

Global Policy Directions To Promote The Future Agri-Food Industry: A Focus on the Voucher Projects for Young Job Seekers and Entrepreneurs

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Abstract

This is a summary of a comparative study of the national policies to foster the agri-food industry implemented by the leading countries of the industry before and after the COVID-19-induced global economic crisis. By comparing the policies of each country, we discovered that key leading countries of the agri-food industry had given up or suspended one-on-one, face-to-face support programs that they had maintained for years, and have started providing financial assistance to companies or self-employed people in relative industries. Korea should implement such decisive policies for the Korean agri-food industry to tackle this unprecedented economic shrink and maintain the competitiveness of the industry. Considering the scale and speed of the spreading of the pandemic, the new policies should be implemented swiftly and boldly.

This study can be used as a base material for developing new policies to minimize damage to the agri-food industry and national economy caused by COVID-19.

Key words

COVID-19, Economic Shrink, Economic Crisis, Economic Policy Change

RECEIVED July 2, 2020

REVISED July 8, 2020

ACCEPTED September 2, 2020

1. Introduction

Since the outbreak of COVID-19, various industries all over the world are experiencing an unprecedented economic shrink compared to the economic development over the past few years. The regression of the economy is impacting the global economy negatively compared to the recent industrial shifts based on the 4th Industrial Revolution. Both in Korea and abroad, new economic policies are being required by various sectors to mitigate the negative impacts and foster new industrial systems. The agri-food industry is also calling for solutions to the current economic shrink. On top of that, rapidly aging Korean society is also changing the job paradigm of relative sectors (Gyeonggi Research Institute, 2020).

Such paradigm shifts are becoming important social and industrial issues, emphasizing the importance of creating new types of jobs and responding to the decrease of traditional types of jobs. In particular, the COVID-19 pandemic is rapidly changing the definitions and types of jobs, the ways we work, and the key capabilities required for the current job market. The rise of non-contact (remote) work is a good example of it.

We need to develop a more systematic system to support the people affected by the change, because it is not only the obstacle for individuals or companies in the present, but also will be the obstacle for the future of countries and their sustainable development. To provide a base data for developing the new support system, this study compared key leading countries' job support programs related to the agri-food industry and suggested alternative policies to make convergence jobs for the agri-food industry, fitting to the new social environment after the pandemic. More specifically, we studied key leading countries of the agri-food industry (the E.U., the U.S., and Israel) to compare

the characteristics of their strategies to support job seekers and entrepreneurs in the agri-food industry and identify potential implications for the future of the industry.

2. Characteristics of Key Countries' Policies before COVID-19

2.1. Summary of Key Countries' Agri-food Fostering Policies (1) - The E.U.

Germany led the development of industrial fostering policies of the E.U. with the U.K. and France; after the Brexit, it has led the policy development of the E.U. continuously. Germany's policy direction has been benchmarked not only by France, the second policy developer of the E.U., but also by Nordic countries (e.g. Finland) and Southern European countries (e.g. Spain, Portugal). Germany introduced a one-on-one, face-to-face apprenticeship system to agri-food and other industries to encourage communications between mentors and mentees. Furthermore, in order to ensure the stable employment status of mentees and completion of the face-to-face training, Germany established local youth centers providing support for stable employment and business startup opportunities for them. Jugend Mit Perspektive (JUMP) is an iconic youth support program of Germany, which is being operated under the Guideline for Youth Guarantee by the Education, Youth, Culture & Sport Council of the E.U. The Youth Guarantee of the E.U. recommends each member country to select and define beneficiaries and industries to support; and many of them implemented youth guarantee programs centering around production and manufacturing sectors requiring a one-on-one, face-to-face, and continuous training. The essential characteristic of the programs is the use of vouchers in providing job training, job searching, and business startup opportunities for young people in the long-term

through the cooperation between public institutes, central and local governments. The youth guarantee programs are being provided under the Guideline for Employment Packages by the European Commission. E.U. countries chose 2020 as the first deadline for the guideline, and induced young people to get jobs and start ventures in basic manufacturing and agri-food production sectors to solve the 'Not in Education, Employment, or Training' (NEET) problem of youth and secure the future of the agri-food industry. JUMP of Germany, La French Tech of France, and the Swiss Vocational Education and Training System of the Swiss federal government are iconic policies of such kind, which are not short-term solutions, but long-term solutions that have been implemented for years to nurture future agri-food workers through government budget and continuous recruitment.

2.2. Summary of Key Countries' Agri-food Fostering Policies (2) - The U.S.

In the U.S., unlike Korea, each state government develops and implements its own youth polices and large corporations contribute to the job market along with various funding sources including private organizations, universities, and Silicon Valley companies; the federal government of the U.S. discover beneficiaries of youth support projects and provide open-run type support continuously. In addition, the U.S. does not limit industries to provide job support. For example, Silicon Valley companies invest in not only the IT service industry, but also in the medical, life sciences, machinery, robots, and agri-food industries. Therefore, in the case of the U.S., it is more adequate for this study to limit the scope of analysis to its agri-food industry only, instead of its every youth support policy.

The U.S. implements active support policies for young job seekers and entrepreneurs, centering

around financial support, including the Agricultural Marketing Service and the Education, Outreach, and Training to Alaska Native Beginning Farmers and Ranchers, both organized by the United States Department of Agriculture (USDA). On top of that, the U.S. provides vouchers for marketing and sales strategy consulting, the areas which agri-food producers may easily overlook, and implements more comprehensive rural development programs. New and renewable energy support fund for agri-food producers (e.g. Rural Energy for America Program Renewable Energy Systems & Energy Efficiency Improved Guaranteed Loans and Grants) or settlement support programs for new agri-food producers (e.g. Rural Housing Loans) are good examples of such programs. Also, the U.S. emphasizes the importance of inter-organizational cooperation systems, covering from production/manufacturing capacity to establishment/operation of new businesses, by operating support programs for job seekers and entrepreneurs in the agri-food and convergence business sectors lead by prestigious universities that can attract large-scale funding, including Harvard University (Venture Incubation Program), and Stanford University (Start X Program). Finally, unlike Korea's short-term financial aid policies, the U.S. has developed a long-term incubating system for potential participants of the agri-food industry using voluntary contributions of universities and private organizations.

2.3. Summary of Key Countries' Agri-food Fostering Policies (3) - Israel

Israel's iconic industrial fostering policies are the Yozma Fund, the Israeli Life Sciences Fund (ILSF), a program to encourage the return of Israel scholars living overseas, and a startup support program for special forces veterans. To overcome its unfavorable geopolitical position and natural environments, Israel

actively implemented various employment and startup support programs, centering around its traditionally strong industrial sectors, including agri-food (a collective agricultural community system named Kibbutz), IT (software development), and munitions (weapon manufacturing). Unlike the E.U. and the U.S., most of Israel's industrial support policies are either directly led by the government or using the funds created and operated partly by the government. In Israel, the headquarters managing support programs for young job seekers and entrepreneurs are ensured their authority and independence to eliminate the risk of a monotonous fund operation following government-led programs and provide active and inclusive support to beneficiaries (Israel government homepage). KARMIN (led by Israel Innovation Authority, ended in 2019) and MEIMAD and R&D fund (led by the Office of the Chief Scientist) are good examples of Israel's fostering policies, aiming to provide practical support to young entrepreneurs or SMEs lacking fund; the government fund for the programs are being invested in the life sciences and basic sciences to develop new technologies directly related to the agri-food industry; and Israel has been emphasizing the importance of one-on-one mentoring programs for job seekers and entrepreneurs to achieve outcomes from the programs.

2.4. Summary of Key Countries' Agri-food Fostering Policy Directions

As we summarized in the previous chapters, key countries have been leading various kinds of agri-food related fostering policies, either led by the governments or private actors, according to geopolitical characteristics, traditionally strong sectors, or political issues. However, the countries' policies shared common characteristics: strong funding by the governments, long-term support,

and the emphasis on the one-on-one, face-to-face consulting. The one-on-one, face-to-face production/manufacturing support policies played a major role in developing their competitiveness related to the agri-food industry compared to that of Korea. However, ever since the outbreak of COVID-19, started about six months ago, the effectiveness of their traditional fostering policies is decreasing sharply (OECD announcement, May 2020). On top of that, the global economy is shrinking due to the trade war between the U.S. and China and China's weakening global competitiveness in the manufacturing sector; WTO and OECD have anticipated that the key developed economies of the world could face an unprecedented negative growth in 2020 (anticipations by WTO and OECD).

Under the present economic crisis, the key countries' policies to foster the agri-food and related industries are undergoing significant changes as well. We summarized the changes in the next chapter.

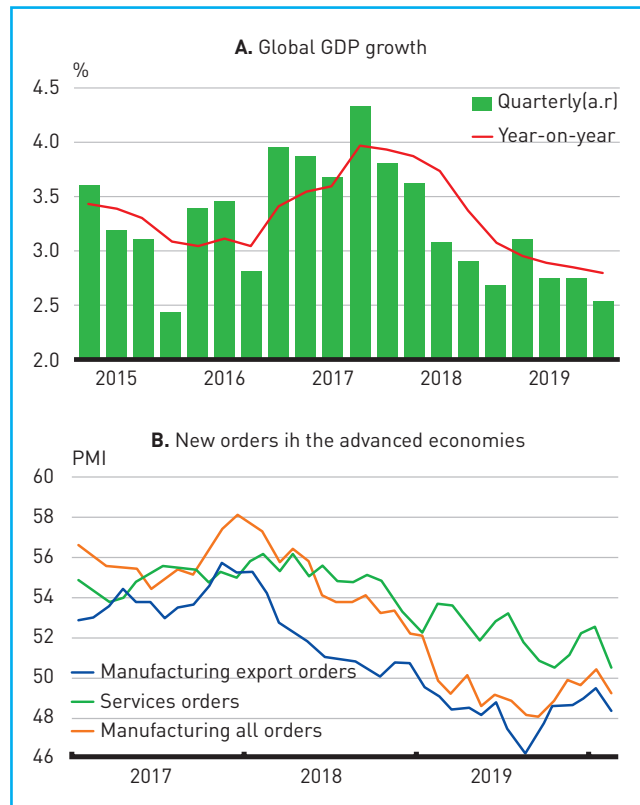


Figure 1. Changes in the GDP Growth Rates of the World's Major Economies and New Orders for Manufacturing Services in Advanced Countries (OECD)

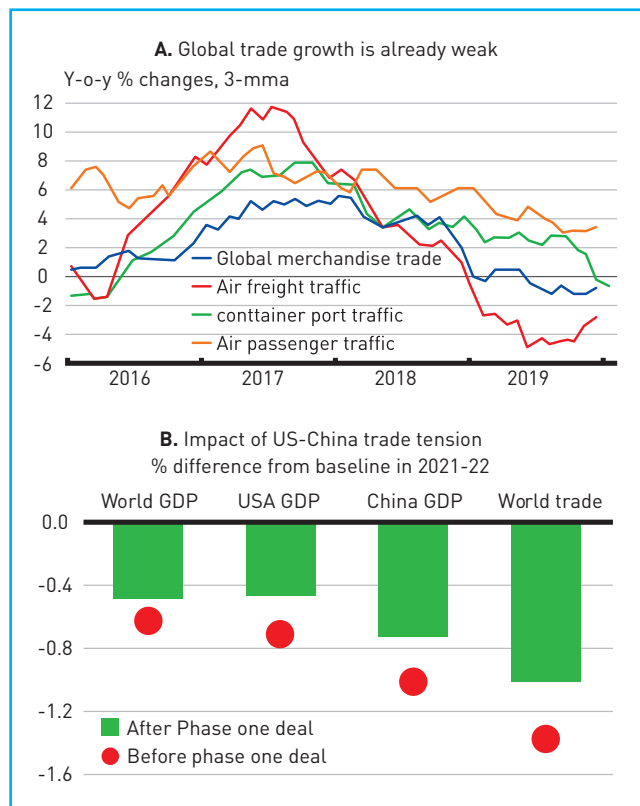


Figure 2. Global Trade Volumes Before and After COVID-19 (Left) and the Impact of the US-China Trade Tensions (Right)

3. Key Countries' Policy Changes since COVID-19

3.1. Key Countries' Agri-food Fostering Policy

Directions (1) - The E.U.

In general, as COVID-19 nullifies one-on-one, face-to-face training, Germany and other E.U. countries' traditional support programs for job seekers and entrepreneurs are losing their effectiveness. Germany, especially, is facing the risk of mass unemployment faster than expected, which was anticipated during the implementation of the Industrie 4.0 strategy for more than a decade. It is a troublesome phenomenon because Germany is leading the E.U.'s policy direction with France ever since the Brexit. Industrie 4.0 strategy emphasizes the systematic characteristic of Cyber-Physical Production Systems (CPPS) and requires new policies and investment to support retraining and new employment of workers following the physical/technical change of industries and the change of workers' roles. Specifically, the strategy was mainly implemented by SIEMENS, BASF, and other companies with the support of the German government, public institutes and universities, focusing on mechanical,

chemical, agriculture, and life sciences sectors, which were considered traditionally strong industrial sectors of Germany. In addition, the German government is actively implementing policies to create jobs and new business opportunities to catch up with the IT convergence of companies, and strengthen vocational capacities of workers and the social safety net (e.g. employment insurance) to deal with the changes of business organizations and work processes (Kiheon, Kim et al., 2016). However, the global COVID-19 pandemic is diversely affecting Industrie 4.0 strategy and other supporting policies; agriculture and other sectors are experiencing more fatal impacts because the sectors require face-to-face field training and job training.

The rapid spreading of the pandemic is hindering Germany's face-to-face support programs for job seekers and entrepreneurs and changing employers' situations in which the stability of working hours and employment could be endangered. Therefore, Germany is focusing on developing a new strategy to maintain

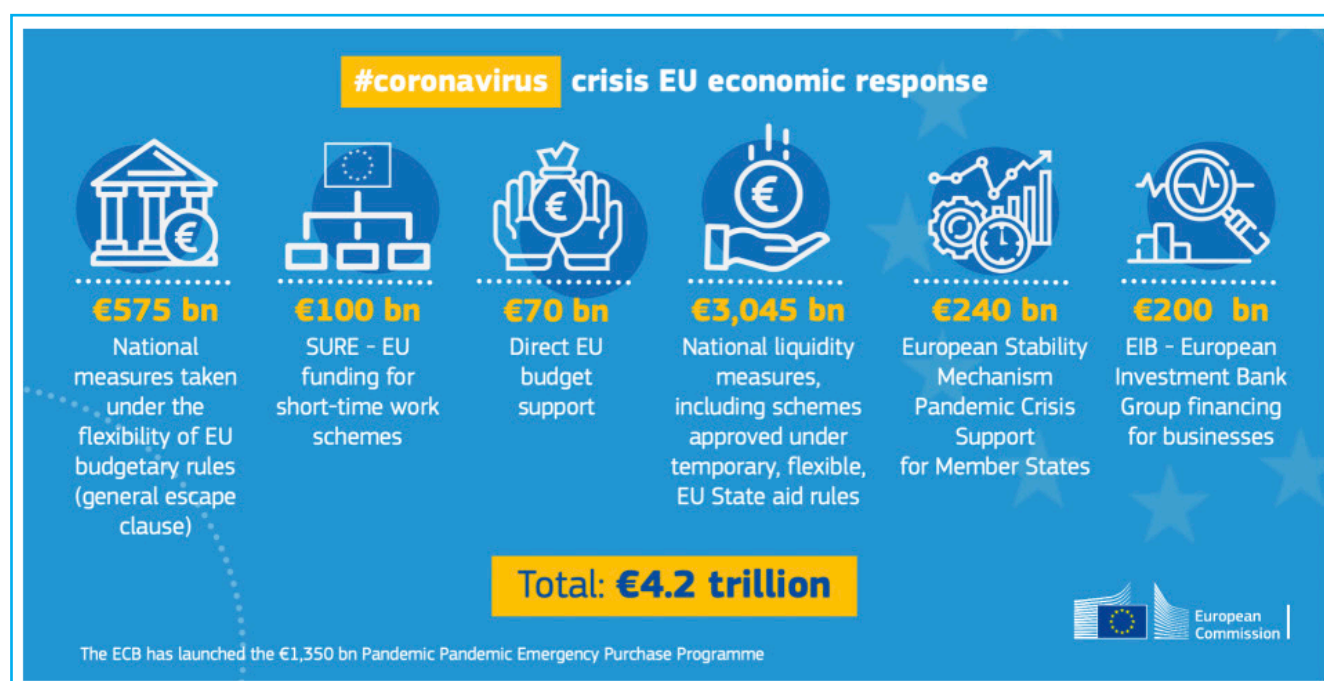


Figure 3 European Economic Crisis Caused by Covid-19 (Source: European Commission, 2020)

job security and build safer environments against the pandemic (Sozialschutz-Paket Art, 2). In particular, the German government proposed a solution to maintain minimum income for the people by excluding extra wages earned by working extra hours in jobs related to their current jobs when calculating their total wage (Seunghyun, Lee, 2020). Also, the government is implementing direct, short-term financial aid programs (e.g. 7,000 Euro for agricultural workers, 50,000 Euro for SMEs), which has been unpopular among E.U. countries so far, over long-term support programs centering around job training (European Council, 2020).

3.2. Key Countries' Agri-food Fostering Policy Directions (2) - The U.S.

Since the 2008 global financial crisis, the U.S. has been implementing detailed policies to solve worsening income polarization and unemployment by changing its industrial structure and creating new jobs from the change; it is especially worth mentioning that the U.S. is getting away from its traditional economic strategy based on service industries (e.g. finance), which it had maintained for decades, and returning to the production/manufacturing-based industrial structure by re-fostering high value-added manufacturing, which it had outsourced to major Asian countries (e.g. China, Korea, Japan, and Vietnam). Advanced Manufacturing Partnership (AMP) that the U.S. has been continuously implementing for two decades is a good example of the shift. The increased U.S. dependence on imports for the agri-food industry was one of the reasons for implementing the new projects. For instance, the U.S. has discovered its vulnerability in trading, related to the production of agricultural products and production/distribution of daily necessities, while responding to the spreading of COVID-19 and the trade war with China. Furthermore, China's banning on the import

of U.S. agriculture products (e.g. soybean, pork, corn, and cotton) as a response to U.S. trade banning (e.g. banning on the import of Huawei products) is another example of U.S. dependence on trade for the agri-food industry (Global Economic, 2020). The increase of U.S. dependence on trade is also being shown in the IT device sector (e.g. smartphone, PC, and TV), and the U.S. government is actively implementing the policies to restore American production/manufacturing industries and protect declining industries in the U.S. (e.g. the automotive industry of Detroit) in spite of trade conflicts with other countries. Recently, the U.S. government is implementing the Advanced Manufacturing Partnership (AMP) 2.0 to various industries. AMP 2.0 aims to vigorously create new jobs by fortifying various technology-based economic foundations, including the Institutes for Manufacturing Innovation and the National Network for Manufacturing Innovation. AMP 2.0 is a strategy based on the national agenda of the U.S. to take back its supremacy in manufacturing cutting-edge IT products from other countries (e.g. China, Korea) and domestically foster production/manufacturing industries (e.g. agri-food product, automobile) by implementing national-level manufacturing innovation strategies. However, AMP 2.0 is a general strategy to foster various industries besides agriculture; as we can find in the table below, it only supports private actors or requires the cooperation of them in implementing the programs for job seekers and entrepreneurs in the agriculture industry. The U.S. is currently prioritizing the development of the cures or vaccines for Covid-19 and the implementation of short-term policies to restore its plummeted GDP for the upcoming presidential election (Kerr, 2018; Kerr, 2020). Therefore, the existing job creation and business startup assistance policies for the agri-food industry of the U.S. could be delayed or achieve impractical outcomes.

Project	Organizer
Agriculture in the Classroom (AITC)	USDA, CSREES
Agricultural Management Support Project	U.S. federal government
Agricultural Corporation Employment Support Project	U.S. federal government
WIB (California, Michigan)	California Workforce Development Board (WIB)
Increasing, Incubating, and Scaling-Up Businesses of New American and Veteran Farmers in Maine (1)	Cultivating Community
WIB (California, Michigan)	California Workforce Development Board (WIB)
Agriculture in the Classroom (AITC)	USDA, CSREES
Increasing, Incubating, and Scaling-Up Businesses of New American and Veteran Farmers in Maine (2)	Cultivating Community
Increasing, Incubating, and Scaling-Up Businesses of New American and Veteran Farmers in Maine (3)	Cultivating Community
WIB (California, Michigan)	California Workforce Development Board (WIB)
WIB (California, Michigan)	California Workforce Development Board (WIB)
Major Provision of Mission Area Plan	USDA
Sandia National Laboratories Technology Partnerships	Sandia National Laboratories
Startup America Initiative - MassChallenge	Federal Government
Start X	Stanford University
Accelerator	U.S. federal government
Startup America Initiative	U.S. federal government
Agricultural Marketing Service (AMS)	USDA
The Foreign Agricultural Service's (FAS) Agricultural Trade Promotion Program (ATP)	USDA
Blackstone LaunchPad	The Blackstone Charitable Foundation
Sky Deck fund	University of California, Berkeley
The Venture Incubation Program	Harvard University

Project	Organizer
SBDC	SBDC
The Silicon Valley Innovation Challenge	San Jose State University
Sandia National Laboratories Technology Partnerships Accelerator	Sandia National Laboratories
The Silicon Valley Innovation Challenge	U.S. federal government
Sandia National Laboratories Technology Partnerships	San Jose State University
21st Century Management: Enhancing Educational Programming for Beginning Women Farmers	Sandia National Laboratories
Education, Outreach, and Training to Alaska Native Beginning Farmers and Ranchers	UVM Extension
Training and Education to Facilitate Entry Into Emerging Specialized Wholesale and Agritourism Markets for Beginning Producers in Remote agricultural Southern Colorado	Tyonek Tribal Conservation District
Startup America Initiative (TschStars, Intel, HP, Facebook)	Economic Development, Colorado Office
Intel Capital Global Summit & Technology Days	U.S. federal government
Sky Deck Fund	Intel
The Venture Incubation Program	University of California, Berkeley
	Harvard University

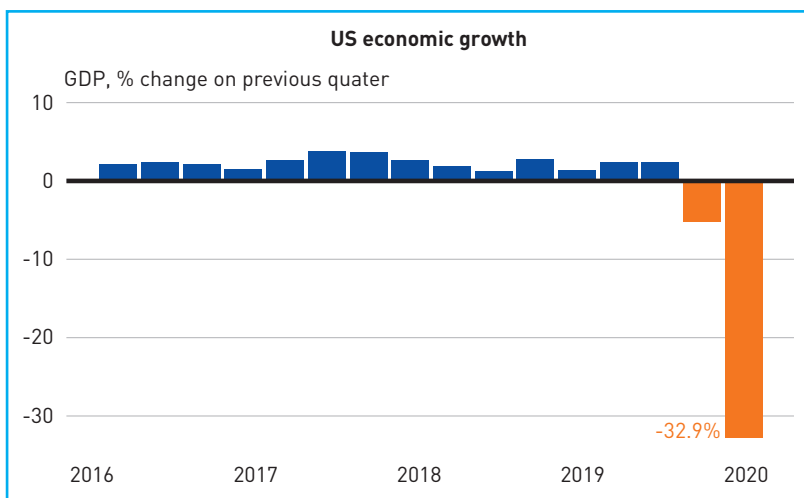


Figure 4 Annual U.S. Economic Growth Rate Comparison(U.S. Bureau of Economic Analysis, 2020)

3.3. Key Countries' Agri-food Fostering Policy

Directions (3) - Israel

Israel is being praised for its stable response to the global COVID-19 pandemic (Asia Today, 2020), which has led to around 1 percent of mortality rate and more than 71 percent of cure rate as of late June 2020, despite the significant number of confirmed cases compared to its size (Worldometer: COVID-19 CORONAVIRUS OUTBREAK webpage). While repetitively banning and permitting people's movements, Israel is actively developing COVID-19 vaccines and robustly maintaining industrial support programs (KPMG website). For example, from March to May 2020, the government of Israel has provided emergency grants and tax benefits to SMEs and maintained its financial aid policies for the unemployed to ensure flexibility of the job market. Furthermore, it has implemented policies to minimize economic risks by utilizing its budget and IT-based capacities that have been accumulated for years to introduce local job seekers to SMEs in each region, compensate part of the payment for new recruits, and provide accommodations for new recruits. Also, the government is providing financial aid and tax benefits for self-employed people to maintain the effectiveness of the support programs for youth and other job seekers that have been implemented for years (KPMG report). Most importantly, Israel is implementing financial policies to secure a stable self-employment status of entrepreneurs and self-employed people. Israel has actively fostered the IT, agriculture, and munitions industries to overcome its geopolitical limit and resource scarcity; we identified that Israel's COVID-19 supporting programs reviewed above were also a part of the fostering programs.

4. Conclusion

This study summarized the change of policies to foster the agri-food industry before and after the COVID-19 pandemic, by reviewing national policies of the countries that lead the agri-food industry globally. As we suggested earlier, each country should re-evaluate its existing policies from the beginning and develop a fast-track system to implement crisis policies in order to overcome the unprecedented economic crisis caused by COVID-19. The agri-food industry, especially, requires such policy-level flexibility because the industry is greatly affected by the natural environment and more sensitive to the change of time and seasons than other production/manufacturing sectors.

In the beginning, we aimed to identify the implications for new agri-food fostering policies under the COVID-19 pandemic. However, we ended up limiting the scope of this study to the comparison of policies between key countries, because the time and data available for the study were insufficient for quantitative analysis of the COVID-19-induced economic crisis. Specific and detailed solutions are required to be developed in a future study by conducting a more quantitative analysis.

Reference

- Gyeonggi Research Institute (2020), Agriculture in the Post COVID-19 Era, What Should We Prepare?, Issues & Diagnosis No. 415, 18 May 2020, Yongjoon, Kim
- Kiheon, Kim, Hyungseok, Ha and Incheol, Shin (2016), Study of Economic and Social Status of Youth and Relevant Policies, The Nation Youth Policy Institute (NYPI)
- Seunghyun, Lee (2020), COVID-19 Relief Programs of Germany, International Labor Brief, April 2020, 72-83.
- Global Economic (2020) Skyrocketing New York Stock Exchange Futures, Lifting Ban on Imports of American Agricultural Products...Hong Kong National Security Law, remdesivir, Moderna, Pharmaceuticals and Biotech Stocks, and Changing International Oil Prices, https://news.g-eneews.com/view.php?ud=2020060219244375294a01bf698f_1&ssk=favorset&md=20200602194718_R
- Kerr, W.A. (2018), Eliminating the constraints on trade policy - The strategy that underpins US negotiations in the Trump administration. *Journal of International Law and Trade Policy*, Vol. 19, No. 2, 75-84.
- Kerr, W.A. (2020), The COVID-19 pandemic and agriculture: Short- and long-run implications for international trade relations, *Canadian Journal of Agricultural Economics*, Vol. 68, Issue 2, 225-229.
- McKinsey & Company (2020), Lessons from the past on how to revive the US economy after COVID-19, 18 June 2020. Available at : <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/lessons-from-the-past-on-how-to-revive-the-us-economy-after-covid-19>