



REVIEW OF MARITIME TRANSPORT 2022

© 2022, United Nations

All rights reserved worldwide

Requests to reproduce excerpts or to photocopy should be addressed to the Copyright Clearance Center at copyright.com.

All other queries on rights and licences, including subsidiary rights, should be addressed to:

United Nations Publications 405 East 42nd Street New York, New York 10017 United States of America Email: publications@un.org

Website: https://shop.un.org/

The designations employed and the presentation of material on any map in this work do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Mention of any firm or licensed process does not imply the endorsement of the United Nations.

This publication has been edited externally.

United Nations publication issued by the United Nations Conference on Trade and Development

UNCTAD/RMT/2022

ISBN: 978-92-1-113073-7 eISBN: 978-92-1-002147-0

> ISSN: 0566-7682 eISSN: 2225-3459 Sales No. E.22.II.D.42



ACKNOWLEDGEMENTS

The Review of Maritime Transport 2022 was prepared by UNCTAD under the overall guidance of Shamika N. Sirimanne, Director of the Division on Technology and Logistics of UNCTAD, and under the coordination of Jan Hoffmann, Head of the Trade Logistics Branch, Division on Technology and Logistics. Regina Asariotis, Mark Assaf, Celine Bacrot, Hassiba Benamara, Juan Luis Crucelegui, Poul Hansen, Jan Hoffmann, Argyro Kepesidi, Tomasz Kulaga, Renaud Massenet, Teresa Moreira, Anila Premti, Luisa Rodríguez, Hidenobu Tokuda, Pamela Ugaz and Frida Youssef made contributions to the report.

The report benefitted from contributions from officials from the International Maritime Organization and from regional commissions of the United Nations (ECE, ECLAC, ESCAP, and ESCWA): Julian Abril Garcia, Adel Alghaberi, Peter Adams, Eliana Barleta, Jan de Boer, Aicha Cherif, Yann Duval, Martina Fontanet Solé, Fouad Ghorra, Azhar Jaimurzina Ducrest, Sooyeob Kim, Dorota Lost-Sieminska, Ricardo Sanchez, and Lynn Tan.

Comments and suggestions from the following reviewers are gratefully acknowledged: Hashim Abbas Syed, Julian Abril Garcia, Takuya Adachi, Peter Adams, Roar Adland, Stefanos Alexopoulos, Mario Apostolov, Emilie Berger, Börje Berneblad, Pierre-Jean Bordahandy, Mary Brooks, Aicha Cherif, Trevor Crowe, Laurent Daniel, Bud Dar, Neil Davidson, Ismael Cobos Delgado, Jan de Boer, Peter de Langen, Rolando Diaz, Thorsten Diephaus, Juan Manuel Díez Orejas, Simone Egerton, Minsang Eom, Mahin Faghfouri, Fredrik Haag, Mark Henderson, James Hookham, Richard Martin Humphreys, Anne Kappel, Eleni Kontou, John Manners-Bell, Sunhye Lee, Socrates Leptos-Bourgi, Ignacio Lopez Chaves, Dorota Lost-Sieminska, Turloch Mooney, Alan Murphy, Sarah Oliver, Sascha Pristrom, Stefan Raes, Jean-Paul Rodrigue, Torbjörn Rydbergh, Peter Sand, Clemens Schapeler, Vivek Srivastava, Emily Stausbøll, Stellios Stratidakis, Lynn Tan, Antonella Teodoro, Malay Trivedi, Patrick Verhoeven, Brandt Wagner and Tengfei Wang, Experts from the International Chamber of Shipping reviewed Chapter 2.

Comments received from UNCTAD divisions as part of the internal peer review process, as well as comments from the Office of the Secretary-General, are acknowledged with appreciation.

The *Review* was edited by Peter Stalker. Administrative, editing, and proofreading support was provided by Wendy Juan. Magali Studer designed the publication.

Overall layout, graphics and desktop publishing were undertaken by the Division of Conference Management of the United Nations Office at Geneva.

Special thanks are also due to Vladislav Shuvalov for reviewing the publication in full.

TABLE OF CONTENTS

Ack	nowle	edgements	iii	
Abb	reviat	tions	x	
Not	e		xiii	
Fore	eword	I	xv	
Ove	rview	·	xvii	
1.	INTERNATIONAL MARITIME TRADE			
	A.	International maritime trade flows	3	
	В.	Key trends shaping maritime transport	17	
	C.	Outlook	21	
	D.	Policy priorities and key action areas	23	
2.	MARITIME TRANSPORT SERVICES			
	A.	Moderate fleet growth in 2021	33	
	В.	Fleet owners face tighter environmental regulations	36	
	C.	Ship ownership and registration	39	
	D.	High levels of shipbuilding and less recycling	46	
	E.	Port and logistics services	49	
	F.	Conclusions and policy considerations	53	
3.	. FREIGHT RATES AND TRANSPORT COSTS			
	A.	In 2021, container freight rates are sky-high, but in 2022 fall again	61	
	B.	Dry bulk freight rates reach record highs	68	
	C.	Tanker freight rates weak in 2021 but rise in 2022	72	
	D.	Summary and policy considerations	74	
4.	KE	Y PERFORMANCE INDICATORS FOR PORTS AND THE		
	SH	IPPING FLEET	79	
	A.	Port calls and turnaround times	81	
	B.	Port waiting time and cargo handling performance	85	
	C.	Lessons from the TRAINFORTRADE Port Management Programme	92	
	D.	Liner shipping connectivity	96	
	E.	Impact of the war in Ukraine		
	F.	Productivity of the world fleet		
	G.	Greenhouse gas emissions from the world fleet		
	Н.	Summary and policy considerations	112	
5.	. MARITIME TRADE FACILITATION			
	A.	Trade facilitation helps decongest the supply chain		
	B.	Emergency responses: trade facilitation for critical goods		
	C.	Trade facilitation for better port performance		
	D.	Public-private collaboration		
	E.	Summary and policy considerations	131	

6.	CON	ISOLIDATION AND COMPETITION IN CONTAINER SHIPPING	135
	A.	Trends in consolidation	137
	B.	Impacts of consolidation on markets	140
	C.	Policy considerations	146
7.	LEG	AL ISSUES AND REGULATORY DEVELOPMENTS	151
	A.	Commercial law implications of the COVID-19 pandemic	153
	B.	Regulatory developments relating to international shipping, climate change	
		and other environmental issues	155
	C.	Seafarers	160
	D.	Other legal and regulatory developments affecting transportation	164
	E.	Summary and policy considerations.	167

Boxes

1.1	Impacts of the war in Ukraine on the Arab region	15
1.2	Digitalization, e-commerce and logistics	19
2.1	Policy debates and initiatives on regional fleets	45
2.2	Subregional port throughput in Latin America and the Caribbean	50
4.1	Liner shipping connectivity in the Pacific SIDS	100
5.1	The ASYHUB maritime initiative	120
5.2	Multimodal aspects of eTIR	121
5.3	UNCTAD Automated System for Relief Emergency Consignments	124
5.4	The port community of Canal Tamengo, Bolivia (Plurinational State of)	127
5.5	Paraguay's hinterland resilience	128
5.6	Cameroon Port Community	129
7.1	Concentration and cooperation in competition law	143

REVIEW OF MARITIME TRANSPORT 2022

Figures

1	International maritime trade and world GDP. Selected years	xvii
2	Changes in port calls per half year, world total. First semester 2019–second semester 2021	. xviii
3	Annual growth of commercial fleet, 1981–2022. Growth rate	xix
4	Average age of the commercial fleet, weighted by number of ships, by vessel type, 2011–2022	xix
5	Number of direct calls by region from 2020Q3 to 2022Q2	xx
6	Shanghai containerized freight index (SCFI) monthly spot rates, September 2018 to September 2022, selected routes	xxi
7	Impact of higher dry bulk freight rates and global grain prices on consumer food prices, selected country groups (percentage change)	. xxiii
8	Share of grains imported by bulk ships in total food imports, selected country groups, 2019	. xxiii
9	Share of primary and processed food products in food imports mainly for household consumption, selected country groups, 2020 (percentage)	. xxiii
10	Market shares of top four, top ten and top twenty carriers, 2011-2022	.xxvi
11	Average number of companies providing services per country, and size of the largest ship, Q1 2006–Q2 2022	xxvii
1.1	International maritime trade and global output, selected years	5
1.2	International maritime trade, billions of cargo ton-miles, 2002-2022	5
1.3	Participation of developing countries in international maritime trade, selected years	6
1.4	International maritime trade, by region, 2021	6
1.5	International maritime trade by cargo type, selected years	8
1.6	Global containerized trade, 1996-2021	9
1.7	Global containerized trade by route, 2019–2021	10
1.8	Navigating the path to normalization: Selected scenarios	22
2.1	Annual growth of the world fleet, 1981–2022	33
2.2	Average age of merchant fleet, 2011–2022	35
2.3	Bulk carrier fleet, average age weighted by carrying capacity by ship type and beneficial ownership, 2014–2022	37
2.4	Container ship fleet, average age weighted by carrying capacity by ship type and beneficial ownership, 2014–2022	37
2.5	Oil tanker fleet average age weighted by carrying capacity by ship type and beneficial ownership, 2014–2022	38
2.6	Beneficial ownership of the global fleet, percentage share, top 7 ship-owing countries, 2014–2021, deadweight tonnage	41
2.7	Average fleet age in the top six registries, by deadweight tonnage, as of 1 January 2022	41
2.8	Average of the bulk carrier, container ship and oil tanker fleets in the top 6 flag of registration by dwt and percentage of each ship type in the total fleet, as of 1 January 2022	44
2.9	World tonnage on order, selected ship types, 2011-2022	47
2.10	World container port throughput by region (in 20-foot equivalent units), 2021–2022, percentage share in total	49
2.11	Leading 20 global container ports, 2020-2021	50
3.1	Growth of demand and supply in container shipping, 2007-2022, percentage change	61
3.2	Shanghai Containerized Freight Index (SCFI) monthly spot rates, September 2018 to September 2022, selected routes	62
3.3	China Containerized Freight Index, Composite Index, September 2017–September 2022	
3.4	New ConTex Index Sentember 2017–Sentember 2022	63

REVIEW OF MARITIME TRANSPORT 2022

3.5	Bunker prices, heavy fuel oil and very low sulphur fuel oil, monthly averages, from June 2020 to June 2022	65
3.6	Xeneta Shipping Index (XSI) – Global	67
3.7	Baltic Exchange dry index, September 2017–September 2022	68
3.8	Clarksons port congestion index – percentages of deep-sea cargo bulk carriers in port, September 2019–September 2022	68
3.9	Average weighted earnings all bulkers (\$/day), July 2012–July 2022	69
3.10	Impact of higher dry bulk freight rates and global grain prices on consumer food prices, selected country groups	70
3.11	Share of grains imported by bulk ships in total food imports, selected country groups, 2019	70
3.12	Share of primary and processed food products in food imports mainly for household consumption, selected country groups, 2020	70
3.13	Average earnings, all tankers, June 2007-June 2022	72
3.14	Baltic dirty tanker index and the Baltic Exchange clean tanker index. July 2012–July 2022	73
3.15	Average earnings, selected tankers, July 2019–July 2022	73
4.1	Port calls per half year, world total, 2018–2021	81
4.2	Monthly port calls, world total, January 2020-September 2022	81
4.3	Proportion of container ships fully laden, world total, 2018–2022	83
4.4	Change in port calls from 2019 to 2021, world total, percentage	83
4.5	Changes in actual and scheduled port calls of container ships from 2019 to 2021, per cent.	84
4.6	Global heatmap for the Container Port Performance Index 2022	85
4.7	Average rank of container port performance, by region, 2020 and 2021	86
4.8	Average waiting time across 30 major dry bulk/ tanker handling economies, 2018-2022, hours	s87
4.9	Port cargo handling performance for dry bulk carriers, tons per minute and number of port calls for loading, 2021	89
4.10	Port cargo handling performance for tankers, tons per minute and number of port calls for loading, 2021	90
4.11	Revenue and cargo throughput, 2016-2021	94
4.12	Labour costs as a proportion of revenue, 2016–2021	94
4.13	Training cost as a proportion of labour costs, 2016-2021	95
4.14	Women's participation in port workforces, 2021	95
1 15	Liner shipping connectivity index, top 10 connection 200601, 202202	06

预览已结束, 完整报告链接和二维码如下:

https://www.yunbaogao.cn/report/index/report?reportId=5_32023



