



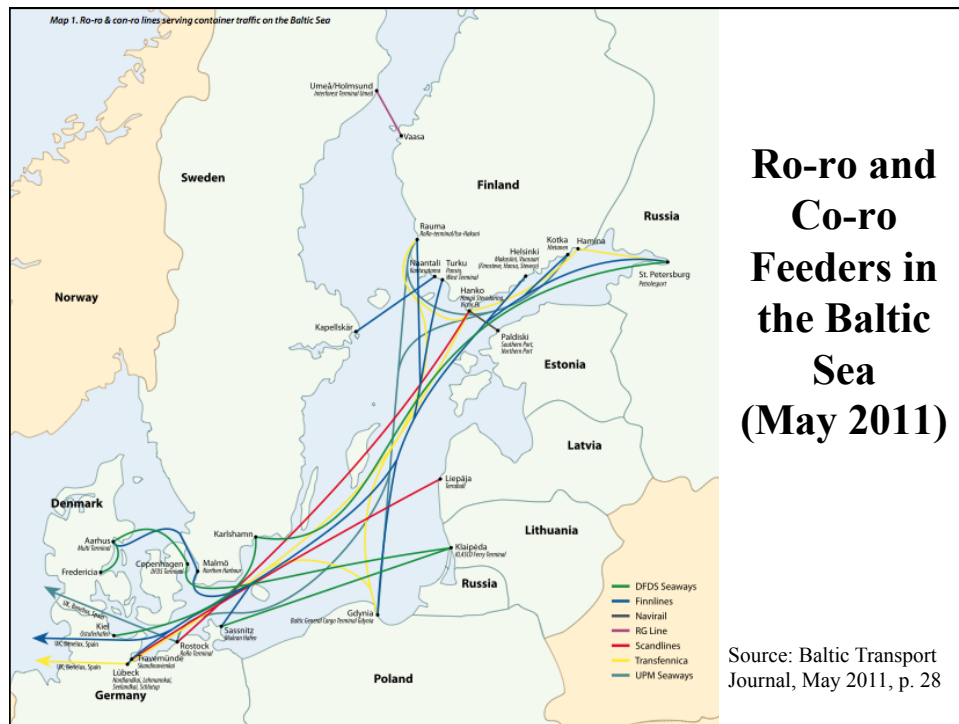
Global Trends in Short Sea Shipping (SSS): Opportunities and Challenges

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Agenda for This Presentation

- My definition of short sea shipping (SSS): seaborne goods transport that does not cross an ocean. This includes international coastal shipping. Integrated SSS is a door-to-door SSS move.
- Review of events and circumstances in three markets: Europe, North America (Canada/US) and Australia—I'll set the scene for a deeper discussion this afternoon
- High level conclusions for government and industry
 - What succeeds?
 - What fails?
- Questions on what this may mean for Southern Chile? What can we take away that will help Chile develop its coastal shipping even further?





European Short Sea Shipping

- Europe is succeeding with solid year-over-year growth
- Short sea is well-established (Feeder, ro-ro, regional services, industrial shipping, passenger and cruise ferries)
- Some short sea hubs for freight have emerged (e.g. Hamburg with 50 feeder services and 150 feeder departures per week in 2011)
- Vibrant passenger traffic
- Geography is critical (Baltic, North Sea, English Channel and Mediterranean)
- Sea state too, e.g. Baltic open year round and more sheltered than Great Lakes between Canada and U.S. (winter access denied) and East Coast North Atlantic (high seas)

The European Context



- Vessels are smaller than deep sea vessels
- Most European **freight** operators charter their vessels on 3-5 year basis; can easily be upsized or downsized
- Most European **passenger** operators own vessels for developing market-driven services and on-board experiences
- Three key developments:
 - Unique technical and service solutions—matching the right vessel to the needs of the market
 - Wider free trade area
 - EC has programs in place

Marco Polo Plays a Key Role (latest reports are the 2011 announcements)



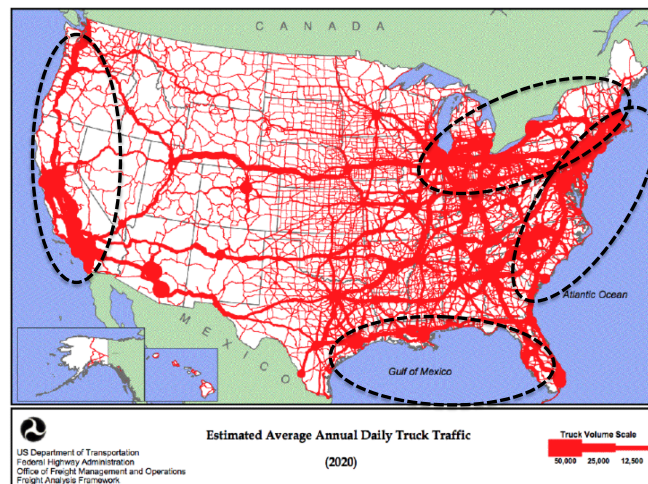
- Funding is motivated by desire to remove trucks from roads and improve environment
 - Modal shift
 - Shift from road to short sea
 - Removal of structural impediments
 - Dissemination of info
 - Restructuring production logistics to reduce road usage
- The RFP process works because it is industry initiated (This is critical!)
- 28 new feeder, short sea and rail intermodal projects funded in 2011 (4 short sea or motorways of the sea)
- €450 m committed 2007-13; €57 m committed in 2010

Why is Europe a Successful Market? (What Industry Needs)



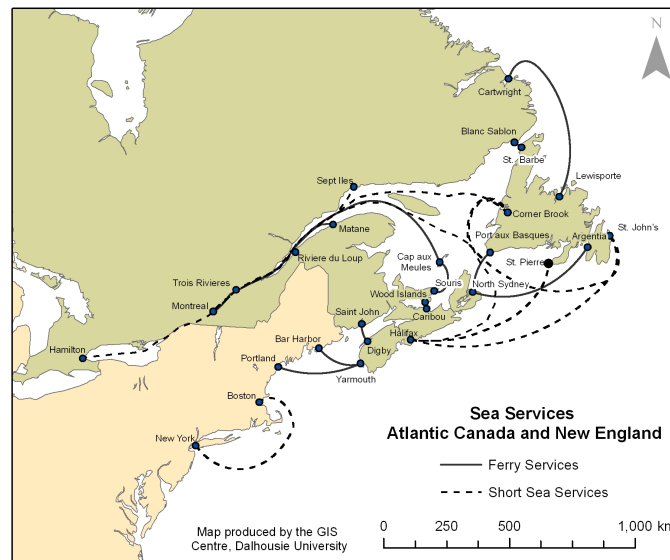
- Note that the geography helps
 - Large enclosed seas (Canada's Great Lakes?)
 - Large internal regulatory region in the EU
- Industry has found that
 - It must build network services around contracts and logistics requirements of specific clients
 - It needs access to new and second-hand vessels; yes duties and rules for importing tonnage do matter
 - It needs to be able to change (upscale/right-size) for the market (can't expect a static asset to serve a dynamic need) therefore rules on buying, selling or chartering vessels do matter
- Serious road congestion supports the development of short sea shipping, particularly when citizens are prepared to financially support removing trucks from the road.

In North America, Industry Players see Clogged Arteries and a Coastal Shipping Solution



The four most promising corridors are more than 500-750 kms.

Short Sea Does Work (as of Sept. 2008) Some Services Fell to the Global Economic Crisis



The Challenge is an Aging East Coast Fleet (Age not reported in 2012)

Canadian Registered Vessels	N. of Vessels (2008)	Average Age (2008)	N. of Vessels (2012)
Tankers			
Tankers - (35000 GRT and over)	5	8.0	6
Small Tanker (1000 - 34999 GRT) and Tank Barge (EC, GL & St. Lawrence)	17	20.0	22
Ferry/passenger/yacht			
Ferries - EC, St. Lawrence, Great Lakes (roll-on/roll-off)	9	31.0	10
Barge/cargo			
Barges - EC, St. Lawrence, Great Lakes (1000 GRT and over)	34	43.0	43
Tank Barges - EC, St. Lawrence, GL	2	24.5	13
Cargo vessels - EC, St. Lawrence, GL (1000 GRT and over)	79	38.0	86

Note: Only vessels over 1,000 grt and deployed in eastern Canada.

Source: CTA Vessel Information System as reported by Brooks and Frost (2009) Table 2, and as of Aug 17, 2012.

Regulatory Impediments to Short Sea Shipping in Canada



- A number of regulations hinder the development of Canadian short sea shipping:
 - Cabotage regulations (Coasting Trade Act)
 - Refit charges on vessel importation
 - Modal inequities with respect to way and social costs
- A number of regulations hinder the development of international short sea shipping:
 - Cabotage regulations (Jones Act)
 - US Harbour Maintenance Tax
 - Advance Electronic Notification, etc.

Canadian Study of Marco Polo Recommended that Canada ... (1)



- Develop a financial support toolbox✖
- Need to reduce risk✖
 - Cargo owner's risk in using an untried service
 - Operator's start-up risk
- Duty issue✓
 - Duty protects incumbents (limits innovative development)
- Reduce costs
 - Canadian Coast Guard's prescriptive requirements are sunk costs and huge barrier to entry; cannot be recovered on world market –unless cargo absolutely assured; Adopt a high quality international flag or classification society standard✖
- Infrastructure investment ~

Brooks and Frost (2009)

Canadian Study of Marco Polo

Recommended that Canada ... (2)

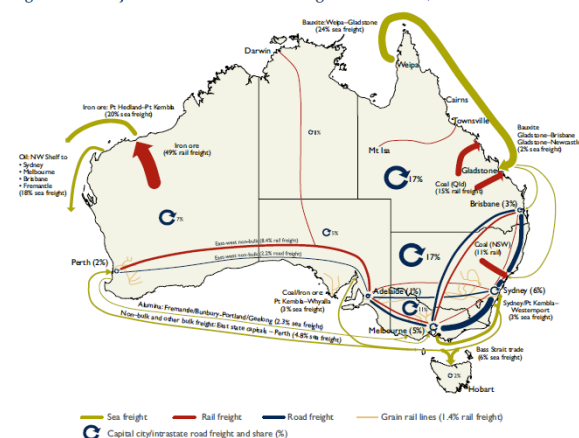
- Marketing development funding ❌
 - Help finance promotion
 - Assist in start-up phase
- Education and training ❌
 - Seen as important in EU to advance the cause
 - Possible in Canada through myriad institutions
- Demonstration projects ❌
- Level the playing field (modal neutrality) ❌



Brooks and Frost (2009)

Major Australian Freight Movements (2006-2007)

Figure 2 Major Australian domestic freight movements, 2006–07

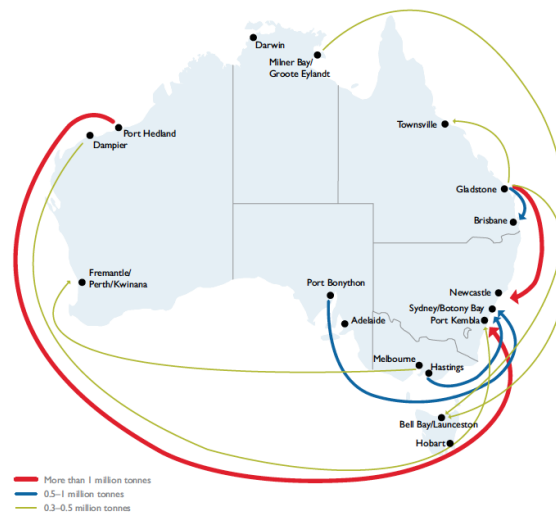


Note: Lines widths indicate relative freight volume (tonnes), percentages are the share of total modal freight task (tonne kilometres)

Source: Commonwealth of Australia, 2009: Figure 2.

Australia Allowed Foreign Flag Access via Permit under 2009 Ministerial Guidelines

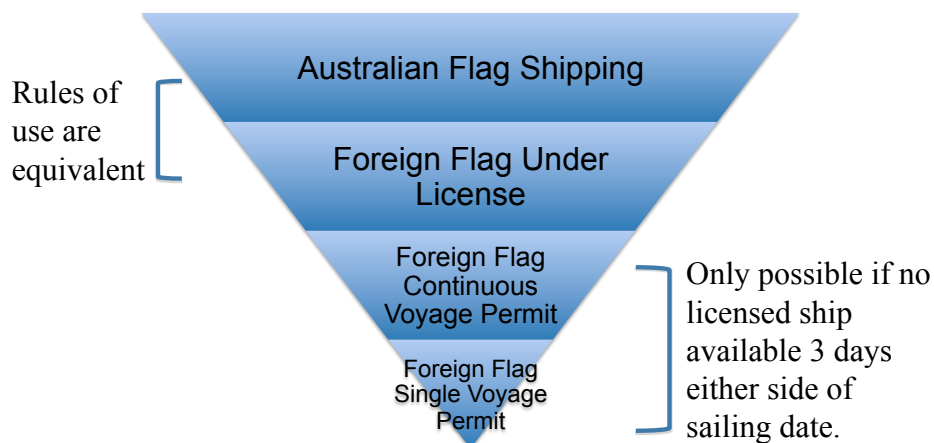
F4.1 Top 10 routes where coastal freight was carried on permit, 2009–10



http://www.bitre.gov.au/publications/2011/files/asf_2009_10.pdf

License and Permit Conditions

The hierarchy of supply in Australian coastal shipping under 2009 Ministerial Guidelines:



Bendall and Brooks (2011)

Australian Major Coastal Trading Fleet 2009-2010

Australia is one of the few countries where foreign flag shipping has access to domestic cargoes via licenses. Foreign participation dropped 7% 2009-2010 over 2008-09.



Registration	Vessels	000 DWT	Bulk Ships
Australian	27	720.6	15
Foreign	5	174.4	4
Total	32	894.9	19

Note: Major trading fleet are vessels in excess of 2000 tonnes. Coastal is defined as more than 80% of voyages call at Australian ports. Bulk ships includes bulk carriers, chemical tankers and tankers.

Source: Extracted from BITRE (2011), Australian sea freight 2009-2010, Tables 6.1 and 6.3.

Permitting Activity by Cargo Type 2009-2010



Cargo group	Total coastal (m tonnes)	SVP and CVP (m tonnes)	SVP and CVP (% of total coastal trade)
Dry bulk	33.8	10.0	29.6
Crude oil, LPG and other liquid bulk	10.6	4.0	37.7
Containerised and general cargo	7.6	1.1	13.9
Total cargo	52.1	15.1	28.9

Source: BITRE (2011), Table 4.3

Actual may vary off permit by up to 10% without amendment.

Legislative or Regulatory Factors Lessons from N. America and Europe



- **Lessons from EU:**
 - Size of the cabotage area is relevant.
 - Successful coastal shipping can be promoted by subsidies (Marco Polo program) as part of a GHG reduction strategy. (Coastal shipping is as much an energy policy as a transport policy (Brooks & Frost, 2009).)
- **Lessons from North American research:**
 - Regulation can defeat the best of coastal shipping efforts (HMT, security rules, build requirements, etc) (Brooks Hodgson & Frost, 2006)

Legislative or Regulatory Factors: Lessons from Australia



- **Taxation/Subsidies/Incentives**
 - Australia does not currently have a fair market between Australian-flag and foreign-flag shipping — tonnage tax? (Francis & Lewarn, 2009).
 - Unequal treatment between time charter and bareboat charter (a royalty withholding tax)
 - High cost of crews. Fair Work Act 2009 regulations will apply to foreign flag shipping under permit.
 - No Incentive Programming in support of coastal shipping.
- **Fuel Costs Do Not Include Social Costs.** The lower the price of fuel, the less likely coastal shipping will be viable. Carbon taxing would level the field.
- **Regulatory Divergence.** Intra-state shipping is governed differently from inter-state shipping. Regulatory uniformity is desirable.

Source: Bendall & Brooks, 2011.

Discussion



Fact: The Voyage Permitting system means sniping is possible by large multi-national shipping lines, making it difficult for a new Australian operator to start a sustainable service.

Question for discussion this afternoon: Is removal of the permit system the solution? (Canada uses a permit system for foreign flag vessels in a closed cabotage regime.)

Discussion



Fact: Australian coastal shipping does not compete easily with service standards available from trucking/rail.

Research Questions for discussion this afternoon:

What combination of service attributes will entice cargo interests to switch to coastal shipping from other modes?

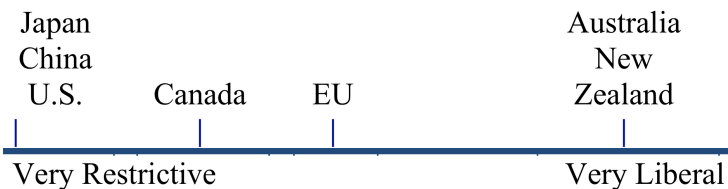
Would the imposition of eco-taxes on fuel or congestion charges be sufficient to induce switching?

Is Restricting Access to Cargo Key to Growing Coastal Shipping Traffic?

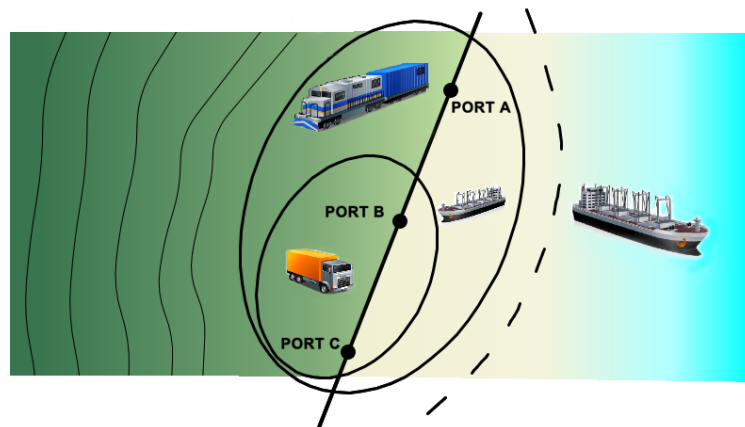
Three forms:

- Cargo reservation/allocation (x% of liner cargoes travel on national flag ships)
- Cabotage (use national flag between national ports)
- Shipper incentives to use a particular flag (reduction in customs fees for shipper)

First and third often not the key decision factor given modern registry conditions (they were 1980s solutions not suitable in the current global trading environment).



Where the Shipping Market Begins/Ends is Dictated by Government



Source: Brooks (2012), Figure 2, p. 300.

How the company that pays the freight makes choices is not...

Key Studies



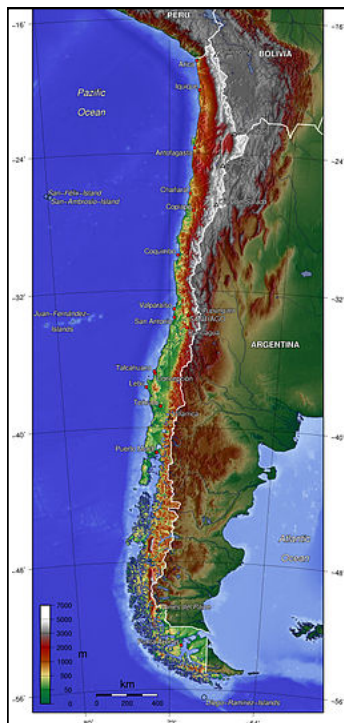
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Discussion

What does this mean for Southern Chile?

This afternoon's talk is about making short sea shipping work for ship owners and cargo interests.

Source of Map: http://en.wikipedia.org/wiki/Geography_of_Chile





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Muchas Gracias! Preguntas?

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