

# MARKET POWER AND VERTICAL AND HORIZONTAL INTEGRATION IN THE MARITIME SHIPPING AND PORT INDUSTRY

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# CONTENT

- Complexity of the maritime logistics chain
- Forms of integration in maritime logistics
- Recent trends in horizontal and vertical agreements
- Reasons for integration
- Future scenarios
- Conclusion

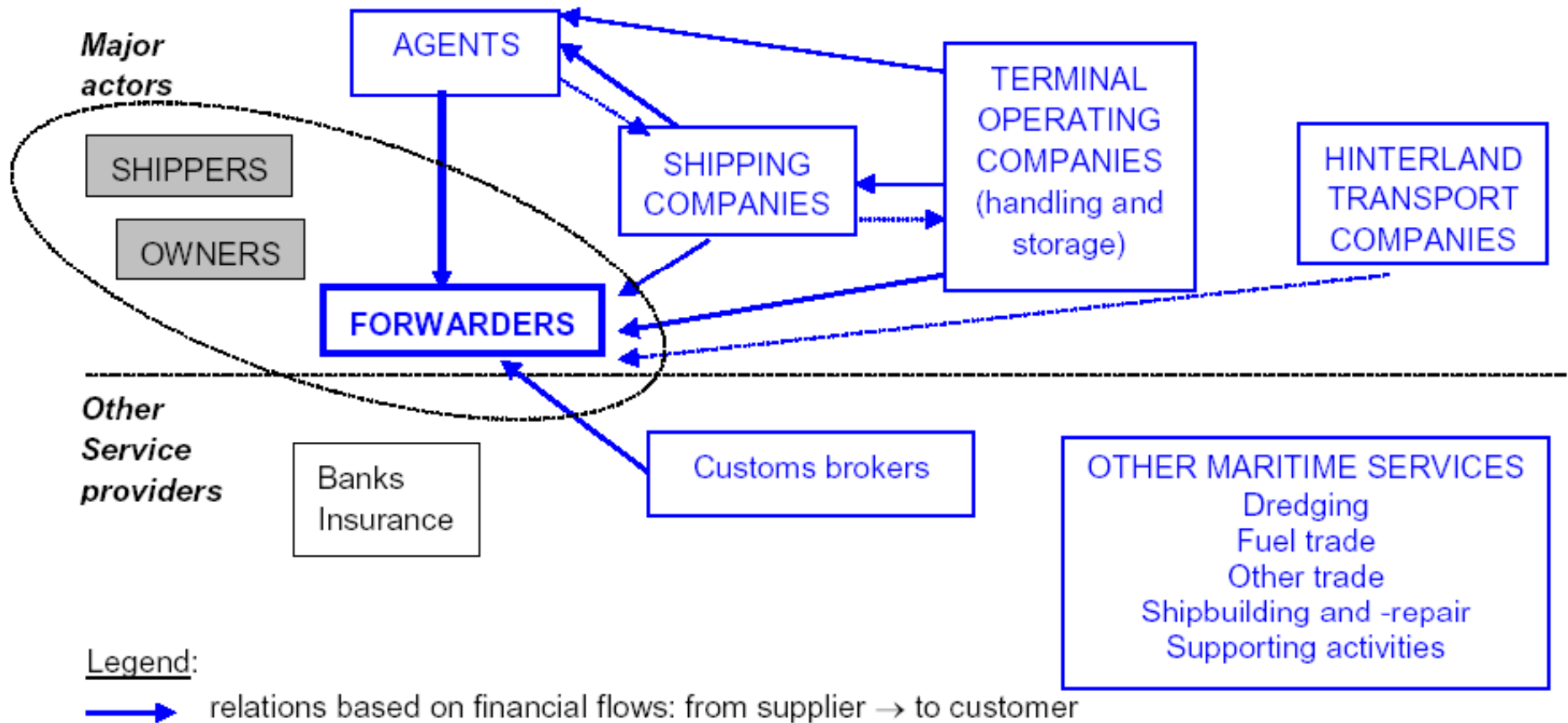
# COMPLEXITY OF THE MARITIME LOGISTICS CHAIN

- Nature of competition has changed
- A maritime logistics chain consists of three large sections
- Seaports' main distinguishing factors
- How to increase control over logistics chains?

# SEAPORTS' MAIN DISTINGUISHING FACTORS'

Factor	Possible states
Activity scope	Complete – limited
Lay-out	Tidal - non-tidal; basins - no basins
Location	Coastal – river; large - small population hinterland
Organization	Land lord – limited operating – operating
Security	High – moderate – low
Traffic	High – moderate – small; mixed – containers only – bulk only

# INTERACTIONS BETWEEN PORT-RELATED PLAYERS



# FORMS OF INTEGRATION IN THE MARITIME LOGISTICS CHAIN

Starting point:

- Global economy continues to be the motor of the maritime sector
- The strategically important role of shipping companies
- Structural evolutions within ports (e.g. traditional stevedoring firms become terminal operating companies)

# STRATEGIC COOPERATION IN THE MARITIME SECTOR

Actors	Shipping companies	Terminal operating companies	Port authorities	Hinterland operators
Shipping companies	<ul style="list-style-type: none"> <li>• Vessel sharing agreements</li> <li>• Joint-ventures</li> <li>• Consortia</li> <li>• Alliances</li> <li>• Mergers/acquisitions</li> <li>• Conferences</li> </ul>			
Terminal operating companies	<ul style="list-style-type: none"> <li>• Joint-ventures</li> <li>• Dedicated terminals</li> <li>• Share</li> <li>• Consortia</li> </ul>	<ul style="list-style-type: none"> <li>• Mergers/acquisitions</li> </ul>		
Port authorities	<ul style="list-style-type: none"> <li>• Concessions for dedicated terminals</li> </ul>	<ul style="list-style-type: none"> <li>• Concessions</li> <li>• Joint-ventures</li> </ul>	<ul style="list-style-type: none"> <li>• Alliances</li> </ul>	
Hinterland operators	<ul style="list-style-type: none"> <li>• Block trains and capacity sharing</li> <li>• Acquisition</li> </ul>	<ul style="list-style-type: none"> <li>• Joint-ventures</li> </ul>		<ul style="list-style-type: none"> <li>• Alliances</li> </ul>

# HORIZONTAL AND VERTICAL CO-<sup>7</sup> OPERATION AMONG SHIPPING COMPANIES AND TOCs

- Concentration drive has lost momentum
- Vertical co-operation: applied a lot more commonly by shipping companies (cf. dedicated operating contracts)
- 8 of the top-15 TOCs are subsidiaries of shipping companies





# REASONS FOR INTEGRATION

- The industrial-economic aim of horizontal and vertical co-operation is often quite different
- Horizontal co-operation
  - ☞ do recent horizontal mergers in the maritime and port sector confirm the existence of economies of scale and scope?
- Vertical co-operation
  - ☞ central question: how can the vertical chain be organised more efficiently?
  - ☞ the 'make-or-buy' decision

# THE NEED FOR FURTHER EMPIRICAL RESEARCH

- The existence of economies of scale and scope
- If EOscale and EOscope do exist, determine how far they reach and where their boundaries lie
- Factors affecting scale and scope effects (e.g. coordination costs)
- Competitive relationships and market power

# SCALE ECONOMIES FOR TOC'S

Operational field	Size effect of mergers / acquisitions	References
Administration	Fixed administrative costs, standardization and automation	Gilligan <i>et al.</i> , 1984; Berndt <i>et al.</i> , 1991; Bouquet, 1992 ; Martin, 2001; Van Wegberg, 1995, p. 1; Nawas, 1995; Durkin and Elliehausen, 1998; Van den Bossche, 2002d
Contracting	Bargaining power in negotiating; avoiding intermediaries	Hagedoorn, 1993; Nootboom, 1999
Equipment	Bargain input prices; equipment can be used more efficiently	Caves <i>et al.</i> , 1984 ; Clark, 1984; Beddow, 2001; Cordts, 2001
Handling operations technology	standardize; product specialization is efficient	Peltzman, 1977; Hagedoorn, 1993; Contractor and Lorange, 1988; Hennart, 1988; Encaoua, 1991; Van Wegberg, 1995, p. 1; Botelberge, 1996; Van den Bossche, 2002; Peters (2003)
ICT	ICT setup, installation and maintenance; standardization; in-house development, installation and maintenance of systems	Contractor and Lorange, 1988; Borys and Jemison, 1989, p. 77; Hagedoorn, 1993; Van Wegberg, 1995, p. 1; Nootboom, 1999; Oum, Zhang and Zhang, 2000, p. 8; Beddow, 2001; Van den Bossche, 2000 and 2002d
Labour	In-house training	Contractor and Lorange, 1988; Beddow, 2001
Marketing	Fixed marketing costs; more terminals means more attractive network; standardization; in-house promotion	Devine <i>et al.</i> , 1985, p. 201; Hagedoorn, 1993; Van Wegberg, 1995, p. 1; Cordts, 2001; Van den Bossche, 2002b
R&D	Technology development costs; knowledge in house	Devine <i>et al.</i> , 1985, p. 201; Nootboom, 1999; Van den Bossche, 2002b
Security	Fixed security costs; standardization and automation; in-house	Van Wegberg, 1995, p. 1; De Lloyd, 2003



# CASH OR GAMBLE? SOME FUTURE SCENARIOS

- Shipping companies: further reorganisation, mergers and scale increases?
- Additional capacity and scale increases at landside
- A relative decline in market power for the port authorities?

## CO-OPERATION: WITH WHAT PARTNERS?

	Operator	CH partner		Non-CH partner		?	
		CH	non CH	CH	non CH	CH	non CH
1	HPH	1	1	15 (12)	2 (1)	5 (2)	1 (1)
2	PSA	1	0	12 (8)	42 (5)	5 (8)	24 (5)
3	APM Terminals	4 (1)	0	7 (2)	0	0	0
4	P&O Ports	2	0	17	1	2	0
5	Eurogate	0	0	1	1	5 (3)	27 (4)
6	DPA + CSXWT	0	0	2 (7)	0	0	0

## CO-OPERATION: IN WHAT BUSINESS?

	Operator	CH			non CH		
		Start-up co-operatively	Start-up non co-operatively	Merger / acquisition	Start-up co-operatively	Start-up non-co-operatively	Merger / acquisition
1	HPH	20 (14)	1 (1)	22 (3)	5 (2)	1 (4)	5
2	PSA	15 (19)	2 (5)	9 (8)	68 (8)	33 (15)	9 (2)
3	APM Terminals	11 (3)	17 (1)	15	0	0	0
4	P&O Ports	21	2	16 (4)	1	0	0
5	Eurogate	6 (3)	10 (1)	5 (5)	28 (4)	50 (10)	14 (8)
6	DPA + CSXWT	1 (6)	5 (5)	(3)	1 (1)	3	0

## CO-OPERATION: WITH WHAT PARTNERS?

	Operator	MAR	HINT	LOG	PA	AG	FFWD	DRED	IND / INV
1	HPH	5 (5)	0	0	4	0	0	(1)	15 (6)
2	PSA	2	(2)	0	4 (1)	0	0	(1)	10 (5)
	APM								
3	Terminals	(1)	1	0	0	0	0	0	5 (5)
4	P&O Ports	11	2	0	5	1	1	0	15
5	Eurogate	0	0	0	0	0	0	0	0
6	DPA + CSXWT	0	0	0	(2)	1 (1)	0	0	1 (7)

MAR = Maritime  
HINT = Hinterland  
LOG = Logistics  
PA = Port authority

AG = Agency  
FFWD = Freight Forwarding  
DRED = Dredging  
IND / INV = Industrial / Investment

# CO-OPERATION: IN WHAT BUSINESS?

	Operator	MAR	HINT	LOG	PORT	IND	AIR	SOFT / TECH	SHIP REP	FIN	FFWD	AG	CONS
1	HPH	(1)	(6)	1	3	2	1	2	1	0	0	0	0
2	PSA	11	4 (4)	38 (13)	15 (1)	10 (3)	2(1)	13 (3)	0	3	9	0	5
4	P&O Ports	0	0	1	0	0	0	0	0	0	0	0	0
5	Eurogate	4 (5)	24 (4)	39 (1)	(1)	11 (3)	0	10	0	1	1	(8)	2
6	DPA + CSXWT	0	0	3 (1)	0	0	1	0	0	0	0	0	0

MAR = Maritime  
 HINT = Hinterland  
 LOG = Logistics  
 PORT = Port Services  
 IND = Industrial  
 AIR = Air Transport

SOFT / TECH = Software / Technology  
 SHIP REP = Ship Repair  
 FIN = Financial  
 FFWD = Freight Forwarding  
 AG = Agency  
 CONS = Consulting



# RECENT REACTION PATTERNS (1)

- Shipowners
  - ☞ reducing capacity by ending loops (e.g. CSAV), merging loops (e.g. Cosco), etc.
  - ☞ effect on alliances
  - ☞ aggressive capacity (e.g. MSC using ULCS) or pricing policy (zero-tariffs)
  - ☞ diversification (e.g. CMA CGM and MSC in cruising and/or cars)
- Terminal operators
  - ☞ fixed capacity, i.e. less degrees of freedom
  - ☞ pricing policy

## RECENT REACTION PATTERNS (2): The Hutchison case

- Hutchison buys from NYK majority stake in Ceres Container terminals Europe (CTE)
  - ☞ Containerterminal Ceres Paragon
  - ☞ Rro/ro and bulkterminal Ceres Amsterdam Marine Terminals
- NYK: minority stake in ECT (Rotterdam) and subsidiary of Hutchison
- **Question: how far will co-operation go?**

## POLICY RESPONSE

- Basic rule (on a stretch by stretch basis): is there any risk for abuse of monopolistic or oligopolistic power?
- Example of a recent policy intervention: conferences
- We do not expect general policy rules (exception: "European maritime area")
- Case by case investigations are possible.

## CONCLUSIONS

- Strong indication of decreasing profit margins in maritime transport (e.g. Maersk: 1.1 bn \$ net loss in 2009)
- Shareholders will exert constant pressure on management to improve business results
- Management continues to pressurise other links in the logistics chain
- The most likely scenarios are more or less known; uncertainty about timing