

## Shipbuilding Market Overview Clarksons

MARPOL VI was developed through the International Maritime Organization (IMO), a United Nations agency that deals with maritime safety and security, as well as the prevention of marine pollution from ships. MARPOL is the main international agreement covering all types of pollution from ships. Annex VI aims to reduce emissions from ships through international regulations. Regulation 14 - Restricts SOx emissions from ships by introducing a maximum sulphur content in marine fuels of 4.5 per cent. In addition, MARPOL Annex VI identifies SOx emission control areas (SECA)

The book contains 12 contributions that explain the current state of China's cruise industry and future development. Dating from the 1960s and with the rapid development of over 50 years, the modern cruise industry has developed into one of the fastest growing industries with the most remarkable economic benefits in the global tourism and hospitality industry, known as a "golden industry on the golden waterway". In recent years, with the gradual saturation of international cruise market and the eastward-moving trend of the center of cruise market, China has become a strategic emerging market with which international cruise lines have been competing. A number of international cruise lines, including Costa Crociere, Royal Caribbean Cruises, Princess Cruises, MSC Cruises, Star Cruises, Norwegian Cruise Line and Dream Cruises, have entered the cruise market in Mainland China.

This book is open access under a CC BY NC ND 4.0 license. This open access book discusses how Norwegian shipping companies played a crucial role in global shipping markets in the 20th century, at times transporting more than ten per cent of world seaborne trade. Chapters explore how Norway managed to remain competitive, despite being a high labour-cost country in an industry with global competition. Among the features that are emphasised are market developments, business strategies and political decisions The Norwegian experience was shaped by the main breaking points in 20th century world history, such as the two world wars, and by long-term trends, such as globalization and liberalization. The shipping companies introduced technological and organizational innovations to build or maintain a competitive advantage in a rapidly changing world. The growing importance of offshore petroleum exploration in the North Sea from the 1970s was both a threat and an opportunity to the shipping companies. By adapting both business strategies and the political regime to the new circumstances, the Norwegian shipping sector managed to maintain a leading position internationally.

Today science is moving in the direction of synthesis of the achievements of various academic disciplines. The idea to prepare and present to the international academic milieu, a multidimensional approach to globalization phenomenon is an ambitious undertaking. The book *The Systemic Dimension of Globalization* consists of 14 chapters divided into three sections: Globalization and Complex

Systems; Globalization and Social Systems; Globalization and Natural Systems. The Authors of respective chapters represent a great diversity of disciplines and methodological approaches as well as a variety of academic culture. This is the value of this book and this merit will be appreciated by a global community of scholars.

First published in 1965, this book was written in response to the considerable changes that had taken place in shipbuilding techniques since 1945 and to the new scientific methods that were being increasingly adopted in a strongly competitive market. It describes the advances which had been made in one field of the design of ship structures, a field also of importance in the design of bridges and other rigid structures on land. A grillage is a structure of intersecting beams, usually attached to one side of a continuous plate panel, which is loaded normal to its surface. The decks, bottoms and bulkheads (vertical divisions) of ships are usually flat grillages, and this form of construction is also commonly used in the decks of bridges. The methods of plastic analysis are not directly applicable to plated grillage structures and Mr Clarkson has therefore discussed only elastic methods of design.

Shipping is by far the most significant mode of transportation for the carriage of freight. In terms of volume alone, no other mode comes close. Its dominance is even more overwhelming when distances are accounted for. This book is concerned with the economics of this pivotal mode of transportation. It reveals that the influences on the development and current state of shipping economics research are extremely eclectic. The various chapters in the book represent areas that are of central concern to ongoing research in the field. As such, the book is useful to students, researchers, industrialists, policy makers and consultants. The authors of the contributed chapters are some of the leading names in the world of shipping economics, addressing a number of diverse areas: The econometric modeling of shipping markets; Shipping finance (a critical issue in such a capital intensive industry); Fiscal policy (and its impact on an international industry with great asset mobility) and Safety and security (aspects that have risen to prominence with increasing concerns over the environment and international terrorism). Ultimately, while shipping as a business depends upon trade, it is absolutely certain that the business of trade depends upon shipping. The final two chapters, therefore, incorporate aspects of network economics, welfare economics and international trade theory to analyze where and how shipping sits within the wider perspective of industrial supply chains. Professor Kevin Cullinane, BA BSc MSc PhD FCILT CNI Professor Kevin Cullinane is Chair in Marine Transport and Management at the University of Newcastle in the U.K. He was previously Professor and Head of the Department of Shipping and Transport Logistics at the Hong Kong Polytechnic University, Head of the Centre for International Shipping and Transport at Plymouth University, Senior Partner in his own transport consultancy company and Research Fellow at the University of Oxford Transport Studies Unit. He is a Fellow of the Chartered Institute of

Logistics and Transport and has been a transport adviser to the governments of Hong Kong, Egypt, Chile and the U.K. He holds visiting Professorships at a number of institutions and an Honorary Professorship at the University of Hong Kong.

Innovations are dramatically changing the traditionally conservative global ocean shipping industry as it works to become more efficient and more sustainable. Academic and former shipping company owner Peter Lorange is best placed to make sense of how to approach and keep ahead of these changes. This book explains what the key innovations are, how to ensure a return on investment, the barriers to innovation and how to overcome them. Drawing on a number of specialist case studies, Lorange outlines the specific analytical and decision-making steps to consider and actions to take to arrive at a new strategic blueprint for modern shipping companies. This book is invaluable for practising shipping company executives, advanced students of shipping, logistics, port management and maritime economics and investors deciding whether to invest in a particular shipping firm.

The Review of Maritime Transport is an UNCTAD flagship publication, published annually since 1968. It provides an analysis of structural and cyclical changes affecting seaborne trade, ports and shipping, as well as an extensive collection of statistical information. The present edition of the Review of Maritime Transport takes the view that the long-term growth prospects for seaborne trade and maritime businesses are positive, with ample opportunities for developing countries to generate income and employment and help promote foreign trade.

Very often the process of globalization is referred to as the word economy evolution. Often we measure and study globalization in the economic relevance. The economy is possibly the most recognized dimension of globalization. That is why we see many new phenomena and processes on economic macro levels and economic sectoral horizons as well as on specific "geography of globalization". The book The Economic Geography of Globalization consists of 13 chapters divided into two sections: Globalization and Macro Process and Globalization and Sectoral Process. The Authors of respective chapters represent the great diversity of disciplines and methodological approaches as well as a variety of academic culture. This book is a valuable contribution and it will certainly be appreciated by a global community of scholars.

The Review of Maritime Transport is an UNCTAD flagship publication, published annually since 1968 with 2018 marking the 50 year anniversary. Around 80 per cent of the volume of international trade in goods is carried by sea, and the percentage is even higher for most developing countries. The Review of Maritime Transport provides an analysis of structural and cyclical changes affecting seaborne trade, ports and shipping, as well as an extensive collection of statistical information.

Presents the OECD questionnaire subsidies that recognised as a leading instrument for monitoring industrial support practices.

Ports and cities are historically strongly linked, but the link between port and city growth has become weaker. This book examines how ports can regain their role as drivers of urban economic growth and how negative port impacts can be mitigated.

This book explores the relationship between transition and tourism geographies on a

global scale, discussing how tourism has been used as a tool to recover from decline or to manage change caused by event-driven, rapid transitions in a region's economy, politics or environment. With case studies from Europe, America, Asia and Africa, it provides examples of how specific communities and industries around the globe have reacted for better or worse. It also includes analyses of shifts within the tourism industry itself and examines the complex issues arising for localities that have to face the demands and standards of an increasingly globally interlinked tourism industry. From Whistler to Angola, casino gaming in Colorado to art tourism in Japan, the contributors investigate such factors as tourism-induced community change; the social and economic impacts second-home owners have on rural communities in the developing world; reconstruction of local tourism systems after crisis events such as wars; and the competitiveness of ski areas in light of climate change. Overall, the book offers a thoughtful study of the role of geographical and temporal scales for tourism during periods of unprecedented transition, equipping readers with new ways of conceptualizing change and adaptation.

Access to frequent and reliable shipping services is key for developing countries' trade with overseas markets. Firms cannot export competitively and participate global value chains without adequate transport connectivity, and maritime transport continues to be the dominant mode of shipping goods. Seaborne trade accounts for about 80 per cent of global trade volumes, with an even higher share for most developing countries. As in previous issues since 1968, the 2015 Review of Maritime Transport contains a wealth of analysis and unique data. The Review is the renowned United Nations source of statistics and analysis on seaborne trade, the world fleet, freight costs, port traffic and the latest trends in the legal and regulatory environment for international maritime transport. This year's Review includes a special focus on maritime transport and sustainable development.

This series contains the decisions of the Court in both the English and French texts.

The Blackwell Companion to Maritime Economics presents comprehensive and in-depth coverage of the entire scope of issues relating to shipping and port economics. Unprecedented survey of maritime economics provides full coverage of shipping and port economics In depth examinations offer an up-to-date study of the field including all facets of shipping, ports, logistics, and maintenance and topical discussion on security and environmental problems Presents original theories relating to theories for maritime carriers and ports Features contributions from the most respected international specialists in the field

This book analyzes of the surplus of production capacity in China. According to a government statement, there is a serious surplus of productive capacity in the steel, cement, glass, aluminum, and shipbuilding industries. There was no surplus of productive capacity in above industries between 2002 and 2012, and the current surplus is due to poor government policies on real estate prices after 2012. The book argues that if the Chinese government invested more in social welfare housing over the next few years the surplus of productive capacity would very soon disappear.

The passage of the Oil Pollution Act of 1990 (OPA 90) by Congress and

subsequent modifications of international maritime regulations resulted in a far-reaching change in the design of tank vessels. Double-hull rather than single-hull tankers are now the industry standard, and nearly all ships in the world maritime oil transportation fleet are expected to have double hulls by about 2020. This book assesses the impact of the double hull and related provisions of OPA 90 on ship safety, protection of the marine environment, and the economic viability and operational makeup of the maritime oil transportation industry. The influence of international conventions on tank vessel design and operation is addressed. Owners and operators of domestic and international tank vessel fleets, shipyard operators, marine architects, classification societies, environmentalists, and state and federal regulators will find this book useful.

The U.S. shipbuilding industry now confronts grave challenges in providing essential support of national objectives. With recent emphasis on renewal of the U.S. naval fleet, followed by the defense build-down, U.S. shipbuilders have fallen far behind in commercial ship construction, and face powerful new competition from abroad. This book examines ways to reestablish the U.S. industry, to provide a technology base and R&D infrastructure sustaining both commercial and military goals. Comparing U.S. and foreign shipbuilders in four technological areas, the authors find that U.S. builders lag most severely in business process technologies, and in technologies of new products and materials. New advances in system technologies, such as simulation, are also needed, as are continuing developments in shipyard production technologies. The report identifies roles that various government agencies, academia, and, especially, industry itself must play for the U.S. shipbuilding industry to attempt a turnaround.

With over 80 per cent of global trade by volume and more than 70 per cent of its value being carried on board ships and handled by seaports worldwide, the importance of maritime transport for trade and development cannot be overemphasized. The 2017 Review of Maritime Transport presents and discusses key developments in the world economy and international trade and related impacts on shipping demand and supply, freight and charter markets, as well as seaports and the regulatory and legal framework. In addition to relevant developments in 2016 and the first half of 2017, this year's edition of the Review also features a special chapter on maritime transport connectivity, reflecting the prominence of physical and electronic connectivity as a priority area in the trade and development policy agenda.

The International Handbook of Shipping Finance is a one-stop resource, offering comprehensive reference to theory and practice in the area of shipping finance. In the multibillion dollar international shipping industry, it is important to understand the various issues involved in the finance of the sector. This involves the identification and evaluation of the alternative sources of capital available for financing the ships, including the appraisal and budgeting of shipping investment projects; legal and insurance aspects of ship finance; the financial analysis and modelling of investment projects; mergers and acquisitions; and the commercial

and market risk management issues involved. Edited by two leading academics in this area, and with contributions from 25 prominent market practitioners and academics over 16 chapters, this Handbook covers shipping finance and banking, maritime financial management and investments. As such, it includes: shipping markets; asset backed finance; shipbuilding finance; debt finance; public and private equity and debt markets; structured finance; legal aspects and key clauses of ship mortgages; marine insurance; mechanisms for handling defaulted loans; investment appraisal and capital budgeting; financial analysis and investment modelling; business risk management and freight derivatives; and mergers and acquisitions. Thus, the Handbook offers a rigorous understanding of the different aspects of modern shipping finance and maritime financial management and investments, the various characteristics of the available products, the capital needs and requirements, and a clear view on the different financial management strategies through a series of practical examples and applications. Technical where appropriate, but grounded in market reality, this is a “must-have” reference for anyone involved in shipping finance, from bank practitioners and commodity trading houses, to shipbrokers, lawyers and insurance houses as well as to university students studying shipping finance.

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This book elucidates the potential of the shipbuilding industry for initiating economic development, which eventually leads to enhancing the prosperity of a nation. This is explained by intrinsically linking the macroeconomics of the nation with the microeconomics of the shipbuilding industry. The economic and commercial spin offs by the shipyard to the various industries have been analysed and calculated. An attempt has been made to trace the illustrious past of Indian shipbuilding from the Bronze Age, through the ancient kingdom period, to the present times, in the backdrop of Indian maritime history. The operational requirement of commercial as well as defence shipbuilding has been analysed to assess the available potential market space for the Indian shipbuilding industry. Lessons from history help to formulate future strategies. In pursuit of this, the book investigates the global trends in commercial shipbuilding since the industrial revolution period to date; the success stories of leading shipbuilding nations viz.UK, USA, Japan, Korea and China have been analysed. The benefits accrued by these nations through shipbuilding have been summarised. The strategies adopted by each of these countries to reach the pinnacle in shipbuilding have been examined and the salient features relevant for India have been identified. Productivity measurement in shipbuilding has been examined and the problems with the current system have been highlighted, along with solutions. This book suggests the usage of Data Envelopment Analysis (DEA), a mathematical linear programming technique, as an appropriate tool to measure total productivity as well as profitability. The various ways of improving profitability in shipbuilding, by way of cost-cutting techniques, along with some Indian case studies have been explained in the book. Keeping the 'Indian Maritime Agenda 2010-2020' vision document in the backdrop, a strategic appreciation of the Indian shipbuilding industry has been undertaken using the SWOT, the Matrix and the Scenario analyses. Based on these analyses, strategies have been formulated for all the stakeholders who can influence the Indian shipbuilding industry. The book then identifies the need for an alchemist leader, who can harmonise all the

stakeholders and thereby propel the Indian shipbuilding industry towards achieving the long-term goal of creating a prosperous India.

This is volume 3 of a three-volume publication on Bangladesh's trade prospects. Bangladesh's ambition is to build on its very solid growth and poverty reduction achievements, and accelerate growth to become a middle income country by 2021, and share prosperity more widely amongst its citizens. This includes one of its greatest development challenges: to provide gainful employment to the over 2 million people that will join the labor force each year over the next decade. Moreover, only 54.1 million of its 94 million working age people are employed. Bangladesh needs to use its labor endowment even more intensively to increase growth and, in turn, to absorb the incoming labor. The Diagnostic Trade Integration Study identifies the following actions centered around four pillars to sustain and accelerate export growth: (1) breaking into new markets through a) better trade logistics to reduce delivery lags ; as world markets become more competitive and newer products demand shorter lead times, to generate new sources of competitiveness and thereby enable market diversification; and b) better exploitation of regional trading opportunities in nearby growing and dynamic markets, especially East and South Asia; (2) breaking into new products through a) more neutral and rational trade policy and taxation and bonded warehouse schemes; b) concerted efforts to spur domestic investment and attract foreign direct investment, to contribute to export promotion and diversification, including by easing the energy and land constraints; and c) strategic development and promotion of services trade; (3) improving worker and consumer welfare by a) improving skills and literacy; b) implementing labor and work safety guidelines; and c) making safety nets more effective in dealing with trade shocks; and (4) building a supportive environment, including a) sustaining sound macroeconomic fundamentals; and b) strengthening the institutional capacity for strategic policy making aimed at the objective of international competitiveness to help bring focus and coherence to the government's reform efforts. This third volume provides in-depth analysis of eight different manufacturing and services sectors of the Bangladeshi economy, which help to illustrate the thematic analysis of volume 2 and ground it in sector experiences. Besides pointing to cross-cutting themes, the analysis also highlights some specific issues and actions that could help relieve constraints to faster export growth in these sectors.

World maritime trade lost momentum in 2018, with volumes expanding at 2.7 per cent, below the historical averages of 3.0 per cent and 4.1 per cent recorded in 2017. Total volumes are estimated to have reached 11 billion tons, an all-time high, according to UNCTAD records. UNCTAD is projecting 2.6 per cent growth in 2019 and an annual average growth rate of 3.4 per cent for the period 2019-2024. However, the outlook remains challenging, given the heightened uncertainty regarding trade policy and wide-ranging downside risks clouding the horizon. In 2018, world merchandise trade growth decelerated at an unexpected

rate, and tariffs on trade between China and the United States of America escalated amid mounting trade tensions and a proliferation of national trade-restrictive measures. Apart from trade policy crosscurrents, geopolitics and sanctions, environmental concerns, fuel economics and tensions involving the Strait of Hormuz - a strategic maritime chokepoint - were in the headlines. Other forces at work continued to slowly reshape the maritime transport landscape. A new normal, contrasting with the historical perspective, appears to be taking hold. This trend is characterized by overall moderate growth in the global economy and trade, a supply chain restructuring in favour of more regionalized trade flows, a continued rebalancing of the Chinese economy, a larger role of technology and services in value chains and logistics, intensified and more frequent natural disasters and climate-related disruptions, and an accelerated environmental sustainability agenda with an increased awareness of the impact of global warming. A transition to the new normal calls for an improved understanding of the main issues at stake, better planning, and flexible and forward-looking-policies that can effectively anticipate change and enable appropriate response measures that take into account the heterogenous nature of developing countries as a group and their varied local conditions and needs..

This book is a major work that focuses exclusively on ship finance and includes contributions on the increasingly complex field of ship finance, which has over the last two decades become a key aspect in the world of shipping and ship owning. The book offers an enlightening mix of theoretical analysis and well-founded practical insights into the daily markets. Given that ship finance continues to develop dynamically around the world, the book covers subjects ranging from the German KG market to Islamic Finance, from loans to legal aspects and from asset pricing to risk management.

Now in its second edition Maritime Economics provides a valuable introduction to the organisation and workings of the global shipping industry. The author outlines the economic theory as well as many of the operational practicalities involved. Extensively revised for the new edition, the book has many clear illustrations and tables. Topics covered include: \* an overview of international trade \* Maritime Law \* economic organisation and principles \* financing ships and shipping companies \* market research and forecasting.

Object-Process Methodology (OPM) is an intuitive approach to systems engineering. This book presents the theory and practice of OPM with examples from various industry segments and engineering disciplines, as well as daily life. OPM is a generic, domain independent approach that is applicable almost anywhere in systems engineering.

A stunning inside look at how and why the foundations upon which China has built the world's second largest economy, have started to crumble. Over the course of a decade spent reporting on the ground in China as a financial journalist, Dinny McMahon gradually came to the conclusion that the widely held belief in China's inevitable economic ascent is dangerously wrong. In this

unprecedented deep dive, McMahon shows how, lurking behind the illusion of prosperity, China's economic growth has been built on a staggering mountain of debt. While stories of newly built but empty cities, white elephant state projects, and a byzantine shadow banking system, have all become a regular fixture in the press in recent years, McMahon goes beyond the headlines to explain how such waste has been allowed to flourish, and why one of the most powerful governments in the world has been at a loss to stop it. Through the stories of ordinary Chinese citizens, McMahon tries to make sense of the unique—and often bizarre—mechanics of the Chinese economy, whether it be the state's addiction to appropriating land from poor farmers; or why a Chinese entrepreneur decided it was cheaper to move his yarn factory to South Carolina; or why ambitious Chinese mayors build ghost cities; or why the Chinese bureaucracy was able to stare down Beijing's attempts to break up the state's pointless monopoly over the distribution of table salt. Debt, entrenched vested interests, a frenzy of speculation, and an aging population are all pushing China toward an economic reckoning. China's Great Wall of Debt unravels an incredibly complex and opaque economy, one whose fortunes—for better or worse—will shape the globe like never before.

In common with previous issues, the 2012 Review contains critical analysis and a wealth of unique data, including long-term data series on seaborne trade, fleet capacity, shipping services and port handling activities. This year's Review notes that world seaborne trade grew by 4 per cent in 2011, whereas the tonnage of the world fleet grew at a greater rate, by almost 10 per cent, as shipowners took delivery of vessels that had been ordered before the economic crisis began. With supply outstripping demand, freight rates fell even further, to unprofitable levels for most shipping companies. For importers and exporters, however, the low freight rates helped to reduce transaction costs, which is important for helping to revive global trade. As freight traffic continues to grow, the question of how to ensure the long-term sustainability of such growth is playing an increasingly important part in the policy debate on globalisation, trade and development, environmental sustainability, energy security and climate change. Reflecting these new realities, this year's Review of Maritime Transport addresses a range of relevant issues in this context and includes a special chapter on sustainable freight transport. This chapter highlights the impacts of freight transport activity, for example on the environment, human health and the climate, and the consequent need to reduce the sector's energy consumption and emissions. If left unchecked, such unsustainable patterns are likely to intensify, increasing the potential for global energy and environmental crises, and risk undermining progress being made on sustainable development and growth. Promoting a shift towards sustainable freight transport will help improve the sector's energy efficiency, reduce its heavy reliance on oil, and limit environmental and climate change impacts. In this context, developing effective policies and measures, including for the purpose of climate change mitigation and adaptation, and ensuring appropriate financing, are major challenges, especially for developing countries

World ShipyardsThe Economic Geography of GlobalizationBoD – Books on Demand

With over 80 per cent of global trade by volume and more than 70 per cent of its value being carried on board ships and handled by seaports worldwide, the importance of maritime transport for trade and development cannot be overemphasized. The 2017 Review of Maritime Transport presents and discusses key developments in the world economy and international trade and related impacts on shipping demand and supply, freight and charter markets, as well

as seaports and the regulatory and legal framework. In addition to relevant developments in 2016 and the first half of 2017, this year's edition of the Review also features a special chapter on maritime transport connectivity, reflecting the prominence of physical and electronic connectivity as a priority area in the trade and development policy agenda.

The Definitive Reference for Designers and Design Students A solid grasp of the fundamentals of materials, along with a thorough understanding of load and design techniques, provides the components needed to complete a marine platform design. Design Principles of Ships and Marine Structures details every facet of ship design and design integration, and highlights the design aspects that must be put together to create an integrated whole product. This book discusses naval architecture and marine engineering applications and principles relevant to the design of various systems, examines advanced numerical techniques that can be applied to maritime design procedure at the concept design stage, and offers a comprehensive approach to the subject of ship design. Covers the Entire Sphere of Marine Design The book begins with an introduction to marine design and the marine environment, describing many of the marine products that are used for transportation, defense and the exploitation of marine resources. It also discusses stability issues relevant to ship design, as well as hydrodynamic aspects of resistance, propulsion, sea keeping and maneuvering, and their effects on design. In addition to covering the various systems and sub-systems that go into making a complex product to be used in maritime environment, the author explains engineering economics and its application in ship design, and provides examples wherever necessary. Written by an author with more than 35 years of teaching experience, this book: Describes various design methodologies such as sequential design process with the application of concurrent engineering and set based design factors in the use of computer-aided design techniques Highlights the shape design methodology of ship forms and layout design principles Considers design aspects relative to safety and risk assessment Introduces the design for production aspects in marine product development Discusses design principles for sustainability Explains the principles of numerical optimization for decision-making Design Principles of Ships and Marine Structures focuses on ship design efficiency, safety, sustainability, production, and management, and appeals to students and design professionals in the field of shipping, shipbuilding and offshore engineering.

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