

Study on the Development of the Marine Aquatic Sector under COVID-19 Epidemic - The Case of Korea

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ABSTRACT

We analyze the impact of COVID-19 on the marine and aquatic sector and its countermeasures in the case of Korea, and analyze the "Korean version of the New Deal" with the "Digital New Deal" and "Green New Deal" as its two main axes. We will analyze the "Korean version of the New Deal" with the "Digital New Deal" and "Green New Deal" as the two main axes and draw policy inspiration from them. We will provide guidance on how to deal with this situation in China.

Keywords: marine, aquatic, COVID-19, digital, ecology.

1. INTRODUCTION

In 2020, the world was transformed by a sudden outbreak of COVID-19. UN Secretary-General Guterres warned that the epidemic was the greatest challenge the world had faced since World War II. The epidemic is the most severe epidemic the world has seen in a century since the 1918 "Spanish Flu" outbreak that killed tens of millions of people. The International Monetary Fund (IMF) Global Financial Stability Report¹ released in April concluded that the world economy has fallen into a "Great Lockdown," with the global economy expected to shrink by 3% this year, including 6.1% in developed economies and 1% in emerging markets and developing economies, a recession far deeper than the 2008 international financial crisis. The United Nations' World Economic Situation and Prospects 2020 midterm report released in May predicts that the global economy will shrink by 3.2 percent this year, the worst recession since the Great Depression.² COVID-19 epidemic has also had a significant impact on the marine aquaculture sector. The decline in global trade volumes has led to a decline in maritime logistics and port throughput, infrastructure for

global trade. This year, the BDI fell 25.8% in the first quarter and 21.3% in the second quarter of last year, and container port throughput fell 7.3% in the first half of the year, the largest decline in 10 years. Countries as a part of preventive measures to limit the movement of goods and people, resulting in the production including cruise ships, marine leisure tourism demand has also shrunk. The WTO expects global maritime throughput to return to 2013 levels in 2020 under an optimistic scenario and to 2009 levels of the global financial crisis under a pessimistic scenario³. (See Figure 1).

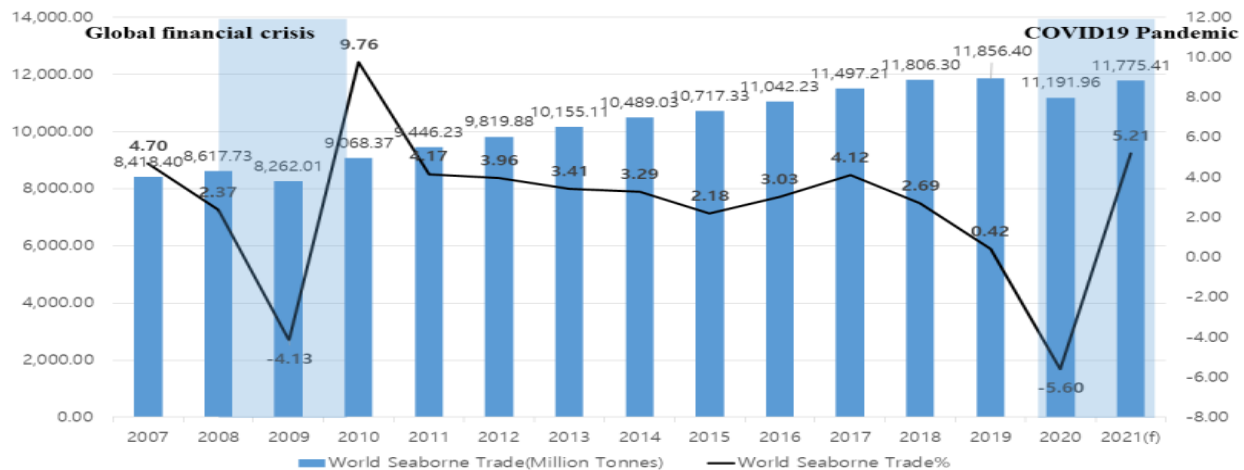


Figure 1 World maritime throughput trends Searchdate:2020. 8. 27

2. ANALYSIS OF THE CURRENT SITUATION IN THE KOREAN AQUATIC FIELD

2.1 Throughput

Korea's maritime throughput declined in February after COVID-19, but it is unclear whether the decline in throughput was due to the Newcastle Pneumonia outbreak.(See Figure 2)

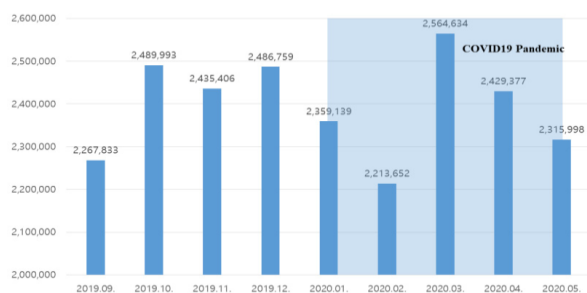


Figure 2 Source: Ministry of Maritime Affairs and Fisheries Maritime Port Logistics Information System PORT-MIS (2020.7.13)

2.2 Performance of Ocean Freight Enterprises

Looking at the first quarter results of the five domestic listed maritime companies, total sales decreased by 5.9% year-on-year and operating profit margin decreased by an average of 2.4 percentage points. Total debt was 10.1886 trillion won, an increase of 7.3% year-on-year. debt ratio of 198.4%, slightly lower year on year.

3. COUNTERMEASURES

3.1 Support measures for maritime transport companies

With the spread of COVID-19 worldwide, the

maritime industry is suffering more and more losses, and the Ministry of Maritime Affairs and Fisheries has prepared additional financial assistance of 1.25 trillion won and implemented various support measures⁴.

3.1.1 Vessel financial support

The Korea Maritime Promotion Corporation has decided to invest a total of 100 billion won in sub-investment in existing ships, and plans to expand the ship's guarantee ratio (LTV) 121 (up to 95%, 122) to 95% and provide additional liquidity to existing ships with finance. Also, if shipping companies receiving financial support for existing ships from industrial banks and export-import banks encounter liquidity difficulties, additional policy financial support will be provided through the Basic Industry Stabilization Fund announced at the extraordinary economic meeting.

3.1.2 Ship purchase followed by re-election (S&LB) support

The payment of the principal and interest for 2020 will be deferred for all the existing ships of Korea Ocean Promotion Corporation that are purchased and then re-elected. According to the "1st Support Measures for Maritime Port Sector (2.17.)", the support for deferred payment of principal and interest, which was originally provided only for ships on the Korea-China route, will be extended to all ships, and a total of 23 ships will receive support for deferred payment of principal and interest of 28.86 billion won per year (net increase: 19 ships, averaging 23.58 billion won per year). At the same time, the financial resources for the 2020 fiscal year of the ship acquisition and re-election business promoted by Korea Ocean Promotion Corporation and Asset Management Corporation will increase from the existing 100 billion won to 200 billion won, expanding by 100 billion won each. The asset

management company, for example, is depleting 100 billion won of the 200 billion won in the first half of the year ahead of schedule to provide liquidity more quickly.

3.1.3 New liquidity support

On March 19, 2020, the "Credit Guarantee Fund" (P-CBO123) issued under the "Minsheng Financial Stabilization Package (Golden Committee)" will support the issuance of new corporate bonds with a total amount of 1.68 trillion won, with a maximum share of 260 billion won for shipping companies.⁵ The Korea Maritime Promotion Corporation plans to support the issuance of corporate bonds by participating in the corporate bond issuance support process as a sequential investor to increase the proportion of shipping companies' bonds and reduce the burden of sequential purchases by companies.

3.1.4 Support for losses from the COVID-19 epidemic in national ocean shipping companies

As an example, HMM (formerly Hyundai Merchant Marine), a national ocean shipping company, is developing various programs to manage the losses from the New Crown Epidemic. This time, taking into account the financial market and other circumstances, up to 470 billion won will be supported by the Korea Industrial Bank and the Korea Maritime Promotion Corporation, which are jointly managed and operated as the main creditors, for the repayment of ship finance due.

3.2 Policy contributions and other anticipated outcomes

The Korean version of the New Deal is based on the New Deal policy implemented in the U.S. during the Great Depression, but it sets out a blueprint for the "Great Transformation of the Republic of Korea into a leading nation" through a strategy that takes advantage of Korea's unique strengths and potential.(See Figure3)



Figure 3 Korea's unique policy orientation

The future of the Korean economy and society as pursued by the Korean version of the New Deal can be broadly summarized in three areas. First, as a digital center where innovation and dynamism are spreading

based on Data Network AI (D-N-A). A "smart nation" that leads global megatrends; a "green leader" that is responsible to the international community by harmonizing people, the environment, and growth through a green transformation of the economy and society toward carbon neutrality (Net-zero); a solid (167) At the same time, the Ministry of Oceans and Fisheries, together with the tasks included in the pan-governmental policy, has developed a plan for the development of the Ministry of the Environment and Fisheries, including the discovery of additional topics through expert seminars (five) chaired by the Minister and the Vice-Minister, etc. The Ministry of Marine Fisheries, together with the pan-governmental measures, formulated the "Response Strategy after the New Pneumoconiosis Epidemic in the Marine Fisheries Sector",⁶ which consists of 6 major promotion strategies and 18 promotion topics, including the discovery of additional topics.

4. CONCLUSION

The COVID-19 epidemic strategy in the marine aquaculture sector is called the "Ocean New Deal," and three policy directions are defined in connection with the "Korean version of the New Deal." The Digital New Deal is to "improve the competitiveness of marine aquaculture based on numbers." The Green New Deal is to "pursue sustainable development in which nature and people live together," and the Human New Deal (strengthening the safety net) is to "realize a respectful society that lives together with people. The New Deal for Humanity (Strengthening the Safety Net) is to "realize a respectful society that lives together with people". The three major development directions in the marine sector in Korea are "Smart and Green Marine Aquaculture Leading Nation", "Advanced Digital Marine Aquaculture", "Sustainable Marine Environment", and "Coexistence and Inclusive Marine Environment". Korea strives to become a coexistent and inclusive maritime society. This provides guidance for the strategic direction of our marine sector.

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REFERENCES

- [1] <https://www.imf.org/zh/Publications/GFSR/Issues/2021/04/06/global-financial-stability-report-april-20>

21 《Global Financial Stability Report》

- [2] <https://www.un.org/development/desa/zh/news/policy/wesp-2020.html> 《World Economic Situation and Prospects 2020 Report》
- [3] Policy Responses to COVID-19, <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19>
- [4] Park So-young, Hong Sang-ki, and Lee Kang-bok, Trends in Disaster Prediction Technology Development and Service Provision, Electronic Communication Trend Analysis, Vol.35, No.1, 2020.
- [5] Alf Håkon Hoel, Are K. Sydnes, A Sea Change: The Exclusive Economic Zone and Governance Institutions for Living Marine Resources pp 3-16.DOI: 10.1007/1-4020-3133-5_1
- [6] Muhammad Mehedi Masud, An Overview of Global Marine Protected Areas (MPAs), Conservation of Marine Resources and Sustainable Coastal Community Development in Malaysia pp 7-26, DOI: 10.1007/978-981-13-9730-1_2