

#### Contents

ICTSI

Ltd (CM Port)

Logistics)

Hyundai Merchant Marine

China Merchants Port Holdings Co

Bolloré Ports (Bolloré Transport And

Yildirim Group (Yilport Holding) 139

122

127

130

136

	1		2		3	
ı	Executive Summary  Maturing industry, dynamic operators	2	The Global Container Terminal Industry  Nature Of GTOS and ITOS Institutional Structures Forecast Global Container Terminal Capacity Regional Split Of Port Ownership Types	<b>5</b> 5 8 8	League Tables Of Global/International Terminal Operators Throughput League Tables Global/International Operators' Terminal Capacity Operator Strategies Geographic Coverage	11 11 23 26 30
	League Tables Of Global/ International Terminal Operators cont'd Risk Profiles Operational Performance Financial Performance	<b>11</b> 33 35 39	Analysis Of Leading Operators and Investors Hutchison Ports (HP) APM Terminals PSA International (PSA) DP World China Cosco Shipping Terminal Investment Limited (TIL And MSC/Associated Companie	,	Analysis Of Leading Operat and Investors cont'd Eurogate Evergreen SSA Marine CMA CGM NYK Line K Line Mitsui Osk Lines (MOL)	95 98 100 104 112 115
á	Analysis Of Leading Operat and Investors cont'd Yang Ming	ors 47	Analysis Of Leading Operate and Investors cont'd Saam Puertos (Saam Ports)	ors 47	Analysis Of Leading Operat and Investors cont'd  MMC Corporation (MMC)	tors 47

Deutsche Bank (Deutsche Asset &

Global Ports Investments (GPI) 146

145

147

149

150

151

Wealth Management)

Gulftainer

Macquarie

HHLA

Mitsui

Modern Terminals Limited

Noatum Ports and Noatum

Shanghai Intl. Ports Group

Neltume Ports

Ports America

Other Players

Maritime

154

155

156

157

159

162

#### Contents



#### Operator/Ownership Analysis By World Region 163

Five-Year Regional Demand and
Capacity Projections 163
Far East 169
Southeast Asia 171
North America 172
North Europe 174
South Europe 175

#### Operator/Ownership Analysis By World Region 163

Eastern Europe 176
Middle East 177
South Asia 178
South America 179
Central America / Caribbean 180
Africa 181
Oceania 182

# 6

Appendices		
Appendix 1a: Definition Of World Regions (For GTO/ITO Qualification)	183	
Appendix 1b: Definition Of Sub-Regions By Country		
(For Section 5 Forecasts) Definitions and Methodologies	184 185	

#### Research team

Neil Davidson - Editor davidson@drewry.co.uk

Subrata Behera behera@drewry.co.uk

Kanika Batura kanika@drewry.co.uk

Ruby Tomar tomar@drewry.co.uk

#### **Drewry Maritime Research**

15-17 Christopher Street, London EC2A 2BS Tel: +44 (0) 20 7538 0191 Fax: +44 (0) 20 7987 9396 enquiries@drewry.co.uk www.drewry.co.uk

TABLES		
Table 2.1	Strategic Aims And Targets Of Global/International Stevedores, Hybrids And Carriers	5
Table 2.2	Forecast Development Of Container Port Capacity By Ownership, 2017-2022	
	(By Million Teu And Share Of World Capacity)	
Table 2.3	World Container Port Handling By Region And Ownership, 2016-2017	10
Table 3.1	Global/International Terminal Operators' Throughput League Table, 2016-2017	
	(Million Teu / % Share Of World Container Port Throughput)	12
Table 3.2	Global/International Terminal Operators' Equity Based Throughput League Table, 2016-2017	17
Table 0.0	(Million Teu / % Share Of World Container Port Throughput)	
Table 3.3	Illustration Of Equity-Adjusted Terminal Portfolio Volumes If Shown By Alliance And Alliance Members (2017)	10
Table 3.4	Global/International Stevedores' Home Port Volumes, 2015-2017 (Throughput At Home Port / % Total Throughput)	22
Table 3.5	Global/International Terminal Operators' Capacity League Table, 2016-2017 (Million Teu)	
Table 3.6	Forecast Development Of Global/International Terminal Operators' Capacity, 2017-2022 (Million Teu)	
Table 3.7	Selected M&A And Concession Activity By Global/International Terminal Operators, 2017-18	
Table 3.8	Illustration Of International Terminal Interests Of One (Based On 2017 Throughput, Million Teu)	
Table 3.9	Global/International Operators Terminal Portfolio By Region ( % Share Of Throughput, 2016-17)	
Table 3.10	Regional Investment Prospects Summary	
Table 3.11	Global/International Operators' Portfolio Risk Indexes, 2017 (Weighted Risk Rating Based On Terminal Capacity)	
Table 3.12	Global/International Operators' Portfolio Risk Indexes (Equity Adjusted Basis), 2017	
	(Weighted Risk Rating Based On Terminal Capacity)	34
Table 3.13	Regional Container Terminal Performance Comparison, 2017	36
Table 3.14	Deployment Of Ship-To-Shore Gantry Cranes By Region, Outreach And Ownership, 2017 (Number Of Cranes)	37
Table 3.15	Ship-To-Shore Gantry Cranes On Order, 2018.	38
Table 3.16	Financial Performance Of Selected Global/International Terminal Operators, 2016 & 2017 (\$ Million)	39
Table 3.17	Financials Of Selected Dmfr Port Coverage	41
Table 3.18	Listed Port Company Gearing Statistics.	43
Table 3.19	Valuation Comparison Between Listed Port Operators	46
Table 3.20	DMFR Value And Risk Rating And Share Price Performance Of Listed Operators	46
Table 4.1.1	Hutchison Ports (HP)	48
Table 4.1.2	APM Terminals	56
Table 4.1.3	PSA International	64
Table 4.1.4	DP World	71
Table 4.1.5	China Cosco Shipping	79
Table 4.1.6	00CL	87
Table 4.1.7	Terminal Investment Ltd (TIL) And MSC/Associated Companies	
Table 4.1.8	Eurogate	
Table 4.1.9	Evergreen	
Table 4.1.10	SSA Marine / Carrix	
Table 4.1.11	CMA CGM (CMAT+TL)	
	CMA CGM (APL)	
Table 4.1.13	NYK	112

TABLES		
Table 4.1.14	K Line	115
Table 4.1.15	MOL	117
Table 4.1.16	Yang Ming	120
Table 4.1.17	ICTSI	122
Table 4.1.18	Hyundai	127
Table 4.1.19	China Merchants Port Holdings (CM Port)	131
Table 4.1.20	Bollore Ports (Bollore Transport & Logistics)	136
Table 4.1.21	Yildirim Group (Yilport Holding)	139
Table 4.1.22	Saam Puertos (Saam Ports)	142
Table 4.2.1	Deutsche Asset & Wealth Management	145
Table 4.2.2	Global Ports Investments (GPI)	146
Table 4.2.3	Gulftainer	147
Table 4.2.4	HHLA	149
Table 4.2.5	Macquarie	150
Table 4.2.6	Mitsui.	151
Table 4.2.7	MMC Corporation Berhad (MMC)	153
Table 4.2.8	Modern Terminals Ltd (MTL)	154
Table 4.2.9	Neltume Ports	155
Table 4.2.10	Noatum Ports And Noatum Maritime	156
Table 4.2.11	Ports America	157
Table 4.2.12	Shanghai International Port Group (SIPG)	159
Table 5.1	Forecast Supply And Demand In The Global Container Port Market, 2017-2022 ('000 Teu)	164
Table 5.2	Alternative Supply And Demand Forecast In The Global Container Port Market Taking Into	
	Account Unconfirmed Capacity Expansion Plans, 2017-2022 ('000 Teu)	166
Table 5.3	Far East- Top Ten Terminal Owning/Operating Companies	170
Table 5.4	Southeast Asia - Top Ten Terminal Owning/Operating Companies	171
Table 5.5	North America - Top Ten Terminal Owning/Operating Companies	173
Table 5.6	North Europe- Top Ten Terminal Owning/Operating Companies	174
Table 5.7	South Europe- Top Ten Terminal Owning/Operating Companies	175
Table 5.8	Eastern Europe – Top Ten Terminal Owning/Operating Companies	
Table 5.9	Middle East - Top Ten Terminal Owning/Operating Companies	177
Table 5.10	South Asia - Top Ten Terminal Owning/Operating Companies	178
Table 5.11	South America - Top Ten Terminal Owning/Operating Companies	179
Table 5.12	Central America / Caribbean - Top Ten Terminal Owning/Operating Companies	
Table 5.13	Africa - Top Ten Terminal Owning/Operating Companies	181
Table 5.14	Oceania - Top 5 Terminal Owning/Operating Companies	182

FIGURES		
Figure 2.1	Key Characteristics Of Global/International Stevedores, Carriers And Hybrids	6
Figure 2.2	Development Of Control Of Global Container Terminal Volumes (Million Teu)	10
Figure 2.3	Global/International Terminal Operator Throughput By Operator Type, 2015-2017 (Million Teu)	10
Figure 3.1	Ownership Connections Between GTOS/ITOS	15
Figure 3.2	Evolution Of Top 10 GTO/ITOS By Equity Teu, 2005-2017	16
Figure 3.3	GTO/ITO Current (2017) Portfolios By Market/Risk And Geographical Spread	20
Figure 3.4	GTO/ITO Current (2017) Portfolios By Traffic Type And Average Terminal Size	21
Figure 3.5	GTO/ITO Strategic Focus By Market/Risk And Nature Of Investments	27
Figure 3.6	GTO/ITO Strategic Focus By Expansion Plans And Divestment Appetite/Need	28
Figure 3.7	Chinese Container Port Volume Growth, 2013-May 2018	40
Figure 3.8	Hong Kong And Busan Volume Growth, 2013-May 2018	
Figure 3.9	St Petersburg Container Port Volume Growth, 2013-May 2018	42
Figure 3.10	Port Of Santos Volume Growth, 2014-March 2018	
Figure 3.11	Recent Disclosed And Estimated Port Sector Transaction Multiples	43
Figure 3.12	Drewry Port Index Vs Global Emerging Market Index, 2012- June 2018	44
Figure 3.13	Valuation: Port Vs Emerging Market, 2012 - June 2018	44
Figure 3.14	5-Year Port Valuation, July 2013 - June 2018	45
Figure 3.15	Sample Port Operators: ROIC, 2008-2017	45
Figure 4.1.1	Location Of Hutchison Ports Owned/Managed Terminal Operations	53
Figure 4.1.2	Location Of APM Terminals Owned/Managed Terminal Operations	61
Figure 4.1.3	Location Of PSA Owned/Managed Terminal Operations	68
Figure 4.1.4	Location Of DP World Owned/Managed Terminal Operations	76
Figure 4.1.5	Location Of China Cosco Shipping Owned/Managed Terminal Operations	85
Figure 4.1.6	Location Of TIL/MSC Owned/Managed Terminal Operations	93
Figure 4.1.7	Location Of CMA CGM Owned/Managed Terminal Operations	110
Figure 4.1.8	Location Of China Merchants Port Holdings Owned/Managed Terminal Operations	134
Figure 5.1	Projected Regional Container Handling (MTEU) And Average Annual Growth (%), 2017-2022	163
Figure 5.2	Breakdown Of Forecast Capacity Expansion By 2022, Far East	169
Figure 5.3	Breakdown Of Forecast Capacity Expansion By 2022, Se Asia	171
Figure 5.4	Breakdown Of Forecast Capacity Expansion By 2022, North America	172
Figure 5.5	Breakdown Of Forecast Capacity Expansion By 2022, North Europe	174
Figure 5.6	Breakdown Of Forecast Capacity Expansion By 2022, South Europe	175
Figure 5.7	Breakdown Of Forecast Capacity Expansion By 2022, Eastern Europe	176
Figure 5.8	Breakdown Of Forecast Capacity Expansion By 2022, Middle East	177
Figure 5.9	Breakdown Of Forecast Capacity Expansion By 2022, South Asia	178
Figure 5.10	Breakdown Of Forecast Capacity Expansion By 2022, South America	179
Figure 5.11	Breakdown Of Forecast Capacity Expansion By 2022, Central America And Caribbean	180
Figure 5.12	Breakdown Of Forecast Capacity Expansion By 2022, Africa	181
Figure 5.13	Breakdown Of Forecast Capacity Expansion By 2022, Oceania	182

FIGURES		
APPENDIC	ES	
Figure A2.1	Illustration Of Terminal Operator Vs Terminal Owner Complexity	186
Figure 1	Ownership Of Major Chinese Container Terminals: North China (Bohai Bay Area)	189
Figure 2	Ownership Of Major Chinese Container Terminals: Central China (Shanghai Area)	190
Figure 3	Ownership Of Major Chinese Container Terminals: South China (Excluding Pearl River Area)	191
Figure 4	Ownership Of Major Chinese Container Terminals: Pearl River Area	192
Figure 5	Ownership Of The Major Container Terminals In India	193
Figure 6	Ownership Of Major Middle East Container Terminals (Excluding Arabian Gulf)	194
Figure 7	Ownership Of Major Middle East Container Terminals: Arabian Gulf	195
Figure 8	Ownership Of Main Container Terminals: Eastern Europe Region (Baltic Sea)	196
Figure 9	Ownership Of Main Container Terminals: Eastern Europe Region (Black Sea)	196



#### **About Drewry Research**

Drewry Maritime Research is the research arm of global shipping consultancy Drewry. The company has over 40 years' experience in the maritime sector and employs more than 90 specialists across its offices in London, Delhi, Singapore and Shanghai.

Our market research is renowned for its quality and is trusted by industry leaders around the world to deliver impartial, robust analysis and balanced opinion. This independence, alongside our sector knowledge and expertise, sets our research apart and gives clients the rich market insight they need to make informed business decisions.

#### **Copyright Terms and Conditions**

Drewry owns full copyright of all its research products, covering both reports and online interactive resources. Drewry's rights and entitlements as copyright holder are protected by law in all jurisdictions. In this context, Drewry operates a simple policy of single-site and multi-site licences. All basic research products are sold on the basis of a standard licence covering a single site.

The primary source of market insight, analysis and advice trusted by a global audience of maritime and shipping industry stakeholders

UK 15-17 Christopher Street London EC2A 2BS United Kingdom	India 4th Floor, Tower C Pioneer Urban Square Sector 62, Gurugram Haryana - 122 101, India	Singapore #13-02 Tower Fifteen 15 Hoe Chiang Road Singapore 089316	China Unit D01 Level 10, Shinmay Union Square Tower 2, 506 Shang Cheng Road, Pudong, Shanghai 200120 P. R. China
T +44 20 7538 0191	<b>T</b> +91 124 497 4979	T +65 6220 9890	T +86 21 5081 0508
Maritime Research		Supply Chain Advisors	

enquiries@drewry.co.uk www.drewry.co.uk