

Round Table, 10 and 11 April 2008, IEA meeting room, Paris

SEAPORT COMPETITION AND HINTERLAND CONNECTIONS

Points for discussion

Maritime transport volumes have grown strongly, as a consequence of containerization, the spatial dispersion of production and consumption, and trade expansion following income growth. As a consequence, ports in (mainly) China, Europe, Southeast Asia and the United States experience strong expansion, especially in container traffic. Maritime container transport is subject to returns to scale, and this tends to lead to concentration of traffic, and possibly reduced competition *in* the market. But containerization also means standardization, increased substitutability of ports, and therefore stronger competition *for* the market, as ports' bargaining power towards shipping companies declines and proximity to hinterlands becomes less critical.

One consequence of increased port competition is that the quality of transport over the hinterland, from the initial origin or to the final destination, becomes increasingly important, an evolution strengthened by the decline of maritime costs because of scale economies. Some observers argue that there are strong incentives for port authorities to become more involved with hinterland transport and logistics, by providing advice, by own supply, or by increased activity to reduce congestion and maintain fast and reliable hinterland transport.¹ The evolving balance of port and hinterland relations poses several challenges, which the Round Table aims to address.

First, ports' interests sometimes conflict with those of other users of the hinterland's transport network, with local communities, and with environmental objectives. Policymakers, especially in port regions, face the difficult task of trading off the various groups' interests, and it might be the case that better organised parties realise larger payoffs.

Second, ports' individual incentives to provide high-quality service by investing in capacity may lead to overinvestment in the aggregate and low profitability (and lower economic surplus). How large is the risk that current and future capacities turn out to be wasteful, and how can that risk be managed? And is it possible that competition between jurisdictions exacerbates existing pressure on governments to subsidize?

Third, it is not clear if increased interest from ports in hinterland transport and logistics will lead to vertical integration of these activities. On the one hand, ports may benefit from

¹ One might expect increased interest of shipping companies in land transport as well, but Frémont (2007) argues that the main function of carrier haulage is to improve "the logistics of the container" (a substantial capital cost), rather than move towards "logistics of goods transport".

increased control, but on the other hand they may find it cheaper to rely on competing hinterland logistics businesses. Here, it is worth noting that the trucking sector is competitive, but the picture is less clear for rail.² Furthermore, the impact of horizontal relations between ports on their hinterland activities is poorly understood. A better understanding of the various agents' incentives will help guide regulatory policy where regulation is necessary.

Draft programme outline

Chair:

Professor Mary R. BROOKS, Dalhousie University, Nova Scotia, Canada

The impact of hinterland access conditions on rivalry between ports (abstract to be confirmed)

Rapporteur: Professor Anming ZHANG, University of British Columbia

Recent work in transportation economics has focused on uncovering the interactions between private or public firms that operate in a setting of imperfect competition and that provide a service of which the quality degrades as congestion levels rise. Examples of such settings include roads, airports and seaports. The basic framework has been extended to allow for congestion on the hinterland.

This paper will assess and explain the relevance of this work for the analysis of horizontal relations between ports and the vertical relations between ports and hinterland transport. First, firms' incentive structures and the resulting prices, congestion levels, and overall effects on economic surplus will be examined. Second, incentives to integrate or separate along horizontal and vertical dimensions are considered. Third, conclusions are drawn with respect to regulatory policy pertaining to ports. The paper provides a connection between the more abstract analytical literature and the more applied literature on the economics of ports.

The relationship between seaports and inland ports in light of global supply chains: European challenges and comparisons with North America and Asia

Rapporteur: Professor Theo NOTTEBOOM, ITMMA – University of Antwerp

Terminals, both in seaports and in the hinterland, play an increasingly important role in shaping supply chain solutions of shippers and logistics service providers. Scarcity concerns combined with concerns over the reliability of transport solutions have led seaport and inland terminals to take up a more active role in supply chains. They increasingly confront market players with operational decisions through imposing berthing windows, dwell time charges, truck slots, etc., with the objective of increasing throughput, optimizing terminal capacity and making the best use of available land. This contribution looks at port developments and

² Carrier haulage, using rail, is important in the US, but it is less common in continental Europe and Asia.

logistics dynamics in Europe and proposes some steps towards a further integration between seaports and inland ports.

The paper approaches port-hinterland dynamics from the perspective of the various market players involved, including port authorities, shipping lines, terminal operators, transport operators (rail, barge, road and shortsea) and logistics service providers. The paper will address the impact of horizontal and vertical relations in supply chains on the structure of these chains and on the relationships between seaports and inland ports. At the same time, a comparison is made to current (best) practices in North America and Asia (mainly China). Who takes or should take the lead in the further integration of ports and inland ports, and what actions have been taken so far by the market players in this respect, will be examined. The incentives for market players to vertically or horizontally integrate will be analysed against the backdrop of the nature of the market in which the various players operate.

Ensuring hinterland access; the role of port authorities

Rapporteur: Dr. Peter DE LANGEN, Port of Rotterdam Authority and Erasmus University Rotterdam

This paper will investigate incentives and possibilities for ports to co-operate, with a specific focus on how such options are shaped by hinterland access conditions, and asking whether such co-operation produces adequate investment, prices and service quality levels. Issues of jurisdictional competition or co-operation are addressed as well.

The local impacts of and policy responses to increasing port-related freight volumes: lessons from the Ports of Los Angeles/Long Beach and New York/New Jersey

Rapporteur: Professor Genevieve GIULIANO, University of Southern California and METRANS

(title and abstract preliminary)

The globalization of production and the intensification of international trade have spurred strong growth of port-related freight traffic. The local effects (that is: effects in the vicinity of major ports) of this evolution are noticeable: an increased tax base, increased pollution from ships and land transport, and more congestion and accidents on the hinterland's transportation network. Local authorities develop policies to mitigate negative effects, but they face various constraints: ports' competitiveness needs to be retained, port workers are unionized, and port authorities are influential. This paper reviews how policy is shaped by those constraints, how effective it is, and how costs and benefits are distributed. It draws general lessons from experiences in the Los Angeles/Long Beach and the New York/New Jersey areas.