

PROSPECTS OF CONTAINER TRANSPORTATION DEVELOPMENT BETWEEN PORTS OF CHINA AND THE USA

Drahomaretsky N.A., undergraduate student, Savchuk V.D., Ph. D., professor (NU «OMA»)

At present, about 90% of general cargo is transported by sea in containers, of which about 30% of such cargo comes from China. Considering these figures, we cannot but notice that the container fleet and the volume of traffic in standardized packaging has changed the world in the last century, and the world economy depends on the smooth operation of container vessels on the lines. Only one of the biggest players, namely A.P. Moller-Maersk, in 2020 alone transported 25.2 million TEU [1].

These figures prove, the slightest delay in the processing of containers in ports will lead to a crisis of traffic, and this happened during the crisis caused by Covid-19.

The situation leaves much to be desired. We are not going to focus on closing borders and reducing demand for certain groups of goods, although they have hit hard on the freight industry. But one of the main factors that caused the crisis in logistics was the shortage of containers. And in 2020, the situation with packaging for the transportation of goods became catastrophic.

This happens due to the outbreak of the Covid-19 pandemic and the closure of ports, stricter requirements for vessel control to enter the port, as well as even greater inequality in imports / exports between China and the United States.

Although China returned to full trade in May 2020 and began to increase imports of goods at a gigantic pace, the United States has become one of the most important markets for Chinese production. Ships loaded with containers from China filled the ports of the west coast of the United States, while trade between China and the United States was unbalanced. The fact is that the main US import market is not China. The biggest share of freight from the United States goes to the ports of Canada and Mexico – US nearest neighbors. At the same time, America has also established trade relations with China, but does not supply its goods.

Also, the difficulty the trade between the United States and China faces lies in the limit of the number of ships that can arrive from China to US ports and back. As it has been mentioned above, the ports of the west coast of the United States are overcrowded due to the influx of container ships, and the ports of the Caribbean and East Coast are limited, on the one hand, by the Panama Canal and, on the other, by the fact that they are too far from China by the Suez Canal-China route. For example, the capacity of the Panama Canal is 18.8 thousand vessels per year, which is the passage of a little more than 51 vessels per day, and this, of course, leads to the increased waiting time and long queues on both sides of the canal.

The passage of the container ship “NORTHERN JAGUAR” through the Agua Clara gateways is presented in Fig. 1.

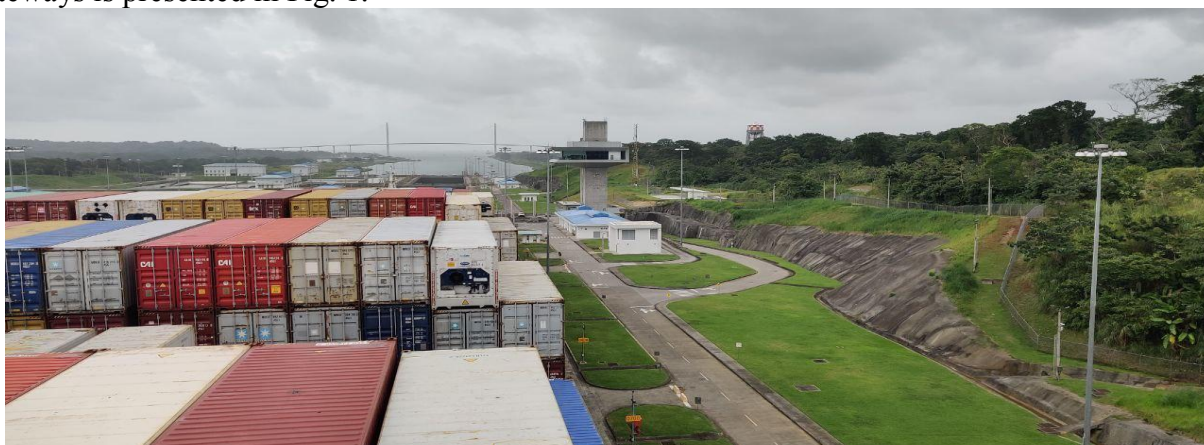


Fig. 1. Passage of the container ship “NORTHERN JAGUAR” through the Agua Clara gateways

After China's lift of the lockdown it increased imports of goods into the United States and the number of empty containers in ports, the United States simply do not have at least roughly comparable exports to China or the Far East. Also, the container operators themselves could not effectively, and in the right quantity, return the required volumes of empty containers to China, which led to a sharp and extreme increase in freight rates for the transportation of one 40-foot container from China to the United States. Based on various sources of freight of one container reached 10 thousand dollars in the spring-summer of 2021 [2, 3].

Assessing the loading of US ports, it should be noted that after the return of supplies from Asian ports to the US, imports into the US in the first eight months of 2021 jumped by 23% and amounted to 1.85 trillion dollars. USA Shipments from China rose 21% amid tariffs imposed by the administration of former US President Donald Trump on Chinese goods. And the biggest blow fell on the ports of Los Angeles and Long Beach (Fig. 2). These ports daily expect mooring of more than 40 container ships, while before the pandemic period there rarely formed a queue of one or two container ships.



Fig. 2. Queue in the port of Long Beach, Southern California.

Due to long delays in the supply of goods, the US government is concerned about the situation and has already taken measures to increase the scale of processing, which leads to a positive dynamics of the situation.

Namely, companies will work to reduce the time during which cargo stays in these ports. FedEx aims to double the nightly handling of containers by optimizing the use of railways. Walmart plans to increase night operations to increase throughput by as much as 50% [4].

The port of Los Angeles will continue to operate at full capacity even at night and on weekends, while the port of Long Beach only introduces round-the-clock cargo operations. These two California facilities together account for about 40% of the containers delivered by container vessels to the United States. The International Union of Coastal and Warehouse Workers has stated that its members are ready to create additional changes.

This is already bearing fruit, as the port of Los Angeles became the first port in the Western Hemisphere to reach 10 million TEUs in one year. This result was achieved in the 2020/2021 financial year and was recorded on June 10, 2021. In the port of Los Angeles, the ship "Amerigo Vespucci" was loaded with a 10 million container owned by CMA CGM. The port noted that the rise in consumer demand caused by the pandemic began in the summer of 2020. At the same time, retailers' stocks began to be actively replenished and e-commerce revived, which contributed to the rapid growth of imported freight traffic. At the seaport itself, the emphasis was on digitizing supply

chains, investing in infrastructure, and building relationships with business partners. By the end of 2020, 9.2 million TEUs were processed, which was the fourth result in the history of the port. The previous record of annual processing in the port was achieved in 2018 and amounted to 9.5 million TEU.

Analyzing data on Chinese ports, we also see positive statistics in the post-war period.

According to the China Ports & Harbor Association, between March 2 and 8, 2021 alone, the capacity of China's eight major container ports increased by 9.1%. In the ports of Dalian, Tianjin, Qingdao and Guangzhou, the growth rate increased by 10%. It is noted that the overall growth rate of container processing in the port of Bohai-Rome is higher than in other coastal ports. In January 2021, the world's largest container port, Shanghai, handled more than 4 million TEUs of containers, according to data published by the port operator SIPG [5]. The port's turnover in January exceeded last year's figure by 12%, according to TASS. Since October 2020, traffic through the port has increased by more than 10% in four months. Despite a nearly 7 percent drop in turnover in the first half of the year, the Port of Shanghai managed to break the 2019 record for the year as a whole.

In May 2021, the second largest container port in China and the third largest in the world, Ningbo-Zhoushan, exceeded about 2.85 million TEU, which is 14.5% more than a year earlier. Traffic through the deep-sea terminals of Qui-Qing Port in Hong Kong in December and January 2020 increased by: + 10.2% and + 11.1%, respectively.

But due to repeated outbreaks of coronavirus infection in Chinese ports, the problem with the cancellation of measures by ships remains acute. Although Chinese governments and container operators are trying to mitigate the crisis by using alternative ports. From May 23 to June 26, 2021, 135 measures at container services in the ports of South China were canceled. Most calls - 128 - were canceled in the port of Yantian, which limited the volume of operations due to the outbreak of coronavirus and still has not coped with congestion. In the port of Nansha, which is a reserve for the port of Yantian, canceled only 2 berths on the service Asia - Middle East and an additional 32 events. The port of Sheko was also an alternative to the port of Yantian during the crisis. During this period, 4 shipping calls to the port of Sheko were canceled [6].

Observing this situation, any professional in the maritime field or freight forwarder understands that the aggravation of this situation could lead to a greater crisis of container traffic. After all, with the increase in the price of freight containers, the price of the consumer goods themselves will not be able to remain unchanged for long. That is, all this can lead to the same sharp increase in the price of all consumer goods or to the fact that shippers and freight forwarders will boycott, because based on the latest news from operators such as Maersk, MSC, COSCO, EVERGREEN, CMA CGM, they buy a record number of new containers to cover the created deficit. But even increasing the volume of available containers that will be available to container operators does not remove the problem of canceling ships in ports, due to outbreaks of coronavirus infection.

However, even here there are ways out of this situation, namely: the development of processing and approval of the cargo plan, approval of the successful implementation of the fastening and connection of refrigerated containers exclusively electronically. Minimizing the contacts of ship crews with port workers and even the complete exclusion of such a possibility, control of cargo operations only from the ship's bridge and the prohibition of the crew outside the superstructure can stop the crisis of container traffic and, soon, normalize and establish uninterrupted operation of container ships between levels [6, 7].

REFERENCES:

1. <https://www.maersk.com/news/articles/2021/02/10/ap-moller-maersk-delivers-strong-transformation-progress-and-results-2020>
2. [https://cfts.org.ua/blogs/ Will the golden age of freight forwarders return when the shortage of containers disappears __614](https://cfts.org.ua/blogs/Will%20the%20golden%20age%20of%20freight%20forwarders%20return%20when%20the%20shortage%20of%20containers%20disappears__614)
3. [https://cfts.org.ua/news/2021/10/22/ The ports of the west coast of the United States are open around _67323](https://cfts.org.ua/news/2021/10/22/The%20ports%20of%20the%20west%20coast%20of%20the%20United%20States%20are%20open%20around__67323)

4. <https://cfts.org.ua/news/2021/06/14/> The first port on the west coast of the United States processed 10 million TEU for the year _65287
5. <https://cfts.org.ua/news/2021/09/06/> Congestion in US ports may be reduced by the end of 2022 _66552
6. <https://seanews.ru/2021/06/18/> 135 ship calls were made to the ports of South China.
7. <https://cfts.org.ua/news/2020/03/16/> China's container ports increased traffic in early March _57788