



Japan-Korea Joint Proposal

Envisioning the Next Fifty Years of Japan-Korea Ties

IIPS-SFIA Joint Research Project



IIPS

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Envisioning the Next Fifty Years of Japan-Korea Ties

Introduction

The Institute for International Policy Studies (IIPS) and The Seoul Forum for International Affairs (SFIA) have convened the annual Tokyo-Seoul Forum since 2010 to discuss how Japan and the Republic of Korea can cooperate toward a stable and prosperous future for East Asia and the world. The Treaty on Basic Relations between Japan and the Republic of Korea marks its 50th anniversary on June 22, 2015. At this noteworthy time, joint research on the “Next Fifty Years of Japan-Korea Ties” has been conducted by experts in both countries to identify potential issues of future strategic cooperation between Japan and Korea in the next 50 years. It aims at proposing concrete steps to make forward-looking bilateral relations between the two countries with a longer-term perspective.

After agreement on the Treaty on Basic Relations between Japan and the Republic of Korea, both Japan and Korea have developed to become economic driving forces in East Asia. For example, Japan’s nominal GDP amounted to US\$4,901 billion in 2013, ranking 3rd worldwide, while Korea ranked 14th at US\$1,305 billion. In the past 50 years, Japan’s nominal GDP in 2013 has become 54 times that of 1965, and Korea’s is 421 times that of the same period. Trade in goods between Japan and Korea was US\$85 billion in 2014 (exports and imports, trade statistics of Japan), which accounted for 385 times that of 1965. In addition, visitors between the two countries were merely approximately 10,000 in 1965, while in 2014 they amounted to over 5 million people. And the two countries, as allies of the United States for half a century, have contributed to guarding the peace in East Asia. Furthermore, the success of the 2002 FIFA World Cup Korea/Japan also played a role in development of cultural interaction and economic cooperation. A close relationship between Japan and Korea is of utmost importance for the future of East Asia’s peace and prosperity. Also, since 1998 when political leaders in both countries made a resolution to open cultural doors to each other, people have begun enjoying each other’s popular cultures. In Japan, there have been movements of the “Korean Wave” including the hits of Korean television dramas and K-POP music. In Korea, Japanese popular

culture has constituted trendy items among the general populace. As an extension of these cultural exchanges between Japan and Korea, mutual understanding across the border has been immensely upgraded.

However, current political relations between Japan and Korea are in a stalemate. Historical issues are preventing improved relations between the two countries. Since the Japan and Korea Summit Meeting in May 2012 (Prime Minister Yoshihiko Noda and President Lee Myung-bak), the two countries have not been able to hold a Summit Meeting, which is a quite extraordinary situation between neighboring countries. President Park Geun-hye has prioritized solution of the comfort women issue before holding a summit meeting while Prime Minister Abe maintains the stance that a top-level meeting should be held from a broad point of view without any preconditions. Some improvements in easing tension have been made in the last several months. At the ministerial level, in addition to the regular Foreign Ministers' meeting, two ministerial meetings by the Finance Ministers and Defense Ministers were held in May 2015. We think it desirable that a summit meeting between the two countries be resumed at the earliest convenience.

Historical and territorial controversies are stumbling blocks to further progress for strategic cooperation between Japan and Korea. Historical issues have to be properly addressed on both sides, but discussions on security, the economy, and others should not be hampered by them. Also, the solution of the thorny historical issues should be founded on the principle of reciprocal cooperation between the two parties.

We should not forget the great efforts of the leaders and the achievements in the past such as the conclusion of the Treaty in 1965, amicable relations between Prime Minister Yasuhiro Nakasone and President Chun Doo-hwan in 1980s, and the Joint Declaration of 1998 between Prime Minister Keizo Obuchi and President Kim Dae-jung, all of which greatly improved Japan-Korea relations. Building on these achievements, we should make utmost efforts to make our relations better and stronger.

While visionary and sensible leadership roles are indispensable in improving bilateral relations, it should be noted that a cautious, moderate, and prudent

approach of a public discussion about the other party is critically important. In particular, the practice of blaming each other should be abstained from as soon as possible. The spirit of mutual respect and trust should be regained.

This joint research project, premised on the legitimacy of the 1965 Treaty on Basic Relations between Japan and the Republic of Korea, explores the possibility of deepening and widening strategic cooperation between Japan and Korea in the next 50 years. This joint research project focuses on three issues for cooperation between the two countries: “Economic Cooperation,” “Security Cooperation,” and “Cooperation on Transnational Issues.” However, while achieving an understanding of the current status of each of these issues, the highest priority is placed on formulating a proposal that will directly serve the purpose of cultivating Japan-Korea ties. This proposal is expected to contribute to a new era of Japan-Korea relations, stability in the East Asia region, and a stable global order for the next 50 years.

June 2015



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Executive Summary

At the 50th anniversary of diplomatic normalization between Japan and the Republic of Korea (ROK), the Institute for International Policy Studies (IIPS) and the Seoul Forum for International Affairs (SFIA) have conducted a joint research on envisioning the next 50 years of Japan-ROK ties to identify potential issues of strategic cooperation between the two countries in the next 50 years. It aims at proposing concrete steps to make forward-looking bilateral relations between the two countries with a longer-term perspective. In order to deepen and widen strategic cooperation between Japan and the ROK, this joint research has picked up three areas of cooperation: security cooperation, economic cooperation, and transnational cooperation.

The following are concrete proposals that have been suggested by experts in both countries.

(1) Security Cooperation between Japan and the ROK

1. Twisted perceptions and misunderstanding about each other are standing in the way to furthering security cooperation. To enhance mutual understanding, strategic dialogues at all levels should be actively promoted. Both governments should increase the budget for a good-will public diplomacy toward each other. Informing the public on the importance of Japan-ROK cooperation is important.
2. To share common security interests and strategic perspectives, open-minded dialogues including track 2 and professional exchanges in various fields should be promoted.
3. In order to deepen Japan-ROK security ties, it is urgent to institutionalize the basis for bilateral security cooperation, including mutual defense assistances, information sharing, crisis management mechanism, and other arrangements for enhanced cooperation. Also grassroots personnel exchanges among military professionals should be promoted.

4. Japan and the ROK can cooperate further to promote the unification of the Korean Peninsula. Japan should make it clear that it supports ROK's initiatives toward the unification of the Korean Peninsula. Also the two countries should share common understanding on the basic conditions for unification.
5. For peace and stability in Northeast Asia, policy coordination and information sharing on North Korean issues and China should be actively cultivated. Japan-ROK cooperation for responding to crises on the Korean Peninsula should be guaranteed.
6. Armed forces of Japan and the ROK can promote cooperation in international activities, including UN PKO, global peace operations, humanitarian assistance and disaster relief operations.

(2) Economic Cooperation between Japan and the ROK

1. Collaboration between the two countries in R&D and innovation is necessary. It is recommended that the two countries start a new initiative called "Japan-Korea Technology Platform 2025." Platforms will be created in several key industries or technology areas, such as IoT (Internet of Things), bio, clean energy, robotics and even FinTech (financial innovation along internet and mobile platforms).
2. The potential for business collaboration between the two countries in third-country markets, especially in emerging markets, should be further explored. It is recommended that the two countries collaborate in establishing industrial parks in India and other emerging markets and also pursue joint projects in building infrastructures in those markets.
3. It is noted that labor and capital market inflexibility is hindering new business development in the two countries. The two countries should jointly explore ways to stimulate new business start-ups, especially by young people.

4. Promotion of trade and investment between the two countries should be more effectively handled under plurilateral settings such as a China-Japan-Korea FTA, Regional Comprehensive Economic Partnership Agreement (RCEP), and Trans-Pacific Partnership Agreement (TPP). The two countries should also cooperate with each other in RCEP negotiations, in further securing market access for intermediate and consumer goods in India, China and ASEAN countries.
5. The two countries, actively participating in the Trade in Services Agreement (TISA) in the WTO framework, have an urgent need to engage in serious discussions for deeper services market liberalization.

(3) Cooperation on Transnational Issues

1. In order to cope with humanitarian emergencies and natural disasters, Japan and the ROK can coordinate policies and action plans for joint operations for humanitarian assistance and disaster relief. Also the two countries can take preventive measures together. In order to promote human security, Japan and the ROK can jointly develop a system that enables effective implementation of ODA and peacekeeping operations. Joint management of a PKO training center in Asia should be considered.
2. Japan and the ROK can take initiatives in the formulation of new international development objectives, namely sustainable development goals. The two countries should also play a facilitating role in developing universal norms and concepts of human security and humanitarian intervention.
3. As resource-poor countries relying on imported fossil energy resources, Japan and the ROK should cooperate for the promotion of energy efficiency and a low-carbon society while developing renewable energy and technology. R&D cooperation is critically important in this area.

4. The leadership role of Japan and the ROK in response to climate change issues at regional and global levels should be enlarged. The two countries can work together to promote capacity building and technology transfer related to climate change to developing countries.
5. Japan and the ROK can construct networks for exchanging information on nuclear power development and nuclear accident response to enhance nuclear safety. The two countries can prepare a common measure for nuclear safety with China.
6. In order to cope with an aging society, Japan and the ROK should play a leading role in creating a new positive concept and norms for an aging society which bring hope to the world and help policy-making.
7. In order to cope with labor shortage, a joint research project on the creative options of cross-border mobility before accepting the more permanent immigration can be conducted between Japan and the ROK. In addition, various complementary measures should be studied jointly in order for people to be able to work until 75 years of age, possibly, or at least until 70 years of age.

Section 1

Toward Enhanced Security Cooperation between Japan and the ROK

Introduction

Japan and the Republic of Korea (ROK) have many reasons to advance security cooperation in a changing world. From a regional viewpoint, the two countries face a formidable security threat from nuclear-developing and militarily-provocative North Korea. As an ally to the United States and beneficiaries of the liberal international order, maintaining a stable order in the Asia-Pacific is in the interests of Japan and the ROK. In particular, those three countries are paying greater attention to emerging challenges for the liberal maritime order in the western Pacific Ocean. From a global viewpoint, Japan and the ROK are liberal democracies in Northeast Asia that have great potential to contribute to international peace and security together, if they collaborate closely.

Together with the ROK, Japan will be able to contribute more as a “proactive contributor to international peace.” On the other hand, the ROK will be able to promote multilateral cooperation such as a “Northeast Asia Peace and Cooperation Initiative” if this Korean idea is supported squarely by Japan. The Korea-US alliance provides Japan with the security of its western front while the Japan-US alliance provides Korea and the United States with the logistical basis and backyard safety in case of North Korean contingencies. In this light, the two countries should deepen and widen such understanding on the mutual reliance of the two alliances with the United States.

The United States has been expecting better relationships between its two leading allies in Asia, as it will be the basis for peace and stability in Northeast Asia. Peoples of the two countries sharing common values of democracy and a market economy should be fully aware of the great value of closer security cooperation between Japan and the ROK. In this vein, the breakdown of Japan-Korea relations would weaken alliances in Northeast Asia. Today, Japan and the ROK face new security challenges such as the spread of the Islamic State in the Middle East, transnational terrorist networks, and assertive Chinese claims in both the South China Sea and the East

China Sea. In fact, the two countries can be proud of their great contribution to peace and stability in Northeast Asia and beyond in the last 50 years. Working together, the two democracies can contribute much more effectively to peace and stability across the globe.

Going Beyond Misunderstandings and Misperceptions

Despite shared strategic interests of Japan and the ROK, a few outstanding misperceptions and misunderstandings are standing in the way to furthering security cooperation between the two. Most of all, it is sometimes difficult for the general public to fully recognize the nuanced differences of the security interests arising from different geostrategic locations. The ROK is situated closer to China and has practical reasons to maintain its cooperative relationship with China, particularly for realizing the unification of the Korean Peninsula. On the other hand, largely due to its Constitutional constraints, Japan needs to consolidate its alliance with the United States to defend its sovereign territories.

Though security specialists are fully aware of strategic mutual dependence in the Northeast Asian landscape, citizens of those countries are bound by negative perceptions about the other party, which can hardly be verified on objective grounds. From the perspective of Korea, Japan's more proactive security policy under the current administration is often seen in Korea as a dangerous move toward remilitarization. However, it should be clearly understood that Japan's defense posture is being conducted in a democratic setting. Japan, despite its proactive defense positions, would never go back to the pre-war regime. From the perspective of Japan, the ROK's friendly diplomatic gesture to China could be seen as a move away from Japan. Some Japanese even claim that the ROK has tilted toward China. However, it should be noted that the ROK, whose security is working on the ground of US alliance structure, would never go away from the US, which is Japan's resolute ally. Though the ROK may develop a friendly diplomatic stance as well as amicable economic ties with China, this does not mean that the ROK would deviate from the US security umbrella.

In order to go beyond twisted perceptions about each other, Japan should be

cognizant of Korea's geopolitical position as a divided nation that shares borders with China as an immediate neighbor. Japan enjoys relatively safer geopolitical ground than the ROK in that it is an island country detached from the continent. As the two Koreas are divided nations that wait for national unification in the future, the ROK is interested in securing strategic support from China. Still, like Korea, Japan is also trying to develop stable ties with China rather than simply balancing against China. On the other hand, the ROK should clarify its strategic priority between Korea-China cooperation and US-ROK alliance while not having to see them as a zero-sum relationship. In this sense, strengthened security ties between the US and Japan does not go against the security interest of the ROK, especially in times of a sudden change in North Korea.

The Necessity for Dialogues and Better Public Diplomacy

Japan and the ROK are in need of both mutual understanding and respect, which will be an important basis for their security cooperation. Going beyond the distorted images and perceptions of the other party can be a starting point of strategic adjustment between Japan and the ROK. For that purpose, both countries had better encourage the efforts of the other parties in a positive way. On the one hand, Japan had better announce clearly that it supports the unification of the two Koreas under the initiative of the liberal democratic ROK. Also, Japan can recognize the constructive role of the ROK to promote trilateral cooperation among Japan, the ROK and China to peacefully manage Northeast Asia. ROK's endeavor to engage China is not necessarily against the strategic interest of Japan. On the other hand, the ROK should be encouraged to support Japan's efforts to contribute more to global peace and international security. Japan's proactive contribution to peace such as in Peacekeeping Operations (PKOs) does not necessarily go against the security interests of the ROK. Furthermore, strong security engagement of the US in East Asia and the Pacific benefits not only Japan but also the ROK. Both countries are in a position to welcome and support American security commitment in the entire region.

Distorted images and misperceptions would not naturally evaporate. To speed up the process of reducing those negative feelings and deepening mutual

understanding, strategic dialogues at all levels should be actively promoted. In addition, reaching out to the public in each country may be vitally important for both of them. Both governments should increase the budget for a good-will public diplomacy toward each other while reducing the budget for a zero-sum public diplomacy to avoid mutually assured damages.

Enhancing Security Cooperation

On the basis of right perceptions and understandings about each other, security cooperation between Japan and the ROK can be developed in several dimensions:

Sharing Common Security Interests and Strategic Objectives

Sharing of common security interests and describing common strategic objectives are definitely in need. For that purpose, the following measures should be promoted:

- Open-minded dialogues at various levels including track 2 are key for better understanding on mutual reliance between US-Japan and US-Korea alliances, along with deeper respect for their roles and fairer appreciation of the other's efforts for regional security.
- Broader professional exchanges for practical cooperation may work better among military officers, medical professionals, business people, and researchers in the field of science and technologies as well as other experts in related areas.
- The efforts by the two countries to reach out to domestic audiences are important for informing the public on the importance of Japan-ROK cooperation in various areas.

Deepening Japan-ROK Security Ties

Deepening Japan-ROK security ties is a necessary step toward heightened security cooperation. Concrete steps to be taken can include following measures:

- It is urgent to institutionalize the basis for bilateral security cooperation: mutual defense assistance, information sharing, and other arrangements for enhanced cooperation.
- There are both necessity and possibility to further enhance crisis management

mechanisms between military and law enforcement organizations: existing (JASDF-ROKAF) and new hotlines, standing Japan-ROK military coordination body, agreed-upon code of conduct.

- Promoting grassroots mutual relations among military professionals will be effective: personnel exchanges at various levels from political and military leaders through working and operational levels to younger students at military and services colleges.
- Armed forces of our two countries could promote security cooperation in the areas of common interest, including: air defense, mine counter measures, anti-submarine warfare, cyber security, and outer space security.

Promoting the Unification of the Korean Peninsula

Japan and the ROK can cooperate further to promote the unification of the Korean Peninsula. For this purpose, the following points should be taken into consideration:

- Japan should make it clear that it supports ROK's initiatives toward the unification of the Korean Peninsula.
- Japan and the ROK, along with cooperation with the US and China, should coordinate their policy to avoid insecurity and instability at the time of the unification of the Korean Peninsula, while making the Korean Peninsula de-nuclearized.
- The two countries should share common understanding on the basic conditions for the unification, such as US security commitments to the region through US-Japan and US-ROK alliances, China's constructive role in the unification process, continuing dialogues among key players such as the Six-Party talks as well as talks between the South and the North, and the continuity of military postures of Japan and the ROK forces together with close policy coordination between the two.

Enhancing Security Cooperation for Peace and Stability in Northeast Asia

Enhancing security cooperation for peace and stability in Northeast Asia is an area to be actively cultivated. Practical measures to be taken include:

- Policy coordination and information sharing on North Korean issues.

- Policy coordination and information sharing along with possible Japan-ROK cooperation in responding to crises on the Korean Peninsula such as North Korea's military and political provocations.
- Japan's logistical supports for US forces in Japan in responding to contingencies on the Korean Peninsula.
- Policy coordination and political cooperation on policy toward China.

Joint Contribution to Global Peace Operations

Over the course of more than 20 years, Japan and the ROK, respectively, have been considerably contributing to UN-led peace operations. Since its first PKO activity in the UNTAG in Namibia in 1989, Japan has participated in diverse UN-led efforts including UN Peacekeeping Operations (PKOs) and collective security measures, post-conflict emergency humanitarian relief to recovery and reconstruction, and assistance through the UN Peacebuilding Commission. The country has also dispatched Self Defense Force (SDF) units and other personnel to various regions on international peace cooperation assignments including in Cambodia, the Golan Heights, Timor-Leste, Nepal, and South Sudan. However, each time a new legislation was needed on an ad-hoc basis. It took some time before the sending of SDF, because the matter often gave rise to controversy. Currently, the Japanese Diet plans to pass new legislation that establishes a general legal basis for sending SDF to multilateral activities, which would in turn make easier sending SDF in the future.

Korea has also contributed 10,000 military and civilian personnel to UN PKOs since it joined in UNOSOM II in Somalia in 1993 and has noticeably increased its contribution since 2007. Korea's recent UN-led PKO missions include the Dongmyeong Unit in Lebanon, the Danbi Unit in Haiti, and the Hanbit Unit in South Sudan. In addition, the country, as a member of the "coalition of the willing," has also made substantial contribution to several MNF peace operations including the Cheonghae Unit near the coast of Somalia, the Ashena Unit in Afghanistan, and the Akh Unit in UAE. Such impressive and successful peace operations could have a strong synergistic effect if Japan and the ROK exploit opportunities to cooperate with each other in various international peace operations such as UNPKOs, ad-hoc coalitions similar to Operation Iraqi Freedom II, and counter piracy operations

similar to one in the Gulf of Aden.

Armed forces of Japan and the ROK can further promote cooperation in international activities such as UN peacekeeping operations (UN PKO) and humanitarian assistance/disaster relief (HA/DR) operations. For this purpose, the following should be taken in to consideration:

- The two countries from time to time have participated in such operations together as witnessed in the HA/DR activities in the Philippines after typhoon Haiyan in 2013 and in the ongoing UN PKO in South Sudan.
- Such operations can provide natural and harmless grounds for the two armed forces to work together and to promote the two peoples' understanding on the importance and possibilities of Japan-Korea security cooperation.
- Japan and Korea should coordinate their activities in such international peace efforts while actively exchanging related information. This is particularly important for HA/DR in the Asia-Pacific region which is a natural disaster-prone area in the world.

Section 2

Economic Cooperation between Japan and Korea

Cooperation in Private Business Sectors

Economic Prospects for Japan and Korea

Although there are some positive signs of economic recovery recently, the Japanese economy has struggled with recession and deflation in the last two and half decades, and the Korean economy is showing signs of stagnation in recent years. Japan's annual GDP growth rate averaged around 4.4% during the 1980s, 1.6% in the 1990s, and 0.8% in the last decade. Korea's GDP growth rate averaged around 7.6% in the 1980s, 6.1% in the 1990s, and 3.6% in the first decade of the 21st century. In the next 10 years of 2016 to 2025, the Korean growth rate is expected to be around 2%. The aged ratio of Korea (percentage of 65 years and older population out of the total population) will progress from 13% in 2015 to 18% in 2025, and will reach 20% in 2028. The growth in the domestic market should be of qualitative nature, i.e. increase of total factor productivity (TFP), and further growth should be sought in overseas markets. Japan's GDP growth in the next decade is not expected to be much better than the last decade level of 0.8% despite Abenomics. The population aging will progress from 24% in 2015 to 28-30% in 2025. The economic growth should come from the TFP and from overseas markets. But stagnation is not destiny. The two countries have all the ingredients for economy growth: capital, disciplined and skilled manpower, technology, and accumulated experience in business and public administration. It is possible to raise the economic growth of the two countries to over a 2% level with the right mix of government policy and business innovation. This report will recommend several ways to reignite the economic engines and the two economies.

Fundamental Shift of the Global Economy circa 2015

Circa 2015 is somewhat similar to circa 1990: fundamental shifts are under progress in many areas—geopolitics, economics, technology and organization management. But unlike in 1990, the technology shift seems to be the key driver in this complex

transition period. Technological changes are pervasive and could change the other important orders, including economics and security. The technological changes are led by the internet and mobile revolution, including the IoT (Internet of Things), cloud computing and big data, but other critical tech changes are also underway: robotics, auto-driving and drones, basic materials, 3d printing, energy, and bio-medicine. For example, in the 1990s the shift from stand-alone PCs to inter-connected PCs through the internet was made, and then to the hyper-connected individuals through smart-phones after 2007. And now the expected connectivity of everything through IoT is possible in the coming decade. The business ecosystem is also shifting toward network-based competition. To be successful, companies should be able to create strong platforms by organizing the suppliers, innovators, distributors, and even customers. There are already successful joint ventures and some joint projects or consortiums between two countries, but there is ample room for more productive collaboration.

Joint Efforts to Stimulate New Ventures

The entrepreneurial spirit in the two countries urgently needs to be reignited. Japanese and Korean economies are dominated by big companies, some of which are also very successful in global markets. And these big companies provide a relatively high level of job security to employees and managers. It is only natural that talented college graduates are eager to seek careers in these large firms. In contrast, a large number of graduates from the leading US universities start a new business even before they graduate from college. There is a stark difference between the US and Japan/Korea in terms of the entrepreneurship. In this respect, the labor market flexibility is essential also for stimulating new start-ups in the two countries. Big companies should take steps to make jobs less secure, and failed companies should be let go so that talent and resources can be channeled to new business. Venture capital and angel funds are only a part of the problem. Financial institutions in the two economies are very inefficient and rely on relatively low-risk loans to big companies. Risk capital is not easily available to new start-ups in the two economies. According to the OECD data of 2009, the available risk capital relative to the size of GDP was 0.030% for Korea and 0.020% for Japan. These numbers are much lower than the OECD average of 0.042% or 0.088% for the US. The problem is very simple:

established financial institutions such as commercial banks are not used to providing risk capital. And government-supported venture capital firms often operate like banks in many instances, asking for collateral or mortgage when lending. The two countries should come up with a new and creative way to provide risk capital. “Out-of-the-box” thinking is needed in this area. One possibility is the so-called FinTech, or financial innovation along internet and mobile platforms. For example, crowd funding is a good way to provide risk capital to potential start-ups outside the established financial institutions. Here both governments should lift many regulations regarding accepting investments and making loans.

One possible way for the two countries to collaborate in stimulating the spirit of entrepreneurship is to have a joint program that is targeted at colleges and college graduates. Sister economic associations in the two countries, such as the FKI and Keidanren, should work together to reignite the venture spirit in the two economies. It would be somewhat ironical for those organizations representing big businesses to come up with such programs, but it is their social responsibility. In order not to be left behind in the current great technological transformation, more resources, both capital and talent, should be channeled to new industries and ventures.

Collaboration in R&D and Innovation

East Asia is emerging as one of two leading technology hubs of the global economy but the productivity of huge R&D expenditures is in doubt. In recent years, Japan spent around 3.5% of her GDP on R&D and Korea about 4.2% of her GDP. In fact, the two countries are the most R&D-intensive economies in the world (belonging to the top five in terms of the percentage of R&D/GDP) and also the heaviest R&D spenders (in terms of the absolute PPP amount of Gross Expenditures on R&D, together with the US, China, and Germany). Yet the commercialization of R&D expenditures and findings (research and patents) is very disappointing: the two countries are very poor in new biz startups and other indicators of business development. Thus there is the term of the “Japan paradox” or “Korea paradox,” meaning “for some reason, heavy R&D expenditures in Japan and Korea are not translated into business success or economic growth.” One possible reason for low productivity of Japan and Korea in R&D is the closed nature of the national

innovation system. According to an OECD study, the two countries have the most closed innovation system both domestically and internationally, meaning the lowest level of collaboration among corporations, universities and publicly supported research institutions in the country, and also the lowest level of participation of foreign multinationals as well as collaboration with foreign institutions. This is contrasted to the heavy involvement of MNEs in many European countries, especially the UK, and also in some other Asian countries, Taiwan, China, and India. Thus one way to stimulate the two economies is to get more return/value from R&D expenditures by creating a more “open and collaborative” research architecture.

It is recommended that two countries start a new initiative called “Japan-Korea Technology Platform 2025.” Platforms will be created in several key industries or technology areas, such as IoT, bio, clean energy, robotics, and even FinTech. All three actors, namely corporations, universities, and government agencies should participate in these platforms. Initially five to ten joint technology platforms should be initiated.

Business Collaboration in Emerging Economies

Economic interdependence between two economies has gone through some changes in recent years. Traditionally, Japan provided parts and industrial raw materials to Korea, and Korea assembled those to re-export to third countries. In recent years, especially since the 2011 Great East Japan Earthquake, some Japanese parts makers shifted their production to Korean locations. At the same time, the increased technology capability of Korean companies reduced their dependence on Japanese parts. As a result, Japanese exports to Korea decreased but Japanese direct investments in Korea increased in recent years. For example, Japan’s exports to Korea decreased by 10.4% in 2014 compared to the previous year. Korea’s business presence in Japanese markets is very minimal. Hyundai Motors has pulled out of the market, and recently Samsung Electronics is finding its sales of mobile phones decreasing in the Japanese market. There are some exceptions like Line Corporation, a subsidiary of Korea’s leading internet company Naver. Naver struggled several years before it successfully developed and launched a mobile messenger service, called Line, in Japan in 2011. Since then it has been the leading such service in Japan and has also

successfully penetrated into other Southeast Asian markets, such as Taiwan and Thailand. For bilateral business collaboration, internet-related services, games, and entertainment are more promising than traditional manufacturing industries. On the other hand, many Japanese companies have been relatively more successful in Korean markets. Most notable is Toray, which has increased its sales in Korea ever since the first entry in 1972 and also diversified its business portfolio to high-tech areas such as carbon fiber and super plastics. Toray also developed its Indonesian business through the Korean subsidiary in the area of advanced material. And Japanese automakers such as Toyota and Nissan are improving their market position in the Korean market.

More promising is the potential of business collaboration in third-country markets, especially in emerging markets. There are already some successful cases. Mitsubishi Corporation and Korea Gas have collaborated to build an LNG plant in Indonesia in 2011, and Hyundai Heavy Industries and Mitsubishi Heavy Industries jointly built a thermoelectric power plant in Saudi Arabia. These companies have complementary capabilities and can collaborate in a win-win fashion in the competitive global market for infrastructure and resource development in the emerging markets (EM). Japanese companies, especially the automobile companies, have a strong market presence in Southeast Asia, especially in Thailand and Indonesia. On the other hand, Korean companies are very active in Vietnam. Vertical and horizontal business collaboration is possible in many areas. The two governments can facilitate business collaboration through ODA in such areas as human skill development and IT infrastructure investments. Korea has become a member of the OECD Development Assistance Committee and has become very active. Another way to facilitate business collaboration in EMs will be a joint development of industrial parks. For example, India's new government is pushing very hard to develop manufacturing industries, with the slogan of "Make in India." Building industrial parks would be an effective way to overcome the deficiencies of physical and administrative infrastructure of India. The Japanese Government is already very active in assisting India to develop its industries. If the two sides can collaborate in developing industrial parks in India, that will be a great opportunity to increase business collaboration between the two economies. And this model can be applied to other EMs, such as Myanmar or other South Asia markets and also in some African countries. It is recommended that the

two countries collaborate in establishing industrial parks in India and other emerging markets and also pursue joint projects in building infrastructures in those markets.

Reforms to Reignite Growth Engines in the Two Economies

Both governments are keenly aware of the necessity to reform and restructure the economy. The Abe government's third arrow is just that, and Park's "creative economy" is another effort to reform. The Japanese Cabinet's measures include investments in information technology, upgrading the competitiveness of Japanese companies, and improving the effectiveness of resource allocation through the convergence of technology and globalization of the economy. In particular, the Miyakawa-Takizawa report of 2012 emphasizes the critical role of private sector innovation and new ventures in economic revitalization. Park's reform program includes the increasing role of SMEs and start-ups, convergence of manufacturing and IT industries, and channeling human resources and capital to new industries. It should be emphasized that reforming the labor and capital markets is the key in revitalizing the two economies. In order to take advantage of the fundamental shift of the global economy mentioned above, both economies need flexible factor markets, labor, and capital to channel resources to new industries and ventures. But the two economies are notoriously inflexible in both factor markets. The labor market is very inflexible in the two economies, and also the business sector is dominated by large business groups, making it difficult for capital and talent to move to the new growth business. There is clearly a need to integrate the business ecosystems of two countries. The two countries definitely need efforts to stimulate new business start-ups, especially by young people.

Cooperation in Economic Partnership

Free Trade Agreements for Japan and Korea

One characteristic of the trade pattern in East Asia can be described as a "triangular trade structure," in which China procures parts and components from neighboring economies and then assembles them and exports final products to the global market.

(Table 1 and 2). As shown in Table 1, both Japan and Korea are two of the largest beneficiaries of these regional production networks developed since the 1990s, which have been backed up by trade and investment liberalization.

Table 1. China's imports of parts and components from East Asia (million USD)

	Japan	Korea	Taiwan	ASEAN
1990	\$1,627.0	\$131.3	n.a.	\$220.0
2000	\$14,045.9	\$4,916.7	\$1,386.0	\$6,606.1
2010	\$56,671.2	\$53,342.1	\$28,130.5	\$52,918.8
2013	\$49,264.0	\$71,556.0	\$31,672.6	\$63,765.3

Source: RIETI-Trade Industry Database (2015)

Table 2. China's exports of consumption goods to major markets (million USD)

	USA	EU	Japan	Korea
1990	\$11,756.8	\$8,650.7	\$5,148.1	\$129.9
2000	\$58,860.6	\$30,819.4	\$31,592.4	\$2,539.1
2010	\$145,016.6	\$138,977.5	\$58,392.5	\$9,570.0
2013	\$154,299.7	\$138,908.0	\$64,761.2	\$11,949.9

Source: RIETI-Trade Industry Database (2015)

The share of value added originated in Japan and Korea and exported to the US through China is especially high in such industries as “computers and electronic equipment” (Japan 18.0%: Korea 29.7%), “chemical products” (Japan 11.6%: Korea 31.0%), and “metals and metal products” (Japan 11.9%: Korea 17.1%), meaning these industries are relatively dependent on China as a production base. However, the labor cost in China has gradually been rising, and this trend is expected to continue over the next decade. This is partly due to a decrease in the productive age population in China, as well as a continuous increase in the minimum wage by the Chinese government, which aims at doubling her real income level by 2020.

This casts doubt on the long-term sustainability of the China-centered triangular trade structure in East Asia, and calls for gradual restructuring of the international division of labor in this region in order to maintain the competitiveness of Japanese and Korean enterprises. One natural direction to cope with this potential risk in China is for Japan and Korea to diversify their production sites by investing in other Asian countries, especially in ASEAN countries and India. For example, the value of imports of parts and components from Japan and Korea to Indonesia, Vietnam, and

Cambodia has been actually increasing since the 2000s. Notably, Vietnam and Indonesia's imports of parts and components from Korea increased about 66.5 and 12.4 times, respectively, during the period 2000-2013. This implies that Japanese and Korean enterprises have already begun to develop their production networks in these emerging ASEAN countries. Therefore, Japan and Korea have to pursue cooperation in region-wide FTA negotiations such as the Regional Comprehensive Economic Partnership (RCEP), in order to develop more efficient and reliable production networks in these countries.

Finally, Japan's population is expected to fall from 127 million to 97 million by 2050, and population in Korea is also expected to begin falling in 2030. Hence, the two countries should also cooperate with each other in RCEP negotiation, in further securing market access for final consumption goods in ASEAN countries, and in India and China. In particular, the size of Japan and Korea's exports to India is still insignificant when compared with their exports to China. This implies there is much room for the exporters to explore the potentiality of the Indian market as a destination of final consumption goods.

It should be noted that any effort to seriously deepen the bilateral economic relationship between Japan and Korea has long been inhibited by chronic and increasing trade deficit problems of Korea against Japan. In fact, the trade deficit issues have been one of the major factors to suspend Japan-Korea FTA negotiation. In this regard, it should be noted that the trade structure has shown important changes in the trend. Since 2010, the trade deficit of Korea against Japan began to diminish, in particular, despite significant yen depreciation. Thus, both countries should be able to take advantage of plurilateral FTA negotiations currently in progress. Apart from controversial political and diplomatic realities, the sheer size of trade balances alone may still be a major obstacle to deepening any bilateral endeavor addressing commodity trade. Therefore, promotion of trade and investment between the two countries should be more effectively handled under plurilateral settings such as a China-Japan-Korea FTA, Regional Comprehensive Economic Partnership Agreement (RCEP), and Trans-Pacific Partnership Agreement (TPP).

While utilizing plurilateral negotiations, the two countries can still deepen the

bilateral economic relationship, especially through FTA negotiation focusing on the service sector. Unlike trade accounts, trade statistics show relatively stable service sector trade balances between the two economies over the past decades. Moreover, both governments are very keen to enhance competitiveness of the service sector to promote economic growth. In addition, Japan and Korea are actively participating in the Trade in Services Agreement (TISA) which aims to significantly liberalize trade in services among like-minded countries in the WTO. Korea is also preparing major improvement of the Korea-China FTA in the next round of services negotiation with China, which will be a very important template for a China-Japan-Korea FTA. In this regard, the Korea-US FTA for Korea and the TPP negotiation for Japan will be able to provide a useful foundation to establish a bilateral services arrangement. Considering all these situations, it seems urgent for the two countries to engage in serious discussions for services market liberalization.

Roles in the Multilateral Trading System

On the other hand, although FTAs have been the principal tool for strengthening trade and economic partnership especially for the last decade, we should bear in mind various limitations of FTAs. This suggests that Japan and Korea can strengthen their partnership in the WTO negotiations. For example, in the rules negotiations of the Doha Round, the two countries share common views in issues such as fishery subsidies and strengthening disciplines on anti-dumping measures. So Japan and Korea should play a major role in revitalizing the WTO, for example in terms of its rule-making functions, and also its surveillance function towards FTAs.

Although WTO members were able to reach certain agreements at the Bali Ministerial Conference in December 2001, there is no doubt that it is extremely difficult to reach consensus among WTO's 160 members. In such a circumstance, a plurilateral agreement approach (an approach where the entrance to which is on a discretionary basis) is gaining importance as an effective means of negotiations within the WTO. Examples are negotiations such as TISA, and the Environmental Goods Agreement (EGA). A plurilateral approach has been quite successful in Information Technology Agreement (ITA), where about 80 WTO members commit zero tariffs on approximately 200 IT related goods. The significance of this ITA type

plurilateral agreement is that although negotiated by only a limited number of WTO members, the agreement's benefits are shared by all WTO members on a Most-Favored-Nation (MFN) basis. This type of plurilateral trade agreement can evolve into global trade rules. However, compared to the ITA, where the results of which are applicable to all WTO members, a closed plurilateral agreement, only applicable to its participants, may result in further fragmentation of trade rules. At the moment, TISA is likely to fall in the latter category. In the TISA negotiations, the United States is pushing for a system which does not fit into the architecture of the GATS (WTO's services agreement). Both Japan and Korea are members of major plurilateral agreements such as ITA, TISA, and EGA. In order to maintain trade rules which are applicable globally and therefore contribute to sustainable global trade, Japan and Korea should stand in a position that when WTO members negotiate a plurilateral trade agreement, that agreement should pursue being applied on a MFN basis. In other words, the two countries should stand against proposals which do not contribute to formation of global trade rules and those which may further disconnect global trade.

Section 3

Cooperation on Transnational Issues

Japan and Korea have assumed noticeably greater roles not only in Asia but also the rest of the world as their economic and diplomatic activities have grown globalized. There is a large scope for bilateral cooperation in numerous fields, including cybercrime control, democracy, energy and the environment, freedom of press, infectious diseases, natural and man-made disasters, pollution, population, and related humanitarian emergencies, in addition to the areas of security and economy. Closer collaboration with these regional and global challenges should be considered a responsibility of the two countries. Furthermore, as the two countries celebrate their 50th anniversary of normalization of diplomatic ties, they should explore new areas of bilateral cooperation with a forward-looking vision for Northeast Asia and beyond. In this regard, this section on mutual cooperation of global issues deals with three topical transnational issues (humanitarian issues and global peace operation, energy and environmental issues, and aging society issues) where Japan and Korea can closely cooperate to contribute to global stability and prosperity and to build regional goodwill, which in turn plays a catalytic role in improving their bilateral relations.

Humanitarian Issues and Global Peace Operations

A humanitarian crisis arises when armed conflict, natural disasters, epidemics, famine, and other emergencies influence those who are too vulnerable to cope with negative outcomes such as population displacements, loss of life, and extensive damage to economies and societies. It is not easy to identify and categorize humanitarian crises and emergencies because they are becoming more frequent, complex, and severe and each crisis has its unique challenges. Still, timely and efficient humanitarian responses, regardless of the type of crisis, are critical in saving lives and minimizing human suffering.

Since the end of the Cold War, more violent conflicts have occurred within a sovereign state rather than among states. Many groups in multiethnic societies around the world have strengthened their communal and ethnic identities and

sought group mobilization for political action, which has often led to violent confrontation. The intractable and intensified ethnic conflicts or civil wars have resulted in genocide, sexual violence against women, and massive refugee flows, as witnessed in many cases including ethnic cleansing in Bosnia, genocide in Rwanda, mass rape in Darfur, Sudan, and refugee crises in Libya and Syria. At the beginning of 2014, 51.2 million were forcibly displaced by armed conflicts.

As for acts of God, over 22 million people were forcibly displaced by natural disasters such as the 2003 summer heat wave in Europe, the 2004 Asian tsunami, the 2010 Haiti earthquake, the 2011 Great East Japan Earthquake, and the 2015 Nepal earthquake. Over the past decades, thousands of major natural disasters have affected countries across the world, both rich and poor, they are happening more frequently and are more deadly and their impacts are more catastrophic and devastating in less developed countries.

Consequently, the timely prevention and effective response to humanitarian emergencies in complex violent conflicts and in the midst of deadly natural disasters are increasingly the crucial agenda in the United Nations and other international security and development discourses.

Therefore, closer coordination and cooperation between Japan and Korea is highly recommended because it would be instrumental in preventing and responding to humanitarian crises caused by natural and human-induced disasters. The following are among what the two countries could and should do.

Joint Operations for Humanitarian Assistance and Disaster Relief

For effective joint relief operations for victims of calamitous natural disasters, Japan and Korea need to closely coordinate their policy and action plans for all forms of humanitarian activities. Utilizing their military assets to deliver humanitarian assistance and relief should focus on reducing the suffering of vulnerable people stricken by natural disasters. For instance, the two countries' closer cooperation with ASEAN for Humanitarian Assistance and Disaster Relief (HA/DR) activities and division of roles in quick response in the Philippines after Typhoon Haiyan in 2013

are worth noting.

The two countries should also recognize that preventive measures are essential to minimize impacts of natural catastrophes and work together to assist less developed countries to develop people-centered disaster preparedness programs as much as possible to alleviate troubles. In addition, with their technological and industrial capabilities, their relief operations should be closely coordinated with development projects in order to strengthen local capacities not only for well-timed and effective disaster responses but also for sustainable reconstruction after disasters.

Japan and Korea have been significant financial contributors to the UN humanitarian funding programs for victims of natural disasters and armed conflict. It should be noted that global humanitarian funding requirements have more than tripled from year 2006 to 2014. For instance, the UN Central Emergency Response Fund (CERF) and UN Peacebuilding Fund (PBF) have played a catalytic role in supporting humanitarian responses for victims of natural disasters and armed conflict. Korea's financial contribution to CERF between 2006-2015 is ranked as the world's 16th (US\$ 33.5 million) and Japan as the 17th (US\$ 22.95 million), while Japan's contribution to PBF during the same period is ranked as the 4th (US\$ 42.5 million) and Korea as the 15th (US\$ 5.48 million). Such humanitarian donorship is valuable and sensible since relief operations and efforts of preventing a relapse into violent conflict need to be centralized around the UN for stability and coordination.

It should be also noted that private funding such as spontaneous individual donation is becoming an effective solution to aid challenges driven from a discrepancy between the increasing humanitarian crises and the fixed or even lessening donor states' aid budgets. However, private money tends to focus on "publicized" crises. Given their global economic and diplomatic standing, Japan and Korea should thus make joint efforts to facilitate to get funding to diverse crises that are not attention-grabbing headlines.

Joint Efforts to Promote Human Security

Human security is an emerging norm, paradigm, and/or guiding principle for

acknowledging global vulnerabilities and challenges that threaten the security of the individual rather than state. Since the release of the 1994 *UN Human Development Report*, the term and idea of human security that includes “freedom from want” and “freedom from fear” for all persons has become one of the important security discourse in the international community. Japan has been championing to strengthen human security particularly in the context of “freedom from want,” while Korea began to seek its role in identifying the issues of human security/insecurity and actively participating in global efforts for the promotion of human security.

Since the notion of freedom from want and fear are inseparably connected in increasingly complex humanitarian crises, it can be desirable for the two countries to endeavor to ensure effective implementation of their peacekeeping operations through coordination with other activities, including ODA projects. Moreover, in order to implement seamless assistance in security-related areas, including through further strategic utilization of ODA and capacity building assistance, as well as coordination with NGOs, Japan and Korea can jointly develop a system that enables assistance to potential recipient organizations. In addition, Japan and Korea can work together to establish educational programs in government, NGOs, and educational institutions to train human resources jointly in areas such as peacebuilding and humanitarian aid. Both countries should take into account the joint management of a PKO training center in Asia.

Japan and Korea also should take initiatives in the formulation of new international development objectives, namely the Sustainable Development Goals (SDGs). In this vein, the two countries should engage in further efforts in mainstreaming the concept of human security in the international community, building on our initiatives on this agenda to date. Moreover, the two governments should share the lessons learned and experiences from the many natural disasters that it has experienced, including the Great Hanshin-Awaji Earthquake, and the Great East Japan Earthquake and tsunami. Given the expanding scale, impact, and frequency of disasters globally, Japan and Korea will take the lead in international cooperation on disaster management and ensure that communities around the world have a high degree of resilience to disasters.

In addition, Japan and Korea should play a facilitating role in developing universally norms and concepts of human security and humanitarian intervention that can reconcile the principle of non-interventionism with the notion of “Responsibility to Protect” (protection of civilians), or “R2P.” Current armed conflicts, terrorism, and other violence have been strongly related to the non-Western frustration, anger, and resistance against the Western dominance. How to bridge these conflicting forces that have caused serious violent clashes and severe humanitarian crises is a big, if not unfeasible, task, but Japan and Korea should cooperate to seek ways of compromise and resolution. Furthermore, it is desirable for the two countries to identify new agendas where the two countries, preferably with China, work together to make a “Northeast Asian voice,” as well as to contribute to global peace and humanitarian activities.

The processes of these joint endeavors related to humanitarian crisis and global peace operations are expected to be a stepping stone for the two countries to increase open-minded dialogues, overcome historical animosity, define shared strategic interest and common goods, and move toward a future-oriented cooperation.

Potential Bilateral Cooperation in Energy and Climate Change Response Strategies

Japan and Korea are both resource-poor countries and continue to rely heavily on imported fossil energy resources. Increasing uncertainty in energy and climate change issues has underscored the need for practical cooperation between Japan and Korea. Both countries pursue national goals of low-carbon green growth, development of environment-friendly energy, and greenhouse gas reduction although they have different industrial structure and policies. Both are expected to have potential interest in exploring balanced pathways of a future energy-environment-economy nexus.

As for an economic point of view, measures in which the two countries can cooperate are as follows: i) cooperation for the promotion of energy efficiency and a low-carbon society; ii) development of renewable energy and technology R&D cooperation; and iii) enlargement of leadership response to climate change issues in the region (i.e.,

capacity building and technology transfer).

In particular, the two countries can share know-how of domestic policies and institutions to reduce greenhouse gas emissions, promote energy efficiency and renewable energy-related cooperation projects, and conduct joint academic research on the social impacts and adaptation measures of climate change. It will be mutually beneficial for both countries to promote cooperation based on the experiences and know-how accumulated in Japan and Korea.

Coping with Climate Change

Cooperation on effective methods for reduction and adaptation based on both countries' respective experiences can be both possible and helpful. Direction and agenda for cooperation between Japan and Korea in responding to climate change will be cooperative measures on the abatement of greenhouse gas emissions, cooperative technology development on renewable energy and increasing energy efficiency, and joint scientific investigation on the impact of climate change. More specifically, it will be a good opportunity to create a new Asian carbon market by means of linking the Korean carbon emission trading scheme (KETS) and Japan's voluntary emissions trading scheme (JVETS).

In addition, although the policies and strategies of the two countries on climate change issues are different, Japan and Korea have to play an important role to respond to climate change as OECD members. Both countries can support developing countries to abate greenhouse gases and to adapt to climate change using technology transfer, financial support, and capacity building through education. Cooperation between Japan and Korea on promotional activities in developing countries is also possible, especially in production and distribution of environmental education and sending out capable educators.

Development of Renewable Energy and Cooperation for Technology R&D

To reach each country's long-term GHG reduction target, Japan and Korea may undertake a major research, development, demonstration, and diffusion effort to

develop low-carbon technologies, some of which are not yet technically mature or fully commercialized or affordable. Those are advanced energy storage, integrated portfolio design for balancing power systems with high penetrations of variable renewable energy, zero emissions vehicles, advanced nuclear power technology that sustains public confidence and support, and so on.

Specifically, possible cooperation areas are solar power energy research, construction of solar and wind power plants, biomass energy, expansion of renewable energy, and energy transition technology R&D. In particular, offshore wind power plant construction can achieve substantial results through cooperation. It will be also a good opportunity to consider the expansion of the renewable energy supply and to secure power supply by means of building a submarine electricity power cable connecting Japanese and Korean electricity grids, which form a part of a vision for a super-grid to integrate power generation and distribution in Northeast Asia.

Cooperation on Nuclear Safety

Japan and Korea are also leaders in nuclear power. Since Japan has already had to address cleanup from the 2011 Fukushima nuclear accident, it could also offer to help Korea, and even China, to think through nuclear industry safety and response issues. Especially, the know-how to overcome a nuclear power plant disaster in Japan can be shared with Korea and can help Korea to prevent future accidents. Japan and Korea can prepare a common measure for nuclear safety with China, because any nuclear accident would cause enormous damage to East-Asian countries.

Japan, Korea, and China jointly adopted the Nuclear Power Safety Cooperation Agreement to boost cooperation on nuclear power safety at a trilateral summit held in 2011. There now remains a need for the three countries to proceed beyond taking a symbolic act of a joint agreement, and to institutionalize their cooperative efforts at the government level to achieve greater nuclear safety. It is desirable for Japan and Korea to be directly involved in developing networks for the exchange of information on nuclear power development and nuclear accident response to effectively manage any potential nuclear power plant accidents.

Climate Change Adaptation and Disaster Risk Reduction

Effective adaptation to climate change needs close cooperation between Japan and Korea. Both countries can implement innovative solutions to adapt to climate change. For this, Japan and Korea may make climate change adaptation platforms that include information on policy action, scientific research output, guidance, decision support tools, experiences from practices, and implemented adaptation measures. Both countries can also make climate services and disaster risk reduction platforms. Since adaptation measures cover long-term and gradual impacts of climate change as well as disasters linked to extreme weather events intensified by climate change, a closer collaboration between climate adaptation and disaster risk reduction platforms can boost the use of available knowledge and contribute to reduce vulnerability in Japan and Korea. Especially, those platforms will act as the groundwork for developing measures to support developing countries that are vulnerable to climate change.

In conclusion, cooperation between Japan and Korea will be needed from an economic approach rather than a political point of view. The cooperation should be accompanied by an effective institutional design. Cooperation also has a reinforcing relation with other regional economic cooperation initiatives such as APEC, ASEAN+3 as well as Tripartite Environment Ministers Meeting (TEMM), Northwest Pacific Action Plan (NOWPAP), and North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC). A decision made by Japan and Korea in the post-Kyoto negotiation will have a long-term impact on future climate change issues. The two countries should play a vital role in the international negotiation progress and jointly undertake a major research, development, demonstration, and diffusion effort to develop low-carbon technologies that are not yet technically mature or competitive and are indispensable for the success of greenhouse gas reductions.

Ageing Society

The Most Fundamental Global Issue

As the UN and the Organization for Economic Cooperation and Development

(OECD) have reported, two population problems, such as restraining population growth in developing countries and rapidly aging societies in developed countries, are some of the most fundamental global issues today. Japan and Korea are already faced with this rapidly aged society problem as two top runners. Japan is already the top runner with the rate of population aged 65 and above. Korea is projected to be the top runner in population aging rapidity. Most developed countries are projected to follow Japan and Korea in the near future. If developing countries, not only developed countries, also address the consequences of population growth according to the UN program, all countries will face this aging society issue in the near future.

Japan is already a super-aged society and has the oldest population as a nation in the world. The rate of population aging, defined as the proportion of 65 and older people in the total population, reached 25.1% in 2013. The rate of population aging in 2050 is projected to rise by 36.4% according to the UN.

Korea's rate of population aging is 12.7% in 2014. But Korea will become an aged society, defined as the aged ratio reaching 14%, in 2017 and a super-aged society in 2026 estimated by STATISTICS Korea. The rate of Korea's population aging is projected to rise to 38.2% in 2050 according to the UN. This rapid aging of the population, from 12.7% to 20.8% in 12 years, is the fastest ever ratio in human history. This is due to the fact that Korea's baby boomers who were born between 1955 and 1963 will become 65 years and older by 2027. And Korean society is not ready and cannot be ready for the unprecedented pace of population aging.

Reasons for Rapid Aging

Two factors explain the rapid aging of both Japan and Korea: i) low fertility rate, and ii) lengthening life expectancy.

First, low fertility rate has been problematic both in Japan and Korea. Japan's total fertility rate (TFR) declined to 1.26 in 2006 and is slightly recovered to 1.43 in 2013. But it is still far from the TFR 2.07 replacement level. The main physical factors of the TFR decline in Japan are fewer marriages, late marriage, and late or no pregnancy in married couples. There are many mental and environmental factors behind them,

such as economic instability, compatibility with employment and/or self-realization, and mental anxiety.

Korea's fertility rate declined to the level of 1.08 in 2005 and has remained around the 1.25 level ever since despite efforts to increase it. The main policy instruments used in Korea to increase the fertility rate included financial assistance to child care up to the age of five and work-life balance at jobs including one-year paid child-care leave. But the policy has not resulted in any tangible effect on the fertility rate yet.

Second, longer life expectancy is highly related to the rapidly aging societies. Japan's life expectancy at birth is 84 years in 2015 and it is the longest in the world. Life expectancy in Korea stands at 82 years now, one of the highest in the world. In Korea, for example, life expectancy has increased by one year every two years in the past 20 years. But the cost of long life in terms of pension and health care has put increasing financial pressure on the social welfare budgets in the two countries.

In principle, longevity is not a bad thing. However, extending the physiological survival period is quite different from enjoying life as a human being. The quality of life is most important. The global suicide rate is the highest among elderly people. A lonely death of elderly people has become a new social problem. It is important for the elderly to live with a mental sense of fulfillment knowing they are required in society and they are useful to society.

Economic Impact of Aging

Aging affects the economy in many ways, but we can emphasize the two effects: i) shortage of labor force, and ii) adverse effect on consumption.

First, labor shortage is a serious economic consequence of aging both for Japan and Korea. Japan began to experience the decrease of the working age population starting around 1995. Korea's working age population will start to decrease from 2017. This has a strong downward pressure on economic growth potential. It is estimated that the correlation between the increased rate of working age population and real economic growth rate is .7072. Both countries have three immediate options: more

labor participation by women, delaying the retirement age, and inviting foreign-born workers.

Empirical correlation of the female labor force participation rate and TFR is widely known in international comparisons. For both countries, the labor force participation promotion by women is likely to be a key factor for improving the labor force and increasing TFR.

In Japan, the retirement age was already extended to 65 years of age steadily since 2013 with the system gradually decreasing salary from 55 years of age. In Korea, the age of 60 will become the minimum mandatory retirement age in 2016. It is rather difficult to maintain the seniority-based wage system in these situations. While being careful not to adversely affect family planning, there is a need to continue to enhancing the liquidity of the labor force.

European countries have a substantial number of foreigners, including both legal and illegal immigrants, amounting to about 15% to 20% of their populations. And it is well known that the US continues to have labor inflow from the southern border. It is estimated that the US has over 20 million Mexico-born people within the border. Japan and Korea are unique that both of them have very small number of foreign-born residents, 1.5% in Japan and about 3.0% in Korea. The discussion to have more immigrants as a labor force has barely started in Korea. Both Japan and Korea should consider other alternatives first, such as inviting more temporary foreign workers and to make it easier for foreign students to remain and work in the country after they graduate.

Second, suppressed consumption is a negative economic outcome of the aging society. The uncertainty of life makes it very difficult for the retired people to plan ahead financially. Many retired people try to maintain the size of their wealth and minimize consumption. In Korea, many salaried people and employees retire from their stable jobs well before the age of 55 or even 50. This means that the negative effect of aging on consumption and thus the economic growth shows up among a larger segment of the population. This seems to be one of the main reasons why the aged society tends to move close to long-term stagnation and even deflation.

In Japan, there are two keys to shift the wealth from the elderly to the younger generations to activate national consumption. One is reforming a part of the inheritance tax law in 2015. It is expected to shift wealth during their lifetimes. The younger need and use more money than the elderly. And the other is the IIPS recommendation to work until 75 years old, or at least until 70. The elderly today are young enough to work. They could be taxpayers but now they are pensioners. Working leads the elderly to active and healthy lives that conduct more positive consumption.

Tasks for Coping with the Rapidly Aging Society: Creating a New Positive Concept for the Aging Society

Aging society tends to be discussed as a negative issue. But negative thinking brings no solution and no happiness. Without a doubt, an aging society comes to all countries at some point in time. As the two top runners, the most aged society and the fastest aging society, respectively, Japan and Korea should create a new positive concept for an aging society using oriental intelligence and share those messages with the whole world. An aging society means both a long life expectancy and a society full of wisdom. Positive concepts will be the origin and source of making policy and concrete action plans.

Tasks for Coping with the Rapidly Aging Society: Joint Research Project on Cross-border Labor Mobility

Accepting a large number of young foreign-born workers is perhaps the most effective and easiest way to deal with the aging problem in the short term. But its impact on social cohesion and fabric is too significant and it can't be the solution in the long term. Referring to foreign cases, Japan and Korea should endeavor to generate many creative options before accepting more permanent immigration.

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