

# SHIPBUILDING POLICY AND MARKET DEVELOPMENTS IN SELECTED ECONOMIES

---

OECD SCIENCE, TECHNOLOGY  
AND INDUSTRY  
**POLICY PAPERS**

September 2021 **No. 119**

This paper was approved and declassified by the OECD Council Working Party 6 on Shipbuilding (WP6) on 10-11 May 2021, and was prepared for publication by the OECD Secretariat.

Note to Delegations:  
This document is also available on O.N.E under the reference code:  
C/WP6(2021)3/FINAL

This document, as well as any data and any map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

© OECD (2021)

---

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions/>

---

## *Shipbuilding policy and market developments in selected economies*

Laurent Daniel, Changhoon Lee, Judith Spieth

### **Abstract**

*This report presents shipbuilding market developments of nine of the largest shipbuilding economies which are not members of the OECD Council Working Party on Shipbuilding (WP6). Over the last 20 years, the share of these economies in global ship deliveries has been increasingly driven by the rapid growth of Chinese ship completions and reached 43.7% of global completions in 2020. The report also provides an overview of support measures taken by selected WP6 non-members. Using public sources, over the period March 2020 to March 2021, these economies appeared to employ a total of 21 support measures, with the most frequently used measure being protection of the domestic market. Of these economies, the People's Republic of China used the largest number of support measures, followed by the United States.*

**Keywords :** *Shipbuilding, Industrial policy*

## *Table of contents*

<b>Chapter 1. Executive summary .....</b>	<b>6</b>
<b>Chapter 2. Introduction.....</b>	<b>8</b>
<b>Chapter 3. Shipbuilding market developments in non-WP6 economies.....</b>	<b>9</b>
3.1. Overview.....	9
3.2. Recent market developments of selected shipbuilding economies .....	11
3.2.1. China.....	12
3.2.2. Philippines .....	15
3.2.3. Viet Nam .....	18
3.2.4. Indonesia .....	20
3.2.5. France.....	23
3.2.6. Chinese Taipei .....	26
3.2.7. The United States .....	28
3.2.8. Russia.....	30
3.2.9. Spain .....	33
<b>Chapter 4. Policy developments in selected non-WP6 economies .....</b>	<b>35</b>
4.1. Criteria for including support measures in the report .....	35
4.2. Summary of measures by categories of support measures .....	35
4.3. Measures taken by selected non-WP6 economies.....	38
4.3.1. China.....	38
4.3.2. India .....	47
4.3.3. Indonesia .....	49
4.3.4. Philippines .....	51
4.3.5. Russia .....	53
4.3.6. The United States .....	54
<b>Endnotes .....</b>	<b>59</b>

## **Tables**

Table 1. Types of support measures covered in the WP6 Inventory	7
Table 2. Number of support measures reported in the WP6 Inventory of non-WP6 members	7
Table 3. Orderbook of selected non-WP6 economies, December 2020	11
Table 4. Completions and new contracts of seagoing vessels in terms of CGT by selected non-WP6 economies, 2018-2020	12
Table 5. Ownership structure of the top 100 Chinese shipyards in 2020	12
Table 6. Ship completions of major shipbuilding groups of China in 2020	13
Table 7. Completions of seagoing vessels by ship type in China, 2011-2020	14
Table 8. Major Shipbuilding companies in Philippines	16
Table 9. Completions of seagoing vessels by ship type in Philippines, 2011-2020	17
Table 10. Major shipyards in Viet Nam	18
Table 11. Completions of seagoing vessels by ship type in Viet Nam, 2011-2020	19
Table 12. Overview of the two major shipyards in Indonesia	21
Table 13. Completions of seagoing vessels by ship type in Indonesia, 2011-2020	22
Table 14. Completions of tugs by building economies, 2011-2020	22
Table 15. Key figures of the French shipbuilding industry in 2018	23
Table 16. Main shipyards in France	24
Table 17. Completions of seagoing vessels by ship type in France, 2011-2020	25
Table 18. Completions of cruise ships by building economies, 2011-2020	25
Table 19. Classification of Chinese Taipei shipbuilding industry	26
Table 20. Completions of seagoing vessels by ship type in Chinese Taipei, 2011-2020	27

Table 21. Completions of FCCs by building economies, 2011-2020	27
Table 22. Completions of seagoing vessels by ship type in the United States, 2011-2020	29
Table 23. Overview of Zvezda shipbuilding complex project	30
Table 24. Completions of seagoing vessels by ship type in Russia, 2011-2020	32
Table 25. Completions of Icebreaker by building economies, 2011-2020	32
Table 26. Completions of seagoing vessels by ship type in Spain, 2011-2020	34

## Figures

Figure 1. Completions in CGT and global market shares, 2001-2019	9
Figure 2. Share of China in non-WP6 economies in terms of CGT, 2001-2020	10
Figure 3. Completions and new contracts of seagoing vessels by Chinese shipyards, 2011-2020	14
Figure 4. New contracts in Chinese shipyards by ship types and by ship owner location, 2018-2020, in terms of CGT	15
Figure 5. Completions and new contracts of seagoing vessels by Philippines' shipyards, 2011-2020	17
Figure 6. New contracts in Philippines' shipyards by ship types and by ship owner locations, 2018-2020, in terms of CGT	18
Figure 7. Completions and new contracts of seagoing vessels by Vietnamese shipyards, 2011-2020	19
Figure 8. New contracts in Vietnamese shipyards by ship types and by ship owner locations, 2018-2020, in terms of CGT	20
Figure 9. Completions and new contracts of seagoing vessels by Indonesian shipyards, 2011-2020	21
Figure 10. New contracts in Indonesian shipyards by ship types and by ship owner locations, 2018-2020, in terms of CGT	23
Figure 11. Completions and new contracts of seagoing vessels by French shipyards, 2011-2020	24
Figure 12. New contracts in French shipyards by ship types, 2018-2019, in term of CGT	25
Figure 13. Completions and new contracts of seagoing vessels by Chinese Taipei shipyards, 2011-2020	26
Figure 14. New contracts in Chinese Taipei's shipyards by ship types and by ship owner locations, 2018-2019, in term of CGT	28
Figure 15. Completions and new contracts of seagoing vessels by American shipyards, 2011-2020	29
Figure 16. New contracts to American shipyards by ship types and by ship owner locations, 2018-2020, in term of CGT	30
Figure 17. Completions and new contracts of seagoing vessels by Russian shipyards, 2011-2020	31
Figure 18. New contracts in Russia shipyards by ship types and by ship owner locations, 2018-2019, in term of CGT	32
Figure 19. Completions and new contracts of seagoing vessels by Spanish shipyards, 2011-2020	33
Figure 20. New contracts in Spanish shipyards by ship types and by ship owner locations, 2018-2020, in term of CGT	34

## Chapter 1. Executive summary

Over the last twenty years, the share of non-WP6 economies in global ship deliveries has been increasingly driven by the rapid growth of Chinese ship completions and it reached 43.7% of global completions in 2020. The share of People's Republic of China (hereafter 'China') of ship deliveries by non-WP6 economies also more than doubled, from 42.0% in 2001 to 85.7% in 2020.

According to Clarksons Research, during the last three years (2018-2020), 35 non-WP6 economies have built more than one seagoing vessel (100 GT or more) and 34 non-WP6 economies have received more than one new order. Nine of these economies ranked in the top 10 for both ship completions and new orders based on the non-WP6 economies.

The Secretariat analysed the shipbuilding market developments in these selected nine economies including China, the Philippines, Viet Nam, Indonesia, France, Chinese Taipei, United States, the Russian Federation (hereafter 'Russia') and Spain.

In 2020, China remained the largest shipbuilding economy in terms of both ship completions and new contracts. The shipyards owned by Chinese State Shipbuilding Corporation (CSSC), the state-owned shipbuilding conglomerate, accounted for about 40% of all ship completions in China. Recent new orders to Chinese shipbuilders were concentrated in bulk carriers, tankers and container ships. About half of new orders between 2018 and 2020 came from Chinese ship-owners.

Since the mid-2010s, the Philippines, Indonesia and Chinese Taipei have experienced a substantial decline in their production of seagoing vessels. By contrast, Viet Nam's shipyards performed relatively well in the last five years.

In 2020, French and Spanish shipbuilders struggled with the impact of the COVID-19 pandemic. According to Clarksons research, French shipyards have not received any orders for new seagoing vessels (more than 100 GT). Spanish shipyards' production declined by about 70% in 2020 compared to 2019. In contrast, Russian shipbuilders' activity increased significantly in 2020 driven by new orders for LNG carriers and icebreakers related to Russia's Arctic oil and gas exploration and exploitation.

The report also lists support measures taken by selected non WP6-members pursuant to the subsequent criteria: Non-WP6-member shipbuilding economies leverage a number of support measures for the industry. Using public sources, in the period March 2020 to March 2021, these economies appeared to employ a total of 21 support measures, with the most frequently used measure being protection of the domestic market. Of the economies, China used the largest number of support measures (9), followed by the United States.

**Table 1. Types of support measures covered in the WP6 Inventory**

Type	Description
A	Direct transfer of funds by Governments
B	Indirect transfer of funds by Governments
C	Loans on terms and conditions more favourable than those commercially available
D	Loan guarantees that support loans on terms and conditions more favourable than those commercially available
E	Export or Home Credits
F	Governments taking over, or otherwise absolving the industry from debts
G	Government acquisition of interest in a yard or yards
H	Government revenue that is foregone or not collected
I	Provision by government of infrastructure (other than general infrastructure), goods or services on non-commercial conditions
J	The purchase of goods or services from the industry by government at above market rates
K	Support for Research and Development
L	Any form of income or price support
M	Protection of the domestic market
N	Domestic build or domestic content requirements
O	Other official regulations and practices

Source: WP6 Inventory, 2018.

**Table 2. Number of support measures reported in the WP6 Inventory of non-WP6 members\***

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Total
China					1				1		1		4		2	9
India													2			2
Indonesia	1													1		2
Philippines			2													2
Russia													1			1
USA	1			1				2					1			5
Total																21

\* In alphabetical order



## Chapter 2. Introduction

As agreed in its Programme of Work and Budget (PWB) for 2021 and 2022 by the Council Working Party on Shipbuilding (WP6), this report provides an overview of the measures supporting the shipbuilding industry, as well as an analysis of the development of the shipbuilding market in selected non-WP6 members.

The Secretariat extended the reporting of support measures in this report as compared to reports on Support measures taken by non-WP6 members by adding an analysis of shipbuilding market developments in non-WP6 members.

The analysis of the shipbuilding market in non-WP6 economies focuses on the recent activity of the shipbuilding industry in selected economies, but also provides brief information on the structure of each economy's shipbuilding industry. This analysis is based on publicly available information as well as information provided by data service providers to which the Secretariat has access, including Clarksons' World Fleet Register and IHS' SeaWeb.



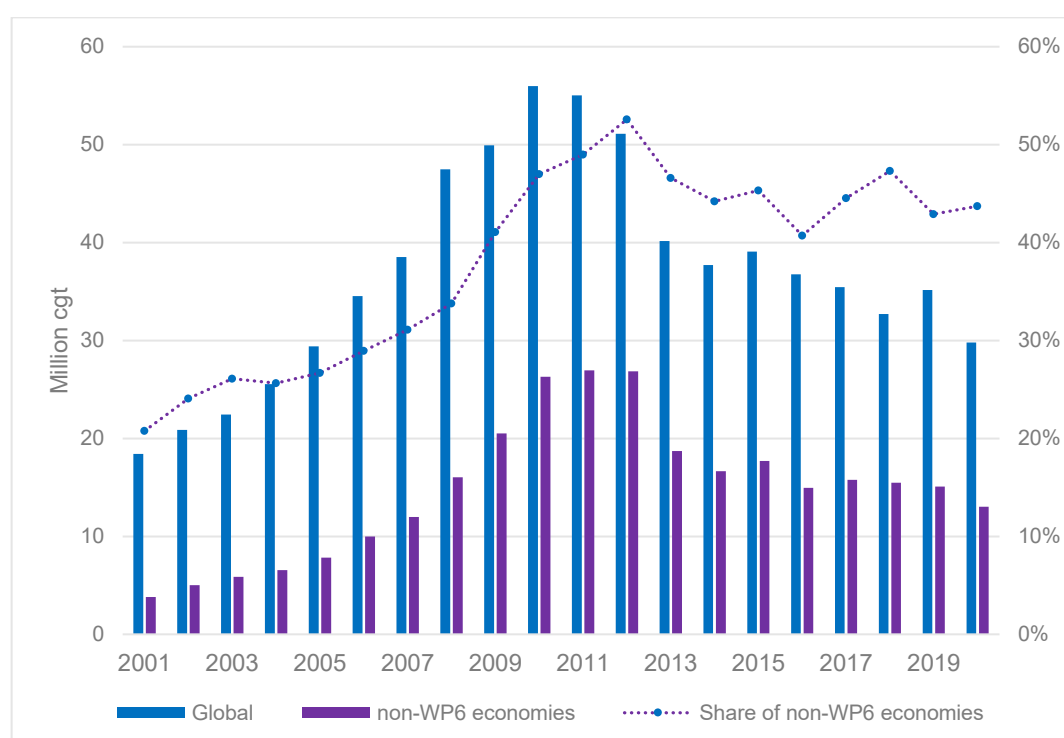
## Chapter 3. Shipbuilding market developments in non-WP6 economies

### 3.1. Overview

Over the last twenty years, the global market share of non-WP6 economies has been steadily increasing (Figure 1). The global share of ship completions by shipyards in non-WP6 economies increased from 20.8% in 2001 to 52.6% in 2012 and has fluctuated around 40-50% since then. In 2020, ship completions by non-WP6 economies amounted to 13.0 million CGT, accounting for 43.7% of world total.

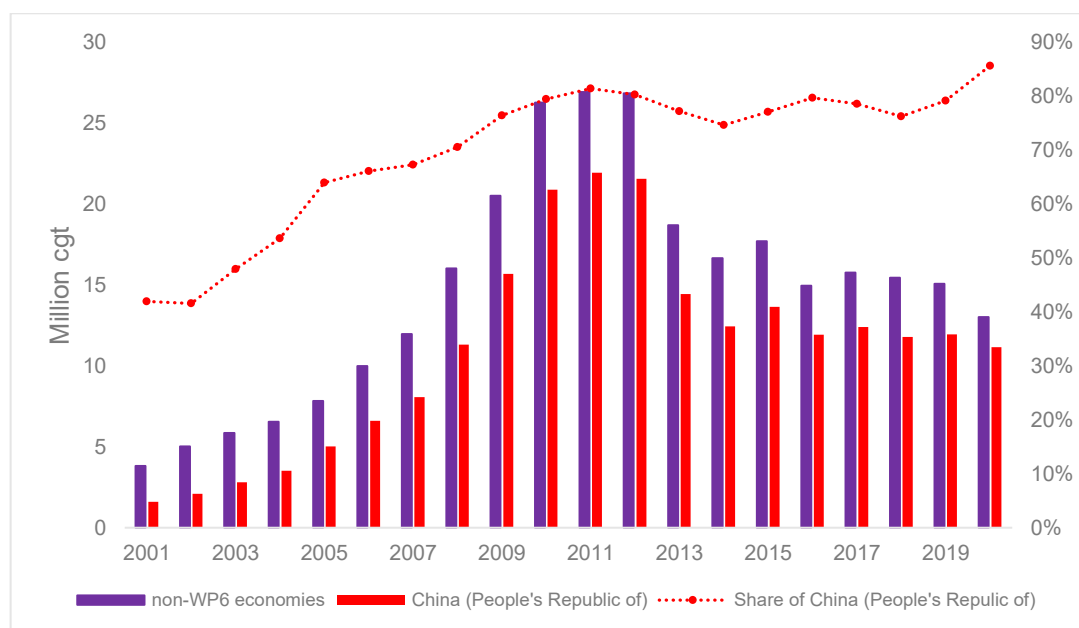
The increase in the share of non-WP6 economies in global ship completions is largely due to the rapid growth of China's ship production since 2000 (Figure 2). From 2001 to 2010, the thirteen-fold increase of China's ship production led China to become the world's largest shipbuilding economy in 2010. This is attributable to the large-scale expansion of facilities by China's shipbuilders during the historic boom period from 2003 to 2008 and the Chinese government's policy efforts to promote the shipbuilding industry as a major strategic export industry since 2001. Accordingly, China's share of ship completions in non-WP6 economies also nearly doubled from 42.0% in 2001 to 79.5% in 2010. In 2020, China remained the largest shipbuilding economy with seagoing vessel completions amounting to 11.2 million CGT, representing 37.5% of the world total. The China's share of non-WP6 economies reached 85.7% in 2020.

**Figure 1. Completions in CGT and global market shares, 2001-2019**



Note: This Figure includes all seagoing vessels from 100 GT. WP6 economies include WP6 members at the end of 2020.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

**Figure 2. Share of China in non-WP6 economies in terms of CGT, 2001-2020**

Note: This Figure includes all seagoing vessels from 100 GT. WP6 economies include WP6 members at the end of 2020. Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

At the end of 2020, the orderbook of non-WP6 economies' shipyards included 2 779 vessels on order, amounting to 35.5 million CGT and representing 49.5% of the world total (Table 3). China accounted for 70.7% of the orderbook of non-WP6 economies in terms of CGT. Russia and France followed China with 7.7% and 5.8% of the orderbook of non-WP6 economies, respectively.

**Table 3. Orderbook of selected non-WP6 economies, December 2020**

Economy	Number of ships	Million CGT	% of total CGT
WP6 economies	1 322	36.2	50.5%
non-WP6 economies	2 779	35.5	49.5%
China (People's Republic of)	1 453	25.1	35.0%
Russia	161	2.7	3.8%
France	65	2.1	2.9%
Philippines	44	0.7	0.9%
Brazil	41	0.6	0.9%
Viet Nam	128	0.6	0.9%
India	125	0.5	0.8%
Spain	56	0.5	0.7%
United States	56	0.4	0.6%
Bangladesh	121	0.4	0.5%
Indonesia	116	0.3	0.5%
Singapore	47	0.2	0.3%
Malaysia	92	0.2	0.3%
Chinese Taipei	45	0.2	0.3%
Iran	12	0.1	0.2%
Others(28 economies)	217	0.7	1.0%

Source: IHS Markit Maritime & Trade, World Shipbuilding Statistics 2020

### 3.2. Recent market developments of selected shipbuilding economies

According to Clarksons' World Fleet Register, during the last three years (2018-2020), 35 non-WP6 economies have built more than one seagoing vessel (100 GT or more) and 34 economies have received more than one new order.

Nine of these economies ranked in the top 10 economies for ship completions and new orders in terms of CGT (Table 4). The secretariat analysed the shipbuilding market developments in these nine economies including China, Philippines, Viet Nam, Indonesia, France, Chinese Taipei, United States, Russia and Spain.

**Table 4. Completions and new contracts of seagoing vessels in terms of CGT by selected non-WP6 economies, 2018-2020**

Completions		Contracts	
Economy	Million CGT	Economy	Million CGT
China (People's Republic of)	34.9	China (People's Republic of)	28.9
Philippines	1.6	Russia	1.5
Viet Nam	1.4	France	0.9
Indonesia	0.9	Viet Nam	0.7
France	0.8	Philippines	0.5
Chinese Taipei	0.6	Chinese Taipei	0.4
United States	0.6	Indonesia	0.3
Russia	0.5	Spain	0.2
Spain	0.3	United States	0.2
Bangladesh	0.3	Malaysia	0.1
Others (25 economies )	1.3	Others (24 economies)	0.7
Total	43.2	Total	34.3

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

### 3.2.1. China

China's shipbuilding companies can be classified into three broad categories according to ownership structure: state-owned enterprises (SOEs), private domestic shipbuilding enterprises, and joint ventures of foreign and domestic companies (Table 5). In terms of completions in CGT, 46 of the largest 100 Chinese shipyards are owned by the central and local governments and thus are State-Owned Enterprises (SOEs). The top 100 Chinese shipyards represented about 98% of all CGT delivered in China in 2020.

**Table 5. Ownership structure of the top 100 Chinese shipyards in 2020**

Ownership Type	SOEs		Private companies	
	National government	Local government	Domestic owner(s) only	Foreign owner(s)
Number of shipyards	36	10	47	7
Completions in CGT ('000s)	6 343	653	3 345	583
% of completions	58.1%	6.0%	30.6%	5.3%

Note: This table includes all seagoing vessels from 100 GT. The ownership type is based on the information on yard administration (meaning a majority state ownership) in World Fleet Register of Clarksons Research Services.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

The largest Chinese shipbuilding conglomerate is the China State Shipbuilding Corporation (CSSC), which was created in 2019 by the merger of the two largest state-owned shipbuilders, China Shipbuilding Industry Corporation (CSIC) and CSSC. As of 2020, the shipyards owned by CSSC accounted for 38.1% of all CGT delivered in China.

Another major shipbuilding conglomerate is COSCO Shipping Heavy Industry, which is a subsidiary of the COSCO shipping group (*i.e.* the largest state-owned shipping operator in

China). COSCO Shipping Heavy Industry owns nine shipyards. Major shipyards under its direction are COSCO HI (Zhoushan), COSCO HI (Yangzhou), COSCO HI (Guangdong), COSCO HI (Dalian), Nantong COSCO KHI, and Dalian COSCO KHI. As of 2020, the shipyards of COSCO shipping heavy industry accounted for 11.5% of all CGT delivered in China.

The Yangzijiang Shipbuilding Group, established in 1956, is China's largest private shipbuilder. The group owns four shipyards, which are located along the Yangtze River in the province of Jiangsu. These yards are Jiangsu New Yangzi Shipbuilding, Jiangsu Yangzi Xinfu Shipbuilding, Jiangsu Yangzijiang Offshore Engineering, and Jiangsu Yangzijiang shipbuilding. As of 2020, the shipyards of COSCO shipping heavy industry accounted for 10.2% of all CGT delivered in China.

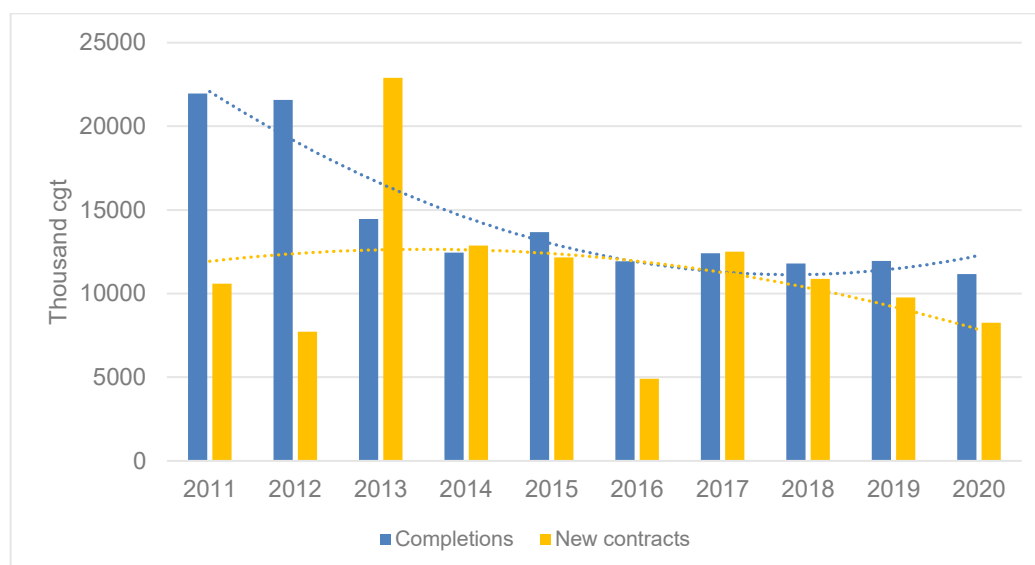
**Table 6. Ship completions of major shipbuilding groups of China in 2020**

Group	Ownership	Completions	
		CGT('000)	% of Total
CSSC	State-owned	4 258	38.1%
COSCO Shipping HI	State-owned	1 283	11.5%
China Merchants	State-owned	407	3.6%
Yangzijiang Holdings	private	1 143	10.2%
New Century Shipbuilding	private	814	7.3%
Others		3 262	29.2%
Total		11 167	100.0%

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

Despite the weak demand in the global shipbuilding market and the restructuring of the Chinese shipbuilding industry, China's seagoing vessel production has been maintained between 11 million to 14 million CGT per year since 2014 (Figure 3). In 2020, China remained the largest shipbuilding economy in both ship completions and new contracts. China represented 37.5% of all CGT delivered world wide and 41.5% of all CGT contracted in 2020.

**Figure 3. Completions and new contracts of seagoing vessels by Chinese shipyards, 2011-2020**

Note: This figure includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

China's shipyards have been producing almost all kinds of vessel types in the past ten years (Table 7). Bulk carriers, tankers and container ships are the main ship types manufactured by Chinese shipbuilders, accounting for 81.3% of total CGT delivered in China for the past ten years.

**Table 7. Completions of seagoing vessels by ship type in China, 2011-2020**

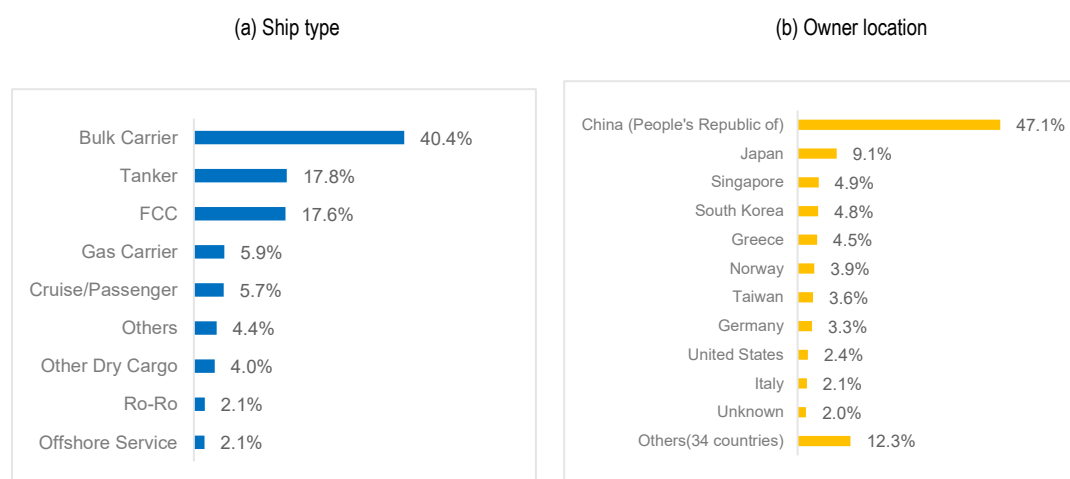
Type	CGT('000)	% of share
Bulk Carrier	69 997	48.8%
Tanker	24 155	16.8%
FCC (fully cellular container)	20 007	14.0%
Offshore Service	8 036	5.6%
Other Dry Cargo	7 604	5.3%
Gas Carrier	3 971	2.8%
Cruise/Passenger	2 692	1.9%
- Cruise	20	0.0%
PCC (pure car carrier)	1 740	1.2%
Ro-Ro (roll-on/roll-off)	723	0.5%
Reefer	325	0.2%
Others	4 152	2.9%
Total	143381	100.0%

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

Recent new orders to Chinese shipbuilders have been concentrated in three major ship types; bulk carriers, tankers and container ships accounts for 76% of total CGT contracted between 2018 and 2020. Chinese shipbuilders won new orders from 44 economies for the last three years. About half of the new orders came from Chinese ship-owners. In 2020, China's ship-owners owned the second largest fleet in the world, after Greece, representing 329 million dead weight tonnes (DWT), and accounting for about 16% of the world tonnage<sup>1</sup>. Most of China's shipping companies are SOEs.

**Figure 4. New contracts in Chinese shipyards by ship types and by ship owner locations, 2018-2020, in terms of CGT**



Note: This Figure includes all seagoing vessels from 100 GT. The percent share is based on CGT and China (People's Republic of) includes Hong Kong (China).

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

### 3.2.2. Philippines

According to the Maritime Industry Authority (MARINA) of Philippines, there are 115 registered shipbuilding and ship repair entities in Philippines as of 2019: 6 large, 15 medium and 94 small shipyards. There are also many service providers that are not labelled as shipyards by MARINA in Philippines, but are listed as contractors or afloat repairers.

Most of medium and small sized shipyards are domestic companies. Most of the large and export-oriented shipyards are foreign-owned. Among the six largest shipyards in Philippines, four are subsidiaries of foreign shipbuilding companies (Table 8).



**Table 8. Major Shipbuilding companies in Philippines**

Company name	Location	Ownership	Facilities	Manpower
Herma Shipyard	Bataan	Philippines	Graving dock: 15 000 GT Floating dock: 1 600 GT	Permanent: 60 Contract: 353
Keppel Subic shipyard	Subic	Singapore	Graving dock: 550 000 DWT	Permanent: 152 Contract: 300
Subic Drydock Corporation	Subic	USA (Subsidiary of Cebbras Marine Corp)	Floating dock: 18 000 DWT 4 000 DWT	Permanent: 35 Contract: -
Keppel Batangas Shipyard	Batangas	Singapore	Graving dock: 400 000 DWT	Permanent: 170 Contract: 187
F.F. Cruz & Co.	Iloilo	Philippines	Floating dock: 500 GRT	Permanent: 43 Contract: 35
Tsuneishi heavy industries (Cebu)	Cebu	Japan	Floating dock: 20 000 DWT 8 500 ton	Permanent: 75 Contract: 804

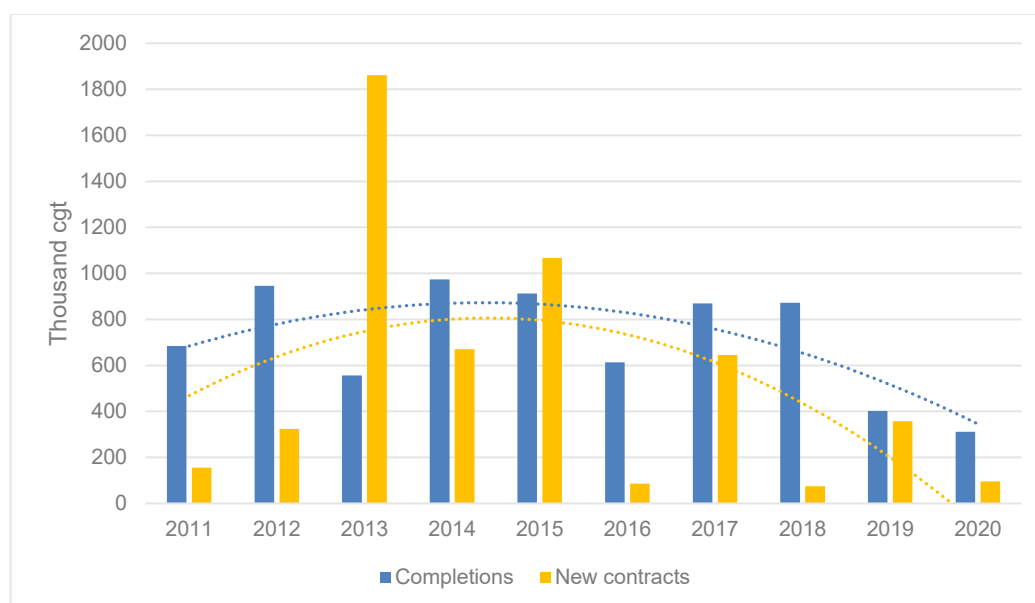
Note: Manpower includes skilled and technical employees.

Source: MARINA and Websites of each company.

The large shipyard of Hanjin Subic, which was one of the major shipyards that contributed to the Philippines to have become one of the major shipbuilding economies in the world, filed for court receivership in January 2019. It was reported that Austal, Australia's global shipbuilder and defence prime contractor, and the US-based Cerberus would operate this shipyard<sup>2</sup>. Austal Philippines, a subsidiary of Austal group, currently builds high-speed ferries, workboats and other commercial vessels in its Balamban shipyard in Cebu.

Over the last decade, production of seagoing vessels in the Philippine and new orders to Philippine shipyards have been fluctuating in response to the developments in the global shipbuilding market (Figure 5). In terms of ship completions in CGT, their production sharply decreased by more than half from 871 926 in 2018 to 401 779 in 2019, reflecting the bankruptcy of Hanjin Subic shipyard. Hanjin Subic shipyard delivered 11 seagoing vessels (535 484 CGT) in 2018, accounting for 61.8% of all CGT completed in the Philippines, but delivered only two ships (126 832 CGT) in 2019. New orders have also been oriented downwards since 2016 based on CGT.

**Figure 5. Completions and new contracts of seagoing vessels by Philippines' shipyards, 2011-2020**



Note: This figure includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

The Philippines' shipyards have been producing a variety of vessel types over the last ten years, including bulk carriers, container ships, tankers, gas carriers, passenger ships, reefer vessels and offshore service vessels (Table 9). Bulk carriers and container ships have been main ship types made by Philippine shipyards, accounting for 90% of total CGT delivered for the past ten years.

**Table 9. Completions of seagoing vessels by ship type in Philippines, 2011-2020**

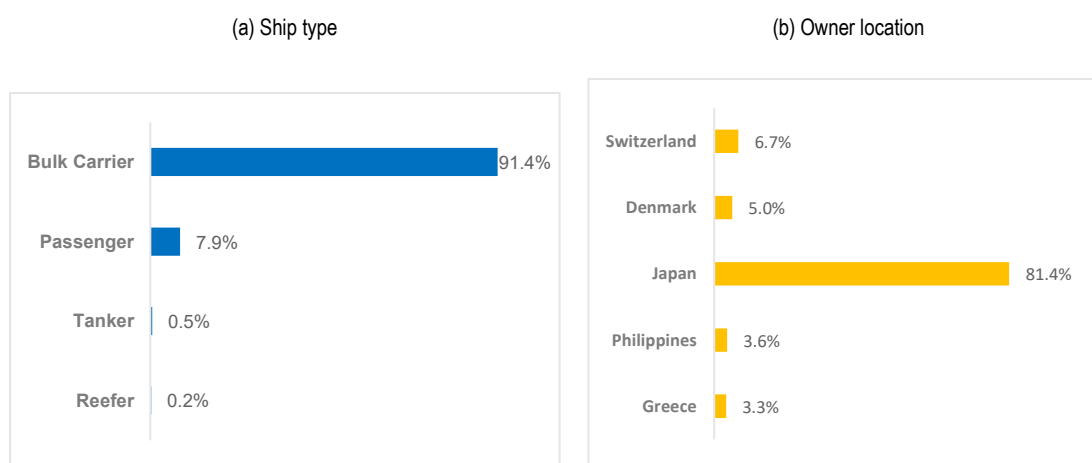
Type	CGT('000)	% of total
Bulk Carrier	4 066	56.9%
FCC (Fully Cellular Container)	2 363	33.1%
Tanker	434	6.1%
Gas Carrier	163	2.3%
Passenger	66	0.9%
Reefer	30	0.4%
Offshore Service	15	0.2%
Others	6	0.1%
Total	7 143	100%

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

During the last three years (2018-2020), Philippines' shipyards have won orders for total 528 263 CGT seagoing vessels. More than 90 percent of these new contracts were concentrated in bulk carriers. Japanese ship owners accounted for 81.4% of these new contracts in terms of CGT (Figure 6).

**Figure 6. New contracts in Philippines' shipyards by ship types and by ship owner locations, 2018-2020, in terms of CGT**



Note: This figure includes all seagoing vessels from 100 GT. The percent share is based on CGT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

### 3.2.3. Viet Nam

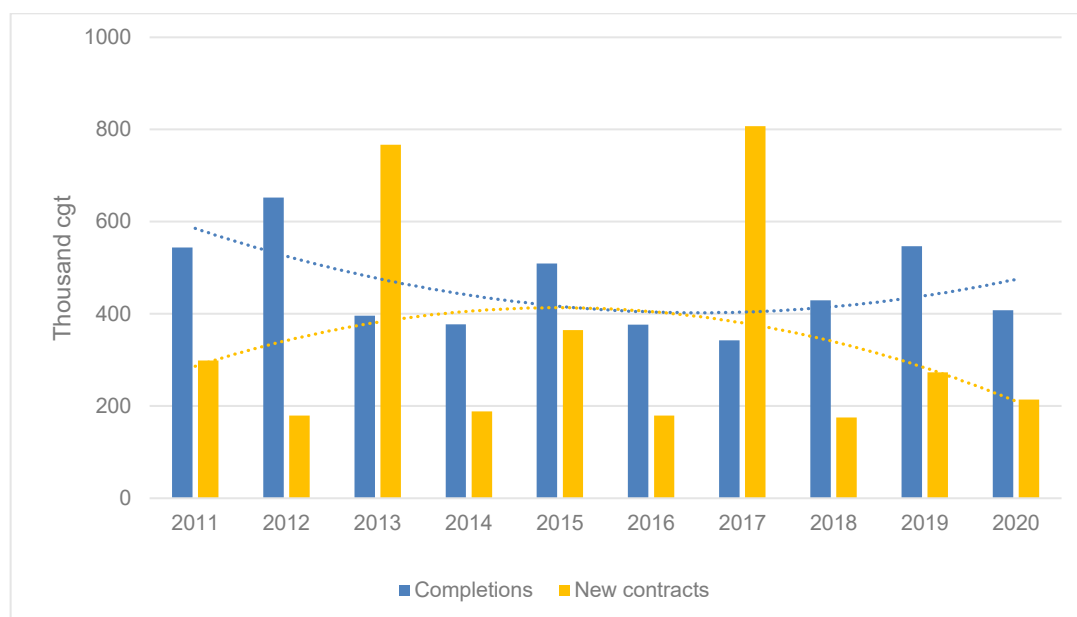
Viet Nam's shipyards can be divided into three categories: subsidiaries of the Shipbuilding Industry Cooperation (SBIC), other state-owned enterprises, and foreign invested enterprises (Table 10). The SBIC is the largest state-owned shipbuilding corporation in Viet Nam, which produces various types of vessels including tankers, bulk carriers, container ships, car carriers and passenger ships.

**Table 10. Major shipyards in Viet Nam**

Category	Name of Shipyard
SBIC	Ha Long Shipbuilding, Pha Rung Shipyard, Nam Trieu Shipbuilding Industry, Bach Dang Shipbuilding Industry, Song Cam Ship, Thinh Long Shipyard, Cam Ranh Shipyard, Saigon Shipbuilding Industry, Saigon Shipbuilding and Maritime Industry, 76 Shipyard
Other SOEs	Lilama Shipyard, Dung Quat Shipyard, PTSC Mechanical and Construction, PV shipyard, Hong Ha Shipyard, Z189 Shipyard, Ba Son Shipyard, Song Thu Shipyard
Foreign Invested Enterprises	Damen Song Cam Shipyard, Hyundai Viet Nam Shipbuilding, Strategic Marine Shipyard, Piriou Viet Nam, Vard Viet Nam, Oshima Shipbuilding Viet Nam

Source: "Viet Nam Maritime Industry", Presentation at ASEF 9<sup>th</sup> Forum<sup>3</sup>.

Despite the downturn in global shipbuilding market, the production of seagoing vessels in Viet Nam has remained rather stable around 0.4 million CGT per year since 2013 (Figure 7). New orders to Vietnamese shipyards show a more volatile pattern with new contracts reaching a peak of 870 097 CGT in 2017, plunging to 175 317 CGT in 2018 and then rebounding to 273 513 CGT in 2019.

**Figure 7 Completions and new contracts of seagoing vessels by Vietnamese shipyards, 2011-2020**

Note: This figure includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

Vietnamese shipyards have been producing a variety of vessel types over the last decade, including tankers, bulk carriers, other dry cargo ships, offshore service vessels, cruise/passenger ships, container ships, car carriers and gas carriers. Tankers and bulk carriers have been main ship types produced by Vietnamese shipyards, accounting for 77% of total CGT delivered for the past ten years.

**Table 11. Completions of seagoing vessels by ship type in Viet Nam, 2011-2020**

Type	CGT('000)	% of total
Tanker	1865	40.7%
Bulk Carrier	1210	26.4%
Other Dry Cargo	544	11.9%
Offshore Service	371	8.1%
Cruise/Passenger	127	2.8%
FCC (Fully Cellular Container)	62	1.4%
PCC (pure car carrier)	29	0.6%
Gas Carrier	20	0.4%
Others	355	7.7%
Total	4 583	100%

Note: This table includes all seagoing vessels from 100 GT.

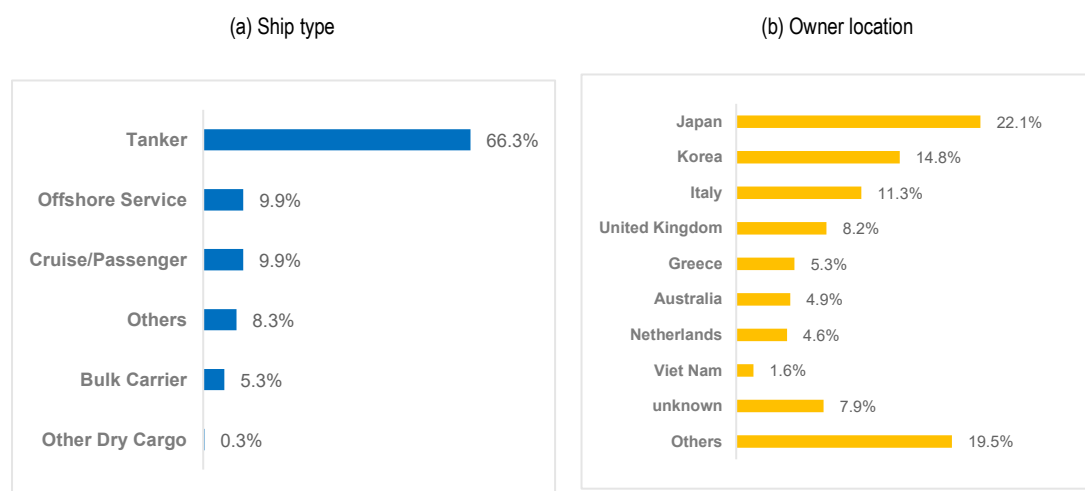
Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

During the last three years (2018-2020), Vietnamese shipyards have received new orders for 662 818 CGT seagoing vessels. Tankers made up the largest category in these new contracts, accounting for 66% of total CGT contracted in Viet Nam with Hyundai Vietnam Shipbuilding Corporation receiving all the orders of tankers (18 vessels of about 50 000

DWT). Hyundai Vietnam Shipbuilding was established in 1999 as a joint venture between SBIC and Hyundai Mipo Dockyard (HMD) of Korea and has become the leading shipyard in Viet Nam with an annual capacity of 20 vessels<sup>4</sup>.

In the last three years, Vietnamese shipyards have received new orders from 20 economies, and about 56% of the total CGT contracted was from ship owners in Japan, Korea, Italy and the UK (Figure 8). The share of domestic order was only 1.6%.

**Figure 8. New contracts in Vietnamese shipyards by ship types and by ship owner locations, 2018-2020, in terms of CGT**



Note: This figure includes all seagoing vessels from 100 GT. The percent share is based on CGT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

### 3.2.4. Indonesia

According to the Indonesia Ship Components Industry Association (ISCIA), two hundred-fifty shipyards are located in Indonesia, mostly centred in Batam, Jakarta, Lampung and East Java<sup>5</sup>. Total annual production capacity of Indonesian shipyards is about 1 million DWT for new shipbuilding and about 12 million DWT for ship repair. Almost 80 percent of the shipyards are categorized as small and medium sized shipyards with production facilities up to 5 000 DWT.

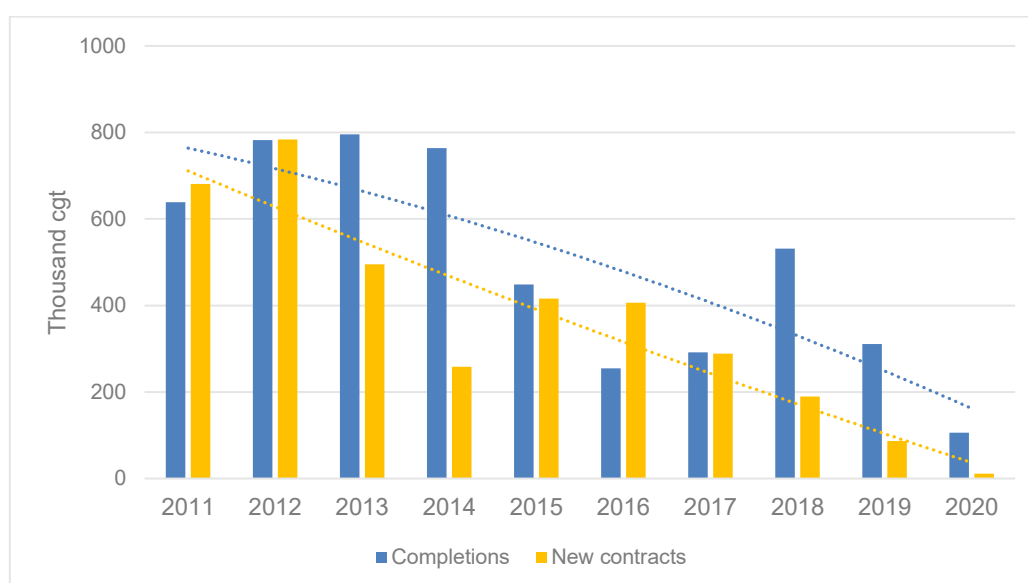
The two largest shipbuilders in Indonesia are PT PAL and PT Dok Dan Perkapalan Kodja Bahari, both of which are state-owned and build ships for commercial and military purposes.

**Table 12. Overview of the two major shipyards in Indonesia**

Name	Ownership	Facilities
PT PAL Indonesia ( <a href="https://pal.co.id">https://pal.co.id</a> )	State-owned	<ul style="list-style-type: none"> <li>Naval shipbuilding, commercial shipbuilding and ship repair</li> <li>Production capacity of 1 600 ton per month, or the equivalent of 3 ships per year (two 30 000 DWT tankers and one 17 500 DWT tanker)</li> <li>Bulk Carrier up to 50 000 DWT, Container ships up to 1 600 TEUs, Tankers up to 30 000 DWT, Passenger ships up to 500 PAX, etc.</li> </ul>
PT Dok Dan Perkapalan Kodja Bahari (Persero) ( <a href="https://dkb.co.id">https://dkb.co.id</a> )	State-owned	<ul style="list-style-type: none"> <li>Commercial shipbuilding and ship repair, naval shipbuilding</li> <li>Shipbuilding up to 17 500 DWT and ship repair up to 30 000 DWT</li> </ul>

Source: Websites of each company.

Over the last decade, production of seagoing vessels in Indonesia and new orders to Indonesian shipyards have been steadily declining based on CGT (Figure 9). This continued in 2020 as completions amounted to 106 095 CGT and contracts to 10 950 CGT.

**Figure 9. Completions and new contracts of seagoing vessels by Indonesian shipyards, 2011-2020**

Note: This figure includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

Indonesian shipyards have been producing a variety of vessel types over the last decade, including tugboats, passenger ships, offshore service vessels, tankers, dry cargo ships, bulk carriers, buoy/lighthouse tenders and work/repair vessels (Table 13). Tugboats accounted for 51% of total CGT delivered in Indonesia. These tugs are typically used in smaller ports where regular sized vessels cannot access.

Indonesia was the largest tugboat producer worldwide in the past decade followed by China and Malaysia (Table 14). Due to high demand for inter-island transportation of bulk materials, Indonesia has the world's largest tug fleet at around 3 600 vessels, and domestic tug numbers are expected to grow over the next five years as ports are upgraded and population growth drives demand for bulk product transportation, particularly coal<sup>6</sup>. Therefore, the high domestic demand for tugboats seems to have contributed significantly to the growth of Indonesian tugboat builders.

**Table 13. Completions of seagoing vessels by ship type in Indonesia, 2011-2020**

Type	CGT('000)	% of total
Tug	2 531	51.4%
Passenger	846	17.2%
Offshore Service	575	11.7%
Tanker	444	9.0%
Other Dry Cargo	317	6.4%
FCC (Fully Cellular Container)	44	0.9%
Bulk Carrier	37	0.8%
Buoy/Lighthouse Tender	35	0.7%
Work/Repair Vessel	33	0.7%
Others	63	1.3%
Total	4924	100%

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

**Table 14. Completions of tugs by building economies, 2011-2020**

Economy	CGT ('000)	% of world total
Indonesia	2 531	27.8%
China (People's Republic of)	1 761	19.3%
Malaysia	1 063	11.7%
United States	596	6.5%
Turkey	534	5.9%
Netherlands	320	3.5%
Viet Nam	299	3.3%
Brazil	241	2.6%
Spain	187	2.1%
Japan	187	2.1%
Others (42 economies)	1 387	15.2%
World total	9 107	100%

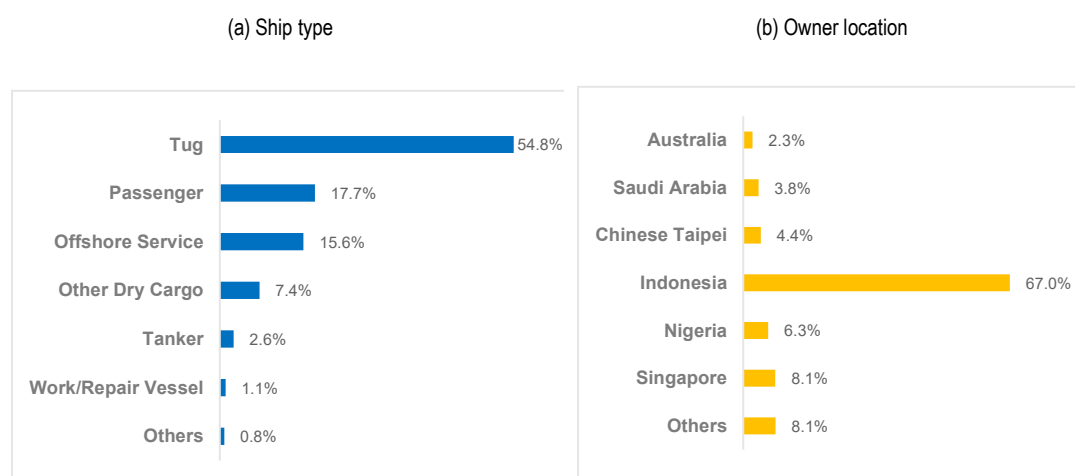
Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

More than half of the new orders at Indonesian shipyards in the past three years were tugboats (Figure 10). In addition, unlike neighbouring economies such as the Philippines and Viet Nam, about 67% of all new orders to Indonesian shipyards were from domestic ship owners.



**Figure 10. New contracts in Indonesian shipyards by ship types and by ship owner locations, 2018-2020, in terms of CGT**



Note: This figure includes all seagoing vessels from 100 GT. The percent share is based on CGT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

### 3.2.5. France

As of 2018, the total turnover of French shipbuilding companies amounted to EUR 11.4 billion, of which 44% was exported, and the total number of employees was 47 200. The defence sector accounted for about half of the activity of the French shipbuilding industry: 53% of total turnover and 52% of total employment.

**Table 15. Key figures of the French shipbuilding industry in 2018**

1. Turnover: 11.4 billion Euros	
· Civil sector: 5.4 billion	· Defence sector: 6 billion
- Construction: 1.65 billion	- Construction: 2.4 billion
- Repair: 0.3 billion	- Maintenance & overhaul: 1.05 billion
Product/Service/Equipment: 6 billion	
2. Direct employment: 47 200	
· Civil sector: 22 600	· Defence sector: 24 600
- Construction: 4 100	- Construction: 8 000
- Repair: 1 400	- Maintenance & overhaul: 5 100
Product/Service/Equipment: 28 600	

Note: Civil sector includes merchant ships, service vessels, fishing ships and mega yachts.

Source: GICAN (the French marine industry group) activity report 2019-2020.

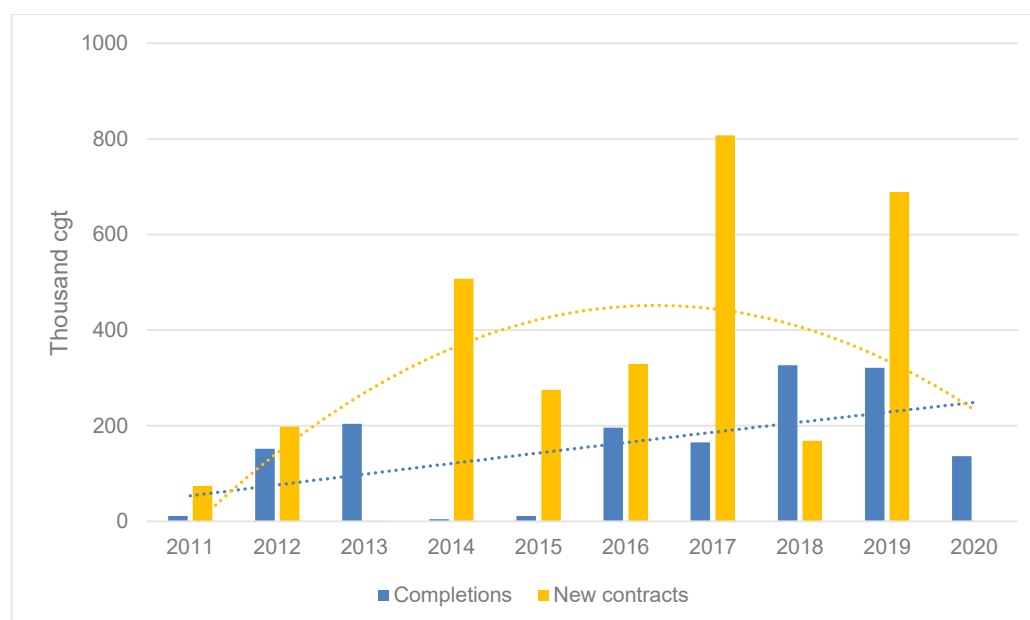
The main shipyards in France are listed in Table 16 by their main business activities. Chantiers de l'Atlantique, the largest shipyard in France, was planned to merge with Fincantieri of Italy, the largest cruise shipbuilder worldwide. However, in January 2021, French and Italian governments announced that they would not proceed with the deal between the two state-owned enterprises, which would have led Fincantieri to take a majority stake in the Chantiers de l'Atlantique, mainly due to the current economic situation and the COVID-19 impact on the cruise shipbuilding market<sup>7</sup>.

**Table 16. Main shipyards in France**

1. Cruise and passenger shipbuilder - Chantiers de l'Atlantique, PIRIOU, CMN (Constructions Mécaniques de Normandie), Neopolia marine	3. Ship repair yard - Chantier Naval de Marseille, Damen-France, Clemessy services, Socarenam, PIRIOU
2. Defence - Naval group, Kership, Socarenam, CMN	4. Other ship type - Leisure boat: Beneteau - Mega yacht: OCEA

Source: "France and the shipbuilding industry", Belon trade consulting, 2018.

Despite the sluggish movement of global shipbuilding market after the global financial crisis, French shipyards' activity has been recovering quickly (Figure 11). Chantiers de l'Atlantique (formerly STX France) received successive orders for large cruise ships since 2010. However, in 2020, French shipyards did not receive any orders for seagoing vessels (over 100 GT), because of the impact of the COVID-19 pandemic on the cruise shipbuilding market.

**Figure 11. Completions and new contracts of seagoing vessels by French shipyards, 2011-2020**

Note: This figure includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

Cruise ships are the main ship type built by French shipyards, accounting for 95% of total CGT delivered for the past ten years. France is the third largest cruise shipbuilder worldwide after Italy and Germany (Table 18).

**Table 17. Completions of seagoing vessels by ship type in France, 2011-2020**

Type	CGT('000)	% of total
Cruise/Passenger	1 483	97.0%
- Cruise ship	1 458	95.4%
Tug	17	1.1%
Offshore Service	7	0.5%
Others	21	1.4%
Total	1 529	100.0%

Note: This table includes all seagoing vessels from 100 GT.

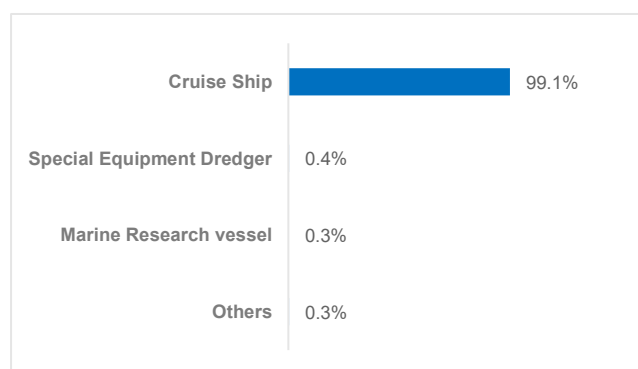
Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

**Table 18. Completions of cruise ships by building economies, 2011-2020**

Economy	CGT ('000)	% of Total CGT	GT ('000)	% of Total GT
Italy	3 827	37.9%	3 517	36.7%
Germany	2 943	29.1%	3 014	31.4%
France	1 458	14.4%	1 562	16.3%
Finland	1 001	9.9%	985	10.3%
Norway	311	3.1%	148	1.5%
Japan	266	2.6%	254	2.7%
Others (9 economies)	300	3.0%	108	1.1%
Total	10 105	100.0%	9 588	100.0%

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

**Figure 12. New contracts in French shipyards by ship types, 2018-2019, in term of CGT**

Note: This figure includes all seagoing vessels from 100 GT. The percent share is based on CGT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

### 3.2.6. Chinese Taipei

According to the Ministry of Economic affairs of Chinese Taipei, as of 2018, Chinese Taipei has 188 shipbuilding establishments employing 7 389 employees<sup>8</sup>. Of these, 86% are small businesses with fewer than 50 employees. (Table 19).

The Chinese Taipei International Shipbuilding Corporation (CSBC) is the largest shipbuilder in Chinese Taipei with two large shipyards in Keelung and Kaohsiung. It was partly privatised through an Initial Public Offering (IPO) in 2008, but the Chinese Taipei government is still the largest shareholder.

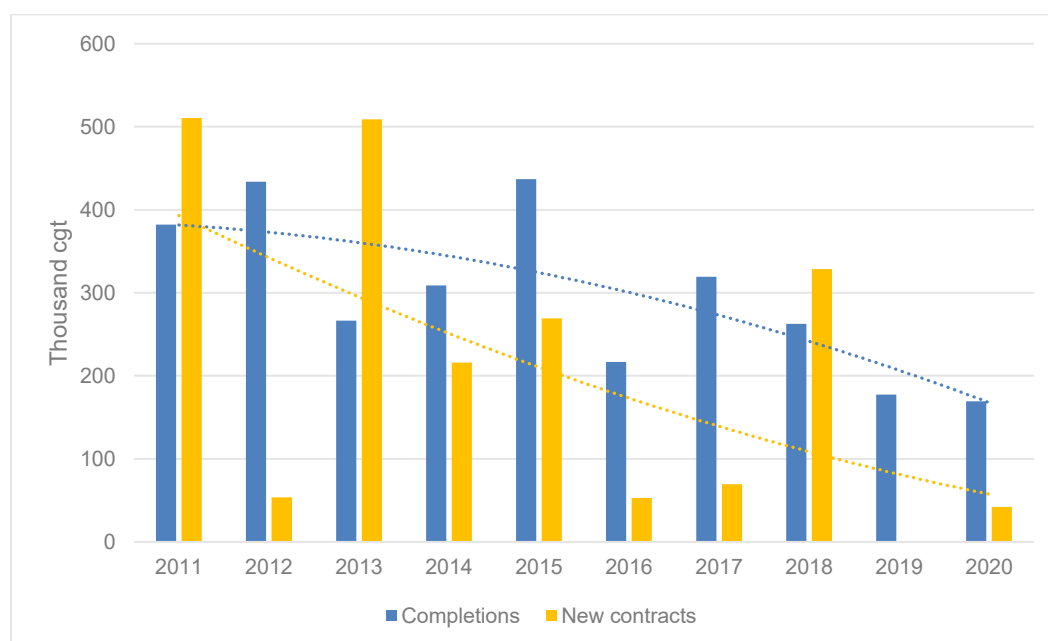
**Table 19. Classification of Chinese Taipei shipbuilding industry**

Classification	Shipyards	Business items
Large	Kaohsiung and Keelung of CSBC	Building container ships, bulk carriers, oil tankers, military and police ships.
Medium-sized	CITIC, Coating, Longde, Sanyang, Xinshengfa, Jiahong, and Unilai	Building official ships, bulk carriers, transportation ships, port service ships, work ships, yachts and fishing boats.
Small	-	Engaged in the production of fishing boats and ship repairs.

Source: Chinese Taipei Shipbuilding Industry Association (<https://www.tsba.org.tw>)

Over the last decade, completions of seagoing vessels in Chinese Taipei and new orders to Chinese Taipei's shipyards have been declining in terms of CGT (Figure 13). Compared to 2011, completions in 2020 decreased by 55% and new orders in 2020 by 91%.

**Figure 13. Completions and new contracts of seagoing vessels by Chinese Taipei shipyards, 2011-2020**



Note: This figure includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

The ship types produced in Chinese Taipei between 2011 and 2020 were container ships, bulk carriers, offshore service vessels, tankers, tugboats, dry cargo ships, reefer vessels, and passenger ships (Table 20). While Chinese Taipei's shipbuilders have been producing a variety of ship types, Chinese Taipei shipbuilding industry is notably known for the CSBC's ability to build large-capacity cellular container ships at comparative prices. The CSBC has built 85 container ships (2.3 million CGT) over the last ten years, which has led Chinese Taipei to become the world's fifth largest containership building economy, after Korea, China, Japan and the Philippines (Table 21).

**Table 20. Completions of seagoing vessels by ship type in Chinese Taipei, 2011-2020**

Type	CGT('000)	% of total
FCC (Fully Cellular Container)	2 346	78.9%
Bulk Carrier	313	10.5%
Offshore Service	118	4.0%
Tanker	77	2.6%
Tug	30	1.0%
Other Dry Cargo	25	0.8%
Reefer	23	0.8%
Passenger	16	0.5%
Others	26	0.9%
Total	2974	100.0%

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

**Table 21. Completions of FCCs by building economies, 2011-2020**

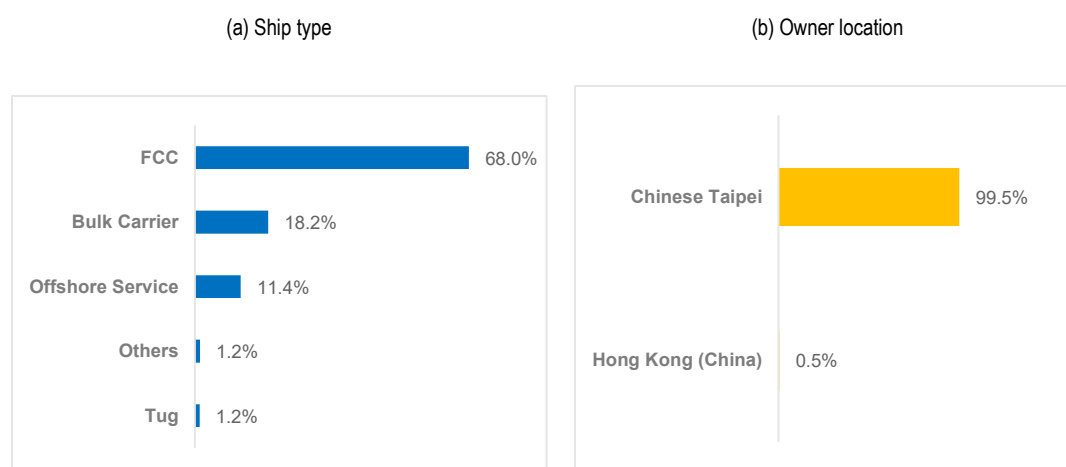
Economy	CGT('000)	% of total
Korea	32 550	51.5%
China (People's Republic of)	20 007	31.7%
Japan	4 855	7.7%
Philippines	2 363	3.7%
Chinese Taipei	2 346	3.7%
Romania	596	0.9%
Others (12 economies)	466	0.7%
Total	63 183	100.0%

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

Recent orders to Chinese Taipei shipyards were concentrated in container ships, bulk carriers, and offshore service vessels (Figure 14). The CSBC received all the contracts of containerships and bulk carriers. Almost 100% of the orders was from Chinese Taipei ship owners (Figure 14). In 2019, Chinese Taipei owned the 12<sup>th</sup> largest fleet in the world, representing 51 million DWT<sup>9</sup>.

**Figure 14. New contracts in Chinese Taipei's shipyards by ship types and by ship owner locations, 2018-2019, in term of CGT**



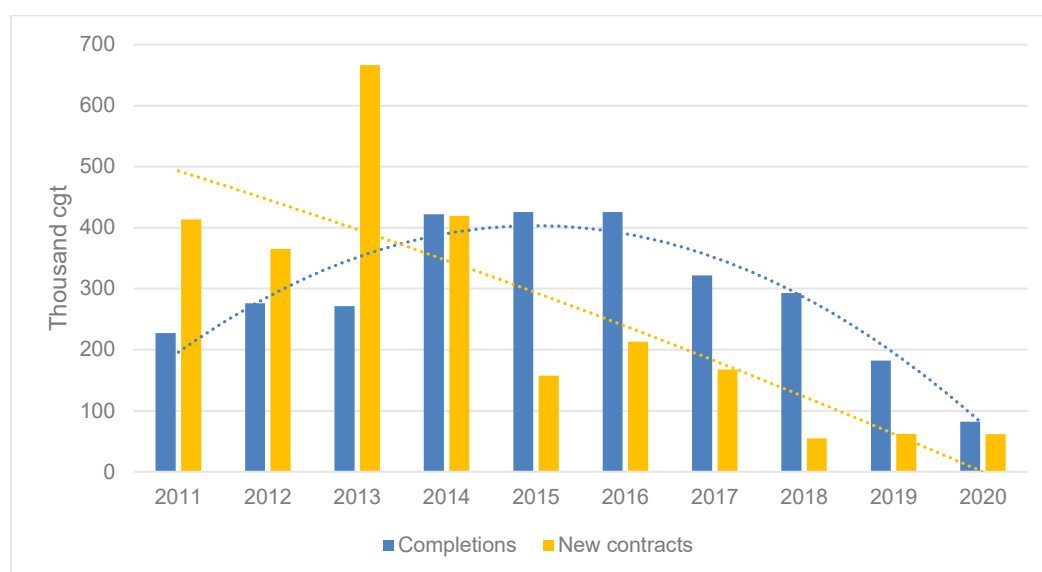
Note: This Figure includes all seagoing vessels from 100 GT. The percent share is based on CGT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

### 3.2.7. The United States

According to the U.S. Maritime administration, as of 2013, there were 123 active shipyards across 26 states and more than 200 shipyards engaged in ship repair or capable of building ships but not actively engaged in shipbuilding. In 2013, total revenues of the American shipbuilding and repair industry amounted to USD 25.7 billion. About 70% of the revenues came from military shipbuilding and repairs<sup>10</sup>.

Over the last decade, completions of seagoing vessels in the United States peaked at 425 794 CGT in 2015 and has been declining since then. New orders to American shipyards have also been oriented downwards since 2013 ( Figure 15).

**Figure 15. Completions and new contracts of seagoing vessels by American shipyards, 2011-2020**

Note: This figure includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

The ship types produced in the United States over the last ten year were offshore service vessels, tugboats, tankers, cruise/passenger ships, roll-on/roll-off (Ro-Ro) vessels, container ships and dredgers (Table 22).

**Table 22. Completions of seagoing vessels by ship type in the United States, 2011-2020**

Type	CGT('000)	% of total
Offshore Service	1 233	42.1%
Tug	596	20.4%
Tanker	551	18.8%
Cruise/Passenger	230	7.9%
Ro-Ro (roll-on/roll-off)	140	4.8%
FCC (Fully Cellular Container)	104	3.6%
Dredger	53	1.8%
Others	20	0.7%
Total	2 927	100.0%

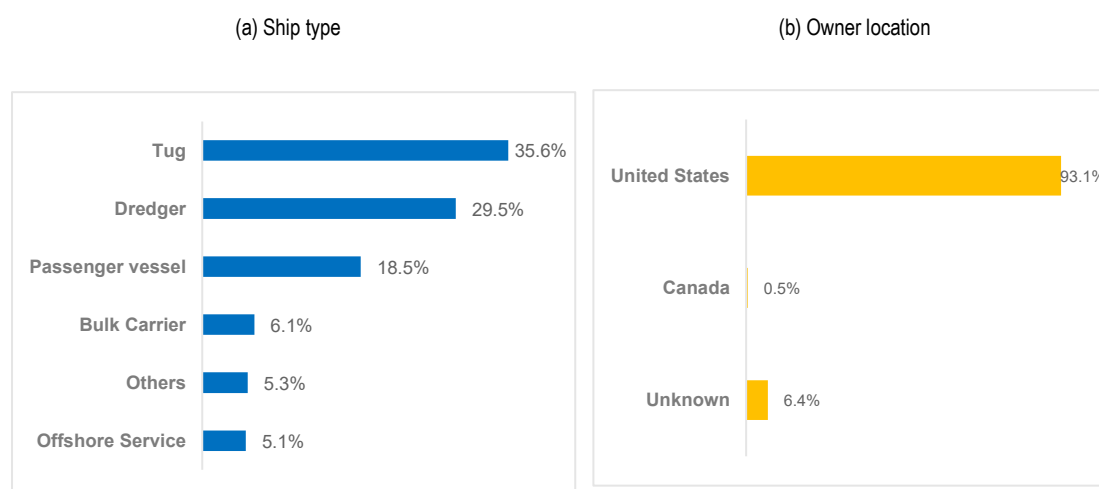
Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

Recent orders to American shipyards were concentrated in tugboats, dredgers and passenger ships. These ship types accounted for 84% of total CGT ordered between 2018 and 2020. Most of the orders were from American ship owners ( Figure 16).



**Figure 16. New contracts to American shipyards by ship types and by ship owner locations, 2018-2020, in term of CGT**



Note: This figure includes all seagoing vessels from 100 GT. The percent share is based on CGT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

### 3.2.8. Russia

The Russian shipbuilding industry is highly dependent on the military sector, which accounts for about 80% of Russian shipbuilding production measured in RUB<sup>11</sup>. The largest shipbuilding holding company in Russia is the United Shipbuilding Corporation (USC), all shares of which are owned by the Russian government. It was established in 2007, incorporating more than 80% of the design and production capacities of the Russian shipbuilding industry. It owns about 40 shipyards and employs nearly 95 000 workers.

Zvezda shipbuilding complex project, the construction of the largest shipbuilding complex in Russia, is underway in the bay of Bolshoy Kamen in the Far East of Russia. The project is implemented in several stages and scheduled to be completed in 2024.

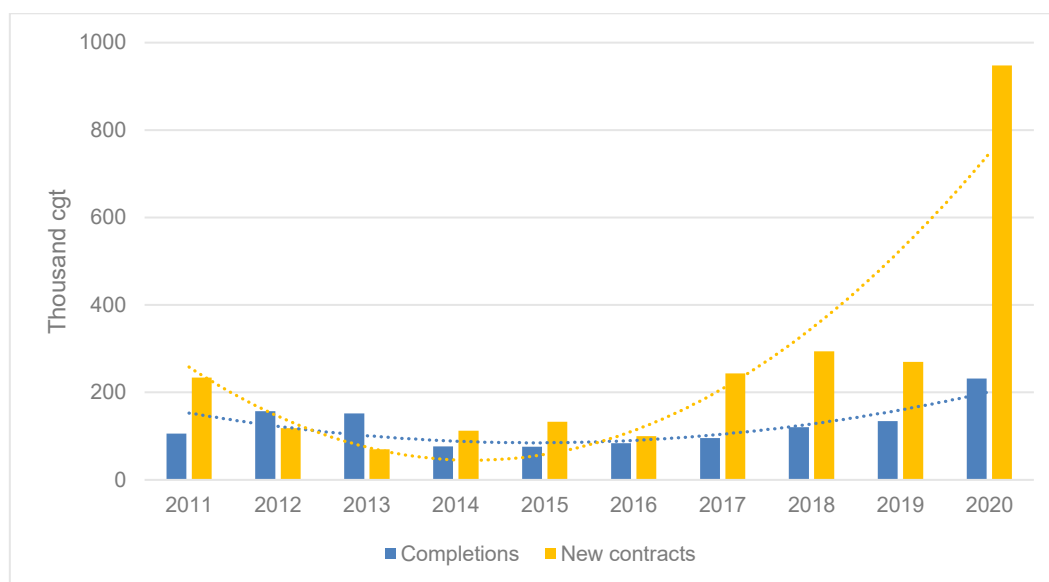
**Table 23. Overview of Zvezda shipbuilding complex project**

Location	Bolshoy Kamen in the Russian Far East
Schedule	<p>This project is being implemented by the consortium of Rosneft and Gazprombank represented by the joint venture, Modern Shipbuilding Technologies JSC.</p> <p>It is implemented in several stages.</p> <ul style="list-style-type: none"> <li>- Construction phase I (2012-2020): hull production block and paint booths with open heavy building berth and transferring dock for construction of medium and large capacity vessels and marine facilities.</li> <li>- Extended construction phase I (2012-2021): block assembly shop, painting and drying booths, outfitting and modular assembly shop, etc.</li> <li>- Construction phase II (2016-2024): dry dock and full cycle production shops for construction of large capacity vessels and marine facilities.</li> </ul> <p>In 2016, the ceremonial start-up of the new shipyards production took place.</p>
Production	Designed for construction of large-capacity vessels (ex. Aframax-type tankers, Yamalmax-type gas carriers), including ice-class vessels with a displacement of up to 350 000 DWT.

Source: Website of Zvezda Shipbuilding Company and RMIT Questionnaire 2021

Russia's completions of seagoing vessels and new contracts have been on the rise since 2016 (Figure 17). Ship completions sharply increased from 84 142 CGT in 2016 to 231 820 CGT in 2020 and new contracts strongly grew from 99 969 CGT to 947 659 CGT during the same period.

**Figure 17. Completions and new contracts of seagoing vessels by Russian shipyards, 2011-2020**



Note: This Figure includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

The ship types produced in Russia over the last ten year were tankers, dry cargo ships, icebreakers, tugboats, offshore service vessels, passenger ships, dredgers and reefer vessels (Table 24). Russia is the largest icebreaker producer worldwide, accounting for 88% of global completions in terms of CGT for the past ten years (Table 25). In particular, in 2020, the Baltic shipyard (a subsidiary of the USC) delivered a nuclear-powered icebreaker (called “Artic”) to Atomflot, the Russian operator that maintains the world’s only fleet of unclear powered icebreakers. It is the first of Russia’s new nuclear-powered “Project 22220” icebreakers<sup>12</sup>.

**Table 24. Completions of seagoing vessels by ship type in Russia, 2011-2020**

Type	CGT('000)	% of total
Tanker	516	41.8%
Other Dry Cargo	424	34.3%
Icebreaker	121	9.8%
Tug	79	6.4%
Offshore Service	40	3.2%
Passenger	23	1.9%
Dredger	20	1.6%
Reefer	2	0.2%
Others	9	0.7%
Total	1 234	100.0%

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>

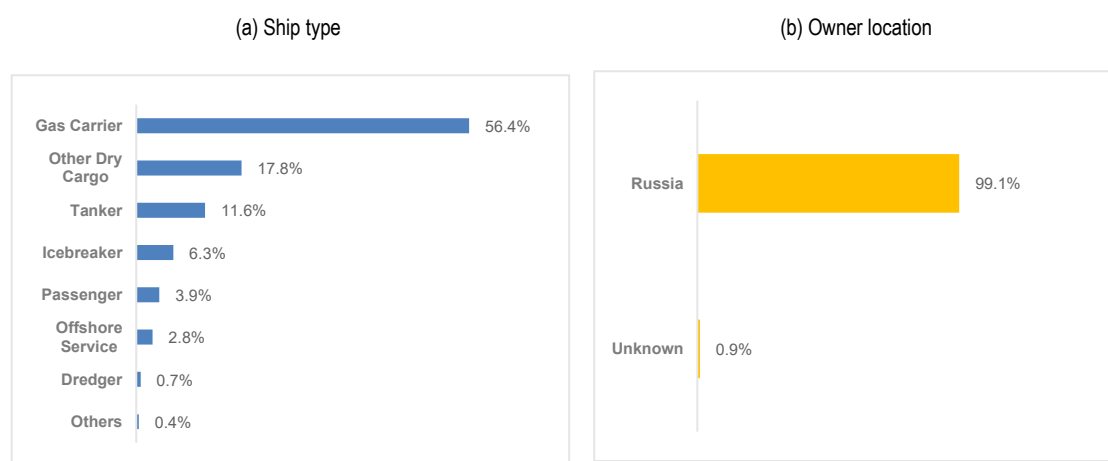
**Table 25. Completions of Icebreaker by building economies, 2011-2020**

Economy	CGT('000)	Number of ships	% of CGT total
Russia	121	7	88.3%
Finland	16	2	11.7%
Total	137	9	100.0%

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

Recent orders to Russian shipyards were concentrated in gas carriers, dry cargo ships, tankers and icebreakers. Those ship types accounted for 92% of total CGT contracted between 2018 and 2020. In particular, in 2020, Zvezda shipyard has signed a contract to build 15 LNG carriers for Novatek, Russia's second largest natural gas producer<sup>13</sup>. All recent orders to Russian shipyards were from Russian ship owners.

**Figure 18. New contracts in Russia shipyards by ship types and by ship owner locations, 2018-2019, in term of CGT**

Note: This Figure includes all seagoing vessels from 100 GT. The percent share is based on CGT.  
 Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

### 3.2.9. Spain

The largest shipbuilding company in Spain is Navantia, a state-owned enterprise with a focus on the naval sector. As of 2019, its revenue was EUR 1.2 billion and its direct employment amounted to 3 864 employees, generating more than 8 000 direct jobs with the auxiliary industry and more than 25 000 indirect and induced jobs<sup>14</sup>. Spain's private shipbuilding sector consists primarily of medium sized shipbuilders, many of which are family businesses that have been operating for generations<sup>15</sup>.

Over the past decade, completions of seagoing vessels in Spain and new orders to Spanish shipyards has fluctuated significantly (Figure 19). In 2020, under the impact of COVID-19 pandemic, the completions decreased by 71% in terms of CGT compared to 2019, and new orders decreased by 40%.

**Figure 19. Completions and new contracts of seagoing vessels by Spanish shipyards, 2011-2020**



Note: This Figure includes all seagoing vessels from 100 GT.  
 Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

The ship types produced in Spain over the last ten year were offshore service vessels, tugboats, passenger ships, tankers, dredgers, dry cargo vessels, bulk carriers and gas carriers<sup>1</sup>. Of these, offshore service vessels ranked the first, accounting for 42% of total CGT delivered in Spain between 2011 and 2020.

<sup>1</sup> As it is the case for several other major shipbuilding economies, naval shipbuilding is an important activity of the Spanish shipbuilding industry. However, this report does not include the analysis of naval shipbuilding as it falls outside the scope of the WP6's mandate.

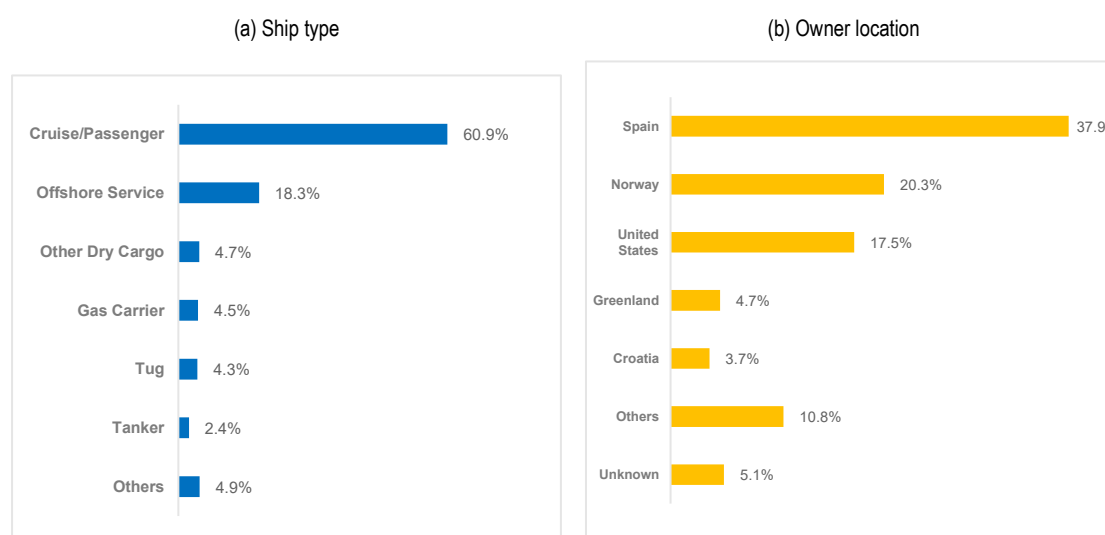
**Table 26. Completions of seagoing vessels by ship type in Spain, 2011-2020**

Type	CGT('000)	% of total
Offshore Service	494	42.0%
Tug	187	15.9%
Passenger	164	13.9%
Tanker	139	11.8%
Dredger	119	10.1%
Other Dry Cargo	37	3.2%
Bulk Carrier	7	0.6%
Gas Carrier	7	0.6%
Others	21	1.8%
<b>Total</b>	<b>1 176</b>	<b>100.0%</b>

Note: This table includes all seagoing vessels from 100 GT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

Recent orders to Spanish shipyards were concentrated in passenger ships (including one cruise ship) and offshore service vessels, accounting for about 80% of total CGT contracted between 2018 and 2020. About 76% of recent orders were from Spanish, Norwegian and American ship owners.

**Figure 20. New contracts in Spanish shipyards by ship types and by ship owner locations, 2018-2020, in term of CGT**

Note: This Figure includes all seagoing vessels from 100 GT. The percent share is based on CGT.

Source: OECD calculations based on Clarksons Research Services Limited (February 2021), World Fleet Register, <https://www.clarksons.net/wfr>.

## Chapter 4. Policy developments in selected non-WP6 economies

### 4.1. Criteria for including support measures in the report

The Secretariat listed support measures pursuant to the subsequent criteria:

- The categories of support measures are the same as in the WP6 Inventory exercise;
- Information on support measures is derived from public sources only. This most likely means that not all measures are reported in this document;
- The focus is on support measures that came into force from March 2020 to March 2021;
  - In case no information is found on the actual date at which the support measures were taken, the Secretariat included support measures which are likely to be taken in the considered time period;
  - In case it is expected that certain support measures are terminated, the Secretariat did not include these support measures in this report;
- In case no information is found on the amount of support measures or the authority/agency responsible for the support measures, the relevant fields are left blank;
- The Secretariat made efforts to include selected barriers to trade that may affect the shipbuilding sector (e.g. measures which could lead to the protection of the domestic market) either directly or indirectly, but did not include general and horizontal trade barriers (e.g. foreign direct investment limitations and customs procedures);
- Strategies, objectives or plans for the domestic shipbuilding industry without concrete measures are not included in this report;
- The Secretariat has contacted economies for which support measures have been included in this report and requested comments to the extent possible. The current draft includes comments received by the United States. For all other non-WP6 members, the Secretariat is still waiting for possible comments that could be addressed in a revised version of this report.

### 4.2. Summary of measures by categories of support measures

Category A (Direct transfer of funds by Governments) includes two support measures. They aim to directly protect or improve the economic health of the domestic shipbuilding industry.

- Direct government support is provided to PT PAL Indonesia. (Indonesia)
- A grant programme for small shipyards (United States)

Category C (Loans on terms and conditions more favourable than those commercially available) includes two support measures.

- Loan to Megaship Builders Inc. (MBI) provided by the Development Bank of the Philippines to upgrade and expand its shipbuilding and ship repair complex in Albuera, Leyte (Philippines)

- Loans to shipyard operators by the Maritime Industry Authority to help the domestic shipyard industry to recover from losses incurred due to the COVID-19 pandemic (Philippines)

Category D (Loan guarantees that support loans on terms and conditions more favourable than those commercially available) includes one support measure.

- The Federal Ship Financing Program (Title XI) promotes U.S. Merchant Marine fleet and U.S. shipyard growth and modernization. (United States)

Category E (Export or Home Credits) includes one support measure.

- Shipbuilding credit provided by Chinese leasing companies to assist local shipbuilders to build ships and vessels and foreign ship owners to place orders at local shipyards (China)

Category H (Government revenue that is foregone or not collected) includes two support measures.

- The Construction Reserve Fund (CRF) which is a financial assistance program that provides tax deferral benefits to U.S.-flag operators. (United States)
- The Capital Construction Fund (CCF) program encourages construction, reconstruction, or acquisition of vessels through the deferment of Federal income taxes on certain deposits of money or other property placed into a CCF. (United States)

Category I (Provision by government of infrastructure (other than general infrastructure), goods or services on non-commercial conditions) includes one support measure.

- Expansion plan of the pilot Free Trade Zone (FTZ) Ningbo into a global shipping hub, an influential oil and gas resource allocation center, a supply chain innovation center and a high-quality smart manufacturing demonstration area (China)

Category K (Support for Research and Development) includes one support measure.

- Strategic cooperation between China's Maritime Safety Administration and CSSC focussing on sectors of smart ships and maritime environmental protection. (China)

Category M (Protection of the domestic market) and N (Domestic build or domestic content requirements) share many common points. They aim to increase or protect the domestic shipbuilding industry. There are nine support measures included in these two categories.

- Ordering 4 multi-purpose vessels by Ming Wah Shipping at domestic shipyards (China)
- Ordering 8 bulkers by China Development Bank at domestic shipyards (China)
- Ordering 3 liquefied natural gas carriers by Cosco and CNPC at domestic shipyards (China)



- Ordering 7 containerships by OOCL at domestic shipyards (China)
- Make in India Order (India)
- Right of First Refusal (ROFR) licensing conditions (India)
- Ban on access of industrial goods originating from foreign states to state procurement including certain types of vessels (Russia)
- Executive order on public procurement to maximize the use of goods procured in, and services offered in, the U.S. (United States)
- Placing an order of 4 water buses by Indonesia's Ministry of Transportation at domestic shipyards (Indonesia)

Category O (Other official regulations and practices) includes two measures.

- Legal guidelines limiting liabilities of shipyards and shipping companies (China)
- Framework cooperation between Guangdong province government and CSSC and CNOOC aimed at reducing emission from the shipping industry (China)

### 4.3. Measures taken by selected non-WP6 economies

#### 4.3.1. China

<b>1. Type of the measure of support and its title</b>	
K Support for research and development <i>Strategic cooperation between China's Maritime Safety Administration and CSSC</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Maritime Safety Administration of the Ministry of Transport	
<b>3. Outline/explanation of the measure</b>	
China's Maritime Safety Administration signed a strategic cooperation with China State Shipbuilding Corporation (CSSC) focusing on sectors of smart ships and maritime environmental protection. Under this agreement, cooperation is to be foreseen on the development of smart ships, a smart transport management system, smart inspection and monitoring systems, as well as a development plan for the smart shipping industry. Further aspects of the collaboration include research and development of new energy-powered ships and energy saving and environmental protection devices.	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	2020
<b>6. References</b>	
<p>Newspaper Hellenic Shipping News (2020): "China to promote smart ships development, maritime environmental protection", <a href="https://www.hellenicshippingnews.com/china-to-promote-smart-ship-development-maritime-environmental-protection/">https://www.hellenicshippingnews.com/china-to-promote-smart-ship-development-maritime-environmental-protection/</a>, accessed on 16 March 2021.</p> <p>Newspaper Offshore Energy (2020): "Chinese government teams up with CSSC on smart ships", <a href="https://www.offshore-energy.biz/chinese-government-teams-up-with-cssc-on-smart-ships/">https://www.offshore-energy.biz/chinese-government-teams-up-with-cssc-on-smart-ships/</a>, accessed on 16 March 2021.</p> <p>Newspaper The Maritime Executive (2020): "Chinese Government and CSSC Cooperate to Develop Shipping Technologies", <a href="https://www.maritime-executive.com/article/chinese-government-and-cssc-cooperate-to-develop-shipping-technologies">https://www.maritime-executive.com/article/chinese-government-and-cssc-cooperate-to-develop-shipping-technologies</a>, accessed on 16 March 2021.</p>	

<b>1. Type of the measure of support and its title</b>	
O Other official regulations and practice <i>Legal Guidelines limiting liabilities of shipyards and shipping companies</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Supreme People's Court of China	
<b>3. Outline/explanation of the measure</b>	
The Supreme People's Court of China has issued legal guidelines that limit the liabilities of shipyards and shipping companies affected by the coronavirus pandemic. According to the supreme court's instruction, carriers and shippers can terminate the transport contracts if vessels cannot arrive at loading or discharge ports due to the pandemic. Furthermore, carriers can be exempted from the liabilities for delayed deliveries that result from Covid-19, if they inform the shippers in time. Shipbuilders and repair yards can delay their deliveries due to a shortage of workers or equipment, but lower courts need to take individual situations into consideration. While English law applies to most shipbuilding and international shipping contracts, the supreme court's instruction is expected to affect legal cases governed by Chinese law.	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	2020
<b>6. References</b>	
Newspaper Trade Winds (2020): "China's top court limits coronavirus liabilities for shipping firms and yards", <a href="https://www.tradewindsnews.com/law/chinas-top-court-limits-coronavirus-liabilities-for-shipping-firms-and-yards/2-1-829834">https://www.tradewindsnews.com/law/chinas-top-court-limits-coronavirus-liabilities-for-shipping-firms-and-yards/2-1-829834</a> , accessed on 16 March 2021.	

<b>1. Type of the measure of support and its title</b>	
M Protection of the domestic market <i>4 multi-purpose vessels orders by Ming Wah Shipping</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Not applicable	
<b>3. Outline/explanation of the measure</b>	
<p>China Merchants Group subsidiary Ming Wah Shipping signed for four 61,000-dwt multi-purpose vessels at Jinling Shipyard for delivery in 2022, paying around \$29.7 million for each bulker. The newbuildings is part of the company's plan to upgrade bulk carrier fleet, supporting the company's market position. Hong Kong Ming Wah Shipping is the bulk carrier operation arm of China Merchants Energy Shipping.</p> <p>China's yards are likely to get state support in terms of newbuilding contracts from domestic companies in times of low foreign demand. Given the large amount of money, the fact that no orders will be placed at foreign shipyards, and the depressed market conditions, one may pose the question if all rules on fair government procurement procedures were respected.</p>	
<b>4. Monies estimated</b>	\$118.8 million
<b>5. Start and end date</b>	2020
<b>6. References</b>	
<p>Newspaper Trade Winds (2020): Chinese shipyards slash prices in post-lockdown bid to woo buyers", <a href="https://www.tradewindsnews.com/shipyards/chinese-shipyards-slash-prices-in-post-lockdown-bid-to-woo-buyers/2-1-788853">https://www.tradewindsnews.com/shipyards/chinese-shipyards-slash-prices-in-post-lockdown-bid-to-woo-buyers/2-1-788853</a>, accessed on 17 March 2021.</p> <p>Newspaper Sea Trade Maritime News (2020): "Hong Kong Ming Wah Shipping orders four bulkers at Jinling Shipyard", <a href="https://www.seatrade-maritime.com/shipbuilding/hong-kong-ming-wah-shipping-orders-four-bulkers-jinling-shipyard">https://www.seatrade-maritime.com/shipbuilding/hong-kong-ming-wah-shipping-orders-four-bulkers-jinling-shipyard</a>, accessed on 17 March 2021.</p>	

<b>1. Type of the measure of support and its title</b>	
E Export or Home Credits <i>Funding by Chinese leasing companies</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Not applicable	
<b>3. Outline/explanation of the measure</b>	
Chinese leasing firms play a critical role in attracting orders from overseas customers to Chinese yards. Mediterranean Shipping Corporation (MSC) is to split six orders for 23,000-teu containerships worth up to \$900 million between three Chinese shipyards, Hudong-Zhonghoua Shipbuilding (Group), Jiangnan Shipyard and Yangzijiang Shipbuilding. According to Industry sources, Chinese leasing companies will be funding the newbuildings. Chinese leasing house Bank of Communications Financial Leasing (BoComm Leasing) is said to be one of them.	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	2020
<b>6. References</b>	
Newspaper Trade Winds (2020): "China's shipbuilding industry bounces back from coronavirus and comes out on top", <a href="https://www.tradewindsnews.com/business-focus/china-s-shipbuilding-industry-bounces-back-from-coronavirus-and-comes-out-on-top/2-1-898143">https://www.tradewindsnews.com/business-focus/china-s-shipbuilding-industry-bounces-back-from-coronavirus-and-comes-out-on-top/2-1-898143</a> , accessed on 17 March 2021. Newspaper Trade Winds (2020): "Three Chinese yards to share \$900m MSC orders", <a href="https://www.tradewindsnews.com/shipyards/three-chinese-yards-to-share-900m-msc-orders/2-1-927052">https://www.tradewindsnews.com/shipyards/three-chinese-yards-to-share-900m-msc-orders/2-1-927052</a> , accessed on 17 March 2021.	

<b>1. Type of the measure of support and its title</b>	
M      Protection of the domestic market <i>8 bulker orders by China Development Bank</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Not applicable	
<b>3. Outline/explanation of the measure</b>	
China Development Bank invested \$418 million on eight scrubber-fitted newcastlemax bulker newbuildings. The order is backed by charter contracts from German electric utility company RWE. The Chinese lessor commissioned three state-owned shipyards to build the 210,000-dwt vessels, which are due for delivery between late 2021 and 2022.	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	2020
<b>6. References</b>	
Newspaper Trade Winds (2020): "China's shipbuilding industry bounces back from coronavirus and comes out on top", <a href="https://www.tradewindsnews.com/business-focus/china-s-shipbuilding-industry-bounces-back-from-coronavirus-and-comes-out-on-top/2-1-898143">https://www.tradewindsnews.com/business-focus/china-s-shipbuilding-industry-bounces-back-from-coronavirus-and-comes-out-on-top/2-1-898143</a> , accessed on 17 March 2021. Newspaper Sea Trade Maritime News (2020): "China Development Bank Leasing orders eight bulk carriers at three Chinese yards", <a href="https://www.seatrade-maritime.com/shipbuilding/china-development-bank-leasing-orders-eight-bulk-carriers-three-chinese-yards">https://www.seatrade-maritime.com/shipbuilding/china-development-bank-leasing-orders-eight-bulk-carriers-three-chinese-yards</a> , accessed on 17 March 2021.	

<b>1. Type of the measure of support and its title</b>	
M Protection of the domestic market <i>3 liquefied natural gas carriers orders by Cosco and CNPC</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Not applicable	
<b>3. Outline/explanation of the measure</b>	
A joint venture consisting of Chinese shipowner Cosco and China National Petroleum Corporation (CNPC) has placed an order for three liquefied natural gas carriers at Hudong Zhonghua Shipbuilding. The price for each of the 174,000 cubic meter LNG carriers is \$185 million. The vessels will be used by CNPC's Hong Kong (China)-listed unit PetroChina.	
<b>4. Monies estimated</b>	\$600 million
<b>5. Start and end date</b>	2020
<b>6. References</b>	
Newspaper Offshore Energy (2020): "Cosco, CNPC to order LNG carrier at Hudong", <a href="https://www.offshore-energy.biz/cosco-cnpc-to-order-lng-carrier-trio-at-hudong/">https://www.offshore-energy.biz/cosco-cnpc-to-order-lng-carrier-trio-at-hudong/</a> , accessed on 18 March 2021. Newspaper Offshore Energy (2020): "China COSCO Shipping orders LNG tro at Hudong", <a href="https://www.offshore-energy.biz/china-cosco-shipping-orders-lng-trio-at-hudong/">https://www.offshore-energy.biz/china-cosco-shipping-orders-lng-trio-at-hudong/</a> , accessed on 18 March 2021. Newspaper Lloyd's List (2020): "Cosco's LNG tanker investment linked to US export projects", <a href="https://lloydslist.maritimeintelligence.informa.com/LL1132095/Coscos-LNG-tanker-investment-linked-to-US-export-projects">https://lloydslist.maritimeintelligence.informa.com/LL1132095/Coscos-LNG-tanker-investment-linked-to-US-export-projects</a> , accessed on 18 March 2021.	

<b>1. Type of the measure of support and its title</b>	
M Protection of the domestic market <i>7 containership orders by OOCL</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Not applicable	
<b>3. Outline/explanation of the measure</b>	
Orient Overseas Container Line Limited (OOCL) has ordered seven 23,000-teu containership newbuildings at two Chinese shipyards. Contracts have been signed with Dalian Cosco KHI Ship Engineering Corporation (Dacks), which will build four vessels costing \$157.71 million each, and Nantong Cosco KHI Ship Engineering Corporation (Nacks), which will construct three ships costing \$157.68 million each. They are to be expected for delivery between the third quarter of 2023 and the third quarter of 2024. The latest seven orders bring the number of 23,000-teu containerships ordered by OOCL in 2020, with total capital expenditure amounting to more than \$1.88 billion.	
<b>4. Monies estimated</b>	\$677.88 million
<b>5. Start and end date</b>	2020
<b>6. References</b>	
Newspaper Trade Winds (2020): "OOCL ups mega-size containership tally by seven with new order worth \$1.1bn", <a href="https://www.tradewindsnews.com/containerships/oocl-ups-mega-size-containership-tally-by-seven-with-new-order-worth-1-1bn/2-1-904326">https://www.tradewindsnews.com/containerships/oocl-ups-mega-size-containership-tally-by-seven-with-new-order-worth-1-1bn/2-1-904326</a> , accessed on 18 March 2021. Newspaper Offshore Energy (2020): "OOCL orders 7 more 23,000 TEU boxships in China", <a href="https://www.offshore-energy.biz/oocl-orders-7-more-23000-teu-boxships-in-china/">https://www.offshore-energy.biz/oocl-orders-7-more-23000-teu-boxships-in-china/</a> , accessed on 18 March 2021.	



<b>1. Type of the measure of support and its title</b>	
I Provision by government of infrastructure (other than general infrastructure), goods or services on non-commercial conditions <i>Expansion of pilot FTZ Ningbo</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
State Council of the People's Republic of China	
<b>3. Outline/explanation of the measure</b>	
<p>In September 2020, the Council of the People's Republic of China released plans for the establishment of new and the expansion of existing Free Trade Zones (FTZs). According to the plan, Ningbo will be allowed to expand its pilot FTZ. The provincial government has made specific plans to build the zone into a global shipping hub, an influential oil and gas resource allocation center, a supply chain innovation center and a high-quality smart manufacturing demonstration area.</p> <p>With a focus on shipping, Ningbo-Zhoushan Port will strengthen the linkage of the sea port, the airport, the inland port and the information port, improve the port's intelligent infrastructure construction, and make efforts to develop high-end shipping services including finance and insurance, international marine affairs, and shipping trade and transactions. It will also build the high energy-level shipping service platforms, and construct the globally first-class port with strong radiation and service functions as well as the important hub of the national comprehensive transportation system.</p> <p>The expansion area in Ningbo will be located in Beilun District, which is home of five-state level development zones.</p>	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	
<b>6. References</b>	
<p>The State Council of the People's Republic of China (2020): "Free trade zones rise to 21 with new approvals", <a href="http://english.www.gov.cn/policies/policywatch/202009/22/content_WS5f693628c6dof7257693c63a.htm">http://english.www.gov.cn/policies/policywatch/202009/22/content_WS5f693628c6dof7257693c63a.htm</a>, accessed on 17 March 2021.</p> <p>Newspaper Hellenic Shipping News (2020): "Ningbo to build expansion area for Zhejiang Pilot Free Trade Zone", <a href="https://www.hellenicshippingnews.com/ningbo-to-build-expansion-area-for-zhejiang-pilot-free-trade-zone/">https://www.hellenicshippingnews.com/ningbo-to-build-expansion-area-for-zhejiang-pilot-free-trade-zone/</a>, accessed on 17 March 2021.</p>	

<b>1. Type of the measure of support and its title</b>	
O Other official regulations and practice <i>Strategic Cooperation between Guangdong Province Government, CSSC and CNOOC</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Guandong province government	
<b>3. Outline/explanation of the measure</b>	
Guandong province government has signed a framework cooperation with China State Shipbuilding Corporation (CSSC) and China National Offshore Oil Corporation (CNOOC), which is aimed at reducing the emission from the shipping industry. Under the project, it is planned to about retrofit 1,500 ships and build 19 LNG fuelling stations in the province by 2025. The project, upon completion, will replace the annual consumption of 390,000 tonnes of fuel products with demand for 400,000 tonnes of LNG.	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	2020
<b>6. References</b>	
<p>Newspaper Lloyd's List (2020): "Guandong to convert 1,500 ships to LNG", <a href="https://lloydslist.maritimeintelligence.informa.com/LL1132522/Guangdong-to-convert-1500-ships-to-LNG">https://lloydslist.maritimeintelligence.informa.com/LL1132522/Guangdong-to-convert-1500-ships-to-LNG</a>, accessed on 18 March 2021.</p> <p>Newspaper Offshore Energy (2020): "China's Guangdong plans big inland LNG conversion project", <a href="https://www.offshore-energy.biz/chinas-guangdong-plans-big-inland-lng-conversion-project/">https://www.offshore-energy.biz/chinas-guangdong-plans-big-inland-lng-conversion-project/</a>, accessed on 18 March 2021.</p>	

## 4.3.2. India

<b>1. Type of the measure of support and its title</b>	
M      Protection of the Domestic Market <i>Make in India Order</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
The Ministry of Shipping	
<b>3. Outline/explanation of the measure</b>	
The Ministry of Shipping has directed all major ports to procure or charter tug boats which are only made in India. All procurements being done by major ports would now need to be carried out as per the revised 'Make in India' Order.	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	Announced 4 September 2020
<b>6. References</b>	
Ministry of Ports, Shipping and Waterways (2020): "Major Ports to use only Indian built tug boats now onwards – A step towards bolstering the revival of Indian Ship building and a big move towards AatmaNirbhar Shipping in AatmaNirbhar Bharat: Shri Mandaviya", <a href="https://pib.gov.in/PressReleseDetail.aspx?PRID=1651276">https://pib.gov.in/PressReleseDetail.aspx?PRID=1651276</a> , accessed on 26 February 2021.	

<b>1. Type of the measure of support and its title</b>	
M Protection of the Domestic Market <i>Right of First Refusal (ROFR) licensing conditions</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
The Ministry of Shipping	
<b>3. Outline/explanation of the measure</b>	
In pursuance of 'Make in India' policy of the Government of India, Ministry of Shipping has reviewed the Right of First Refusal (ROFR) licensing conditions for chartering of vessels/ships through tender process for all types of requirements. To promote the demand of the ships built in India, priority in chartering of vessels is given to vessels built in India and owned by Indians under the amendments in the guidelines of ROFR. The second priority will be given to foreign built, Indian flagged and Indian-owned vessels while the third priority will be given to Indian built, foreign flagged and foreign-owned ships.	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	Announced 22 October 2020
<b>6. References</b>	
Ministry of Ports, Shipping and Waterways (2020): "To boost shipbuilding in India, Ministry of Shipping amends Right of First Refusal (ROFR) licensing conditions – A bold step towards 'AatmaNirbharShipping' for 'AatmaNirbhar Bharat': Shri Mansukh Mandaviya", <a href="https://pib.gov.in/PressReleasePage.aspx?PRID=1666728">https://pib.gov.in/PressReleasePage.aspx?PRID=1666728</a> , accessed on 26 February 2021. Newspaper The Hindu (2020): "Priority in chartering to be given to ships built, flagged in India and owned by Indians: Govt", <a href="https://www.thehindu.com/news/national/priority-in-chartering-to-be-given-to-ships-built-flagged-in-india-and-owned-by-indians-govt/article32917676.ece">https://www.thehindu.com/news/national/priority-in-chartering-to-be-given-to-ships-built-flagged-in-india-and-owned-by-indians-govt/article32917676.ece</a> , accessed on 26 February 2021.	

## 4.3.3. Indonesia

<b>1. Type of the measure of support and its title</b>	
N Domestic build or domestic content requirements <i>4 water buses order by Indonesia's Ministry of Transportation</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Ministry of Transportation Republic of Indonesia	
<b>3. Outline/explanation of the measure</b>	
Indonesia's Ministry of Transportation has ordered four water buses to carry visitors on Lake Toba in North Sumatra and Sentani Lake in Papua. They are being built by two Indonesian yards PT Trisetia Cipta Persada in Surabaya and PT Tri Ratna Diesel Paciran in Lamongan. Lake Sentani's water buses can transport 100 people each, while Lake Toba's water buses can transport 150 people each. Tri Ratna Diesel will build the water buses for Lake Sentani, which will cost about Rp 19 billion and Trisetia Cipta Persada will built the waterbuses for Lake Toba for about Rp 10.4 billion.	
<b>4. Monies estimated</b>	Rp 29.4 billion
<b>5. Start and end date</b>	2020
<b>6. References</b>	
Newspaper The Jakarta Post (2020): "Govt procures water buses to support Lake Toba tourism, 2020 PON in Papua", <a href="https://www.thejakartapost.com/news/2020/03/09/govt-procures-water-buses-to-support-lake-toba-tourism-2020-pon-in-papua.html">https://www.thejakartapost.com/news/2020/03/09/govt-procures-water-buses-to-support-lake-toba-tourism-2020-pon-in-papua.html</a> , accessed on 11 March 2021. Newspaper New Ships (2020): "Lake ferries ordered by government", <a href="https://www.new-ships.net/prospects-orders/detail/news/lake-ferries-ordered-by-government.html">https://www.new-ships.net/prospects-orders/detail/news/lake-ferries-ordered-by-government.html</a> , accessed on 11 March 2021.	

<b>1. Type of the measure of support and its title</b>	
A Direct transfer of funds by Governments <i>Capital Injections to PT PAL Indonesia from Indonesian Government</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Ministry of Finance	
<b>3. Outline/explanation of the measure</b>	
As part of the National Economic Recovery Plan, nine state owned enterprises (SOEs) will get injections from the Indonesian Government amounting to Rp 42.38 trillion. The injections are in the form of state capital investment and will be disbursed in 2021. Rp 1.2 trillion are allocated to the ship maker PT PAL Indonesia. According to CNN Indonesia, funds are intended for the preparation of submarine production facilities and procurement of submarine production support equipment.	
<b>4. Monies estimated</b>	Rp 1.2 trillion
<b>5. Start and end date</b>	2021
<b>6. References</b>	
<p>DJKN Media News (2020): “Capital Injection to STATE-OWNED Enterprises Rp 42.38 Trillion Can Help National Economic Recovery”, <a href="https://www.kemendagri.go.id/berita/suntikan-modal-ke-bumn-rp-42.38-triliun-bisa-bantu-pemulihan-ekonomi-nasional">Suntikan Modal ke BUMN Rp 42.38 Triliun Bisa Bantu Pemulihan Ekonomi Nasional (kemenkeu.go.id)</a>, accessed on 11 March 2021.</p> <p>Newspaper Jakarta Post (2020): “Indonesia plans to inject \$2.5b into SOEs next year to stimulate economy, resolve Jiwasraya scandal”, <a href="https://www.thejakartapost.com/news/2020/09/16/indonesia-plans-to-inject-2-5b-into-soes-next-year-to-stimulate-economy-resolve-jiwasraya-scandal.html">https://www.thejakartapost.com/news/2020/09/16/indonesia-plans-to-inject-2-5b-into-soes-next-year-to-stimulate-economy-resolve-jiwasraya-scandal.html</a>, accessed on 11 March 2021.</p> <p>Newspaper CNN Indonesia (2021): BUMN Gets Rp42.3 T Injection, PLN and Pertamina Get Assets”, <a href="https://www.cnnindonesia.com/ekonomi/20210311140000-005-ekonomi-bumn-423-t-injection-pln-pertamina">BUMN Dapat Suntikan Rp42.3 T, PLN dan Pertamina Dapat Aset (cnnindonesia.com)</a>, accessed on 11 March 2021.</p>	

## 4.3.4. Philippines

<b>1. Type of the measure of support and its title</b>	
C      Loan on terms and conditions more favourable than those commercially available <i>Loans to shipyard operators by the Maritime Industry Authority</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Maritime Industry Authority (Marina)	
<b>3. Outline/explanation of the measure</b>	
The Maritime Industry Authority (Marina) is considering an economic stimulus package for the economy's shipyard industry to help them recover from losses incurred due to the COVID19-pandemic. The agency plans to provide loans to shipyard operators. It was not specified how much the government aid will be given.	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	
<b>6. References</b>	
Newspaper The Manila Times (2020): "Government readies aid for shipyards", <a href="https://www.manilatimes.net/2020/09/09/business/maritime-business/government-readies-aid-for-shipyards/766380/">https://www.manilatimes.net/2020/09/09/business/maritime-business/government-readies-aid-for-shipyards/766380/</a> , accessed on 11 March 2021. Newspaper New Ships (2020): "State help programme for Philippines yards planned", <a href="https://www.new-ships.net/inside-reports/detail/news/state-help-programme-for-philippines-yards-planned.html">https://www.new-ships.net/inside-reports/detail/news/state-help-programme-for-philippines-yards-planned.html</a> , accessed on 11 March 2021.	

<b>1. Type of the measure of support and its title</b>	
C      Loan on terms and conditions more favourable than those commercially available <i>Loan to Megaship Builders Inc. by Development Bank of the Philippines</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Development Bank of the Philippines (DBP)	
<b>3. Outline/explanation of the measure</b>	
State-owned Development Bank of the Philippines (DBP) has granted a P4.17 billion term loan to Megaship Builders, Inc. (MBI) to upgrade and expand its shipbuilding and ship repair complex in Albuera, Leyte. The loan proceeds will be used to partially finance the construction of the shipyard's second and third slipways, office building and other support facilities. This shipyard expansion project is expected to increase the capacity of the shipyard from 10,000 DWT to 200,000 DWT, thus accommodating an average of 10 vessels per month from the current two vessels per months.	
<b>4. Monies estimated</b>	P4.17 billion
<b>5. Start and end date</b>	
<b>6. References</b>	
Development Bank of the Philippines (DBP) (2021): "DBP signs multi-billion credit deal with local ship building firm", <a href="https://www.dbp.ph/newsroom/dbp-signs-multi-billion-credit-deal-with-local-ship-building-firm/">https://www.dbp.ph/newsroom/dbp-signs-multi-billion-credit-deal-with-local-ship-building-firm/</a> , accessed on 11 March 2021. Newspaper The Manila Times (2021): "DBP signs multi-billion credit deal with local ship building firm", <a href="https://www.manilatimes.net/2021/02/02/public-square/dbp-signs-multi-billion-credit-deal-with-local-ship-building-firm/836086/">https://www.manilatimes.net/2021/02/02/public-square/dbp-signs-multi-billion-credit-deal-with-local-ship-building-firm/836086/</a> , accessed on 11 March 2021.	



4.3.5. *Russia*

<b>1. Type of the measure of support and its title</b>	
M      Protection of the Domestic Market <i>Ban on access of industrial goods originating from foreign states to state procurement</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Government of the Russian Federation	
<b>3. Outline/explanation of the measure</b>	
Under the Federal Contracting System Act, the Government of the Russian Federation has signed the Resolution No. 616 of 30 April 2020 that prohibits industrial goods from foreign states (except for economies – members of the Eurasian Economic Union) to public procurement for public and municipal needs as well as industrial goods originating from foreign states, works (services) performed (rendered) by foreign persons to procurement for national defense and state security needs. Certain types of vessels are included under item 100 to 108 of the corresponding list, including, inter alia: cruise ships; sightseeing vessels and similar floating means for transportation; passenger ferries of all types; tankers for transporting oil, petroleum products, chemical products, liquefied gas; tugboats; fishing vessels; fishery vessels and other vessels for processing or conserving fish products.	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	Start date; 1 May 2020
<b>6. References</b>	
Government of the Russian Federation (2020): “A decree was signed on the unification of prohibitions on access of industrial goods from foreign economies to public procurement, including for the needs of national defense and state security”, <a href="http://government.ru/docs/39620/">http://government.ru/docs/39620/</a> , accessed on 26 February 2021.	

4.3.6. *The United States*

<b>1. Type of the measure of support and its title</b>	
A Direct transfer of funds by Governments <i>Small Shipyard Grants</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
U.S. Department of Transportation, Maritime Administration (MARAD)	
<b>3. Outline/explanation of the measure</b>	
<p>Under the Small Shipyard Grant Program, \$19.6 million is available for grants for: 1) Capital and related improvements to qualified shipyard facilities that will be effective in fostering efficiency, competitive operations, and quality ship construction, repair and reconfiguration, and 2) training projects that would be effective in fostering employee skills and enhanced productivity related to shipbuilding, ship repair, and associated industries. Since 2008, the Small Shipyard Grant Program has awarded more than \$243 million through 268 grants. In addition, the Consolidated Appropriations Act, 2021 appropriated \$20 million to the Small Shipyard Grant Program.</p> <p>The applicant must be the operating company of the shipyard facility which may not have more than 1,200 production employees. The shipyard facility must construct, repair, or reconfigure vessels 40 feet in length or greater for commercial or government use, or construct, repair, or reconfigure vessels 100 feet in length or greater for non-commercial vessels. The grants for any eligible project will not exceed 75 percent of the total cost of such project.</p>	
<b>4. Monies estimated</b>	USD 20 million in 2021
<b>5. Start and end date</b>	Start date; 2008
<b>6. References</b>	
<p>U.S. Department of Transportation Maritime Administration (2021): "Notice of Small Shipyard Grants Application Deadlines", <a href="https://cms.marad.dot.gov/sites/marad.dot.gov/files/2021-01/2021%20Small%20Shipyard%20Grants%20-%20Notice%20of%20Funding%20Opportunity%20for%20the%20Small%20Shipyard%20Grant%20Program_1.pdf">https://cms.marad.dot.gov/sites/marad.dot.gov/files/2021-01/2021%20Small%20Shipyard%20Grants%20-%20Notice%20of%20Funding%20Opportunity%20for%20the%20Small%20Shipyard%20Grant%20Program_1.pdf</a>, accessed on 10 March 2021.</p> <p>U.S. Department of Transportation Maritime Administration (2021): "Maritime Administration Announces Notice of Funding Opportunity for America's Small Shipyard Grant Program", <a href="https://www.maritime.dot.gov/newsroom/press-releases/maritime-administration-announces-notice-funding-opportunity-americas-small">https://www.maritime.dot.gov/newsroom/press-releases/maritime-administration-announces-notice-funding-opportunity-americas-small</a>, accessed on 26 February 2021.</p>	

<b>1. Type of the measure of support and its title</b>	
M      Protection of the Domestic Market <i>Executive order on public procurement to maximize the use of goods produced in, and services offered in, the U.S.</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
Executive Office of the President	
<b>3. Outline/explanation of the measure</b>	
<p>The executive order directs agencies to strengthen requirements about purchasing products and services from U.S. workers and businesses. Consistent with applicable law, the United States should use terms and conditions of Federal financial assistance awards and Federal procurements to maximize the use of goods, products, and materials produced in, and services offered in, the United States. Furthermore, it is stated that the United States Government should, whenever possible procure goods, products, materials, and services from sources that will help American business compete in strategic industries and help America's workers thrive. Additionally, to promote an accountable and transparent procurement policy, each agency should vest waiver issuance authority in senior agency leadership, where appropriate and consistent with applicable law.</p> <p>The executive order reiterates the support for the Jones Act, in the way that "Made in America Laws" include laws requiring domestic preference for maritime transport, including the Merchant Marine Act of 1920 (Public Law 66-261), also known as the Jones Act.</p>	
<b>4. Monies estimated</b>	
<b>5. Start and end date</b>	January 2021
<b>6. References</b>	
Federal Register (2021): "Executive Order 14005 of January 25, 2021: Ensuring the Future is Made in All of America by All of America's Workers", <a href="https://www.govinfo.gov/content/pkg/FR-2021-01-28/pdf/2021-02038.pdf">https://www.govinfo.gov/content/pkg/FR-2021-01-28/pdf/2021-02038.pdf</a> , accessed on 10 March 2021.	

<b>1. Type of the measure of support and its title</b>	
D Loan guarantees that support loans on terms and conditions more favourable than those commercially available <i>Federal Ship Financing Program (Title XI)</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
US Department of Transportation, Maritime Administration (MARAD)	
<b>3. Outline/explanation of the measure</b>	
<ul style="list-style-type: none"> <li>– The Federal Ship Financing Program promotes U.S. Merchant Marine fleet and U.S. shipyard growth and modernization. Through long term debt repayment guarantees, the Program encourages U.S. ship owners to obtain new vessels from U.S. shipyards cost effectively. It also assists U.S. shipyards in modernizing their facilities for building and repairing vessels. The repayment term allowed under the program generally is much longer and the interest rates are lower than those available from the commercial lending market because the obligations guaranteed by the U.S. Government.</li> <li>– Approximately available subsidy is \$35.4 million as of February 2021. This subsidy amount equates to approximately \$432 million in loan guarantees based on (i) financing provided by the Federal Financing Bank (FFB), (ii) 25-year maturity, (iii) MARAD's historical recovery rate, (iv) the interest rate set at the Treasury rate which achieves a zero-financing subsidy and (v) MARAD's historical average upfront fee.</li> </ul>	
<b>4. Monies estimated</b>	none in 2021
<b>5. Start and end date</b>	Start date; 1937
<b>6. References</b>	
U.S. Department of Transportation, Maritime Administration (2019): "Federal Ship Financing Program (Title XI)", <a href="https://www.maritime.dot.gov/grants/title-xi/federal-ship-financing-program-title-xi">https://www.maritime.dot.gov/grants/title-xi/federal-ship-financing-program-title-xi</a> , accessed on 24 March 2021. U.S. Department of Transportation Maritime Administration (2020): "Subsidy Available and Budget Request", <a href="https://www.maritime.dot.gov/grants-finances/title-xi/subsidy-availability-history">https://www.maritime.dot.gov/grants-finances/title-xi/subsidy-availability-history</a> , accessed on 24 March 2021.	

<b>1. Type of the measure of support and its title</b>	
H Government revenue that is foregone or not collected <i>Construction Reserve Fund</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
US Department of Transportation, Maritime Administration (MARAD)	
<b>3. Outline/explanation of the measure</b>	
<ul style="list-style-type: none"> <li>– The Construction Reserve Fund (CRF) is a financial assistance program that provides tax deferral benefits to U.S.-flag operators. Eligible parties can defer the gain attributable to the sale or loss of a vessel, provided the proceeds are used to expand or modernize the U.S. merchant fleet. The primary purpose of the CRF is to promote the construction, reconstruction, reconditioning, or acquisition of merchant vessels that are necessary for national defence and to the development of U.S. commerce.</li> <li>– A CRF may be established by any citizen of the United States who owns, in whole or in part, a vessel operating in the foreign or domestic commerce of the United States or in the fisheries. Additionally, a citizen who is operating such vessel or vessels owned by another individual may establish a CRF. The benefits available to the non-owner operator, however, are limited. In the event of sale or actual constructive total loss of a vessel, the CRF allows the non-recognition of gain for purposes of Federal income taxes. Funds deposited in the CRF must be expended for the construction, reconstruction, or acquisition of a new vessel constructed or reconstructed in the United States and documented under the laws of the United States.</li> </ul>	
<b>4. Monies estimated</b>	None performed
<b>5. Start and end date</b>	Start date; 1936
<b>6. References</b>	
US Department of Transportation, Maritime Administration (2020): “Construction Reserve Fund”, <a href="https://www.maritime.dot.gov/grants/construction-reserve-fund">https://www.maritime.dot.gov/grants/construction-reserve-fund</a> , accessed on 24 March 2021.	

<b>1. Type of the measure of support and its title</b>	
H Government revenue that is foregone or not collected <i>Capital Construction Fund</i>	
<b>2. Authority/agency responsible for the measure and legal authority</b>	
US Department of Transportation, Maritime Administration (MARAD) US Department of Commerce, National Oceanic and Atmospheric Administration	
<b>3. Outline/explanation of the measure</b>	
<ul style="list-style-type: none"> <li>– The Capital Construction Fund (CCF) program was created to help owners and operators of United States-flag vessels secure the capital necessary to modernize and expand the U.S. merchant marine. The program encourages construction, reconstruction, or acquisition of vessels through the deferment of Federal income taxes on certain deposits of money or other property placed into a CCF. Participants must meet U.S. citizenship requirements.</li> <li>– Vessels built with CCF funding must be built in the United States and documented under the laws of the United States for operation in the nation's foreign, Great Lakes, short-sea shipping or non-contiguous domestic trade or its fisheries.</li> </ul>	
<b>4. Monies estimated</b>	\$10 million in 2020
<b>5. Start and end date</b>	Start date; 1970s
<b>6. References</b>	
US Department of Transportation, Maritime Administration (2020): "Capital Construction Fund", <a href="https://www.maritime.dot.gov/grants/capital-construction-fund">https://www.maritime.dot.gov/grants/capital-construction-fund</a> , accessed on 24 March 2021.	

## *Endnotes*

<sup>1</sup> See Table 2.3. Ownership of world fleet ranked by carrying capacity in dead weight tons, 2020, UNCTAD, Review of Maritime Transport 2020.

<sup>2</sup> <https://www.manilatimes.net/2020/09/22/business/business-top/australian-us-firms-to-take-over-hanjin-shipyard/770551/>

<sup>3</sup> <https://www.asef2015.com/asefforum/pdf/NO18.%20SBIC%20Presentation%20on%20VIETNAM%20MARITIME%20INDUSTRY.pdf>

<sup>4</sup> <https://www.hellenicshippingnews.com/hyundai-vietnam-shipbuilding-company-exports-ships-to-16-countries/>

<sup>5</sup> [https://maritim.go.id/konten/unggahan/2017/08/PRESENTASI\\_PIKKI\\_PADA\\_KIM\\_II\\_MAKA\\_SSAR\\_-\\_FINAL.pdf](https://maritim.go.id/konten/unggahan/2017/08/PRESENTASI_PIKKI_PADA_KIM_II_MAKA_SSAR_-_FINAL.pdf)

<sup>6</sup> <https://www.rivieramm.com/opinion/opinion/indonesia-has-20-of-the-global-tug-fleet-26858>

<sup>7</sup> <https://www.bloomberg.com/news/articles/2021-01-27/france-italy-are-said-to-call-off-fincantieri-chantiers-merger>

<sup>8</sup> It is the result of factory operation census conducted by MOEA. It includes ship builders, boat builders, and floating structure manufactures ([https://www.moea.gov.tw/MNS/english/content/ContentMenu.aspx?menu\\_id=32940](https://www.moea.gov.tw/MNS/english/content/ContentMenu.aspx?menu_id=32940)).

<sup>9</sup> See Table 2.3. Ownership of world fleet ranked by carrying capacity in dead weight tons, 2020, UNCTAD, Review of Maritime Transport 2020.

<sup>10</sup> <https://www.maritime.dot.gov/sites/marad.dot.gov/files/docs/resources/3641/maradeconstudyfinalreport2015.pdf>

<sup>11</sup> Source: RMIT Questionnaire 2021– Ministry of Industry and Trade of the Russian Federation, information provided by the Ministry to the OECD Secretariat

<sup>12</sup> <https://www.thedrive.com/the-war-zone/36637/russias-new-icebreaker-the-worlds-largest-is-heading-to-the-arctic-for-the-first-time>

<sup>13</sup> Source: RMIT Questionnaire 2021

<sup>14</sup> [https://www.navantia.es/wp-content/uploads/2021/02/Navantia\\_memoria-2019-ingle%CC%81s\\_BAJA.pdf](https://www.navantia.es/wp-content/uploads/2021/02/Navantia_memoria-2019-ingle%CC%81s_BAJA.pdf)

<sup>15</sup> <https://pymar.com/es/sector/presentaci%C3%B3n-del-sector>