

SHIPPING REGULATION, TRADE REALITIES AND SOCIAL LICENSE: WILL SHORT SEA SHIPPING EVER BE MORE THAN JUST A NICHE SERVICE?

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Introduction

Governments seeking to induce the growth or development of short sea shipping often pass market access regulations, either unilaterally or multilaterally, to create a broader market for short sea shipping or provide subsidies to operators to help them grow the market. As is often the case in business decisions, whether or not the private sector invests in the service (by either buying it or providing it) is more complex than just a case of “incentivize it and we will come.” This 2015 CTRF presentation builds on a career of research on the topic in North and South America, Europe, and Australia. It will examine three perspectives on the development of short sea shipping and the regulatory environment that supports it: (1) what traders and ship operators require to commit and what completely deters their interest (trade realities), (2) what governments implement to support the sector (legislation and regulations), and finally (3) what role is played by citizens and taxpayers (social license). Each group can encourage short sea shipping or prevent its development. Taking such a holistic approach allows us to contemplate the promise and the reality of short sea shipping, and its probability of being more than just a niche transportation service limited to a few specialist trade routes.

Trade Realities

In **Europe**, short sea shipping is well established with feeder, ro-ro, regional services, industrial shipping, passenger and cruise ferry operations in existence. Even some short sea hubs for freight have

emerged (e.g., Hamburg with 22 companies offering feeder services to 12 countries in the region as of the end of January 2015). Geography is critical to its success (given the opportunities offered by the Baltic Sea, North Sea, English Channel and Mediterranean Sea). Sea state is also critical. For example, the Baltic Sea is open year round and more sheltered than Great Lakes between Canada and U.S. (where winter denies year-round access) and the East Coast of the North Atlantic (where exceptionally high seas prevent the use of tug and barge vessel configurations [Brooks and Frost, 2009]). The Marco Polo program is also a driver of European success; funding coastal shipping is as much an energy and environment policy in Europe as it is a transport policy (Brooks & Frost, 2009).

In **North America**, Brooks Hodgson and Frost reported at CTRF on their 2006 study that found other factors. For example, many exporters preferred a single carriage document to multiple contracts (e.g., potential short sea operators must retail an integrated transport package over one that is just an ocean move). They also identified that most of the volume is southbound, and argued that incentive pricing for an equivalent (to trucking) short sea service could induce trial. Brooks and Trifts (2008) found that 25% of the shippers are unlikely to switch to short sea shipping unless trucking service deteriorates drastically (e.g. greater congestion in the New York area). Service every two weeks was unacceptable, and more frequent departures critical to service adoption. Puckett et al (2011) mined the Brooks and Trifts (2008) data using multinomial logit and scaled mixed logit models, and confirmed that there was a high premium buyers were willing to pay for frequent departures; this means short sea services need significant volumes to support the vessel investment required to provide increased vessel departure frequency.

Four **Australian** studies were undertaken to explore the opportunities further but in a different market context. Brooks and Bendall (2011) identified ‘corridors of promise’ for Australia, and research conducted by Brooks et al (2012) in 2011 focused on three Australian corridors: Melbourne–Brisbane (congested), Perth–Melbourne and Brisbane–Townsville (less congested with rail availability) and four proposed/existing service options (truck, rail, foreign flag shipping

and national flag shipping). The study sought the decision-making skills of manufacturers, forwarders, retailers but only those of each who actually buy freight shipment services. They used a discrete choice experiment with allocation of traffic to the four mode choices to assess willingness to pay/willingness to accept parameters. The research was extremely insightful. In spite of few regulatory barriers, the potential of short sea was limited by trade realities again. All else equal, all three preferred road to rail and short sea. In fact, the disutility for short sea was so strong that there was little hope of financial success. Reliability played a key role in the results as road preferences are sensitive to delays of one day or more while rail and sea are sensitive to narrow delivery windows. Most important, inertia in demand patterns is a key factor in policy initiatives to induce modal switching.

Brooks et al (2012) also provided a critical opportunity to calculate carbon-pricing impact on transport mode choice. Given the willingness to pay estimates, the road price needed to go up by a factor of 15 times before adequate market share could be generated by modal switching to make a short sea viable. Finally, two more studies (Brooks, 2012, 2014) examined the role of foreign flag permits and revising regulatory implementation as a means of growing share for coastal shipping. These are discussed next.

Regulations

Brooks, Hodgson and Frost (2006) found limited potential for short sea shipping development in the North American context, given the regulatory barriers found in North America. They argued that regulation can defeat the best coastal shipping efforts with Harbor Maintenance Tax, security rules, ship build requirements, duty on vessel importation, among other things; all work to make the economics of coastal shipping unfavourable except to those with niche business opportunities.

Brooks and Bendall (2011) argued that the more open regulatory regime in Australia gave short sea shipping a chance of success there; further investigation by Brooks (2012) and Brooks (2014) found that

the promise could not be realized under the prevailing permit system. Before the market reality could be tested, the Australian government closed the permitting process with a more bureaucratic approach that failed to reduce red tape for shipping companies and incentivized those already contemplating the market to withdraw from further consideration. The number of Australian flag coastal trading vessels in 2012-13 was 13 (down from 37 ten years earlier! [BITRE, 2014]). Moreover, the carbon tax imposed in 2011 resulted in no modal shift because the premium for departure frequency found by Puckett et al (2011) in North American data was confirmed as predicted in the Australian case (Brooks et al, 2012). Furthermore, unlike Europe, no incentive programs exist to support of coastal shipping. The cost of providing the highway network is not incorporated into the price of trucking in Australia, and intra-state shipping is governed differently from inter-state shipping, a uniquely Australian challenge. So the regulatory climate in Australia defeats their government's best intentions to support coastal shipping.

While research in South America might have contemplated demand (market realities) first, both East and West Coast markets appeared to have the congestion, population and general market conditions that would support short sea shipping development. Brooks, Sánchez and Wilmsmeier (2014) investigated the regulatory climate facing short sea operators in these two markets. Regulations on each of the coasts can only be described as a 'dog's breakfast.' The markets are well protected, with a non-porous market boundary, as defined by Brooks (2012) as effective to preventing short sea development in Australia.

Social License

What is social license? Citizens and taxpayers have the ability to harness social media and grant grassroots support (or not) in favour of business investment. If they support the building of new roads, facilities in port areas, or intermodal terminals, then they have 'granted' the developer a social license, which is hard to acquire but easy to lose. In shipping, social license happens at the port. Two port stories illustrate the loss and win—Baltimore and Jacksonville.

Baltimore wanted to be a deep-sea port of call for post-Panamax container ships (and was a short sea provider to Puerto Rico). The Maryland Port Administration was successful in convincing the US Army Corps of Engineers to dredge the channel to 50' and Ports America Chesapeake to make the investment in cranes to serve those ships. However, the social license was never acquired; the landside development of a new intermodal container yard facility failed to get citizen support, resulting in the withdrawal of state funds for it to the chagrin of the city's mayor (Reutter, 2014). The hinterland connections were so poor the port was unattractive to the market.

Jacksonville's port authority determined that the port should be a short sea port-of-call for Caribbean feeder traffic and is working with the US Coast Guard to assist in the development of standards for LNG re-fueling barges and safe LNG bunkering. They are also working with Crowley and Sea Star, both of which have invested in LNG feeder ships, to facilitate community support. The port authority has been open with the local community about the ability of this investment to grow jobs. Clean Energy has chosen Jacksonville for its new LNG facility, and LNG as a marine fuel is on its way to being used by U.S. flagged short sea vessels. (Jacksonville's plans are discussed further in Szakonyi, 2014).

Conclusions

In Europe, serious road congestion supports the development of short sea shipping, particularly as citizens are prepared to financially support removing trucks from the road (e.g. they have granted social license). Furthermore, the potential of the Ecobonus program in Italy promises to expand the opportunities further. Short sea shipping has already become more than a niche transportation service in Europe. Research in North America has uncovered that, in spite of four promising corridors, the regulatory climate defeats the development of short sea shipping, except for the Jones Act protected routes (like Jacksonville to Puerto Rico). In Australia, while three corridors of promise were identified, a more relaxed regulatory environment could not overcome the frequency premium found in the market. Subsequent regulatory restrictions killed any switch possible from

permitted carriage. Finally, In South America, regulatory harmony will be necessary before short sea can be just a niche service offered by national firms. Europe may be the only success, and that market is now struggling with the additional impact of Emissions Control Areas driving away business as recently happened with Transfennica.

References

- Bendall, H. B. & M. R. Brooks (2011). Short Sea Shipping: Lessons For or From Australia, *International Journal of Shipping and Transport Logistics*, 3 (4), 384-405.
- Brooks, M. R. (2012), Maritime Cabotage: International Market Issues in the Liberalization of Domestic Shipping, in *The Regulation of International Shipping: International and Comparative Perspectives: Essays in Honor of Edgar Gold*, Aldo Chircop, Norman Letalik, Ted L. McDorman and Susan Rolston (eds), Leiden: Martinus Nijhoff Publishers, 293-323.
- Brooks, M. R. and V. Trifts (2008), Short Sea Shipping in North America: Understanding the Requirements of Atlantic Canadian Shippers, *Maritime Policy and Management*, 35, 2, 145-158
- Brooks, M. R., J.R.F. Hodgson and J. D. Frost (2006), *Short Sea Shipping on the East Coast of North America: an analysis of opportunities and issues*, Halifax: Dalhousie University.
- Brooks, M. R., S. M. Puckett, D. A. Hensher & A. Sammons (2012), Understanding Mode Choice Decisions: A Study of Australian Freight Shippers, *Maritime Economics and Logistics*, 3, 274-299.
- Brooks, Mary R. (2014). The Changing Regulation of Coastal Shipping in Australia, *Ocean Development and International Law*, 45 (1), 1-17.
- Brooks, Mary R. and J. D. Frost (2009). Short Sea Developments in Europe: Lessons for Canada, *Canadian Transportation Research Forum Proceedings*, 235-249.
- Brooks, Mary R., Ricardo Sánchez and Gordon Wilmsmeier (2014). Developing Short Sea Shipping In South America – Looking Beyond Traditional Perspectives, *Ocean Yearbook*, 28, 495-525.
- Puckett, Sean M., David A. Hensher, Mary R. Brooks and Valerie Trifts (2011). Preferences for Alternative Short Sea Shipping Opportunities, *Transportation Research E: Logistics and Transportation Review*, 47, 182-189.
- Reutter, M. (2014) ‘Mayor’s Big Plans for CSX Rail Yard Derailed by Political Fallout’, *Baltimore Brew*, September 2.
- Szakonyi, M. (2014) ‘Expansion Plans Yield Positive Outlook for Jacksonville,’ *Journal of Commerce*, September 3.