtable on METI's White Paper on International Economy & Trade 2021 was organized on Aug. 4, 2021. Kayo Matsumoto, the representative author and director of the Policy Planning and Research Office at the Trade Policy Bureau of the Ministry of Economy, Trade and Industry (METI) at the time of its drafting, showcased the highlights of the White Paper and moderated the discussion following it. She is currently working as counsellor to the Cabinet Secretariat in charge of infrastructure issues related to economic cooperation.

Prof. Fukunari Kimura of Keio University and Prof. Junko Shimizu of Gakushuin University joined the discussion. Prof. Kimura is a distinguished trade policy economist, a dedicated advocate for a multilateral trading system based on free trade. With his expertise and interest in the Asian economy, he is also working as chief economist for the Economic Research Institute for ASEAN and East Asia (ERIA), a Jakarta-based Asian think tank.

Prof. Shimizu is also a distinguished economist with expertise in international finance and currency systems, as she had more than 10 years' working experience as an exchange dealer at international banks before becoming an academic. Her interest is a common currency in Asia, such as an Asian Monetary Unit (AMU). Both academics are very keen on policy-oriented issues and have been active in publishing their views.

(Online Roundtable on Aug. 4, 2021)

## Participants



*Prof. Fukunari Kimura*



*Prof. Junko Shimizu*



*Kayo Matsumoto*

## Introduction of the Highlights of METI's White Paper on International Economy & Trade in 2021

**Matsumoto:** In drafting this White Paper, we had in mind that we were now at a time of big changes that require us to reconsider our trade policy. Early in 2020 when the White Paper for 2020 was being drafted, METI officials at the Trade Policy Bureau began discussing what the economy in a post-pandemic would look like and what

policies would be needed in responding to the disruption of global supply chains due to the pandemic. You can see the analysis of the pandemic's economic impact on both the demand and supply side in last year's METI's White Paper reflecting those discussions. This analysis led to a policy of lowering the concentration of supply chains in certain places or nations to reduce risk. Providing subsidies for diversifying supply chains was one of the policies, including subsidies to transfer production bases from China to other nations. The same discussion continued in the second half of 2020. Regarding wider

trade policy, before the US presidential election last November, it was hard for us to get a clear prospect of the future economy and policies in the United States. But as we see from international leaders' meetings and their statements after President Joe Biden's administration was formed, we have begun to get a clearer idea of the policy environment.

The first thing to be noted as a key policy that affects trade is "the enhanced interest in common values in international economic activities". Increased interest in the global environment is the leading issue. In Europe, for example, they have been engaged in what we call sustainable finance along with a large-scale action program to promote a green economy since around 2018. In my view, their policies for reorienting financial flows towards sustainable economic activities as defined by themselves could change the competitive environment in their favor, with the alleged objective of achieving green growth in a sustainable environment.

This growing interest in common values is not limited to Europe. In the US as well, Securities and Exchange Commission (SEC) consultations for potential new disclosure requirements related to climate change were held recently. This is a further step after the report of the Task Force on Climate-related Financial Disclosures, established in 2015. The Biden administration is also strengthening efforts to encourage businesses to respect human rights, another important issue of common values.

Another key change in the policy environment is the expanded role of the government. The expansionary fiscal policy adopted during the pandemic to compensate for the economic damage it has caused has not been a mere remedy for suffering industries or people but a further active policy to encourage green and digital growth.

The urgent need to strengthen efforts to protect economic security is also crucial today as a key change in the policy environment. Though it has been observed for several years, and in 2019 in particular, it was argued as a sensitive issue mostly in the context of the US-China conflict, but today it is considered to be a key issue in promoting alliances, such as between the US and Europe or the US and Japan, in order to protect national security.

These changes in the policy environment will affect businesses, with regard to both global common values and global supply chains. We confirmed in this White Paper that Japanese business supply chains in Asia, which have long been far too dependent upon China, gradually started becoming more diversified around 2011 or 2012, though little by little, with a slightly lower share in China in terms of Foreign Direct Investment (FDI) or the number of production sites as well as imports of principal parts and components among Japan's

major trading partners in Asia.

I believe that businesses are now increasingly taking account of common values like the global environment or due diligence on human rights in their management, with pressure from capital markets as well; and it is also noteworthy that digital technology will be useful for businesses to meet these new requests and challenges regarding the environment and human rights.

"Trustworthy global supply chains" could be constructed by relevant trade policies that reflect these new values. We highlighted a wide range of rule-making venues and accords where such trade policies could be discussed and achieved, such as the WTO, a variety of Economic Partnership Agreements (EPAs) such as the EU-Japan FTA or the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the OECD and APEC. Among these, the OECD is utilized as a venue for discussions on frontier policies among like-minded countries, while APEC can be a venue for more practical discussions. In addition, the Supply Chain Resilience Initiative (SCRI) launched by the Australia-India-Japan Economic Ministers' Meeting in April 2021 to create a virtuous cycle of enhancing supply chain resilience and the Dialogue for Innovative and Sustainable Growth initiated by the ASEAN-Japan Economic Ministers in August 2020 are also relevant venues for discussing new issues. Our trade policy has been these several years to utilize plural venues for discussions to establish rules to achieve trade policy goals. We will continue using these venues to achieve rule-making that reflects the new values in trade policy. I think even the rules among private businesses rather than an official treaty would affect business behavior or capital flows and eventually the business competition environment. If so, could Japanese businesses create their own values by such rules that would be accepted by the rest of Asia? This is a difficult question. We cannot make it clear exactly what would be a unique value created by a Japanese business as a tangible concept, though the White Paper introduced some specific examples of Japanese firms' efforts to create values for local communities and for themselves as private corporations.

I would like to end my introduction here and move on to the discussion session. On the issue of supply chains, I would like to ask Prof. Kimura for his views on supply chain resilience or connectivity with regard to ASEAN, and in particular could he please give his thoughts on what the notion of "service link" means in this context?

## **To Achieve Resilient Supply Chains**

**Kimura:** How excessively Japanese businesses depend upon Chinese

industries in their supply chains certainly needs to be examined, but it is also true that China is still important for Japanese businesses. So I believe that it is not necessary to even ask Japanese companies to leave China. Meanwhile, however, it is important for Japanese businesses to diversify their overseas production sites. In diversifying them, they will find a clear distinction between nations where they could possibly have an elaborate production network based on robust connectivity and others where they could not. I believe that what matters most is to expand the working environment to enable businesses to develop elaborate production networks in as many countries or regions as possible. Asian nations like Cambodia, Laos, Myanmar or India do not yet have working environments to accommodate such production networks. This is certainly due to those nations' investment environment but also to the lack of robust connectivity from hardware to software. For example, in operations to transport parts and components in a supply chain, what matters is not only the pecuniary cost but also time efficiency and reliability of logistics. Unless those are guaranteed, production networks cannot be expanded to such nations. Assuming that the manufacturing industry is still a key to growth among these nations, there will be so many things that need to be improved in them.

In thinking about Japan's economic cooperation on infrastructure which could improve the environment of production networks, its strength has been well noted. From the project in Laem Chabang Port and the Eastern Seaboard in Thailand to the infrastructure building around Hanoi in Vietnam, Japan has carried out systematic cooperation on infrastructure. The strength of this approach is seen in economic infrastructures such as electricity supply. Whether or not China provides a wide range of economic support to ASEAN nations, Japan has its own strengths in infrastructure building, not least in a variety of urban amenity-related infrastructures such as water and sewage plants, which Asian countries also need.

Apart from manufacturing production networks, how it would be possible to take advantage of disruptive innovation is also important for ASEAN countries. In order to achieve this, there will be a need for highly qualified experts or for people returning from studying abroad to start a variety of innovative businesses. Urban amenities are a key area for such innovation and ASEAN cities are competing for such experts. They are competing with each other in urban amenities, just as in the US where cities compete in an attempt to achieve a virtuous cycle of qualified experts and more innovation leading to improved amenities.

ASEAN nations are currently facing difficulty in proceeding with international division of labor beyond the manufacturing industry,

such as in services, without urban amenity-related infrastructures. So Japan could increase its contribution to the development of ASEAN nations by providing high-quality urban amenity-related infrastructures.

I found the chapter on the resilience of supply chains in this White Paper very useful and enlightening. I believe supply chain management itself may as well be left to private businesses and what the government needs to do first is to increase the alternatives for private businesses to enhance their resilience. I think it is very important for the government to improve the investment environment and the connectivity of supply chains among ASEAN nations and South Asian nations.

**Matsumoto:** A smart city, another urban amenity-related infrastructure, is one of the focused infrastructures in the Infrastructure System Export Strategy and is said to be difficult to monetize from an exporting side's perspective. I regarded it as providing sustainability values. But as you said, we would need to take into account the needs of the host nation in terms of attracting talented people.

I would like to ask Prof. Shimizu about selection of the currency for procurements of parts and components in supply chains. In our White Paper, we referred to a survey on diversification of supply sources in supply chains conducted by the Japan Bank for International Cooperation and the Development Bank of Japan. The results were that a large percentage of the companies surveyed responded affirmatively to diversification of supply sources immediately after the pandemic. This was probably, as we had expected in advance, because it would be much easier to change supply sources rather than changing production sites. Apart from the electric and electronic appliances industry where nearly all settlements are done in dollars, in the case of diversifying supply sources, when Japanese firms procure similar parts and components from among plural nations, what would be the implications for the selection of currencies used for settlements by businesses?

## **Selection of Currencies in Diversifying Supply Sources**

**Shimizu:** Even before the pandemic, with intensified US-China trade friction as well as natural disasters, Japanese manufacturing companies with production bases in Asia were thinking about further diversification of production sites in terms of their business continuity plans. The pandemic accelerated this trend. They are now seriously

thinking about moving some of their production or procurement sites from China to Southeast Asia, although maintaining business in China.

On the question of selection of currencies for settlements, thanks to the internationalization of the Chinese yuan, transactions of Asian currencies including the yuan are much more easily done and the costs are much lower. Thus we have seen the percentage of yuan-based transactions in Japan-China trade increasing recently. The local subsidiaries in China and Thailand are freed from foreign exchange risks by being able to use their local currencies for their cross-border transactions. On the other hand, businesses have to move to less developed nations such as Vietnam, Indonesia or Cambodia and there they have no choice but to use the US dollar for international trade. However, these countries have regulations to enforce all domestic transactions to use the local currency. In this case, Japanese subsidiaries have to manage transactions between the dollar and the local currency, and therefore diversification of production bases to less-developed nations would make it more difficult to manage currency transaction risks.

Another issue is trade finance. In less-developed countries businesses would often have to use a more expensive method, such as a Letter of Credit (L/C), and costs would be high. We would need a solution to this.

I am very impressed that this White Paper mentions this issue, in particular the “Trade Waltz”, a trade-related information connecting platform using blockchain technology. This platform would play a key role in Japanese companies’ attempts to diversify supply networks in Asia and prepare to replace a production site in any country exposed to a certain risk with another site somewhere else, because they would need to be supported comprehensively in terms of currency, customs clearance systems and trade finance. Recent innovations of digital technology will support further diversification of Japanese companies. This is as important as the question of urban amenities that Prof. Kimura mentioned.

On possible future development in this regard, the Nippon Automated Cargo and Port Consolidated System (NACCS), a Japanese online customs clearance system for imported and exported cargo now introduced in Vietnam and Myanmar, would be expanded to other countries and certificates of origin would be issued more easily than ever by taking advantage of NACCS. Eventually, the Authorized Economic Operator, a system adopted by the World Customs Organization allowing businesses with the capacity for security management of cargo and law observance to modify and simplify customs clearance, may also be expanded. Thus, with the

“Trade Waltz” service, we would be able to achieve digitalized customs clearance. In the White Paper, I think this would have been more convincing with a clear explanation of why the “Trade Waltz” and NACCS will be needed in the expansion of supply chains. It is clear that there will be enormous differences in cost and the time needed for procedures between a case where trade finance is done simply through an account by an online network like the Society for Worldwide Interbank Financial Telecommunication (SWIFT) and a case where the finance has to be done with an L/C because the business partner is not to be fully trusted. This is a vital issue in building up supply chains in the new less-developed trading partners.

## Future Outlook for the Global Economy

**Matsumoto:** I would like to further discuss a little beyond the scope of the White Paper.

Firstly, could you both please tell me your views on the future outlook for the global economy?

International cooperation is now under progress to reduce the economic gaps between the developed nations where more people have been vaccinated against Covid-19 and the developing nations where fewer people have, as vaccination is at this moment the only means of stopping the spread of the Delta variant and economic recovery thus depends upon the progress of vaccination. What do you think will be the key issues in reviving the global economy while US or European monetary policy gradually returns to normal?

The second question is about the possibility of introducing private finance for economic cooperation on infrastructure projects. As for financing for infrastructure in general, 90% is from private finance and 10% from public finance. Do you think there is more room for private financing to be introduced in infrastructure projects under economic cooperation?

**Kimura:** It is truly amazing to see that national governments, in particular those in developed nations but also emerging economies and developing ones as well, have been taking unprecedentedly large-scale macroeconomic mitigation policies. In the first half of last year, we worried about a possible global depression and extremely strong negative shock on the demand side of the global economy with a damaged financial sector and the collapse of asset markets. But the negative shock was truly small.

Looking at trade data, though we see a negative demand shock on the whole economy continuing, all nations’ GDP growth bottomed out in May or June in 2020 and is now coming back to normal. This is a



truly phenomenal and revolutionary performance achieved by macroeconomic policy.

Vaccination is a key to the restoration of the economy and there will be a big time lag in the recovery between nations making good progress in vaccinations and nations failing to do so, as the direction of economic recovery will depend upon the virus variants. It should also be noted that the fiscal situation among Southeast Asian nations including Indonesia is not damaged yet. But we will need to watch carefully the macro balance of emerging economies and developing economies as developed nations start raising interest rates in accordance with their own economic recovery.

Over the mid-term, there will be a divide in the economic recovery among sectors in ASEAN. Some are steadily recovering but some are not. In general, the sector of goods trade is steadily getting better, in particular goods that had a positive demand shock from the pandemic such as those linked with remote working, as ASEAN nations' exports are very competitive and their exports of goods to Europe and the US have returned to normal very quickly. But there are some sectors which cannot recover well, such as transportation, tourism and face-to-face services, and they will still have much difficulty recovering. Such sectoral division will be seen as a key characteristic of the future recovery process. Whether a sector or business can adjust well to the digital economy or not could make a clear difference in its performance as well.

According to an Internet questionnaire survey by ERIA, more than 2,000 companies in ASEAN responded by Internet, and those companies with high IT literacy have a record of good business performance, as shown in that more than half of them saw a positive increase in sales even last year. This means that companies using the Internet are exploring for business opportunities everywhere and thus show a good performance. Nonetheless, there is still uncertainty about their recovery due to political instability. We are not sure yet if we can truly draw a rosy picture of recovery for these nations.

On the question of private finance for economic cooperation in infrastructure, ASEAN nations have tried to introduce it these last 10 years, in particular under the scheme of Public-Private Partnerships. But their optimism about it has now gone after seeing its failures, like the one by India which was very positive about it and announced it was introducing private finance for two-thirds of infrastructure investment. Because of this, they have been proceeding little by little with caution in introducing private finance.

It is certain that the easiness of private finance introduction differs by sector. For example, in large-scale power plants, private finance introduction is now confirmed, but it would be difficult to introduce it

in sectors like transportation, urban infrastructure or public services. We need to think about how to finance projects that do not pay well and make up for their low profitability. We cannot recommend the introduction of private finance without consolidated governance on private and public finance in projects in developing and emerging economies. It is too risky to promote such projects by collaboration between the public and private sector without fixed rules in those nations. We will need to promote it as carefully as possible, step by step.

**Shimizu:** Japan seems to have failed to secure imports of vaccines or Personal Protective Equipment (PPE) and other essential goods at the beginning of the pandemic. I think the government should have taken greater initiative in this rather than leaving it all to private business. We should examine policy measures in this regard. Though Japan concludes bilateral or regional and multilateral EPAs, all nations naturally take actions in favor of their own country in emergencies like this pandemic. I do not think there is any rule on cooperating in such actions in any of the EPAs. We should also examine how helpful EPAs could be in responding to such unexpected emergencies.

On the question of the global macroeconomy affected by the pandemic, the damage was much less than we had thought, as Prof. Kimura mentioned. Though there is a significant divide in damage among sectors, the economy as a whole is coming back to a normal track. We will need policies to support the seriously damaged sectors and businesses after finding out how best to help them from now on.

On the question of the introduction of private finance into economic cooperation projects in infrastructure, I think we need to have a scheme in which Japanese overseas subsidiaries with excess liquidity could invest in those projects. Urban amenity-related infrastructures will be very important in ASEAN countries. In Thailand or Indonesia, which have heavy traffic jams and high temperatures, frozen storage of vaccines is difficult and thus vaccinations are not progressing very well in those countries. Economic cooperation in building up urban infrastructures for those nations would have benefits not only for those nations but also for the Japanese working for the subsidiaries in the local economy. It is often said that some Japanese production subsidiaries have excess liquidity after remittance of patent royalties or dividends to their headquarters and it does seem to be difficult for them to find a good and safe destination for investment. With a scheme for those subsidiaries to invest their money in economic cooperation projects in urban infrastructures, there would be a very positive benefit in the long run for those companies as well.

**Matsumoto:** Though we mentioned the advanced aspects of digitalization in Asia in the White Paper, such as Grab or Gojek, taxi dispatch applications in Singapore and Indonesia, I find now that we did not think well enough about the sectors of the Asian economy that do not enjoy the benefits of digital technology. There must still be a great need for economic cooperation or private business to help in those sectors.

**Kimura:** There seems to still be a gap in capacity for using basic IT in Southeast Asia. For example, there are some who can take advantage of e-commerce and some who cannot. There are also some who can easily do work connected with the Internet and some who cannot. So there remain many gaps in capacity for using simple technology in Southeast Asia. What matters is not to slow down the introduction of technology creating gaps in the economy but to encourage it in a wide range of businesses.

Meanwhile, there are also many areas with more progress in utilization of digital technology than in Japan, such as the introduction of digital ID for promoting the availability of a variety of public services. In this light, it would be possible for their digital economies to make great leaps after deployment of basic IT in these nations.

**Matsumoto:** How can the government and private sector in these nations reduce such gaps in the capacity for using digital technology?

**Kimura:** We will need to wait and see how governments could get involved in it. In the case of developed nations, with government regulations, any digital infrastructure such as the Internet or broadband would be accommodated with private funding. But in emerging or developing economies, how quickly it could be achieved needs to be examined. Anyway, a tremendous amount of government expenditure on highway or port construction would not be necessary. So it is important for the governments not to hesitate to spend money on digital infrastructure building.

On the question that Prof. Shimizu mentioned about whether EPAs should be equipped with rules on a cooperation framework for providing essential goods less restrictively among the member nations or not, there were certainly many countries that restricted exports of PPE, medical goods, food or other essential goods at the beginning of the pandemic. This was a big issue. Temporary export restrictions could be GATT-consistent. This issue, however, was fortunately fixed at a rather early stage, within several months after the pandemic started. On the other hand, I think India's policy to start imposing tariffs, contrary to trade liberalization, is clearly violating

GATT articles and should be properly addressed. EPAs would play a role in stopping such an abusive industrial policy.

**Matsumoto:** We would need to use a dialogue venue and international rules as in the SCRI or EPAs to address issues like the "Make in India" initiative. With a bigger role by government in trade policies, I guess there may be an increasing number of policies combining some that promote national interests which are not protectionist with some that are protectionist. We had a warning against it in the White Paper.

On the issue of large retained earnings by Japanese overseas subsidiaries that Prof. Shimizu mentioned, I thought they were aiming at good investment targets with those earnings in overseas markets that are growing more rapidly than the Japanese market, where finding financing would be easier. Would there not be many investment opportunities for them?

**Shimizu:** There are certainly some companies holding a good amount of retained earnings in Singapore and such subsidiaries are increasing. They would be ready to buy bonds with government guarantees for big infrastructure projects, if this investment would be to their benefit and raise Asian growth. In recent years, Japanese insurance companies have also expanded overseas business into Asia. For them, the expansion of the local currency bond market is essential.

In addition, firms' risk management covers not only foreign exchange risk but also risks of natural disasters or accidents or law suits, and they aim to be insured for those risks at minimum cost. For this, they recently started to establish their own insurance companies covering all the risks faced by their affiliated companies instead of paying fees to external insurance companies to save costs. It is so-called "Captive Insurance", and this has been the trend in Japan since 2019. This is another way to encourage them to use their retained earnings and an important business strategy for a headquarters to protect its local subsidiaries. It may not work if anything serious worldwide happens, but one small subsidiary company's risk can be covered by the company's headquarters. Furthermore, in such cases, they set up a captive independent agent from a headquarters in charge of covering all the subsidiaries' business risks. This captive agent can get all the insurance fees from the affiliates and thus this is much more cost saving, rather than asking external insurance companies to insure against those risks. How Japanese overseas subsidiaries use their retained earnings could be an interesting issue to be examined in next year's White Paper.

## What Is Expected from METI's White Paper in 2022?

**Matsumoto:** In addition to Prof. Shimizu's comment on what is expected from our White Paper in 2022, is there anything else to be expected to be picked up as topics for next year's White Paper?

**Kimura:** In the light of trade policy, the biggest issue in this White Paper was how to conciliate trade liberalization with economic security or environmental and human rights issues. I think the logic of this conciliation between the two different groups of policy values could be further developed in the next White Paper. Upgrading the free trade system is mentioned in this White Paper and the question how it is to be done must be explored, but it would be a tremendous task. In my view, as the logic of international trade policy is already established as one that authorizes a rules-based trade regime based on the concept of economic efficiency or legal stability, it should not be mixed up with any other value judgement. In other words, it should not be assumed that trade policy will assess economic security or due diligence on human rights. This is beyond the scope of trade policy thinking. We trade policy people should reconcile the values of economic efficiency with non-economic values. The thought behind GATT Article 20 and 21 is that trade policy is not in a position to judge whether a specific security standard or environmental standard is appropriate or not. Instead, a trade policy must be taken to minimize the negative impact on trade of those policies that pursue the goal of a green environment or human rights or economic security. I think this perspective is very important. The mixing-up of two different values like economic security and economic efficiency would lead to the collapse of trade rules, as any trade policy could reflect security concerns. We need to make a clear distinction between the responsible domain for trade policy and others, and trade policy should pursue rules of trade and investment within a limited scope of responsibility. Without it, it will be difficult to point out even disguised protectionism. As a result, uncertainty surrounding trade regimes will rise and all kinds of unexpected policy risks could emerge, which would be the worst for private businesses.

I know we will need to listen to whatever any superpower is saying. But I believe that trade policies need to observe their own logic. Economic security or environment policies or human rights policies have values to be respected by other policies than trade policies. Trade policy people need to present their views on this as clearly as possible, considering how non-trade policy values differ from trade policy values. For example, if any superpower says we need to restrict

production of automobiles for security reasons, trade policy people will need to oppose it based on their logic. I think it is still important for trade policy people to say what economics says, such as free trade almost always achieves the optimal resource allocation and the highest economic efficiency.

**Shimizu:** I would like METI's White Paper next year to pick up the issue of international taxation such as transfer pricing taxation, one of the challenges for manufacturing businesses operating overseas. In particular, after the global financial crisis in 2008, the decline in some Japanese companies' headquarters business was compensated for by their overseas subsidiaries with more earnings, and thus the taxation system would be very important for a variety of production bases in Asia.

In addition to international comparisons of capital regulations by host countries in the context of emphasizing the need to facilitate a business environment in favor of Japanese local subsidiaries' operations shown in this White Paper, it would be better in next year's White Paper to at least mention the importance of each host country's financial regulations for the Japanese subsidiaries' operations.

Lastly, on the question of "what would be the values that Japanese businesses can claim as specific to themselves" that Ms. Matsumoto mentioned, I have a couple of things to be noted. One is the high quality of goods and services, and the other is "continuous after-care". For example, having helped set up the stock market in Myanmar, Japan had been taking care of the market until companies got listed and market transactions started.

When bidding for large-scale infrastructure investment projects, Japanese firms could often lose out in terms of price, but with a high quality of the infrastructure and continuous after-care and management support, which are the main sales points of Japanese business, they would be highly appreciated by host nations as a result. So, in such a case, the government should support it by some kind of subsidies in order to win the project first. And these successful experiences will further enhance the credibility of Japan's infrastructure investment.

JS

Written by Naoyuki Haraoka, editor-in-chief of *Japan SPOTLIGHT*, with the assistance of TapeRewrite Corporation.

Interview with Adam Tooze, Kathryn & Shelby Cullom Davis Professor of History, Department of History, Columbia University

# A n Historian's Views on Present Geopolitics & Geoeconomics

By Japan SPOTLIGHT

The US-China “cold war” has changed the geopolitical and geoeconomic landscape completely. We are in the midst of regime conflict between democracy and authoritarianism. How are we going to come through this challenge and what is the solution? We will need not only to analyze the current situation but also analyze it from the long-term perspective, with an eye on how we have reached this current status and what future we will most likely have. An historian's views would be valuable in this regard. Prof. Adam Tooze is a distinguished British expert on economic history, the author of such books as *Crashed – How a Decade of Financial Crises Changed the World* (2018) and *Shutdown – How Covid Shook the World Economy* (2021), both of which relate how capitalism is undergoing a paradigm shift. Japan SPOTLIGHT held the following interview with him.

(Interviewed on Oct. 6, 2021)

## Merits of Being an Historian

**JS:** You've written some very interesting books recently, one about the financial crisis and one about the Covid crisis, both of which will have long-term consequences on the economy, politics, and society. Could you explain the merits of being a historian in analyzing these situations?

**Tooze:** I want to be modest in answering that question, because I think the conventional view is that the advantage of the historian is wisdom, deep knowledge of human experience over hundreds, if not thousands, of years. There is a role for that, and it is the classic role of historians, but (a) it's not my personal approach to history, and (b) I would like to question the assumption on which that is based – namely the assumption of continuity, a broad, basic continuity in structural logics of different types: economic, political, geopolitical, cultural. I am not convinced that the current moment can safely be assumed to exhibit those continuities. This isn't to say that I don't think there are deeply entrenched patterns of human culture or anthropology. But if you are interested in the sorts of things I'm principally interested in, which are global finance, the global economy, huge shifts in the global balance of power, then the world that we are overwhelmingly confronting is one of absolutely radical change, unprecedented change. To me, the role of the historian in that situation is not so



Prof. Adam Tooze

much wisdom and knowledge of patterns, but rather an acute awareness of previous moments of change, of disorientation, of struggle to cope. Also, a way of writing about economics, for instance, which is more alert to discontinuity, to breaks, to qualitative change, to a reconfiguration of basic relationships. That is the way I think a historian can be helpful in this moment.

**JS:** It's certainly true that economists appear to be too short-term oriented, in particular neoclassical economists, focusing only perhaps on the short-term aspects of economic incidents.

**Tooze:** Yes, I think short-term on the one hand, and also what always strikes me is the sort of obliviousness. For example, there is this huge discussion about interest rates – why are interest rates so low – and they will say, “They've been falling dramatically since 1980, and look at my graph, it shows interest rates falling since 1980.” But they never pose themselves the question of why they were so high in 1980. If you just went back to 1967 or 1966, let alone if you went back 50 years, you would see something totally different. Interests rates surged in the late 1970s to a peak in the early 1980s. It is hardly surprising that they have been on a downswing ever since. Everything they see is through these colored glasses, and when you take them off, all of a sudden the world looks very different. The timeframes they operate in are short and unreflected, almost a

matter of habit or convenience. You see this in bank analysis all the time, “Our data set goes back to 1990”, or it could just as well be 2000. There’s no justification, no framing of the epoch.

## **No More Neoliberal Capitalism?**

**JS: You’ve analyzed the 2008 financial crisis in your book *Crashed* and you wrote the book *Shutdown* about the pandemic crisis. In both books, my impression is that you seem to be saying we are no longer living in so-called neoliberal capitalism. Is that right?**

**Toooze:** I think it’s more complicated than that. For sure, the self-confidence of economic doctrine that said, “We know the future, and it belongs to markets and independent central banks, and shareholder value”, has been quite profoundly shaken. But if you look at what economic policy even in those moments of self-confidence actually consisted of, it was always in fact a mixture of doctrine, rules, orthodoxy on the one hand, and total pragmatism on the other. In the end, I think what may be most upsetting to neoliberalism, the way in which I think we now realize we may be moving into some genuinely new epoch, is the balance of power between the West and China. It was really an American set of ideas of how to run the world, and China’s rise fundamentally challenges that. You can see the bewilderment in the United States right now, because China’s rise grows out of the success of the formula of globalization. To that extent I think that the neoliberal model has been profoundly shaken, but I think by geopolitics as much as by anything else.

## **Driving Force for Political Change**

**JS: The emergence of China will be an important factor driving a sort of paradigm shift in Western capitalism, but there could be other things, for example, rising populism. Part of the background of rising populism in the US and the United Kingdom is expanding income inequality, which seems to be another driving force.**

**Toooze:** I think that’s valid up to a point. The problem is, as we’ve seen with the administration of Donald Trump and with the Conservative government in the UK, there may be a populist revolt provoked by the resentment of white working-class people, especially men, against the changed circumstances of their world, but the people that they more often than not hoist into power then pursue policies which are entirely aligned with the interests of at least some group of the most privileged in society. I agree with you that huge inequality is producing political upheaval, but it’s not producing a concrete, specific alternative. It’s producing dysfunction in the US on a large scale. And questions of race and gender are at least as important as actual deprivation and actual inequality.

**JS: This pandemic is exacerbating inequality, which means that we might see another big rise in populism after the pandemic. Do you see this leading to geopolitical instability?**

**Toooze:** There certainly are huge inequality effects from the Covid shock. In the places where the struggle over populism is most intense – Italy, the UK, and the US – the relationship between Covid-induced and rising populism is pretty indirect. If there is a surge of support for Trump in 2024 it won’t be because of Covid-induced inequality, it will be because of the mobilization of the right wing against the Democrats. In the UK, the economic consequences of Covid and Brexit are very serious and the outcome is very uncertain, and it’s not clear how far the Tories or the Brexit Party (now called the Reform Party) will benefit. In Italy, the Fratelli d’Italia are gaining votes at the expense of the other populist party, the Lega, and the Fratelli are benefitting not because of inequality, but because they are the only opposition to a cross-party government led by the central banker Mario Draghi. This isn’t to say that I don’t take populism seriously, but I think it is largely the effect of the functioning of politics rather than a direct link between the Covid-crisis inequality and populism.

**JS: You seem to be saying that geopolitics, or perhaps politics, will be a determining factor in the functioning of the economy. The economy used to rule over politics, but now politics seems to be the ruler.**

**Toooze:** This is the inversion. I would agree that that is a break, yes.

## **Large Government Is Now More Common**

**JS: On a slightly different subject, what do you think are the differences between the consequences of the financial crisis and the consequences of the pandemic?**

**Toooze:** In the aftermath of the financial crisis, the fundamental problem for the Western economies that were worst affected – the Europeans and the US – was the fragility of their financial systems, with a long stagnation effect. On top of that, from 2010 onward, the rich countries refused to engage in a proactive, stimulative fiscal policy, instead relying entirely on monetary policy. It’s too early to make a final judgement by any means about what the long-term effects of Covid are going to be. It’s too early to say for sure, but one thing we don’t have to deal with is a crippled financial system. We have seen very adventurous fiscal policy in 2020 and 2021, not monetary policy acting alone but fiscal policy acting as well. The central question is whether or not that fiscal support will continue. If it’s coupled with an energy transition, a green growth agenda, with a huge shift from fossil fuels to renewable energy, it could be the formula for relatively rapid green growth.



**JS: It may be premature at this point, but most governments appear to be very eager to spend large amounts of money. What do you see as the positive and negative elements of this large government intervention going forward?**

**Tooze:** The question is always the tradeoff. In economics, you always have to ask what the alternative is. Yes, there may be some disadvantages. If you do quantitative easing on the scale of the Bank of Japan, the bond market ceases to function in a normal way, and some people will complain about that. But the question you have to ask yourself is what is the tradeoff, and the lesson we learned from 2008 was that premature restriction of government spending and fiscal tightening is a recipe for much slower recovery. I think the IMF has adopted a quite sensible position by saying that it's the quality of spending that matters. The effect will depend not on quantitative decisions of too much or too little, but on quality – did we get it right?

### **Social Cohesion as a Solution to Political Turmoil?**

**JS: That's an interesting point. One concern about excessive government intervention is that it might lead to inefficiency, and that politics will also intervene, leading to more volatility, with negative consequences for society and the social economy. Some people say we should pursue social cohesion in a more productive way. What do you think about social cohesion and how to achieve it? Will social cohesion be a determining factor in stabilizing politics?**

**Tooze:** This is a very fundamental question, and I like the way you put it by starting with politics and then going to social cohesion. You are right in that we are entering an age in which politics in various forms will matter a lot for the economy. The temptation then is to say that you have to have good politics, and the question becomes how do you get good politics, and how you get good politics ultimately has to come down to society and the rules through which society is organized. I grew up as a migrant in West Germany, and one of the things that has made me happiest in the last week or 10 days was to learn that 80 members just elected to the Bundestag have a migrant background of some kind – a mother or a father who is not German, or themselves a migrant. That is another image of social cohesion: inclusion, incorporation, and dialogue.

That is a very constructive model, and it has certain preconditions. Germany, for instance, does not have a media sphere as toxic as in the US. It has the Internet of course, but for television it has a public broadcasting system with a balance of political interests and its political parties are publicly funded. Running the election costs 100 million euros. In America, you can't get elected to a state governorship for \$100 million, but you can run the entire German

election for 100 million euros. This shows that there are ways in which you can ensure that the relationship between society and politics is productive, open, complex, and future-oriented. Rather than cohesion, perhaps one might say resilience, creativity, dynamism: we need those things too.

I would think of cohesion not as an army with all of the soldiers standing in a row, but perhaps like a soccer team. All the players have different roles but cooperate with each other. They all wear the same uniform, but they form a dynamic, moving but cohesive group. That's the kind of cohesion we need, as a dynamic, mutually supportive network. If, instead, you have a situation of polarization as we have in the US, it's clearly disastrous. So yes, cohesion, but in an imaginative, modern way.

**JS: Do you see community playing a role in this kind of cohesion, resilience, and dynamism?**

**Tooze:** It can, but there are dangers in this kind of thinking. In the history of Western thought, community and society are often counterposed. If you go back to the German sociologists of the late 19th century, community is thought of as warmer, traditional, richer, thicker, and society is thought of as alienated, individualistic, modern. To that extent, I think community is an unhelpful concept to us in the present. We need a new conception of community. If by community we mean relationships which have an element of the face-to-face, an element of personal involvement to a particular location, then I think community is clearly desirable. If there is going to be community it has to be in a sense that is open, and celebrates its capacity to incorporate and add new members, and to allow people to move between communities.

**JS: Another question about cohesion. We are seeing growing interest in social common values like the global environment, human rights, human well-being. Will this be helpful in achieving social cohesion and integration?**

**Tooze:** Yes, let's think about this concretely. Right now the great challenge is global vaccination. There are well-worked out plans for how we could vaccinate all 7.8 billion people on the planet. But unfortunately we have so far vaccinated just about half. We've mapped the problem, there are brave doctors and nurses from all over the world working in remote places mapping out what it would take to provide every human being with a vaccine, and it doesn't cost a crazy amount of money – it would cost \$50 billion to \$100 billion. It would make us all much safer, and my fantasy would be that we pick one or two vaccines and do it every year. Then we could say that as people, we were unified by at least that thing. The next pandemic that comes will be more infectious and more dangerous, and if we do not have the system in place ahead of time, we may not be able to improvise it. This isn't an act of altruism, it's an act of enlightened self-interest. But, unfortunately, we are a long way from realizing it.

## Difference Between the Old Cold War & the New Cold War

**JS: Turning to geopolitics, what do you think will be the most significant difference between the old Cold War and the new cold war between the US and China?**

**Tooze:** The most significant difference is that China is the No. 2 economy in the world, with the most growth potential, and has been responsible for far more economic growth over recent decades than the US has, and we've never been in a situation like this before. You can see almost daily the tension between the geopolitical, the political, the human rights-based critique of China on the one hand, and the investment logic of big business and capital on the other. You can see that being played out all over the world, literally in day-by-day conversations in public about the choices that are implied, and there is no equivalent of that in the Cold War with the Soviet Union, not even close. The scale of Japan's investment in China is absolutely huge, and that's completely unlike Japan's position with the Soviet Union during the Cold War.

**JS: Does that mean that a US-China decoupling will be almost impossible?**

**Tooze:** I don't know if that's impossible, but the stakes are very high and the costs would be significant to both sides. If they were to do it, it would constitute a break in the historical vision of our development, which is important for things like organizing long-term investment, for instance. There's no horizon then, and what would be the prospect for future development? I don't think it's impossible, and there are very powerful forces in the US which are pushing for the uncoupling of particular bits. I think the question we have to ask ourselves is not whether complete uncoupling is possible, but whether partial uncoupling is, which is what they are attempting. And it is the Americans attempting it, it isn't the Chinese.

## Resolving the Conflict Between Democratic & Authoritarian Regimes

**JS: We are currently seeing increasing confrontation between democratic regimes and authoritarian regimes with regard to vaccine distribution. At the same time, Western capitalism is moving into a new age, in which neoliberalism is less significant. For our last question, as a historian what do you think about the hypothesis that democratic regimes and authoritarian regimes, or capitalist regimes and non-capitalist regimes, could converge into one, more cohesive, system?**

**Tooze:** It's difficult to see the emergence of a more cohesive system, because the entrenched interests of the US power operators are

profoundly hostile to that vision. I think a move toward a world of total uncoupling and a new cold war is more likely than integration, but I also think that will be incomplete. My diagnosis of the current situation is a kind of pluralism, a kind of disaggregation, and the way in which the tensions are resolved, in the West in particular, is by incoherence – structurally determined, necessary incoherence, double standards, different rules. Xi Jinping's project is very much to construct China into a coherent power system, in which politics, society, culture, and the economy align in powerful ways. I don't think any Western states have the social norms, the political culture, the organization of interests, or the means of coercion that would allow us to match or answer the Chinese.

Instead, what I see happening is us being sucked into a series of very asymmetric relationships, where certain domains and systems are connected and other bits disconnected, certain systems are connected with China and not with things at home. That's quite unstable, and worrying. If you take it that democracy is not just a matter of voting, or the rule of law or protection of rights, but something about sovereignty, the ability to decide, to act collectively, I don't think it is at all obvious that the West retains a lot of that kind of capacity.

**JS: Does that mean that international communication and dialogue among those different systems will be much more important than ever?**

**Tooze:** That is for certain, but the question is what form does that conversation take, and is it a genuine conversation or is it just simply a kind of dialogue of the deaf where no one can really hear each other.

## Rule-Making Efforts for a More Cohesive Global Regime

**JS: So if the WTO is not functioning well, would rule-making be done through formats like the TPP or the OECD?**

**Tooze:** Yes, exactly. I think that would be the most optimistic outlook. Of course, the rules skeptics come into play and say that China will never abide by rules. I think we should not give up on that so easily. It's not obvious that China totally ignores rules. They may not abide by certain rules in the way that we would want, but then certain of those rules were designed in a way that China was never going to abide by, so we should have been realistic about it. Did we really expect China to dismantle its state-owned enterprises? When we watched them sign that agreement, we cannot have really expected them to abide by it. In future rule-making needs a broader context. A context that is cultural, political and technical. **JS**

Written with the cooperation of David S. Spengler, who is a translator and consultant specializing in corporate communications.

# Will a Taiwan Emergency Happen? Analyzing the Challenges Facing China

By Yasuhiro Matsuda



Author Yasuhiro Matsuda

There is talk that war could break out across the Taiwan Strait. The US-Japan Joint Statement, issued at the summit meeting between Prime Minister Yoshihide Suga and President Joe Biden in Washington in April 2021, referred to the importance of peace and stability in the Taiwan Strait. This was the first time since 1969 when Prime Minister Eisaku Sato met with President Richard Nixon that the phrase had been mentioned at a US-Japan summit.

Are military tensions around the Taiwan Strait really rising? Will war break out across the Taiwan Strait? In short, will China use force against Taiwan? Or will the use of force be avoided even if tensions rise? Let's consider the question from the perspective of the challenges that China, which would be the party initiating the use of force, would face.

## Long-Term Difficulties of Unification by Force

First of all, the probability of the use of force against Taiwan by China for the purpose of unification (military unification) is extremely low for the time being. China lacks the ability to do that, and it's hard to think it could be achieved in the next decade or so. Any war is a victory if it achieves a goal, but if it cannot be achieved, even if the battles are won, it is defeat. For China, the purpose of a war against Taiwan's armed forces would be to fully occupy a heavily armed island more than 100 kilometers away, establish a new government, and maintain its rule for a long time.

In order to achieve this, China would have to successfully attack satellites in outer space, conduct cyberattacks, attack with ballistic missiles, secure air and maritime dominance, conduct land invasion operations, and supply its large forces that land without interruption. At any stage, even if a landing operation is successful, if the US military intervenes and the supply lines are interrupted, the troops that landed would be cut off and annihilated. Moreover, Taiwanese forces would naturally fight back and could even take the war to mainland China. No matter how strong China is in certain areas, such as cyberspace, it cannot realize the occupation of Taiwan. China will not achieve its war objectives as long as Taiwan defends itself. Taiwan does not have to beat China – it will win if it does not lose. In this way, any operation to fully occupy Taiwan would be too costly and risky, and extremely difficult for China to undertake.

Moreover, it would escalate into a large-scale war for as long as Taiwan resists. In addition, if the United States and China entered into conflict in earnest, unless the US mainland was hit by nuclear

weapons, China would become a battlefield and suffer damage. Any operation by China to seize Taiwan by force would be a head-on challenge to the post-World War II international order largely created by the US. The US would have the military option of inflicting more damage on China than it could stand, in the short term at least.

How would China respond to any such military attacks by the US? Would it overcome the temptation to use nuclear weapons? But if China showed even a slight readiness to launch a preemptive nuclear attack on the US, the US should not hesitate to launch a first such strike on China. In other words, a war against Taiwan is a war that might never end and would be easy to escalate. So in what circumstances would China make the decision to launch a war in which it may fail to occupy Taiwan, lose its opportunities for development, and escalate the conflict to a possible nuclear exchange that could lead to the destruction of humanity?

It is likely only if the Chinese leadership makes serious and unusual miscalculations. Moreover, any such war would take several months to prepare and surprise attacks would be difficult. Taiwan, the US, Japan, and other nations will know in advance if China plans to embark on this great war, and the Chinese attack would begin in a situation where Taiwan is most strongly defended. Yet China would not have won unless it completed a full occupation of the island.

For this reason, we can conclude that the likelihood of China choosing to use armed force for unification is extremely low for the time being.

## China's Fundamental Contradictions

It is easier to understand this issue from the point of view of China itself. Its plan to attack Taiwan has huge contradictions. As mentioned, US intervention is what it fears most. China has the ability to occupy Taiwan by force unless the US intervenes. But if China attacks Taiwan only to occupy it, US forces in Japan such as in Okinawa immediately next door would not be attacked or harmed. Nonetheless, the US might choose to intervene by easily using such unharmed forces in a Taiwan emergency. With any such military intervention by the US, China's attempt at unification by military means will be difficult. Even if the possibility of such US military intervention is insignificant, China cannot simply neglect that possibility.

That's why China is taking a purely military perspective and would launch operations to attack US bases in Japan from the beginning of the Taiwan attack operation. And as an attack on US military bases in

Japan is also an attack on Japan itself, Japan's Self-Defense Forces will also counterattack. If Japan and the US are attacked, the probability of a US counterattack and intervention in the Taiwan emergency is 100%. In other words, whether China attacks only Taiwan or attacks the US bases in Japan first, it has no choice but to act on the assumption of 100% US military intervention.

How does China resolve this contradiction? By having the Chinese army build the ability to annihilate US forces including those in Japan, South Korea, Guam, and Hawaii in battle and making the time necessary for the Taiwan occupation, as well as by increasing its nuclear capabilities, including intercontinental ballistic missiles (ICBMs), China will build a situation in which the US could never confidently intervene. China's military build-up is clearly moving in this direction. By the middle of the 21st century, China's goal is to compete with the US as the world's leading military.

The question is whether the US, Japan, and Taiwan will allow China to take more than 20 years to bring about this situation. If they do, the capabilities of the US and China will eventually be reversed. If they do not tolerate this and continue to maintain the current gaps in capabilities, the status quo will be maintained for a longer period of time. At a time when China's medium- to long-term trend is almost fixed, the current state of the Taiwan Strait depends on what decisions the US, Japan, and Taiwan make and implement to maintain the status quo.

### Occupation of Remote Islands in the South China Sea

Next, let's consider the probability that China will use limited force which is unlikely to be counteracted by the US. Such limited use of force can be divided into several cases. The targets of the attack are (A) remote islands in the South China Sea, (B) remote islands along the Fujian coast, (C) the Pescadores which are effectively controlled by Taiwan, (D) the main island of Taiwan, divided into four parts.

(A) is the Pratas Islands (Dongsha Islands) controlled by Taiwan and Itu Abba island in the Spratly Islands (Nansha Islands) that Taiwan also has effective control over. Since 2020, China has been flying military aircraft along a route connecting Taiwan and the Pratas Islands. Most cases of Chinese military aircraft entering Taiwan's Air Defense Identification Zone (ADIZ) go along this course. If Chinese forces attacked and occupied the Pratas Islands and Itu Abba, Taiwan would have almost no way to stop them. These remote islands are out of the range of Taiwan's main weapons. Also, even if Taiwan dispatches military aircraft and ships, it must engage the Chinese army in an area where China has secured air and maritime dominance. Where Taiwan fights back, China should be able to easily overcome it.

Moreover, there is no responsibility for the US to intervene on the Taiwanese side with regard to remote islands in the South China Sea. These islands are not in the realm of "Taiwan of historical meaning" and are not under the scope of the Taiwan Relations Act. So at first glance, China appears to be able to carry out a "perfect war" there that eliminates Taiwanese forces and completely occupy these remote islands.

However, what China would lose is great. Simply put, by taking the "outposts" of remote islands, there is a greater possibility that it would not be able to occupy Taiwan, its principal target. For example, hundreds of Taiwanese troops are deployed in the Pratas Islands. If they die in war or become prisoners of war, they will strengthen the anti-China feelings and resistance of Taiwan residents. Also, China has no control over how much the Taiwanese army will fight back, and even a small attack on mainland China could lead to a gradual escalation as it would force a counterattack.

In addition, with China's moves to change territorial boardelines in the South China Sea by using force, Vietnam and the Philippines, both of which have territorial disputes with China, and Japan, which is under pressure from China over the issue of the Senkaku Islands, should feel a sense of crisis about China's actions and strengthen countermeasures against them. The sense of crisis in the US, the United Kingdom, France, Australia, and other countries that are wary of China's claim of the Nine Dash Line in the South China Sea and the establishment of a military base would also rise rapidly. The US would strengthen its support for Taiwan. In other words, the capture of Taiwan's main island, which is China's principal goal, would be difficult to be realized by the occupation of these small islands in the South China Sea.

### The Occupation of Kinmen & Matsu

(B) is Kinmen Island and the Matsu Islands, a group of islets on the coast of Fujian Province. However, there is not much that China will gain from occupying these islands. These are parts of Fujian Province, where exchanges with mainland China are thriving and relations are good, while many residents are also opposed to Taiwan's independence and dislike the Democratic Progressive Party (DPP) government. What merit would there be for China if it kills them through use of force? Also, China does not rush to take territory that it could take at any time. Hong Kong is a good example. China tends to choose escalation only when it is inferior.

In addition, both Kinmen and Matsu have Taiwanese forces deployed there, and they might counterattack by hitting Xiamen and Fuzhou on the other side. China has no control over the actions of the Taiwanese army, and even if China were to win Kinmen Island, if Fuzhou and Xiamen were exposed to war and damage, the Chinese government would have difficulty proclaiming "victory" to the people.

However, since Kinmen and Matsu are also not in the realm of "Taiwan", they are not an area applicable to the Taiwan Relations Act. The US has no responsibility to defend them. Having said that, the US may not necessarily intervene 100%. When China launched a massive shelling of Kinmen Island in 1958, the US intervened by sending a large number of aircraft carriers. These islands were not part of the US-China Mutual Defense Treaty at the time, but the US dispatched troops to Taiwan. So it cannot ultimately be denied that an attack on Kinmen could lead to US intervention.



## Limited Use of Force Against the Pescadores & Taiwan

(C) is the Pescadores (or Penghu Islands) that have historically been part of Taiwan and are within range of missiles of the Taiwanese military. Taiwan will do its utmost to protect the Pescadores and even if they are temporarily taken, Taiwan will surely try to get them back. In the case of the Pescadores there could be sufficient intervention by US forces under the Taiwan Relations Act. In other words, attacking the Pescadores would be almost synonymous with attacking Taiwan's main island.

(D) The same is true in cases where a limited attack is launched on the main island of Taiwan. China can use ballistic missiles to surprise and destroy Taiwan's military facilities and political and economic centers at any time. But for what purpose it would do this is a big question. As Taiwan's forces fight back, if China stops attacking at some point, Taiwan would proclaim to the world that China's attempt at unification by force has failed. With this, the Chinese government will lose face. In other words, as I pointed out earlier, Taiwan wins if it is not occupied, and if it does not lose, it wins.

In addition, attacks on (C) and (D) are the most likely to prompt US forces to intervene. If China withdrew after attacking Taiwan because the US military and self-defense forces intervened, the Communist Party's government would collapse. In these cases also, it is possible that China would become a battlefield due to Taiwan's counterattacks. Maritime transportation routes in the South China Sea and around Taiwan, which have supported China's economic development, would also be seriously affected. In other words, attacks on (C) and (D) undermine China's development strategy from the ground up. China would have to be prepared for enormous damage, even in the case of a limited attack on the main island of Taiwan, and if it adhered to using only conventional weapons, the US mainland would remain intact.

Moreover, in the short term, in addition to the above-mentioned profit and loss calculations, there are circumstances in China that prevent it from launching armed attacks in terms of timing. This is because the 20th Party Congress scheduled for autumn 2022 will determine whether President Xi Jinping will serve a third term, and until this is ensured no mistakes would be allowed by the Xi administration.

### Military Provocation Type of Use of Force That Is Likely in the Short Term

So it is not a question of whether the use of force is impossible. For example, if China "subjectively recognizes" that Taiwan and the US have "provoked it beyond the limits of patience", the probability of using force increases. Such provocation might come about if Taiwan clearly moved to de jure independence and if the US recognized Taiwan as a state, or sent a large US military force to Taiwan, or if the US president visited Taiwan. With such provocations, the Chinese Communist government would believe that unless it demonstrated its strong will by military force its regime would collapse. In this case, the probability of China's using force would increase at a stretch.

However, it would be a limited symbolic use of force because it would simply be to demonstrate a "strong will". In other words, it would be a "military provocation type" use of force that does not actually change borderlines of territory or cause Taiwanese casualties, and would stop immediately after implementation and end without any counterattacks by the other parties. For example, there could be countless scenarios, such as firing ballistic missiles onto a high summit in Taiwan where no one lives. The purpose would be to warn the US and prevent a US-Taiwan approach. China could avoid a political crisis by claiming it had won a major victory, and that Taiwan and the US had been afraid, after carrying out such a provocation.

Since the end of the 1950s, China's use of force on issues of sovereignty and territory has often been symbolic and limited, with the exception of the 1974 Naval Battle of the Paracel Islands, in which it actually captured the territory that the opponent was defending. In many cases, when China has recognized that it has become extremely disadvantaged, it has used limited symbolic force to break the situation at once, and immediately withdrawn and propagated a victory. The possibility of such a "military provocative use of force" is far from low and could happen at any time.

### "Coercive Peaceful Unification"

Because Xi has won three elections, Taiwan, the US and Japan should pay attention to the medium- to long-term possibility of "peaceful unification by coercive measures". This is unlike the "peaceful unification through discussions with the Taiwanese authorities" that Deng Xiaoping originally envisioned. It assumes that Taiwan is isolated and its armed forces surrender without fighting. Although the possibility of the Xi administration moving to pursue unification by force is small, in 10 or 20 years China should have even greater military power to achieve this.

In order not to make China think it can do so, it is essential to continue to meet the following three conditions at the same time. These are the three conditions for maintaining the status quo. First, the US does not abandon Taiwan; second, the US-Japan alliance remains strong; and third, Taiwan maintains the threat of force. Even if one of these factors is missing, China will remain afraid of miscalculation.

What we should primarily fear is the limited use of force of military provocation types in the short term and peaceful unification by coercive measures in the long run. In particular, the latter means that the era of peace and development in the region under US hegemony ends, and China's hegemony will be established. Therefore, the answers that I offer to the question "Will a Taiwan emergency happen?" are not necessarily good news, but rather represent a more serious situation. We are in the midst of long-term strategic competition between the US and China, and if we do not respond properly, tragedy awaits. **JS**

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# Management that Embodies Sophisticated Rules & Democracy as Keys to Economic Security

By Toshifumi Kokubun



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## The Long Cold War: the Grand Strategy Japan Must Pursue

Many business leaders look doubtful when I tell them that the “cold war” between the United States and China will be with us for 30 years or more. But they do not realize that a long cold war works to the benefit of Japan and more broadly the world. Little do they realize that a peaceful environment is actually provided by a cold war that does not metamorphose into hot, kinetic warfare.

The risk of war rises when the balance of power deteriorates rapidly. When the balance between competing forces suffers a serious upset when not only the parties to the conflict but the surrounding states also are unprepared for the newly emerging reality, the resulting disruption while a new order is yet to emerge will be seized as an opportunity by forces that seek to change the status quo.

We must understand that the pressure points for efforts to prevent a cold war and for efforts once it occurs are completely different. People who hoped that a cold war between the US and China would not break out tend to hope for an early conclusion because they are driven by the desire to calm the waters and put a quick end to the situation. But that only invites the rapid escalation of tensions, leading to the worst of outcomes.

Therefore, Japan should adopt as its grand strategy the prolongation of the US-China cold war, using its weight as the third-largest national economy to bring an end to it in a peaceful manner. That is the grand strategy that must be shared between the Japanese government and Japanese businesses. The government should incorporate it into its economic security strategy and businesses should use it as a premise for their management strategies as a new social responsibility of theirs.

The assumption here is that the US and China, as the parties to the conflict, compete to come up with innovative policy initiatives in succession with no intention of prolonging the cold war. The Japanese government and businesses must have the strategic interpretative capacity to drive policy in a direction that helps prolong the cold war and the applicative capacity to incorporate this in their corporate behavior.

It is not easy, however, when incorporating new corporate behavior at the global frontlines of Japanese businesses, to promote new investment and reform operations with the sole purpose of responding to security needs. The institutional mindset of Japanese

businesses, who have long maintained a distance from security policy, will surely generate factions that oppose this or urge caution, making it difficult to produce a consensus among them. One effective way to break through this resistance is to apply this through trending management methods aimed at enhancing business results. Businesses should look out for factors that help prolong the cold war in the new management methods that are being spawned and use them for the twofold purpose of prolonging the cold war and improving business results. In other words, pursue dual intentions in management methods, much like the pursuit of dual use with technology.

## Rulemaking from a Strategic Interpretative Capacity Perspective

Slowing down China's growth secured by unfair means is an example of “strategic interpretative capacity” that was started by the administration of President Donald Trump and has been maintained under the administration of his successor Joe Biden. Maintaining restrictions on US exports related to newly emerging technologies to China and beefing up the Committee on Foreign Investment in the US are aimed at preventing technology development that is not based on healthy competition and instead utilizes such means as cyberattacks and forced labor and slowing down the speed of China's technological catchup. The conflict will not escalate into a hot war as long as the US believes that it maintains a certain level of technological superiority, so it helps to prolong the cold war when Japan aligns with the US in strengthening its own control over information on emerging technologies.

For Japan to effectively exercise its strategic interpretative capacity, it is important to understand that the form of competition in technological development in the US-China cold war is completely different from what it was in the US-USSR cold war. During the US-Soviet Union conflict, the competition took place in an unusual environment of limited scope, a war zone where walled-off military and aerospace industries worked to meet military requirements. The US-China cold war, by contrast, is a competition in which the general public and ordinary businesses are corralled as customers. The massive data accumulated from this customer base is used to develop technology, and the goods and services produced as a result are distributed broadly and deeply into society at large and weaponized. This competition requires a “process to corral (the

general public and businesses) as customers in the general market”. Since a business cannot acquire massive volumes of data unless it satisfies people’s needs and secures a position for itself in the market as a platform for indispensable access, it is essential to win the intercorporate battle for customers.

What does this mean? Unless the government has the will to proactively control the competition environment and continually remakes and reshapes the institutional framework, businesses will emerge that swiftly come to dominate the marketplace through overwhelmingly low-price competition backed by freeware distribution and government subsidies. When a specific business acquires excessive dominance over its market, the development of its technology is accelerated, creating the risk of the technology being converted to military use and upsetting the balance of power. At the same time, governments may weaponize businesses that dominate markets and put them to wrongful use, destabilizing society through clandestine efforts to influence and divide, intentional malfunctions, and the like. Rapid deterioration of national power as domestic order collapses could also push the US-China cold war towards a swift, violent conclusion. The US-China cold war requires the strategic interpretative capacity to identify as a security threat the emergence of businesses that dominate the market to the point where they have too much influence on society in general.

This means that it is useful to manage competition to decelerate the pace of market dominance by specific businesses by continually remaking the rules that govern the fight over customers in the marketplace with strategic intent to make them more complex and difficult. Continuously remaking the rules and repeatedly destroying monopolies should be interpreted as the prolongation of the cold war.

Forced labor is one issue where this policy is relevant. It creates the risk of businesses using labor unfairly to conduct low-cost production, distort healthy price competition, dominate the market at unreasonably low prices, and rapidly destroy the balance of power. Human rights due diligence over supply chains is a rule aimed at avoiding this risk. It forces businesses to transition to “more sophisticated management” that incorporates the cost of establishing and operating institutional frameworks to exercise due diligence and to diversify areas of investment. Market domination decelerates as a result.

Anti-trust law, which is under review in the US, also helps to prolong the cold war. The purpose of anti-trust law has been to stop

businesses from using their dominant position to “harm the consumer”. However, the argument that global technology companies should be dismantled turns on the “social disbenefits” of the harm inflicted on democracy as their market dominance is used to distribute fake news and conduct influence campaigns even though their products may be free of charge and convenient for their users. In an innovative twist, the scope of the disbenefits of market domination has been expanded from consumers to society as a whole.

China also appears to be aware of this risk. In 2021, the Chinese government suspended the Ant Group’s IPO and ordered its reorganization as a financial holding company, conducted anti-monopoly investigations against DiDi, Meituan, and other platform businesses, and required mandatory government examination of any Chinese corporation with personal information on more than 1,000,000 individuals before public listing overseas. What does all this mean? That as powerful as the Chinese Communist Party may be, its influence no longer reaches into the details of corporations that have come to dominate markets, so the Chinese government has begun to develop rules that eliminate the risks generated by the oligopolies before they become a threat to sovereign authority.

### **Managing Competition by Developing Rules that Delay Market Dominance**

Japanese businesses must understand that prolonging the US-China cold war is the grand strategy for Japan and that their greatest social responsibility is to link their corporate strategies to support it. In their engagement with the creation of rules to decelerate the rapid concentration of market shares or to dismantle oligopolies, businesses must have a deep understanding of the intentions underlying the security strategy, take a positive view of rules that force change, and turn them into an opportunity.

For example, the US and China have placed climate change policy as an area for cooperation; Japanese businesses should be able to lead rulemaking here to prolong the cold war. Although CO<sub>2</sub> currently dominates the public debate, declining groundwater resources have also become a serious social problem. Adding a mechanism to offset water consumed in the supply chain helps prolong the cold war in the sense that it increases the matter for which sophisticated rules must be developed.

There are many ways in which the rules regarding water can be

enhanced: increasing the ratio of recycled wastewater, mandating the recovery of water equal in amount to the water consumed by storing rainwater, and allowing the manufacture of products that require large amounts of water to be produced only in locations where there are sufficient water reserves, to name a few. Specific action by businesses to help prolong the cold war means coming up with their own proposals for rules and actively advocating them instead of leaving these initiatives in the hands of governments.

The European Union is moving forward on the circular economy path. Already, Germany has limited public procurement of information and communication technology (ICT) equipment and devices to those using 90% or more recycled plastic, while France has begun levying fines on wrapping other than recycled plastic. Japanese businesses may see the EU's "green" rules as a bothersome cost, but they should reposition this as rulemaking that prolongs the cold war and adapt proactively to those rules and spread them worldwide.

If your company is an industry leader, it should take its sophisticated efforts to the public as voluntary rules and encourage competitors to follow suit. It should also be useful for industries to adopt prolonging the cold war as an area for cooperation, consider new voluntary rules together, and set up an institutional framework to push their adoption worldwide. Rulemaking should cover supply chains as well, obviously. Efforts should be upgraded, and only the suppliers that undertake them should be part of supply chains.

### **Purpose-Driven Management**

Another example of dual intention that I would like to take up is purpose-driven management, a newly trending management method that has been drawing attention in recent years. Businesses are beginning to adopt it to nurture innovation-generating creativity and develop organizations that continuously attract top talent. Specifically, this management method enhances the independence and creativity of individual employee by encouraging dialogue within the company that links the significance and objective of the tasks assigned to each employee to the purpose of their lives.

Another way of understanding this is as the liberalization and democratization of the organization management process. Now, business management theory has evolved by absorbing strategy and efficiency from research on war and military organizations. This is the reason why, even in liberal democracies, a business is organized

by surprisingly authoritarian principles. Owner-run businesses are particularly likely to practice top-down management under powerful, commander-in-chief leadership.

While businesses tend to take an authoritarian approach in their organization management, purpose-driven management emphasizes the values of the individual by taking the intentions and feelings of the employees all the way down to the lowest levels. This makes the reflection of a wide range of opinions on management inevitable and liberal and democratic debate unavoidable. In other words, when a global company employs purpose-driven management in the business activities at all its bases under authoritarian and democratic regimes alike, it is seeding democratization movements everywhere.

Sustaining democracy has become so much of a challenge worldwide that one proposal in security circles prioritizes preventing democracies from sliding back into authoritarianism over increasing the number of democracies. In this context, it will be effective for Japanese businesses to undertake purpose-driven management with the dual intention of helping to stop backsliding in democracies and accumulating democratic organization management experience under authoritarian regimes.

My long years of experience as an officer in global companies tell me that in seeking to achieve a management objective in an organization that includes people in an authoritarian state, there is a tendency to assign someone to a high-level, powerful position and have everyone obey that person, the assumption here being that swift decision-making is for the best. Decision-making in democratic operations requires time. So, in order to make such practices firmly embedded in society, it is essential to increase the number of people who have experience in a process that comes across as slow and inefficient.

### **Developing Human Capital Capable of Avoiding Conflict Escalation**

Human capital development is another case with dual-intention potential. On the corporate frontlines, employees are transferred between democracies and authoritarian states as a matter of course. Meanwhile, businesses have come to invest heavily of late in human capital with the aim of achieving diversity and inclusion, or D&I for short. D&I is a management method that accepts diversity in nationality, values, gender, and culture and turns the diversity into a strength for the organization. It will be useful to develop human

capital with the understanding that promoting D&I leads to more people in your business who accept mutual differences and coexist without increasing tension in two different political regimes, democratic and authoritarian.

Achieving D&I requires the upgrading of basic abilities that are necessary worldwide. It must be combined with training to eliminate unconscious bias. It is essentially the development of human capital that seek real, fundamental causes, do their own thinking based on facts instead of being overwhelmed by prevailing views and authority, and draw conclusions rationally. Developing human capital capable of believing in the possibility that we can understand each other even if we hold different views, capable of respecting others and accepting diversity. This may seem at first glance to be self-evident, but it is the outcome that a well-known Japanese auto manufacturer always seeks in constructing its human capital development programs. Moreover, this company tells its employees not to limit this way of thinking and attitude to the company but to spread it more broadly to other stakeholders as well.

In the US alone, wracked by division, Japanese businesses employed 860,000 people as of 2016, second only to the British contribution (JETRO Regional Analysis Report, Jan. 31, 2019). If Japanese businesses can develop such human capital at the global level and have their business partners follow suit, democracies will have more citizens who are capable of independent, rational thinking. This will help stem the tide of fake news and populism.

In authoritarian states, when more citizens become capable of independent, rational thinking, we could hope that expectations towards the regime can be maintained at a reasonable level, making it unnecessary for it to distract public attention at home with hardline diplomacy. Learning the value of democratic operations within the business may arrest their devotion to the authoritarian regime and deter it from becoming further radicalized or running amok. It will be effective for Japanese businesses to interpret the massive global workforce that they command as the third-largest economy in the world as assets for prolonging the cold war and act accordingly.

War has occurred between countries even as the economic bond between them grew tighter. But it will be a historical first if global businesses that rival national economies recognize the maintenance of peace as their social responsibility and undertake the development of human capital to prevent cold war from turning into hot war. The Japanese government and Japanese businesses should take the lead in this area with the objective of prolonging the cold war. In order for

Japanese businesses to promote this, it will be necessary to increase investment in developing the capability of their employees to levels appropriate for strategic resource allocation and to incorporate this into their respective corporate strategies.

## Conclusion

It is essential for Japanese businesses to switch to a business model geared to meeting social issues if they are to take the lead in sophisticated rulemaking and to identify dual intention in new management methods. Sophisticated rules require an aggressive posture to meet social issues through market mechanisms. Discovering dual intention requires the will to deconstruct the US-China cold war from multiple perspectives into social issues that surround the business and recompose them into social issues for which new management methods can function as the means of resolution. And business models and an ecosystem that transforms social issues into profit opportunities must be established for this to happen.

It is necessary for Japanese businesses to earn profits over the long haul while playing a role in prolonging the cold war between the US and China. They should develop sophisticated rules, spread them worldwide, and continuously amend them so that the cost of securing new customers rises and more time and resources are devoted to the management reforms necessary to adapt to the rules. In addition, they should look at new management methods that are drawing attention to identify factors that contribute to prolonging the cold war. When adopting those methods, they must aim at prolonging the cold war in addition to improving business results.

**JS**

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Roundtable with Teiko Kudo, Prof. Yukari Takamura, Tatsuya Terazawa, &amp; Masakazu Toyoda

# Assessment of COP26 & the Challenges Ahead on Japan's Path to Carbon Neutrality

By Japan SPOTLIGHT

(Online Roundtable on Jan. 18, 2022)

## Participants



Teiko Kudo



Prof. Yukari Takamura



Tatsuya Terazawa



Masakazu Toyoda

## Assessment of COP26

**Toyoda (Chairman of JEF):** Today, we bring together three outstanding opinion leaders to conduct an “Assessment of COP26 and the Challenges Ahead on Japan's Path to Carbon Neutrality.” From academia, Prof. Yukari Takamura from the University of Tokyo, from finance, Teiko Kudo, a member of the Board of Directors at Sumitomo Mitsui Banking Corporation, and from the intersection of academia and pragmatism, Tatsuya Terazawa, chairman and CEO of the Institute of Energy Economics, Japan.

Let's begin with the outcome of COP26. First, I'd like to have each of you give an assessment of COP26. Was it a success or failure, and why? Prof. Takamura, could you go first?

**Takamura:** I have heard different evaluations of COP26 as a success or a failure. From my point of view, I would say that it was definitely a success in terms of making significant progress in combating climate change. At COP26, countries have resolved to “pursue the efforts to limit the temperature increase to 1.5°C above pre-industrial levels”, which has been stipulated as an aspirational goal under the Paris Agreement, and I believe that the COP has made the 1.5°C goal appear front and center on the international stage as a goal for the international community.

The damage caused by extreme weather events and disasters is on the rise, which is considered to be caused by climate change. The agreement to pursue efforts to achieve the 1.5°C goal is based on the most recent scientific findings, such as the ones provided by the

Intergovernmental Panel on Climate Change (IPCC), which indicates that it is necessary to limit temperature increase to a much lower level so as to mitigate the risk of future climate change. It is also commonly recognized that emission reductions over the next 10 years, up to around 2030, are critical to achieving the 1.5°C goal.

In the run-up to COP26, many countries, including Japan, set carbon/climate neutrality goals. Major industrialized countries share the goal of achieving climate neutrality by 2050, while China, Russia, and Saudi Arabia, a major oil producing country, also aim to achieve carbon/climate neutrality by 2060, and India by 2070, at the latest. If all of these goals are realized, it is expected that the temperature rise would be limited to about 1.8°C. COP26 has made the international community come the closest to the 1.5°C goal in a decade by bringing out many countries' pledges.

The reason for being evaluated as a “failure” is that the level of emission reductions in 2030 does not meet the level necessary to achieve the long-term goal, even though the long-term goal of achieving climate neutrality by around 2050 has been firmly pledged and confirmed by countries. I think this is the reason for attracting the harsh criticism, especially from the younger generation.

**Kudo:** Some 121 countries had committed to carbon neutrality by the end of COP25, but other than the EU countries, most were small, so the commitments added up to only 17.9% of total global CO<sub>2</sub> emissions. But this time around, the lead-up to COP26 was characterized by growing enthusiasm for ambitious targets, with Japan, China, and the United States announcing national targets. By



the end of COP26, more than 150 countries including all G20 members had adopted carbon neutrality with fixed deadlines. This was a very significant outcome. In all, 154 countries accounting for 88.2% of global CO<sub>2</sub> emissions had announced targets of carbon neutrality by no later than 2070.

In a world that is increasingly politically and economically divided over ideology and human rights, the significance of adopting a common global target cannot be overstated. At the same time, as Prof. Takamura pointed out, so many countries acknowledged 1.5°C as the target, but there is no clear roadmap to reach it, and much disagreement among them. That is a problem.

Given the energy-profile and other differences among countries, timelines and the means to achieve targets require flexibility. Otherwise, the economic impact will differ according to existing circumstances, and some emerging economies could see the economic gap grow. The Paris Agreement takes a bottom-up approach in contrast to the top-down approach under the Kyoto Protocol, which is important.

**Terazawa:** Speaking as a former government official engaged for many years in international negotiations at the Ministry of Economy, Trade and Industry, I think it was a huge success just to reach an agreement among so many countries. It was hard enough when I had a hand in forging a consensus among the 20 participating countries at the G20 Summit in Osaka in 2019.

This being the case, a wide variety of countries from emerging economies like India to energy producers such as Saudi Arabia made pledges on long-term targets. It was an epoch-making event where so many countries beyond all expectations made pledges. But as successful as it was, issues remain unresolved. In particular, the gap between developed and developing countries in their positions and mindsets became evident, as could be seen in the dispute near the end over whether coal-fired thermal power should be subject to “phase out” or “phase down.”

In the end, the different perspectives of developed countries, which want to achieve carbon neutrality as quickly as possible, and emerging economies that face urgent realities including the need for economic development, became obvious.

## Causes of Soaring Energy Prices

**Toyoda:** The second issue on our agenda is the following. COP26 coincided with rising crude oil prices. Spot prices for natural gas had

also soared. Even the price of coal is rising. And electricity rates have been rising as well in some countries. Could the recent spike in energy costs – crude oil (Brent oil) is now more than US\$90 per barrel – be connected to climate change? Given the timing, coinciding with COP26, how should we assess the causes of soaring energy prices?

**Terazawa:** It is difficult to cover all the factors because there are so many of them, but I would broadly divide them into four categories. First, the corona crisis is still with us, but I am certain that the recovery of economic activities in many countries has nonetheless been more robust than expected and has led to the growth in energy demand that we have been seeing. And because this was unexpected, demand has grown without the appropriate rails in place, including inventory.

Second, I’m not sure if it can be attributed to climate change, but the weather has certainly been a factor. Many countries have been going through a colder winter than usual, causing greater energy consumption, while others have seen milder winds, leading to less renewable energy being supplied.

Third is the effect of the debate and measures taken regarding climate change. Many countries are adopting the conversion from coal to natural gas as a major element of their decarbonization strategies. Demand for natural gas has grown enormously as a result, causing gas prices, LNG prices, to jump.

Fourth is the negative impact on supply caused by the growing reluctance over upstream investment in fossil fuels as part of the decarbonization trend, particularly among Western players, who are vulnerable to market pressure. In the past, when prices went up, so did supply. This time it is not happening as much, and it is my view that the debate over the global environment is affecting supply. In that sense, we may be talking about 2050, but we are already being affected now in various ways.

**Toyoda:** Ms. Kudo, I’d like to put the same question to you. OPEC+ oil producers appear to be fulfilling their production quotas in the face of soaring prices, but I’m hearing that there is still not enough production to meet demand. Meanwhile, developed countries, particularly some consumer countries, are making releases from their strategic reserves. What do you make of this situation?

**Kudo:** The OPEC+ countries are maintaining a higher production level, but they are wary of further raising output because they want

to avoid excess supply causing prices to weaken in an eventual economic downturn, while demand has been recovering more quickly than OPEC+ had assumed. I think this is the explanation.

Some consumer countries have rolled out releases from their strategic reserves, but the amounts have been limited and have not had much effect on prices.

In the past, I assume that there would have been businesses and governments beginning to make investments with an eye on the long term even if it would result in oversupply in the near term. But now they are very much afraid of ending up with “stranded assets”, so are more likely to want to limit their exposure to future risks.

Accelerating decarbonization and stabilizing crude oil prices simultaneously is a daunting task. It is very important in this respect to consider how we are going to maintain the energy supply system including the role of other fossil fuels and nuclear power as well as the shift to hydrogen and ammonia. It is essential that we clearly indicate how much fossil fuel we will need for the future and sustain investment accordingly.

**Toyoda:** Achieving a balance between economic stability and decarbonization will test the capability of national governments. Prof. Takamura, I have a question for you here. Featured prominently in the debate on this point is the reevaluation of the role of nuclear power, particularly in Europe. France had been cautious for years but has now begun discussing the resumption of constructing new nuclear power plants. The EU talks on taxonomy never seemed to be far from reaching a conclusion, but there now seems to be more willingness to include nuclear power and/or gas-fired thermal power in environmentally sustainable economic activities during the transitional phase.

**Takamura:** I think that the current surge in energy prices is a very typical recent event that raises the question of how to manage the transition to carbon neutrality and how to address the challenge of climate change while maintaining the stability of energy supply and prices. Given the global nature of the energy market, we need to manage it well on an international level, but it goes without saying this is much easier said than done since the international community has no centralized global authority. I think this poses a really difficult challenge as to how to do this.

Recent discussions on EU taxonomy yield a typical example of the reevaluation of nuclear power. If you look at the European Commission’s proposal for the EU taxonomy, there is a very strong

sense of urgency about climate change, and therefore, in its words, it may be necessary to give a certain role, at least during the transitional phase, to nuclear power – which does not produce CO<sub>2</sub> emissions in its operation – or gas-fired power, rather than continuing to use thermal power with high CO<sub>2</sub> emissions.

In this sense, it can be said that this would reflect one of the directions of the transition to an energy supply that can both solve the problem of climate change and stabilize energy prices, as I mentioned earlier, by trying to secure energy diversity in financing. Of course, not all nuclear power is automatically considered as “green” in the taxonomy. As the European Commission document also notes, it must satisfy the relevant standards for nuclear waste and safety. And I understand that gas-fired plants must also satisfy a maximum emission intensity threshold. In all cases, I think this is a typical example that raises the question of how to manage the transition to carbon neutrality and how to address the challenge of climate change while maintaining the stability of energy supply and prices.

## Assessment of Japan’s Sixth Strategic Energy Plan

**Toyoda:** Let’s turn our attention to Japan’s Sixth Strategic Energy Plan. The plan has two milestone years, 2030 and 2050. We’ll begin with the assessment of the challenges for Japan for 2030 with COP26 as the backdrop. I’d like to take up coal-fired power first. This year’s G7 summit will be hosted by Germany, which is a vocal advocate of eliminating coal-fired power. But Japan will still be using coal-fired power in 2030. How can Japan justify its position in the face of German demands? Or could it be that Japan’s 46% reduction of greenhouse gas emissions by 2030 is not enough? The EU projects a 55% reduction over the same period, the US 50-52%. Japan may be criticized for not doing enough. What are your views on this, Ms. Kudo?

**Kudo:** It is our responsibility as a developed country to clearly demonstrate how we will achieve our 2030 target. We may be pushed to raise our target, but the 46% reduction itself will not be easy for Japan. It is more important to demonstrate how we will steadfastly work towards this objective.

As you are aware, the Japanese government has set the target for renewable energy in the power supply composition for 2030 at 36-38%. However, even with the ambitious assumptions put

together by ministries and agencies added up, there remains a 37 billion kWh deficit, so the renewable energy plans through 2050 must be moved up. Here, there's hope that there is room for expanding solar and wind power. Offshore wind power has great potential in Japan, but it will be difficult to secure a significant amount by 2030, given all the necessary assessments and the construction period. So the extent to which the targets for the installment of solar panels on new housing and other sites can be met will be crucial.

But bridging the 37 billion kWh gap with solar power requires 30GW in capacity, which in turn requires a 76 trillion-yen investment. There are hurdles ahead as we fulfill our responsibility as a developed country to achieve the 2030 target. I fear that even this will be difficult to achieve unless the public and private sectors work closely together.

In response to possible demands that we phase out coal-fired power, we face the same issue that all countries do. Specifically, it is necessary to achieve the 2030 target while sustaining economic growth, not to mention stable electricity supply. So we should identify the conditions that would make a phaseout possible, then figure out how to satisfy those conditions.

**Toyoda:** Let me ask you, Mr. Terazawa. The International Energy Agency (IEA) presents a rosy scenario in which the response to climate change produces economic growth and there is a net benefit. What are your views on this point?

**Terazawa:** The IEA's analysis takes a simplified approach in which it essentially makes assumptions on the amount of investment in solar power, wind power, and the like to achieve carbon neutrality and applies a multiplier to the amount to calculate the effect on GDP. This is too simple in my view. Let me give three reasons.

First, rising energy prices are inevitable in the approach to carbon neutrality, but the IEA's analysis does not take into account the effect of the higher prices. This is a significant omission.

Second, money is not unlimited, so investment in renewables and the like means that funds that would have been directed elsewhere are being diverted to that purpose. There's a need to analyze the net effect of the positive effects of the hypothetical investment that would have been made absent the investment in renewables and the positive effect of the investment in renewables. It's not there.

Third, the IEA analyses the global impact, so more renewables mean more investment in solar panels, which is a positive for the

economy and employment. But think about where the solar panels are being made. Countries that do not manufacture solar panels or manufacture them but are seeing their shares decline, such as Japan, will not see domestic production and employment grow just because domestic demand for solar panels grows. The economic impact of carbon neutrality will be very different depending on whether your national economy produces the necessary resources or solar panels, or merely consumes them.

Unfortunately, Japan does not produce a wide variety of critical minerals and imports a high proportion of its solar panels. The impact of carbon neutrality on our country must be examined in greater detail.

**Toyoda:** Prof. Takamura, what is your assessment of the overall 2030 energy mix? Renewables more or less represent a twofold increase, while 27 nuclear reactors have to be operated at 80% capacity but only 10 reactors are in operation now. Meanwhile, hydrogen and ammonia have just been rolled out and only have a small share. What is your assessment of the feasibility of the 2030 target?

**Takamura:** I also think that the IEA's simulation analysis, as pointed out by Mr. Terazawa, does indeed have some limitations. On the other hand, if we look at it another way, the challenge is how we can elaborate and implement climate policies to stimulate economic growth and to create employment or at least to avoid a negative effect on it.

I believe that none of the goals for the 2030 energy mix is easy to achieve. This time, in particular, Japan's 2030 climate target and the 2030 energy mix that supports it were decided so that they would be consistent with the 2050 climate neutrality goal. This means that the 2030 energy mix is a target towards which policies are to be mobilized to enhance energy transition. In that sense, the nature and function of the energy mix may be different from the one in the previous strategic energy plans.

As for renewable energy, I do think that it will not be easy to achieve. On the other hand, the 2030 renewable energy target in the 2030 energy mix does not sufficiently reflect some assumptions likely to be realized in the future. One is the cost reduction potential of renewable energy. For example, the cost of offshore wind power was not yet known on a commercial basis at the time, so the potential for reducing the cost of offshore wind power generation has been estimated rather conservatively.

The other thing is that the targets for renewable energy were

elaborated based on the amount of renewable energy expected to be introduced under government policies and subsidies, starting with the feed-in tariff scheme. Meanwhile, business efforts to switch energy use to renewables to achieve their own climate targets are gaining momentum. Some of these businesses use the feed-in tariffs or receive government subsidies, but others do not. It is difficult to quantitatively assess the prospects for expanding renewable energy which companies do on their own without government support, and I understand that it is not fully factored into the renewable target in the energy mix.

In this sense, the renewable energy target is not easy to achieve, but I believe that it has a good chance of being achieved. The challenge is to reduce the cost of renewable energy, and I think it is important from the perspective of reducing the cost that the existing power system and its relevant rules, including the power grid and power market, should be transformed to make them compatible with the power system that allows and enhances the shift to renewable energy as the main power source.

In addition, expansion of renewable energy will only be possible where it is accepted by local communities where it occurs, so I think that how to introduce renewable energy through local initiatives and in symbiosis with local communities is a critical issue for renewable energy policy.

In my view, it would be very difficult to achieve the target for nuclear power. The reason for this is that policy alone would not be able to bring more reactors into operation since the consent of the local communities is required in addition to meeting safety standards. The difficulty here is that rolling out policy measures alone will not lead to immediate change because there are determinant factors other than policy in play.

Lastly, as for new energy sources such as hydrogen and ammonia, they are included in the 2030 energy mix in order to provide support and incentives for the expansion of these new energy sources. I think the challenge for hydrogen and ammonia in 2030 will be how far we can develop the infrastructure for their introduction, including the supply chain, and at the same time to reduce their costs through various measures.

**Terazawa:** Achieving the 2030 targets for renewable energy requires the acceleration of the introduction of renewable energy beyond the speed with which mainly solar power rapidly expanded over the last five years under the feed-in tariff system.

Now, the feed-in tariffs are going to be replaced by a new system

of feed-in premiums, and this is creating uncertainty. And solar power in particular is facing increasing friction with local communities. Japan has a huge lead over the rest of the world in the ratio of solar panels to level ground unit. Golf courses and other unused land had made the going easy under the feed-in tariff regime. But going forward, it will be necessary to install solar panels where more reconciliation with local communities is required. This must take place while the system is transitioning from feed-in tariffs to feed-in premiums, making the acceleration even more difficult. Acceptance from local communities will be even more important for renewable energy going forward.

The target for nuclear power will be very difficult to achieve if the current speed of safety examinations prevails. Of the 27 reactors that must be in operation to achieve the 2030 target, 10 are currently in operation and seven more have been approved, but the other 10 are still under examination. Of these 10, applications were submitted for three of them in 2013 and four in 2014, so their examinations have already taken seven, eight years. There are nine more reactors that are not being decommissioned that are waiting their turn to be examined. All this means that unless the safety examination system is reinforced and the examinations are conducted smoothly and optimally while upholding safety as the absolute objective, it will be extremely difficult to bring all 27 reactors back to operation by 2030.

As for hydrogen and ammonia, cost reduction is necessary, but they will inevitably be more expensive than other fuels. How can the more expensive hydrogen and ammonia be deployed? The government is doing research and development including demonstration tests, but the path to actual deployment is a task for the future.

**Kudo:** I see the energy mix in the new plan as a milestone on the road to carbon neutrality. A clear roadmap must be given to make sure that it is reached. Using hydrogen, ammonia, and other fuels and how we integrate digital transformation are the keys here.

The Green Innovation Fund provides support up to the demonstration test stage, but the subsequent commercialization phase requires massive funds. There is an urgent need for discussion on how the public and private sectors should work together on this.

Where digital transformation is concerned, there is a need to take up the challenge of creating new business models and energy management systems by developing and deploying technologies for improving power generation efficiency and power storage while

pursuing optimization and controlling demand using sensors and artificial intelligence. If we do this, we should be able to achieve the 2030 target.

**Toyoda:** The Sixth Strategic Energy Plan also addresses 2050. What is your assessment of the fact that it presents multiple scenarios for the 2050 target?

**Kudo:** The results of the multi-scenario simulation including cost structures for 2050 yielded many useful insights. If decarbonization aimed at carbon neutrality is pursued without securing social and economic buy-in, there will be an inevitable backlash, making the efforts unsustainable. That is why a virtuous circle between the environment and the economy and strategies to achieve this compatibility are essential.

Climate change policy is a constraint that raises costs, so the key is the balance between cost and growth: specifically, how do we secure economic growth while absorbing those costs? It is also necessary to consider securing the public's consent to introduce measures such as the waiver of levies on industries, like Germany does, and the priority distribution of environmental values to exporters.

On top of this, it is essential to secure wide acceptance of Japanese technologies that contribute to decarbonizing heat, chemicals, and transportation such as hydrogen and carbon capture, usage, and storage, the so-called CCUS. The technology race is already under way. Support from our government on rulemaking is essential.

In this area, it is necessary to find ways to facilitate the flow of funds to innovation. As a financial institution, we are prepared to be aggressive in assuming risk, and the private sector can provide the funds for the introduction and deployment of established technologies such as renewables. But massive funds will be necessary in the initial stages for R&D and social implementation, while banks are under the obligation to protect depositors, so there's a limit to the extent to which we can satisfy the need here. We want to consider a combination of public- and private-sector funds where public institutions provide some risk capital that can be leveraged to mobilize massive private-sector funds.

**Takamura:** This was probably the first time that we did a thorough study of 2050 based on multiple scenarios. The insights obtained from this are significant. In this sense, multiple-scenario studies

should continue to be necessary in the future as well. This time, the 2050 energy/power mix was introduced as one of the reference scenarios for scenario analysis, and the composition of power sources and energy sources in the scenario does not necessarily reflect the outlook for costs. If the outlook for costs changes, the 2050 energy mix considered as economically rational will also change. It is important to continue analysis based on multiple scenarios with this understanding of the current scenario analysis firmly in mind.

On the other hand, what was commonly recognized as important through the scenario analysis is that we need to take a proactive approach to the challenge of how to reduce the system integration cost when renewables take up a larger share of the power supply, for instance, induced by its declining costs due to further progress in technologies. I think this is a point that everyone thought was very important through this scenario analysis. In order to reduce system costs, it is necessary to consider measures on the demand side, such as use of distributed energy resources including EVs and measures to induce energy consuming companies to locations with rich renewable energies, as well as maintenance and expansion of the grid. This was a very important study in the sense that it clearly identified these issues.

**Terazawa:** Broadly speaking, it was very useful to discuss multiple scenarios for 2050. I'm being told that the discussions focused on a choice between renewable energy and nuclear energy with the result that many other important issues were not sufficiently discussed.

Specifically, electrification led by renewables is expected to top out at about half of the total energy consumption. So what about the other half? Hydrogen appears to hold the most promise, but what are we going to do for decarbonization of the non-electricity sector? Since that is actually where the strength of Japan's industries is concentrated, it's very unfortunate that there was not much debate on what accounts for half of Japan's decarbonization needs and will determine the future of Japanese industry. If you care about economic growth in the future, this is where we should focus.

Second, other countries are putting a lot of effort into negative emissions. China, the US, and European countries all include significant amounts of negative emissions. It's very unfortunate that there is very little debate in Japan on this point.

Japan is blessed with an abundance of forests. Japan is surrounded by the ocean. But this is not being featured at all in the discussions; the argument is as if we are giving up on setting up



much more solar power because level ground is limited here. Making effective use of our forests and ocean to generate more negative emissions should figure more prominently in the overall debate.

As for nuclear power, extending the operation life span of nuclear power plants will grow in importance as a challenge with the passing of time. It should be extended from the initial 40 years to 60. But this approach has its limitations. The number of nuclear power plants will decline in a business-as-usual scenario even with the extension to 60 years. A conclusion was unable to be reached on the role of nuclear power on this occasion. There is a serious need for debate in depth on this issue.

Here, I am particularly concerned about hydrogen. Hydrogen is given a major role in the industrial sector, but where is the massive amount of hydrogen necessary going to come from? Imported hydrogen will be very expensive because the transportation costs will be high. Hydrogen produced domestically from renewable energy will also be expensive. A third option is to produce it with nuclear power, which is what France is working on. In fact, this is a major reason for France's turnaround on nuclear power policy.

Protecting Japanese industries and jobs requires inexpensive and abundant hydrogen, but hydrogen that is imported or produced from domestic renewables is expensive. We can't help losing out in the international competition in that case. If businesses cannot secure cheap, abundant hydrogen, they will locate elsewhere. The debate on nuclear power should be conducted more reasonably, including the matter of how we will produce the hydrogen to protect our industries and employment.

## **Assessment of Carbon Pricing & Border Tax Adjustment**

**Toyoda:** I would like to go back to the global stage for our final major issue. Carbon pricing is one of the two systems being promoted as measures necessary to achieve carbon neutrality. There is an ongoing debate in Japan around two options for this – carbon tax and emissions trading – and consensus is hard to come by.

The other is border tax adjustment, where the issue is the carbon leakage from developed countries as a result of factories fleeing to developing countries. I would like to hear the views of our panelists on these two systems.

**Terazawa:** We should reduce costs drastically in order to deploy technologies that contribute to decarbonization, be they for

hydrogen, ammonia, or whatever. As a practical matter, it is very likely that they will remain expensive. Since it is unlikely that more expensive technologies will be adopted as a matter of course, intervention through policy measures is inevitable. But carbon pricing is one of many means of policy intervention, which include regulation, subsidies, and price differential compensation. Carbon pricing should be considered as one option among a range of policy interventions. Given the pros and cons of each measure, selecting the optimal options for the respective circumstances will be crucial.

The other point is to encourage the switch from environmentally undesirable technologies to desirable technologies through carbon pricing. This is predicated on the existence of desirable options. That's when carbon pricing could promote the switch from one to the other. Many decarbonization technologies are not actually available yet. Carbon pricing should be considered as one among a variety of options for policy engagement, keeping in mind the timeline for the more desirable technologies becoming available as practical options.

Businesses look to the future. It is essential for the government to provide predictability by showing how such policies and systems are going to take shape in the future instead of suddenly bringing them up at a future date for discussion.

As for border tax adjustment, I do have sympathy for the notion that assuming an extra burden, regardless of what others are doing, puts your industries at a disadvantage in international competition. But if you adopt this approach across the board, you might end up advocating the extreme position of making border adjustments for all imported products that give rise to CO<sub>2</sub> emissions.

The international trade regime under GATT and the WTO has been a key driver of economic growth since World War II. The reduction of tariffs under free trade agreements also helps the global economy. There is a risk that this successful set of policies could be seriously undermined depending on how aggressively border tax management is pursued. I have sympathy for the desire to introduce border tax adjustment. But if it is to be adopted, it must be limited to extreme cases as a last resort. Otherwise, it will cause great harm to the global economy, so the system must be designed with the utmost care.

**Takamura:** I think we need to seriously consider some kind of carbon pricing to make the value of carbon reduction, or in other words, the cost of emitting carbon, more visible, while the choice between carbon tax and emissions trading depends on the design or nature of the scheme.

If the value of new decarbonization technologies is not made visible in the long term, there will be no corporate action to invest in their development and to commit resources to it. In addition to new decarbonization technologies, carbon pricing is also necessary as a signal from the policy side that will help companies respond to a decarbonizing market and society by shifting their business portfolios.

Of course, a carbon tax could be part of the debate as means to secure revenue for supporting the transition to a decarbonized society, and how the scheme should be designed will have implications on allocation of costs. From these perspectives, it is very important to consider carbon pricing. However, the most important is how to give a clear signal about predictability that the value of emissions reduction will definitely increase in the future.

My second point is that under the Japanese system, businesses make a variety of payments on and around energy, but it is difficult to see from the outside that they are paying the cost of carbon emissions. There are many policies and measures existing in parallel, with the result that the overall system is not designed to make businesses pay in proportion to their carbon emissions. In this sense, it is inevitable to re-examine the existing system when discussing carbon pricing.

Finally, my view on border tax adjustment. Now, not only EU but also Democratic members of the US Congress have also introduced a proposal on border tax adjustment. This is what we must keep an eye on. The effectiveness of climate policy is one of the strongest reasons behind this. We, especially developed countries, import a lot of goods to run our economy and society, so we need to reduce our emissions not only within our jurisdiction but also on a consumption basis. There is also an ethical basis behind the call for border tax adjustment. From the business perspective, it is important for businesses to firmly grasp and reduce the life-cycle emissions of their products and services so that they will be well-prepared if and when border tax adjustment is introduced.

**Kudo:** In principle, I support the use of carbon pricing to reduce emissions, in as much as it is intended to internalize an externality; in practice, there are issues. We cannot achieve an optimal solution unless safety, energy security, and other externalities are internalized, not just emissions reduction.

It is necessary to maintain basic industries in Japan from a national security perspective. We should not discard an industry solely for its CO<sub>2</sub> emission factor. It is my understanding that our

government also believes that we should first consider voluntary mechanisms such as the “GX League” and aggressively promote technology innovation to reduce CO<sub>2</sub> emission factors while maintaining vital industries and employment.

As for emission rights, if we leave the matter to market forces, too much supply will diminish the policy effect, while soaring prices will reduce economic growth. There’s also the possibility that unsustainable technologies may be used, so the system must be designed with care. Businesses also pay a variety of taxes that are not linked to emissions. Automobiles, for example, are charged with a variety of taxes that add up to a very heavy burden. The time has come to reconsider the overall tax system, its justifications, and how the revenue is spent.

Meanwhile, in response to border tax adjustment as well as national commitments and regulations, businesses are beginning to identify the volume of their own emissions in order to maintain international competitiveness. Looking to the future, as emissions are tracked with greater precision under a life-cycle assessment approach, more policy options should become available. But first, the important thing is to consider helping businesses identify the volume of their respective emissions and providing incentives to reduce those emissions.

As a financial institution, we are often asked if we could provide financing with carbon credits as a revenue source for repayment. It is difficult to provide support for carbon credits unless there is sufficient predictability in their volume and price. In addition to measures to invigorate the market, it would be easier to consider providing finance if there were a system for their purchase by our government, like other countries are doing. The Japanese government should not hesitate to express its views on border tax adjustment. At the same time, it must be resolute in making sure that our export industries are duly protected.

**Toyota:** I think we have a consensus here that some form of carbon pricing is necessary but that existing regimes need to be revisited. As for border tax adjustment, it must be approached with caution since we worry that it could link up with protectionism in developed countries and generate a new North-South problem.

Thank you very much. This has been a great discussion.

**JS**

Written by Naoyuki Haraoka, editor-in-chief of *Japan SPOTLIGHT*, with the assistance of TapeRewrite Corporation.

Interview with Roland Kelts, contributing editor of *MONKEY* Magazine

## *MONKEY* Magazine Exchanges Literatures Between the US & Japan

By Japan SPOTLIGHT

Roland Kelts, a distinguished Japanese culture expert, is contributing editor of the English-language edition of the literary magazine *MONKEY* – a journal that focuses on contemporary Japanese literature and American literature in translation. He is also author of the best-selling book *Japanamerica*, and his articles, essays and stories appear in several publications. He has taught at many universities, including New York University and the University of Tokyo.

In an interview with Naoyuki Haraoka, editor-in-chief of *Japan SPOTLIGHT*, he talks about the birth of *MONKEY*, the improving quality of translation, Japanese women writers, commonalities between Japan and the United States, and cultural exchange in Asia.

(Interviewed on Feb. 3, 2021)

### Birth of *MONKEY*

**JS:** How was the English-language *MONKEY* born and how was it developed? What is your role as contributing editor of this magazine?

**Kelts:** The original idea for the English-language *Monkey Business* came from Prof. Ted Goossen. He is a scholar and translator of Japanese literature at York University in Toronto and the editor of *The Oxford Book of Japanese Short Stories*, a major anthology of Japanese fiction used in universities worldwide. His publisher asked him to create a new anthology. Ted was meeting with Motoyuki (Moto) Shibata, professor of American Literature at the University of Tokyo, here in Tokyo in 2010, and Ted's idea was to take Moto's literary magazine, called *Monkey Business*, and make an English edition. Both Ted and Moto thought that there was a lot of new Japanese literature that was not available in English. They wanted to introduce new writers. So, that was the original idea. And Moto agreed with Ted, and then they came to me. They asked me for help getting a publishing partner in the US because they felt they should have some kind of relationship with an American publication. At the time, I was spending a lot of each year in New York City so I had some meetings with people in New York. Fortunately, Brigid Hughes, a friend of mine and editor of a New York literary magazine called *A Public Space*, said she would like to make a partnership with *Monkey Business*. So that's how we brought out



Roland Kelts

our first issue. It was published in 2011. I think my role has been to help build a bridge between Tokyo and New York and forge relationships with other partners in the US.

### Attracting Readers

**JS:** Generally speaking, American interest in Japan has been declining. Instead, American interest in China has been rising. In this situation, there may be few publishers who may be interested in publishing magazines on Japanese literature. Japanese animation seems to be quite popular

**in the US, but how can you attract readers to other kinds of Japanese culture?**

**Kelts:** When we started in 2011, obviously the most famous living Japanese writer was Haruki Murakami, who is still very popular. But there was not such a great knowledge of younger Japanese writers. However, I think that now, 10 years later, there is a growing interest in contemporary Japanese writers. It's partly because there are so many great women writers in Japan today – and that is giving a fresh perspective to the reader and a fresh style to Japanese literature. Japanese women's stories are really attractive now to English-language readers, particularly Americans and Europeans.

The second reason is that fans of manga and anime are now getting older. And I think some of those fans now want to read different kinds

of stories from Japan. Kids who may have loved *Pokemon*, *One Piece* or *Slam Dunk* are now a little bit older and are interested in Japanese literature. Some pop culture fans are now reading *Monkey Business* and *MONKEY* magazine.

The third reason is that the quality of translations of Japanese literature has improved very dramatically over the past 10 years. Moto says that the quality of translations, especially translations done by younger translators of Japanese to English, is much more sensitive to the nuances of Japanese. Moto also told me that young translators today can hear the music of the Japanese language and capture it in English. I think the quality of translation is very important, and that has grown the audience for Japanese literature.

Like I said earlier, pop culture has actually produced more interest in Japanese literature. I also think that compared to China, for example, Japan feels much more accessible to Americans. They feel they can visit Japan and indulge in Japanese popular culture, style and fashion. It's not so alien anymore. And so contemporary Japanese literature may feel closer to the American reader today than contemporary Chinese literature. At least for now.

## Birth of the Japanese Magazine *MONKEY*

**JS: The quality of translation of the contents of the Japanese magazine *MONKEY*, which was released quite recently, is very good. How was the Japanese magazine *MONKEY* born? According to Prof. Shibata's brief remarks on this magazine, an English version exists. It's a complicated story. Could you please explain to me the relation between these magazines?**

**Kelts:** In 2008, Moto introduced the Japanese version of *Monkey Business*. He was partly inspired by American literary magazines. Most Japanese literary magazines are kind of conservative. They are published by major publishers largely to promote their own authors. But in the US, literary magazines are very independent. So they are freer. They can be very clever, innovative, irreverent and very funny. They can publish more eclectic and eccentric stories and poems. Moto wanted to create that kind of magazine in Japan. So that is how *Monkey Business* came into existence in 2008. When we started the English edition, Moto and Ted decided to use some material from the Japanese edition and combine the content with new selections. They eventually decided to publish some traditional literature from classic authors like Ryunosuke Akutagawa and Franz Kafka. In the new issue, they published an English translation by Jay Rubin of a Noh play from the 15th century. And they also include American writers in the English edition. So the Japanese *MONKEY* and the English *MONKEY* are related but not exactly the same. They each contain original material and are slightly different from each other. Of course,

the Japanese *MONKEY* is published three times each year, and the English version is published just once a year.

**JS: So the Japanese *MONKEY* was published before the English *MONKEY* in 2008?**

**Kelts:** Yes. The original publication was called *Monkey Business*. But when Moto changed publishers here in Japan, he could not use the same title. So he made it just *MONKEY*.

## Selecting the Content

**JS: What is the role of your editorial team in choosing the content of the magazine? Do you follow a policy?**

**Kelts:** We don't have a formal or written policy. Most of the content is chosen by Moto, Ted and Meg Taylor, the managing editor. Selection of the content is based on their tastes – what they really like. And the second level of decision is probably made by the translators, because Moto, Ted and Meg get a team of really great translators together. Trust between them and a translator develops when the translator says that he or she is really interested in translating a particular story or poem. For example, the Noh play was translated by Rubin, a former Harvard professor. He has also been a translator of Haruki Murakami's writing for many years. Then some of the English language material is by American writers whose work Moto translates into Japanese. In the English language *MONKEY*, he sometimes publishes their original work in English.

## Commonalities Between Japan & America

**JS: You talked about some sort of commonalities growing between contemporary Japanese literature and American literature. Do you think that globalization is a cause of the growing commonality between Japan and America?**

**Kelts:** Of course, especially with the rise of the Internet. Now you can get our magazine *MONKEY* in the print, paper, PDF and eBook or Kindle versions. It's much easier for a global audience to access Japanese literary writing. And of course, there is a great interest in women's voices and stories written by women. I think that's true all over the world. Women writers in Europe and in America are also being listened to and being read much more avidly now.

However, I think that contemporary American literature and Japanese literature do have some very important differences. I feel a lot of American literature is very much about identity and representation. As you know, the US has a very diverse population. So there is a lot of interest in the personal stories of black writers or the

personal stories of gay writers and Latino writers – different ethnic voices or ethnic groups. Japan is comparatively much more monoethnic. I think Japanese writers are exploring the kind of surreal world that we live in – the kind of imaginative, fantastical world of our existence today. I think American writers today are writing more realistic stories about their ethnic identity. Mieko Kawakami has a powerful story in *Monkey Business* from the perspective of the afterlife. Another wonderful writer in *MONKEY* is Aoko Matsuda. She has written a great book about female ghosts from Japanese history. Again, I think American writers are much more into writing about realism right now.

## Japanese Women Writers

**JS: As you said earlier, today's Japanese literature seems to be led by talented women writers. Most of the distinguished prizes have been given to women writers. What do you think about these women writers? Are they good at describing their imaginative worlds?**

**Kelts:** A couple factors are at work. One factor is that in today's Japanese society in general, women are still not in many positions of power in corporations or the government. Of course, more women are working today. But not many women occupy big positions – CEO or president. And because Japanese women are generally not in the center of society, they often have a unique and fresh perspective on Japanese culture. For a writer, being an outsider can be a very good thing, as the writer can carefully observe the system and describe it in his or her writing. For example, Sayaka Murata has a very successful novel about life in a Japanese convenience store. The novel is interesting because Murata looks at the Japanese retail and marketing culture from the perspective of a young woman. I think she has a unique female perspective on that world. But also women in Japan are tending to get married less and having fewer children. So, that could mean that Japanese women have more time to read and to write fiction and poetry.

This situation is not unique to Japan, of course. South Korea also has a very low birth rate. The birth rate is low for native-born US nationals as well. Many countries in Europe have very low birth rates. I think, around the world, there are generations of women who now have the time and energy to create and consume literature.

**JS: Your views on Japanese women writers reminded me of Ichiyo Higuchi of the Meiji Era. I learned from one of your online programs that Mieko Kawakami, a distinguished writer, was deeply influenced by her. Higuchi is one of the most important writers in the history of Japanese literature. She describes the**

**difficult times of the Meiji Era so well. Many writers consider that period as the idea of rising Japan, but Higuchi did not. She observes reality objectively and with some irony. I guess an outsider's view is very important for literature. I also think that loneliness has been a good writing topic. Do you think today's talented Japanese women writers also represent a kind of solitude or loneliness against the backdrop of globalization?**

**Kelts:** I completely agree with you. We can go back to Haruki Murakami. His characters usually don't have much family connection – maybe no family at all. They often experience divorce or broken relationships. Murakami writes about solitude very well. What you said about Higuchi is revealing. I find women writers' ability to look at the low level of culture quite fascinating. In Kawakami's novel *Breasts and Eggs* (*Chichi to ran*) the narrator talks a lot about poverty, and characters deal with not having enough money and needing to work extra hours at a hostess bar – and that's kind of a low level of Japanese society. It's quite different from Murakami's novels. Of course, Murakami's characters sometimes visit the low levels of society, but they usually live a comfortable middle-class life. They enjoy cooking; they enjoy wine; they can travel. But in Kawakami's books, the characters are often at quite a low level of society without any illusions. That's a very interesting point of contrast between Murakami and Kawakami.

## New Authors & Literature

**JS: In today's world, neither capitalism nor socialism works well and inequality is increasing. Do you think that the concerns and anxieties caused by these problems and the new normal imposed by the Covid-19 pandemic would create new authors and literature all over the world?**

**Kelts:** It is true that neither capitalism nor socialism works well in today's world. There seems to be confusion about systems and ideologies, which causes anxiety. I think these conditions might help to generate a new kind of literature. Also, people may be feeling less and less secure on social media. The Internet is a very public space today. People are constantly communicating and posting their thoughts, ideas and photographs. They can be constantly creating public stories. But I think literature is usually best at looking at the inner world – our inner lives, our imagination, our personal space. If people become less trusting of social media, they may turn more towards the interior world of writing. I hope this is happening because we as human beings suffer when everything is public. We need private space. We need space to dream and imagine, and that's



where literature is the best. Movies are very public and so is television. You watch these things with other people. When you read a book, it's just you. It's a very personal experience. I think people may want that again in the future.

## English Translation of Japanese Literature

**JS: As you mentioned, the English translation of Japanese literature has improved quite a bit. What has led to this improvement?**

**Kelts:** Like I said earlier, manga and anime enjoyed huge popularity in the US and Europe. Generations of Americans, Europeans and other English-language populations fell in love with manga and anime – Japanese pop culture. When they got older, they wanted to read the original or they wanted to even write the original. I think some of those “Pokemon” kids are now 35 to 40 years old and they want to translate. They really love the Japanese language. It's not the only factor, of course, but one theory of mine is that the popularity of Japanese pop culture has helped to improve the quality of translation.

**JS: I noticed the good quality of the Japanese language of American literature translations. On the side of Japanese translators, there is some improvement. Prof. Shibata seems to be the main force behind this. There may be other Japanese people too involved in translating American literature. Do you know anything about them?**

**Kelts:** That's a difficult question for me to answer. I'm happy to hear your opinion about translation. That's good news, but I don't think I'm qualified to answer this question. Moto would be better for that.

## Watakushi Shosetsu

**JS: So your favorite Japanese author is Haruki Murakami. Is that so?**

**Kelts:** I like many other writers. I really like Natsume Soseki, and I am very fond of Kenji Nakagami. I think his writing is really original and very energetic and sensual. Yoko Ogawa is masterful, and I re-read Junichiro Tanizaki's *In Praise of Shadows* every few years. I have always liked Kobo Abe, too. He had a great outsider perspective on Japanese society and the world. Actually, I like many Japanese writers.

**JS: I am curious about the nature of literature in Japan. You may have heard the Japanese term**

***watakushi shosetsu* or I-Novel. I think the long tradition of Japanese literature is nothing but a “private story”. But now Japanese novels have a very close relation with society. What is your take on this matter?**

**Kelts:** What you said is definitely true. I think that part of it is Japan's growing prominence in the world, especially after World War II. With modernization, Western cultural influences and a world-beating economy, Japanese awareness of the world and their society in the world naturally expanded. Another factor, again, may be the growing voices of women in society and as writers. It's kind of a stereotype – some say that women tend to be better social citizens because they can have children. Because women can have children, they are more realistically engaged with the world, whereas men, especially in the past, had the freedom to just go off by themselves and go to a *ryokan* and write a very personal novel. In general, women tend to live more in the day-to-day society. Certainly, women who are parents do. If a woman in Japan is a mother, she is usually dealing with a lot of societal groups, parents' associations and school regulations. So I think there may be some reason why Japanese literature written by women is more engaged with society at large. That's just my theory.

## Cultural Exchange in Asia

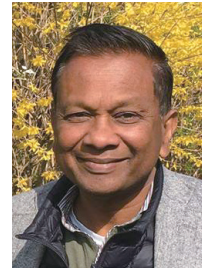
**JS: Do you think that the type of cultural exchange that takes place in *MONKEY* – mutual translation of two languages – can be applied to other languages and literatures, such as Indian and Japanese?**

**Kelts:** I wish there were more cultural exchange among Asian countries. With *MONKEY*, we have done events in Indonesia and Singapore. We have always had great audiences in Southeast Asia. We also went to the Philippines with *MONKEY* to introduce Japanese literature. I think those areas of Asia are very hungry for other Asian stories. They see Japan as a kind of cultural leader in Asia. They are very enthusiastic about Japanese art and literature. So I think there is a great opportunity for Asian nations to exchange culture, media and art, but it's not happening enough right now. I hope there will be many more opportunities for cultural exchange in the future. **JS**

Written with the cooperation of Rajesh Williams who is a professional editor and a writer with a background in instructional design, technical writing, technical editing, and teaching.

# Hariprabha Takeda's Diary – an Indian Woman's Observations of Taisho & Meiji Japan

By Mukesh Williams



Author Mukesh Williams

The diary of Hariprabha Basu Mallik (1890-1972) called *Bangomohilar Japan Jatra* or *A Bengali Woman's Journey to Japan*, published by her sister Kumari Santiprabha Mallik in November 1915 in Dacca, portrays Japanese family and social life during the Taisho and early Meiji eras. In 1907, Hariprabha married a Japanese entrepreneur Uemon Takeda in Dacca, and convinced him to visit his home in Shimamiya, Kochino, Aichi Prefecture after nine years of absence. Uemon's parents had given up on their son thinking that he had died in British India. So when he returned to Japan in November 1912 with his "fair-complexioned" foreign wife they were delighted. It was great news for the community; the local newspaper published their marriage and arrival thus: "Mr. Takeda has married the daughter of a certain gentleman in India and after several years has returned to his own country. Happiness is expressed through his eyes..."

The small village community was relieved that Uemon was happy with his wife. A hundred years ago the Japanese had seen few foreigners and few foreigners had seen Japan. A few Bengali women had travelled to Europe with their rich husbands but Japan remained a mystery to most. Professor Swapan Prasanna Roy believes that Hariprabha's travel to Japan was both a "reckless adventure", an incitement of Brahmo Samaj's "women's emancipation" culture. Hariprabha and her family were Brahmo Samajist. The Brahmo Samaj was a reformist movement within Hinduism and advocated equality of caste, creed and religion. The movement was responsible to a large extent in creating modern India. When Hariprabha's diary

was published it created great "excitement among the women of Calcutta" who saw her experience as an opening of new horizons. In 1915 the Indian revolutionary, Rash Behari Bose, fled to Japan. It was only four years after Hariprabha's visit that Rabindranath Tagore visited Japan for the first time in 1916.

### A New Face in Japan's Rural Community

In Japan Hariprabha was a strange new face in her husband's village community. Many people came to see her foreignness. Though she could not understand or speak the Japanese language and had to take the help of her husband to interpret everything, her in-laws, delighted to see their son return after nearly a decade, treated his wife with great love and care. Her mother-in-law who was 60-plus did not allow Hariprabha to wash clothes, cook food or do any household chores. In order to keep her busy, Hariprabha was asked to repair kimonos and take care of local children for short durations. The village society was extra nice to her, wanting to meet her and listen to her stories. The magic of the mysterious foreigner added to her attraction.

Hariprabha stayed in Japan for four months with her husband experiencing family life at close quarters. Her simplemindedness and purity of intention created a perceptive prose in her diary. By the time she started her journey back to India on April 12, 1913 she had captured the essence of Japanese middle-class life. She returned to Dacca on May 8, 1913 after 25 days of travel. In these four months she basked in the "love and attention of everyone", jotting down her experiences. She would return to Japan two more times.

### Brahmo Samaj Heritage

Hariprabha never intended to write for publication but as a Brahmo Samajist felt it was her duty to write about her life. Also the egalitarian ethos that Brahmo Samaj promoted made it easy for her to describe a foreign society with alacrity. Somdatta Mandal feels that "Brahmo Samaj encouraged such cross-cultural encounters so early in the twentieth century." Her parents denounced caste and campaigned for the downtrodden by running an orphanage called "Matri Niketan" in their own home in Dacca. When Hariprabha proposed to her youngest sister Santiprabha the idea of marrying Toshana, the younger brother

Photo: Somdatta Mandal



হরিপ্রভা ও ওয়েমেন তাকেনা

Hariprabha Takeda

Photo: Somdatta Mandal



ওয়েমেন তাকেনা

Uemon Takeda

of Uemon, she rejected it. But Hariprabha imbibed the ideas of Brahmo Samaj quite sincerely. She followed their example even when it caused her great misery. Towards the end of her life she, along with her husband Uemon, went and settled down with her sister Ashrubala Dasgupta who was a doctor in Jalpaiguri in North Bengal. Due to acute depression and ill-health, Uemon soon passed away. Hariprabha went on living there till her sister's death in 1970 after which she came down to Calcutta to spend the last couple of years with her nephew and his wife. In Jalpaiguri she had adopted a teenage girl who split her skull and ran away with all her belongings. On the verge of death, she was restored to health by her sister. In her Japan experiences she mentions a Brahmo prayer meeting called Brahmo Upasana at the residence of an expatriate Indian.

### A Keen Observer

Many Indian bureaucrats and businessmen have written about Japanese family life, economic dealings and food shortage during the war years. But Hariprabha's diary carries picture-book observations of Japanese homes, gardens, hospitality, food, city architecture, village life, child rearing, girl's education, cooking, daily living, women's hairstyles, kimonos, newspaper reading habits, bathing, washing hair, makeup and curiosity about foreigners. The early entries are short and carry snippets of daily events. But towards the end the discussion becomes more complex and lengthy, covering many aspects of Japanese life such as winter clothing, fire safety, kimono, footwear, rice preparation, respect for work, part time jobs, position of women and marriage rituals.

Hariprabha keenly observed the social life of Japan especially the woman's position – health care, domestic work, marriage and child rearing. The Bengali journal *Bangadarshan* brought out two articles by her. The first one was called *Japane Santan Palon o Narisiksha or Child Rearing and Women's Education in Japan* and the second *Japaner Nari or Women in Japan*. Both bring out the themes of women's position in Japan. Later Manjushree Sinha compiled these writings under the title *Bangomohilar Japan Jatra o Onannyo Rachana* (2009).

### Her Diary

Hariprabha's diary of 66 pages packs a lot of detail about her feelings about her river and sea voyages. She has a literary and religious bent of mind as she evokes metaphors of the sea and divinity through her descriptions and religious songs. Her journey takes her through Rangoon, Penang, Singapore, Hong Kong, Shanghai to Port Moji in Kitakyushu. She heaves a sigh of relief having arrived in Japan. From here she travels to Kobe and is fascinated by the exquisite wooden architecture of the hotel where she stays. When they reached the Kobe Customs House to get entry permission she notices the streets eroded by the rain: "The roads in this country are not good. They do not have pavements. The people

of the country wear a kind of shoe called 'bugari' which helps them to walk in rain and snow." She notices the houses are made of wood and inside them "everything was spick and span." She is fascinated by a girl's school which trains its students to become "dignified citizens" through the study of the sciences, "physical training, cookery, laundry work, gardening, knitting, music and English". She is impressed by the way the geisha ties the kimono and the coiffure with pins and flowers. She points out that women put their "neck on a wooden block" while they sleep in order to keep their hair-do intact for days. Hariprabha is impressed by Japanese women who work alongside men: "There are no restrictions for women, they work together with men, move around; there is no restriction anywhere." They wake up early and do all the household chores. The marriage custom of drinking sake, dressing in expensive silk and going to the in-laws house in a rickshaw are something to observe. She also notices that the Japanese mother is the center of the family.

Hariprabha has an eye for detail. She observes the different traditions from sitting on tatami with legs tucked behind to the delicacy of the tea ceremony and the careful arrangement of the food at her in-laws house. She also notices the initial wariness of her in-laws and later generosity as they become familiar with her personality. She does not forget to mention the *obento* box containing steamed rice and vegetables for 4 to 8 annas. Her diary is more of an emotional autobiography free from egoistic evaluation of social norms. Her observation of rural life in Shimamiya and city life in Nagoya, Ise, Osaka, Tokyo, Kyoto and Nikko during her visit to her in-laws or *sasurbari* 100 years ago are quite revealing. She was extremely fortunate to travel to Japan in the aftermath of the euphoric victory in the Russo-Japanese War of 1904-5. Through her diary entries we come to see a slow-moving Japan getting modernized but still carrying the legacy of the past in its manners, transport and architecture. Usually she avoids referring to the political life of Japan as she did not want any problem with the status quo. However, occasionally a few details about politics do creep in.

As Hariprabha writes about Tokyo, Kyoto, Nikko and Osaka, the reader can experience the ambience of these cities as they were a century ago. She notices "deep mud" on the roads with "horse carriages" passing by at long intervals. She is impressed by the trams and trains of Tokyo but does not find the metropolis as "attractive and gorgeous" as reputed to be. She is quite impressed by the park in central Tokyo close to the Emperor's palace with its well-planned lake, fountains and flowering plants. Hariprabha finds Kyoto as a city of "pilgrimage" shaped by its temples with wide verandahs for meditation and aesthetic pleasure. Osaka lives up to its reputation as a commercial center with its "factories and business".

### Translations from Bengali to English

There is a mixture of formal and colloquial styles in her diary which shows that since the manuscript was not intended for publication, revisions were not made to standardize it. Somdatta



Mandal has brought out the mixing of styles cleverly in her translation from Bengali into English, called *The Journey of a Bengali Woman in Japan* (2019). Her edition is exceptional in the sense that it includes two other essays of Hariprabha – *In War-Torn Japan* and *Child Rearing and Women's Education in Japan*. The edition also carries seven appendices that contain rare essays, reminiscences, articles and details of a documentary film *Japani Bodhu* (2012) in one text. Reading Mandal's English translation of the diary together with rich secondary sources makes both the worlds of Taisho Japan and British India come alive like a series of picture sketches. Mandal came across Hariprabha during her work on "colonial women's travel narratives". Monzurul Haq had brought "the text to light" through its publication in 1999. He had managed to retrieve the manuscript from the rare book section of the India Office Library in London. Mandal met Prof. Roy of Delhi University who published a second edition in 2007 and "inspired" her to translate the text. Then Mandal found a third edition published in Bengali in 2009 by Manjushree Sinha. "So as you go to the later editions more and more information about her is added." Inspired by the Takeda story, the Bangladeshi film director Tanvir Mokammel made a documentary called *The Japanese Wife* in 2012. In 2014 Mandal completed translating the book. But publishers delayed, and the book changed hands. It was finally published by Jadavpur University Press in 2019.

Over the decades a new interest has emerged in women's writing and travelogues. This has brought Bengali scholars from Monzurul Haq and Prof. Roy to Manjushree Sinha and Somdatta Mandal to build upon the scholarship of previous editors. Each subsequent Bengali edition of Hariprabha's diary has not only included Hariprabha's original script but added to it details of her life through interviews with Takeda's surviving nephew and his wife. Mandal accumulated all the essential relevant materials from the three Bengali editions of the text (1999, 2007, and 2009) and translated this important diary into English for the first time for the benefit of a larger worldwide readership. In smoothness of style and accuracy she brings to the Takeda translation decades of experience as a professor of English at Visva-Bharati University, Santiniketan, and her ability as a native Bengali scholar.



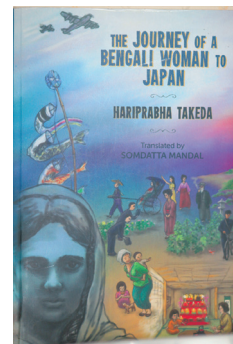
Bengali edition of the book, 1999



*The Japanese Wife* (Tanvir Mokammel) DVD



Translator Somdatta Mandal



*The Journey of a Bengali Woman to Japan*, translated by Somdatta Mandal, 2019

## Their Meeting & Marriage

Hariprabha met Uemon in Dacca. She was 22 and he was 37. Uemon like many other young men had travelled to British India in "search of a living". He travelled to Bengal and found a job in the Bulbul soap factory in Dacca as a technical overseer. The company was owned by Hariprabha's father Sashibhushan Basu Mallick. Translator Monzurul Haq suggests that as a Japanese immigrant to India Uemon must have felt bored not being able to meet people. The desire to socialize must have forced him to attend Brahmo Samaj meetings. It is at one of these meetings that Uemon met Hariprabha and courted her. Hariprabha's mother Nagendrabala realized Uemon's entrepreneurial character and persuaded her husband to allow their eldest daughter marry Uemon. Nagendrabala's assessment of Uemon's character proved correct as he started his own manufacturing company and helped his in-laws in the philanthropic work they were engaged in. He was joined by his brother Toshani. But for nine years Uemon did not communicate with his parents. In the essay "The Japan that Hariprabha Saw" Kazuhiro Watanabe has the answer. In the year 1912 when Hariprabha came with her husband to Japan, the Emperor Mutsuhito died ending the long Meiji Era. Watanabe conjectures that perhaps Uemon was arranging money for a trip back to his country. But more than that Watanabe believes the "death of the emperor made Takeda-san feel that a phase of Japanese society had come to an end." Now that Uemon was a "successful" businessman and married to a Bengali lady, he wanted to see the "new Japan" and show his "new self" to his relatives. This is possibly a good explanation.

Hariprabha was an attractive girl when she got married. Both her behavior and her looks attracted her in-laws and those she met in Japan. After their return from Japan, having no such family to call her own, she and her husband came to live with her sister Ashrubala in Jalpaiguri. Her nephew's wife Manju Dasgupta met her in 1963 when she was 73 years old and a widow. Hariprabha was still a charming person with lots of practical advice. Manju found that though Hariprabha's hair had turned silver due to old age, she still possessed those "exquisite" eyes and a "very sharp gaze". On one of

her visits to Japan she also had a “golden tooth” fixed which “sparkled” when she smiled.

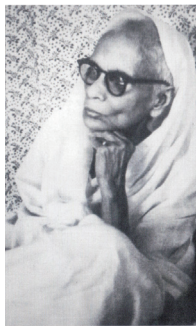
## Reasons for Her Visit to Japan

The reasons for Hariprabha's visit to Japan were many. She was curious to meet her in-laws and receive their blessings. The idea of *sangsar* or that a married woman's real home was with her in-laws was not a practice followed by Hariprabha. Being a Brahmo Samajist she had strong faith in the power of the divine to shape her destiny. Perhaps she wanted to pay obeisance to the gods of her in-laws who were Jodo-shu Buddhist. She also had a “secret dream” to visit Japan from the time of her marriage. We may not know what this special dream was. Marrying outside the caste and nationality a century ago was a “great challenge” to the “conservative decadent society of Bengal” observes Prof. Roy. Hariprabha's sisters did not share her ideas of an international marriage. Mandal explains that during the colonial period the “Bengali middle class traveled for pilgrimage, education or marriage relocation. Women like Jnanadanandini Devi, and Krishnabhabini travelled with their husbands to the United Kingdom. But travel to Japan was relatively unknown for women.”

## Two More Visits to Japan

The Takedas revisited Japan two more times, once in 1924 and then again in 1941. Her trip in 1924 was short but dates are not mentioned. The third trip in 1941 was the longest. Hostilities between the United States and Japan were increasing. As part of the repatriation drive organized by the Japanese government, the couple left Bombay on Nov. 2 in a Japanese ship with 1,200 Japanese nationals and reached Kobe on Nov. 21. Hariprabha chronicles both the wars and the bombing of Pearl Harbor and cities of Hiroshima and Nagasaki. She saw food shortages during the war and lived a life of penury as her husband fell sick. For some time, on the advice of Rash Behari Bose and with the direct encouragement from Subhas Chandra Bose, she worked as a radio announcer of the secret broadcast service of the Azad Hind Fauj or the Indian National Army. Also some of her Indian friends like Rash Behari Bose, Justice Radhabinod Pal and others helped her with her daily needs and perhaps gave her money to buy her passage back to Bengal. She returned with her sick husband on board the British ship *Eastern Saga* from Yokohama in 1948. A flood in 1968 spoilt all her possessions. So she came to Calcutta after her sister's death in 1970 and spent the last two and a half years of her life with her nephew

Photo: Somdatta Mandal



হরিপ্রভা (ভদ্রপাইকটিতে)



বোন অশ্রুবলা (ভদ্রপাইকটিতে)

Hariprabha (left) with second sister Ashrubala Dasgupta

Photo: Somdatta Mandal



সেতাজির বঙ্গদেশে স্বদেশে শান্তি পরিষদে হরিপ্রভা

Hariprabha and Subhash Chandra Bose

Surojit Dasgupta and his wife Manju. Her husband became deeply depressed by Japan's defeat in World War II. “So basically she went with her husband in 1941 and returned in 1948. He was very sick and died soon after their return. No memorial. He suffered from acute depression as he could not accept the defeat of Japan. He would repeatedly regret about it aloud.” During her third stay she wrote about the war and its impact on Japan in *Japan Ravaged by the War* or *Juddha Jarjarita Japan*. She got connected to both the Boses who were in Japan – Subhas Chandra and Rash Behari. In *War-Torn Japan* she tells us that on a late December morning she had gone to Ogikubo to visit a Mr. Sahay. An air raid began in the afternoon and she returned with the help of a teenage chaperon to her home at 10 o'clock at night. Hariprabha describes the houses “burnt to ashes” and everywhere there was “water, mud, ashes, and electric wires”. She felt “terrified” witnessing the devastation. According to Mandal, “her first trip was romantic but the second was patriotic.”

## An Inspirational Wife

A dutiful wife, war reporter, event chronicler and social reformer, Hariprabha's travel diary and other writings continue to inspire the Bengali middle class in India. About seven and a half years of her Japanese experience feeds into the Asian sense of pride created by Okakura Tenshin and corroborated by Tagore. Tagore's own writings on Japan in *Japan Jatri* were a “poet's vision of that country” believes Watanabe, while Hariprabha delves deep within the heart of the common people. Hariprabha's diary brings alive the process of modernization Japan was going through during the Taisho and Meiji eras and the freedom struggle India was engaged in. Her diary is an important addition to the female travelogue literature of the early 20th century.

JS

Professor Mukesh Williams is advisor to the South Asia Research Center at Soka University, visiting faculty at Keio University, consultant/news analyst for the BBC World Service, St. Stephen's College Alumni representative and Academic Exchange Programs coordinator in Japan.





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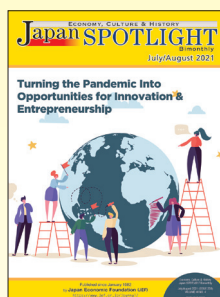
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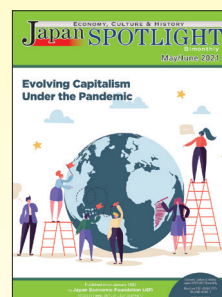
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