THE ROLE OF SHIPBUILDING STEEL PRICE IN THE SHIPBUILDING MARKET DURING POST-LOCKDOWN PERIOD OF 2020 COVID-19 REALITY

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Abstract: During 2020, the world has witnessed an unprecedented situation where most of world productive plants were forced to be closed for months. This had its effect on markets during the entire 2020 and the echo of this effect is still visible now. The shipbuilding market, being a part of a very sensitive system, was no exception. Now we see an interesting development in the shipbuilding market. The main objective of the present article is to examine the link between steel production prices and shipbuilding market.

Keywords: *Shipbuilding, Steel Price, Shipbuilding Market, COVID-19*

I. INTRODUCTION

Ever since ships became the steel giants of the seas, the price of building a new vessel has been linked to the price of shipbuilding steel. This development helped both shipping and steel producing industry by implementing new technological methods of steel production. This also led to the surge of a highly complex steel producing industry, the influence of which is by no doubt connected to shipbuilding [1].

During 2020, many aspects of modern world were paused for almost the entire first half of the year. Even though major companies in the beginning of the lockdown seemed ready to face this challenge, its relatively long period combined with the post lockdown insecure reopening, made the period that followed even more challenging.

According to Offshore Energy, the number of ordered ships in the first half of 2020 were almost been halved when compared to the same period a year earlier. Namely, the valuations agency's record showed that in the first half of 2020 there were around 332 new ship orders across all sectors, a 47 % fall when compared to a total of 625 orders in H1 2019 across all sectors. This was further down from the corresponding 2018 figures that equaled to 881 orders. According to data from Vessels Value for the first half of 2020, at the same point in 2019 there were 873 live vessels delivered, while there were 758 for the same period in 2020. However, these numbers also show that the delivering was only postponed, and the ordered vessel number remained high compared to the previous year.

There is no doubt that such a development had its impact on steel demand, even though the biggest consumer of steel is the construction industry, making between 10 and 15% of the domestic demand of steel in China. The statistics show that very few countries did not have a decline in steel production during 2020[5]. This unusual situation kept prices of steel low during the entire 2020, reaching a 2-year low during the first half of the year.

Table.1 Top 10 steel-producing countries

Rank	Country	2020 (Mt)	2019 (Mt)	%2020/2019
1	China	1053.0	1001.3	5.2
2	India	99.6	111.4	-10.6

3	Japan	83.2	99.3	-16.2
4	Russia (e)	73.4	71.6	2.6
5	United States	72.7	87.8	-17.2
6	South Korea	67.1	71.4	-6.0
7	Turkey	35.8	33.7	6.0
8	Germany	35.7	39.6	-10.0
9	Brazil	31.0	32.6	-4.9
10	Iran (e)	29.0	25.6	13.4

II. THE EFFECTS OF COVID-19 IN 2021

During 2021, with the start of the mass vaccination in most countries, the economies started to reopen slowly and we see that the demand for steel is once again in the hands of the major heavy steel consuming industries. In the first half of 2021, we notice a sharp increase in steel prices, triggered mainly by China demand for construction steel. This led to the increase of the iron ore price, reaching a peak of $229,5 per ton. As a result, the price of steel also went high, reaching 5999CHY/t for steel rebars, also in May. This development, together with a relatively weak dollar in the summer, led to an increase in the shipbuilding prices. According to Cleaves Securities, newbuild prices rose by 12% year-to-date, the majority of the price increase down to higher steel prices. A VLCC newbuilding has increased by $12m in steel costs alone this year.

Never the less, in the end of summer, we notice a sharp decline in iron ore price. The reason was that Chinese demand for steel products, a domestic product for China, was expected to shrink sharply because the Beijing's stimulus plan supporting the construction industry peaked in the first half. The analysts do not expect the demand impact seen during the early part of this year to return next year as construction projects have been completed and there is a lower number of new projects planned.

On the other hand, let us see how shipbuilding went through COVID-19 crisis. When we make a complex analysis, we notice three key points:

- First of all, the pandemic hit European shipbuilders, mostly engaged in the construction of cruise and Ro-Ro vessels, extremely hard, as yards faced construction delays from cruise liners and sought to secure financing for continuation of activity on existing ships. The German shipbuilder FSG filed for insolvency and soon after Kleven Verft filed for bankruptcy after a loan termination. Operations at STX Offshore & Shipbuilding Co. in Korea stopped after unions launched a general strike on June 1 demanding an end of unpaid furloughs, as reported by the Korea Herald. The shipbuilder didn't succeed in securing any new orders at the beginning of 2020. This places additional pressure on yards, which had to take actions to keep their workforce available.
- Secondly, there was also the issue of vessel overcapacity in the industry at a time when demand is constrained, particularly in the container shipping sector. BIMCO's data shows that in the last three years of the past decade (2017-2020), demand outgrew the fleet as the TEU capacity of the fleet grew by 75.6% whereas demand measured in volumes was up 46.1%.

Restricted demand growth prospects together with overcapacity across shipping markets make it clear that the industry must up its efforts when it comes to demolition and retiring old, inefficient fleet.

- The third impact factor is the growing pressure for the industry to cut its emissions and decarbonize. There is a growing need to build greener and more technologically-advanced ships. With the environmental problems becoming more and more influential as a development factor, the time has probably come to make that giant step into the future.

At the beginning of 2021, we saw a massive development in shipbuilding industry. The order book increased during the entire year. This was triggered by the demand for new and more energy efficient container vessels. Most of the major container lines took the opportunity to renew their fleet. Chinese shipbuilders secured most of shipbuilding contracts during the third quarter of 2021 with some 68% in terms of gross tonnage (GT), followed by South Korea and Japan[3]. With this surge in ordering activity, containerships now make up some 33% of the current orderbook (see Fig. 1). This is followed by the dry cargo (bulk carrier and general cargo) and tankers/gas carriers. Cruise vessels, even though making some 6% of the global orderbook, are still likely to be cancelled, as cruising industry still cannot fully recover from the COVID crisis.

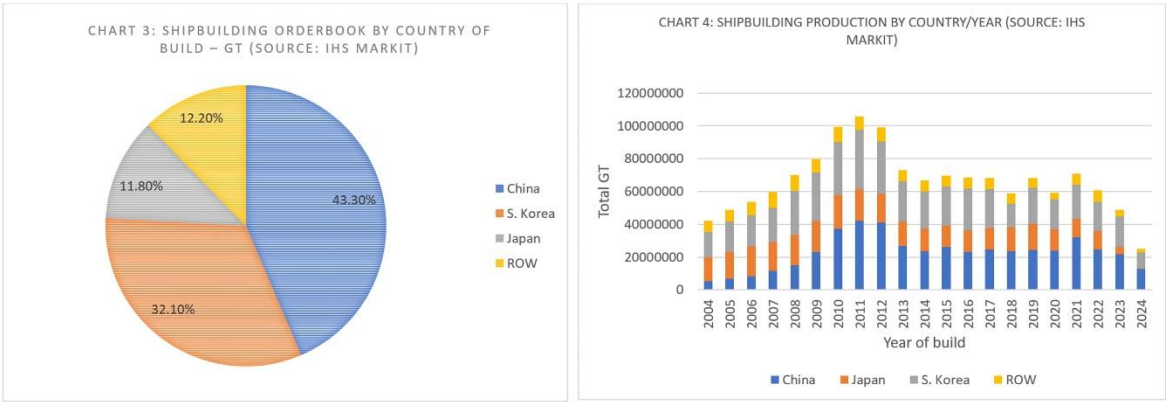

Fig.1 State and prognosis for the shipbuilding orderbook

Increasing demand for containerships allowed shipyards to increase their contract prices (see Fig. 2) and at least provide an improvement in margins which had been historically low since the fallout from the global financial crisis. Nevertheless, contract prices are still only slightly above those seen during the previous bull market of 2006-2008.

Allied Shipbroking noted in July that the record levels of freight earnings have pushed up owners' demand for further fleet expansion. Nevertheless, yards are being troubled by a disappearing margin pared by rising shipbuilding costs, in particular the steel prices. A senior yard executive said many of the contracts announced in the second quarter of this year were options of the firm orders signed in the first quarter or even earlier. Hence, these were loss-making deals with almost the same ship price yet much costlier ship plates, he added. The Clarkson's Newbuilding Price Index climbed from 126 points at the end of 2020 to 138 points as of mid-June 2021, its highest level since 2014. The guidance price for very large crude carriers and capesize dry bulkers and 15,500 TEU boxships were up by 14%, 26% and 24%, respectively, over the period[4]. Further upward pressure is expected as iron ore prices continue to surge amid strong demand for the commodity, despite China's attempts to curb the mark-ups[2]. As a result, ordering enthusiasm could be tempered in the second half of the year. Some brokers, however, argue that owners who have or are making a fortune out of the hot market will not stop ordering as they are less sensitive to the high newbuilding prices. Others pointed out that the uncertainties over new emission-cutting measures and the extra investment in energy-saving devices and fuel technologies on board may help owners keep a cool head.

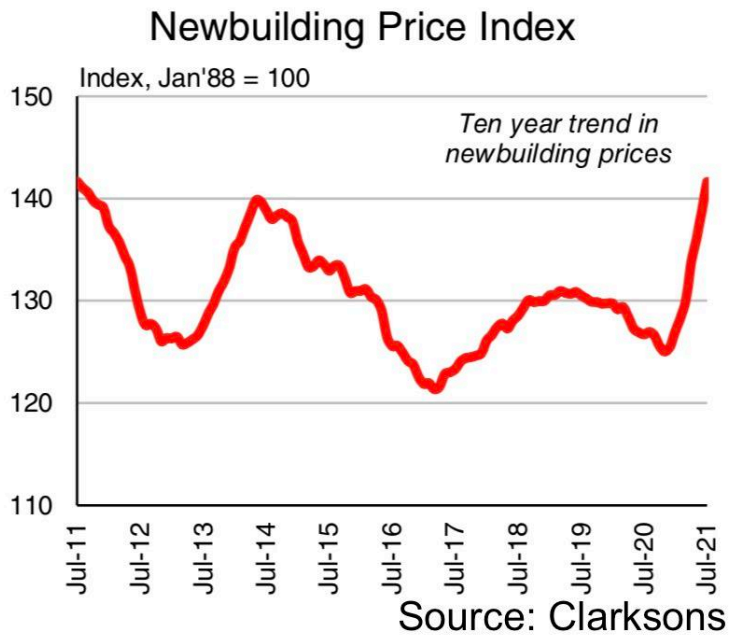

Fig.2 Development of the newbuilding price index

III. CONCLUSIONS

Based on the above research, we see that there is a real boom in shipbuilding, triggered by many factors. Even with such a sharp increase, there are still some alarming signs, showing the crisis is not completely gone. One of the factors, determining the shipbuilding price is indeed the price of its main raw material – steel. Unfortunately, it is impossible to predict what percentage of a vessel's building cost could be attributed to its building materials. In every case is based on the individual situation and the influencing factors, so there is a lot of variation. One of the most important conclusions, based on the above research, is that the demand from the shipbuilding is not the main factor, influencing its price. There are other, more powerful industries to cause its price to fluctuate.

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