

United Nations Economic Commission for Europe

CONFERENCE

Hinterland Connections of Seaports

The Role of Seaports as a Link between Inland and Maritime Transport



Challenges to the development of seaports in a globalised world

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Challenges

Integration/concentration

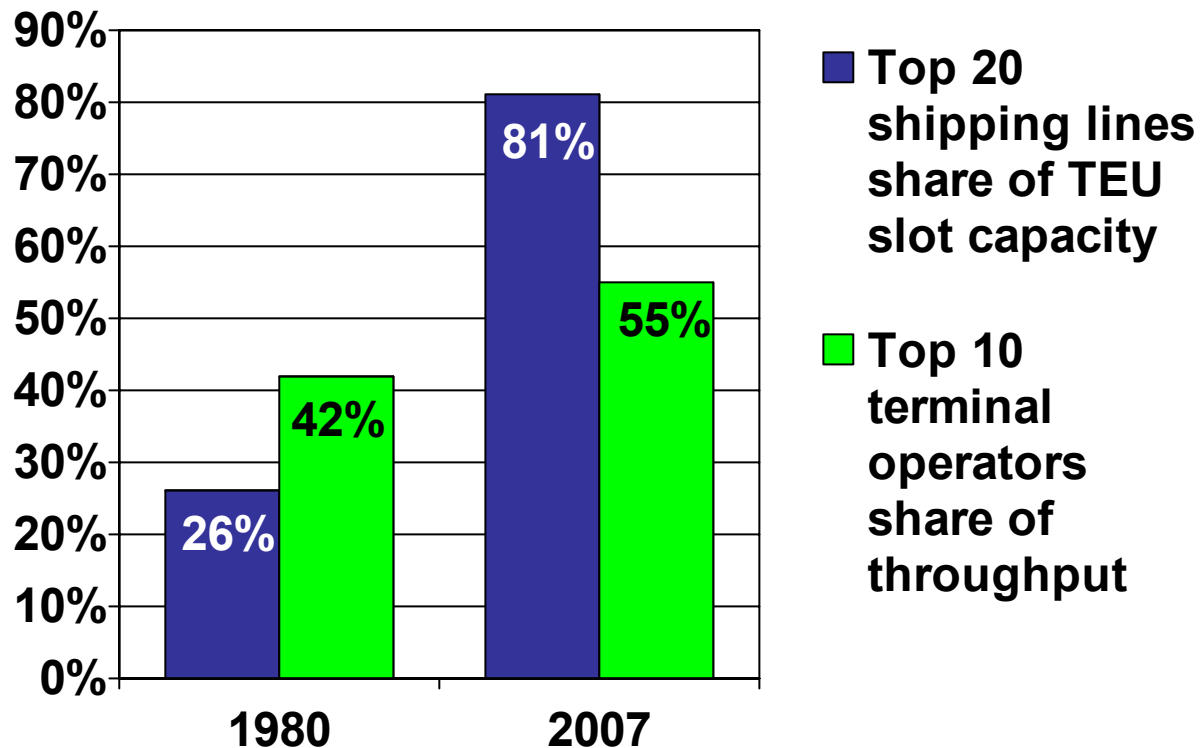
- Competition
- Investment
- Congestion
- Environment

More competition between ports less market power for individual ports

- Commercialisation of port authorities
- Larger container vessels
- Globalising supply chains
- Integration of supply chains



Concentration of market power in global supply chains

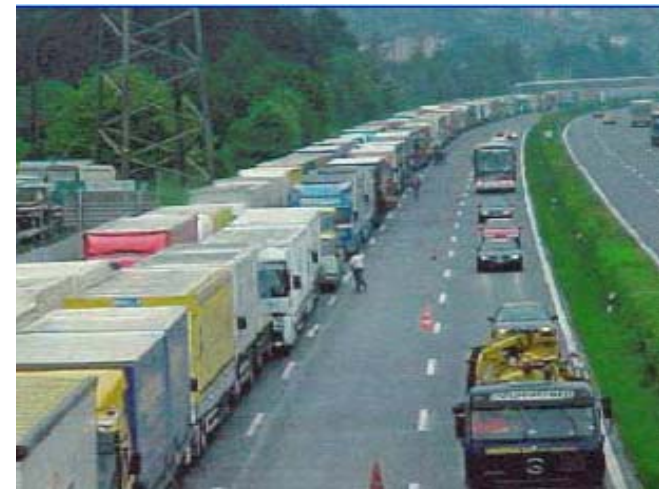


Port Responses

- Integration
 - Terminal concession agreements
 - To spread long term demand risk for **investment**
 - To compensate for loss of market power
 - May reduce **competition** in port itself
- Public investment
 - Rationale to limit integration?
 - temptation to price below marginal cost
 - unfair **competition** with other ports

Hinterland dimension

- Lengthening hinterland corridors expand port markets but result in more competition
- Congestion - Port region can increase competitiveness by investing in improved hinterland transport services



Hinterland Congestion

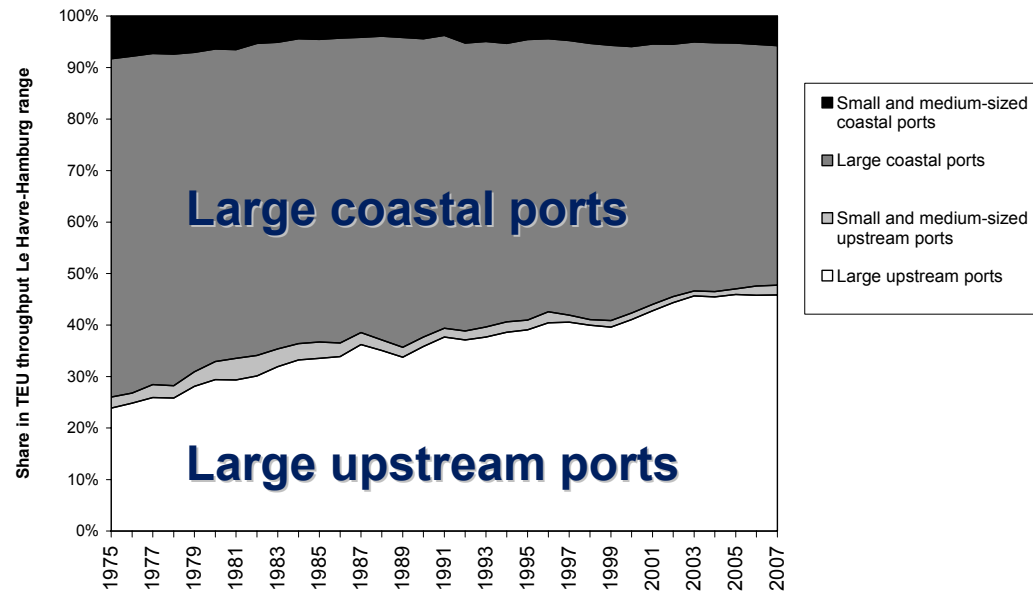
- LA/LB growth in container traffic strongly negatively correlated with congestion

| | Total delay (person-hrs) | Delay per peak traveler (person-hrs) | Travel time index | Total congestion cost (\$) | Congestion cost per peak traveler (\$) |
|----------------------|-----------------------------|--|----------------------|----------------------------------|--|
| Throughput growth | -0.683 | -0.649 | -0.716 | -0.684 | -0.642 |
| Market share | -0.414 | -0.353 | -0.301 | -0.405 | -0.367 |

Hinterland congestion

- But evidence suggests benefits of concentration outweigh costs of congestion

- US West Coast, LA/LB 70% TEU share constant
- Large ports remain dominant in N. Europe →
- **Or congestion problem in small ports too**



Responses to congestion

- Port traffic only part of total traffic
 - Road infrastructure investment and pricing
 - Rail investment and terminal access
 - More productive trucks
- Congestion at port gate
 - Southampton – reservation & charge
 - LA/LB Pierpass peak charge



Environmental impact of globalisation

- More concentrated trade flows →
large local congestion & air pollution impacts
- For global logistics – local costs small compared to benefits of concentration
- Local regulations ignore national benefits

Environmental Mitigation

- Not only a port issue – mainly truck regulation and management
- Planning consents and air quality regs.
 - Proactive port policy - LA/LB
 - Port side power
 - Electric and hybrid vehicles
 - Truck retrofits



CO₂ emissions

- CO₂ – global regulation for global problem direct effect on shipping rather than ports
- Port fees differentiated by IMO class
- Emissions trading based on fuel purchase declarations
- Fuel tax



Conclusions 1/2

Balance between integration & competition?

- Integration good for investment & congestion
- Integration complicates port-to-port and intra-port competition
 - Specific market power issues?
 - Competition policy remedies?
 - Competence of regulatory authorities?
 - RT Integration and Competition in Transport and Logistics Businesses, Paris, 5-6 Feb 2009

Conclusions 2/2

Local costs *versus* global benefits

- Environment
 - National resources for local air pollution
- Congestion
 - National resources for gateway hinterland investment
 - National facilitation of long distance corridor investments (CREATE)

2009 Forum

Transport and Globalisation:
New Challenges and Opportunities
27-29 May Leipzig

www.internationaltransportforum.org



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