INTEGRATING SHORT SEA SHIPPING TO SUPPLY CHAINS : THE PERFORMANCE OF THE COASTAL TRADING LICENSE SYSTEM

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Introduction

All three Canadian gateways projects have identified that short sea shipping could offer ways the optimize the efficiency of supply chains. By making a greater utilisation of the currently underused waterborne mode, it is though that pressure could be released on other congestion-stressed infrastructures. A more balanced utilisation of all transport modes would also reduce the volatility and increase the robustness of supply chains by diversifying the routing of goods.
In this context, there has been some valuable efforts to promote the sector and support the development of new short sea services. Yet the coastal trade regime has not been fundamentally questioned, although in the St. Lawrence Great Lakes there is now a consensus among ships owners to demand lifting duties on the importation o foreign-built vessels. In this paper, we look at the performance of the cabotage regime through its temporary licence system. With this descriptive work, we ask in the end how well the objective of shielding Canadian vessels from unfair international competition is

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achieved and how well the system supports the development shipping markets.

Coasting Trade Act: how the system works

It is established that the coastal shipping regime in Canada is first designed to protect the interest of Canadian-flagged vessels. Its main dispositions are to require that all movements of freight between Canadian ports must be undertaken by a vessels registered in Canada. This in turn requires that the vessels is fully crewed by Canadian citizens and operated by a firm established in the country. The system also takes into accounts the interests of Canadian shipyards. Ships to enter the Canadian register must have been built in Canada or else paid the customs duties associated to their importation into Canada. The level of those duties can vary according to the country of built, but for the most productive shipping building economies at the world scale, the dues are currently set a very significant 25% of the price of acquisition. Non-widely used provisions exists to register non-duty paid vessels under the Canadian flag, but these do not grant the full extend of national privileges[2].

What we are concerned with in this paper are the dispositions relating the special permission to use temporarily a non-Canadian vessel within Caanda. These are designed to ensure that a cargo owner – or another firm in need of a ship – can conduct its operations even in the situation where no Canadian vessels are found available or suitable to do the job. The Coasting Trade Act place the responsibility of verifying the non-availability of Canadian vessels with the Canadian Transportation Agency (CTA). A firm who wishes to employ a foreign vessel, fills a one page form[3] addressed to the CTA to request a licence for the temporary admission to Canadian coasting trade of a given vessel. The forms includes the identification of the vessel to be

[2] For details refer to the guidelines of Canada Border Agency http://www.cbsa-asfc.gc.ca/publications/dm-md/d3/d3-5-7-eng.html

[3] The form is available online at http://www.cta-otc.gc.ca/doc.php?sid=1077&lang=eng

used as well as the description of the cargo to be shipped or the operation to be conducted, the geographical area and the period at which the operations are to take place. With this information the CTA will enquire with Canadian ships operators whether they have available and suitable ships to meet this shipping demand. A 30-days period is planned for this but if the situation justifies it, it can be fast-tracked to a few days. It is on the basis of this response by Canadian operators that the CTA will recommend or not to emit the temporary licence. The Agency will consider[4]:

- availability of Canadian vessels at the time planned for operation (or a different date if it judges it is acceptable to perform the activity then);
- technical suitability of national vessels: its not required that a Canadian vessel be identical but be able to perform the intended task.
- the financial and commercial suitability of national vessels: for example two smaller vessels may not be the commercial equivalent of a larger one.

Once the recommendation from the CTA is given, it is the Canada Border Agency who emits the permit after Transport Canada certifies that the vessel meets its security and pollution prevention standards.

Methodology

All decisions issued by the CTA regarding requests for coasting licences are made available online. With this information it is possible to trace who requested licences for which ships, the nature of operations they intended to conduct with those vessels and whether the Agency recommended granting the licences or not in each cases. The methodology we applied is simple, but somehow extensive. We built a database in which we have compiled every decision regarding coasting trade licences issued by the CTA from January 1st 2003 to

[4] For details, refer to the guilines of the Canadian transportation Agency: http://www.cta.gc.ca/doc.php?did=416&lang=eng

December 31st 2008. For each decision, the following information was compiled: name of the applicant firm; name of vessel, type of vessel; flag; type and quantity of cargo to be carried (or nature of operations); origin and destination; starting and ending dates and whether the licence was granted or not. This last point allowed us to single out decisions which arbitrators deemed complex enough to justify in length their evaluation of whether Canadian vessels were available and suitable. This paper presents the descriptive statistics and observations derived from this database.

Results

Number and nature of rulings issued following applications for coastal licences

The number of licences requests varies during the period from 81 in 2003 to 128 in 2008. 2007 shows a peak of 145, up from 95 and 96 in 2005 and 2006.

Rate of acceptation

The vast majority of applications are answered positively by the CTA (table 1). The vast majority of positive recommendations results from the fact that no Canadian operators proposed any available ships: 90% or more for every year of the period.

Table 1 – Annual applications coastal trading licences

	2003	2004	2005	2006	2007	2008	2003-2008
Nb of applications	82	114	95	96	145	128	110
Positive	79	113	93	95	143	123	108
Negative	3	1	2	1	2	5	2

Distribution of applications by types of vessels

Tankers are the more common type of vessels for which coastal trading licence applications are filled (table 2). They represent on average half of the applications while tankers form less then 15% of the number of Canadian vessels above 1 000 GRT(gross registered tons) and less of 25% of the capacity of this fleet.
The second more frequent category is also related to oil extraction: service vessels being composed primarily of seismic research vessels (and cable-layers).
The largest segment of the Canadian fleet – bulkers – are almost never concerned with coastal licences. On the other hand, passenger vessels presents a steady growth of annual application through the studied period. Those seem mainly associated with traditional sailing vessels from the U.S. being used for cruises in Canadian waters. A few application are also related with cruising in the Arctic.

Table 2 – Distribution of licence applications by vessel types.

Vessel type	2003	2004	2005	2006	2007	2008
Annual nb of positive applications	79	113	93	95	143	123
Tugs and barges	3%	7%	2%	8%	20%	5%
Service vessels	35%	27%	29%	19%	18%	30%
General cargo	3%	3%	1%	1%	4%	6%
Passenger	5%	10%	12%	13%	11%	23%
Tankers	54%	53%	56%	59%	45%	36%
Bulkers	0%	0%	0%	0%	1%	0%

Duration of licences requested

Table 3 shows that throughout the studied period the vast majority of applications are for a short term period, mainly less than one month. However there is an increase of the total frequency of applications for licences of more than three months. Plus, applications for licences of

more than six months make for an important16% of the 2003-2008 total.

Table 3 – Distribution of licence applications by time length

Licence duration	2003	2004	2005	2006	2007	2008	Total
1 month or less	46	74	57	49	62	59	347
1,5 to 3 months	10	10	10	19	40	11	100
3,5 to 6 months	7	11	10	13	22	32	95
6,5 to 12 months	16	18	16	14	19	21	104
Total	79	113	93	95	143	123	646

Cumulation of successive temporary licences by a single ship

As the database allows to track licence applications by vessel, we have identified that even though most applications are for a short duration, some vessels are repetitive users of the temporary coastal trading licence system. Table 4 shows a compilation of the number of different vessels that have been granted licences for a total of 12 months or more between 2003 and 2008. In total some 46 foreign vessels have cumulated licences worth a year or more of work. This appears to be significant considering that the total number of Canadian registered vessels above 1 000 GRT is reported to stand at 182 in 2007 (Transport Canada, 2008).

Table 4 – Vessels with total duration of licences of 12 months or more from 2003 to 2008

Vessel type	Nb of vessels
Tugs and barges	8[1]
Service vessels	20
General cargos	5
Passengers	6
Tankers	7
Bulkers	0
Total	46

[1]24 units concerned by 8 applications

Another indicator that the system can be used for more than occasional or unusual shipping needs is the number of application made by vessels. Table 5 lists all ships that have filled more than six positive applications during the studied period. As indicated, a few vessels have made repetitive demands. All are crude oil carriers except for one. Data indicates that 5 of these vessels have been, at least for period of a few years at a time, almost continuously in operation in Canadian waters during the 6 year period although under a temporary regime to access this trade. Note that the total duration of positive applications does note necessarily represent the actual trading time in Canadian waters as a new licence may be requested before the previous one ends to accommodate a change in cargo volume or type, and/or routing. This explains how a vessel can compiled a cumulative licence duration longer than the study period itself.

We need to acknowledge that 2 of the tankers with the highest total duration of positive applications are non-duty paid, but Canadian-flagged vessels (one left the Canadian register in 2006). These vessels would be crewed by Canadian seafarers but not necessarily under Canadian ownership. They are not considered fully as Canadian vessels having not paid the full duties for their importation.

Table 5 – Vessels which made more than 6 positive licence applications from 2003 to 2008

Vessel name	Vessel type	Flag	Nb of positive applications	Total duration of positive applications
JASMINE KNUTSEN	Tanker	Norway	28	49,5
GEMINI	Tanker	USA	28	16,5
HEATHER KNUTSEN	Tanker	Canada (non-duty paid)	20	64
OVERSEAS SHIRLEY	Tanker	Marshall Islands	14	128
CATHERINE KNUTSEN	Tanker	Norway	11	44,5
MAYON SPIRIT	Tanker	Bahamas	9	6
ASPHALT SAILOR	Tanker	Ireland	8	7,5
AVALON SPIRIT	Tanker	Canada (non-duty paid)	7	84
ORKNEY SPIRIT	Tanker	Bahamas	7	4

Geographical distribution

By observing the geographical distribution of vessels having cumulated licences for 12 months or more, we see that the Atlantic region is overrepresented (table 6). This consistent with the presence of oil related activities in the area as tankers (crude carriers) and service vessels (seismic research vessels) are among the most intensive users of the temporary licence system.
However the coastal trading licences, especially shorter ones, are used everywhere in Canada including in the Arctic. As an illustration, the Russian icebreaker-cruise ship Kapitan Khlebnikov made positive applications for a month or so of cruising activity in the Arctic every summer from 2003 to 2007.

Table 6 – Distribution of vessels which licences total 12 months or more from 2003 to 2008 by regions and vessel types

Vessel type	Atlantic	Pacific	St.Lawrence Great Lakes	Atlantic and St.Lawrence Great Lakes	Pacific and Arctic	No specific areas
Tugs-barges	6	0	0	0	2	4
Service vessels	16	0	0	0	0	0
General cargos	4	0	0	1	0	0
Passengers		3	2	0	0	1
Tankers	6	0	1	0	0	0
Bulkers	0		0	0	0	0
Total	32	3	3	1	2	5

Case study

Beyond the compilation of descriptive statistics that are presented above, our methodology also identified decisions which arbitrators deemed complex enough to justify in length their evaluation of whether or not Canadian vessels were available and suitable. Comments on decisions by the arbitrators provide a rich material for a more qualitative analysis of the system. Our research is still in progress on this approach, but here we give an example with the case of an licence application by Great Lakes Feeder Lines.

At the time of the application in 2007, Great Lakes Feeder Lines is a new Canadian shipping company without a vessel. It however boosts a clear business model built from the operation framework of European feeder containerships: a modern vessel of a few hundreds TEU of capacity, operated with a small crew, making frequent trips connecting major international container hub ports with somehow smaller regional ports.

In March 2007, the firm filled an application for a coasting licence for a newly built container vessel – the CFL Prospect, Dutch-flagged – to

perform year-round weekly trips between Halifax and Montreal and on to Hamilton during the Seaway season. It stated that the ship had to be adapted to container trades with a minimum capacity of 200 to 300 TEU, ice-classed, capable of 12 knots. Departing from the standard declaration, its was added that the level of automatisation of the Prospect would allow to function with only 10 crewmembers onboard and that its great manoeuvrability due to powerful bow and stern thrusters would require no tug assistance for docking and undocking. The applicant claimed that this was essential to the commercial viability of the service.

Two Canadian ships owners opposed the demand proposing available general cargos to do the work. One later withdrew, leaving only McKeil Marine to propose the Kathryn Spirit built in Sweden in 1967 and recently acquired and placed under the Canadian flag. The vessel had the right capacity, proper speed and ice-class. McKeil claimed that having box-shape hulls it could easily be adapted to containers and that requirements about crewing level and tug assistance should not be considered within the coastal trade system.

There was many arguments and counter arguments heard on this aspect. Detailed cost structure was provided from both sides. In June the arbitrators ruled that the proposed Canadian vessel was capable of offering the service and therefore was technically suitable. However, they also concluded that it would be impossible for this vessel to meet the cost threshold making the service commercially viable. On this basis they recommended granting a 12-month licence to the applicant.

In the end the service was not set up that year. The CFL Prospect apparently had meanwhile secure a charter in a perhaps more lucrative European market. Great Lakes Feeder Lines finally reverted to register a Ro-Ro vessel under the Canadian flag in 2008, but it appears that demand for the feeder service was difficult to establish and that the vessel has been for the moment shifted to more classic breakbulk operations.

Despite these later developments, the Agency's decision in this case appears particularly significant. First because it touches containers, an all important cargo in the gateways and trade corridors perspective and possibly the less developed segment of coastal shipping in the country. Second its seems to give a much more liberal interpretation

of what is economic and commercial suitability. It is well kwon that operating costs of Canadian vessels are well above those of the international fleet; after all it is one of the main rationales for the Coastal Trading Act. So it could potentially lead to a greater opening of the Canadian market to international vessel. Indeed, it is close to the approach taken by Australia. Within a comparable system, it was deemed by Australian authorities that not only availability and suitability of a national vessel should be considered, but also public interest. So that if rates or service level offered by a national vessel seemed to reflect a low level of competition within the Australian fleet, it could be a sufficient argument to grant a licence to a foreign ship. This lead to as much as a third of Australian domestic shipping to be carried by international vessels (see Guy and Urli, 2009 and Guy, 2006)[5].

Summary of findings

The descriptive analysis of all decisions issued by the CTA regarding coasting trade licence applications from 2003 to 2006 suggests that overall the system is working: the majority of applications are linked to sporadic or specialised shipping needs. This results in a system that by and large allows shippers to call on foreign tonnage only when there is no Canadian vessel available and suitable as intended by the chosen policy orientation.

Yet there are segments of market where a comparatively small numbers of vessels have been granted repetitively, and over significant period of time, coasting licences made to provide only temporary access to the Canadian market. In such situations, the licence system has failed to protect Canadian vessels' interests in what adds up over time to significant market opportunities. This is evident in the case crude oil shipments from extraction platforms offshore Newfoundland to refineries. Other cases exist, although not

[5] It should be noted that the new Labor Government annouced in 2008 its intention to review the system, possibly making it more restrictive for international vessels.

so clear because of lower volume of work translating in smaller number of vessels concerned or mainly shorter total duration of licences by vessel. Yet there is indications that a similar trend may be at play in market segments such as seismic research vessels, cruising in the Artic, tug and barge operations in the Western Arctic and traditionally-rigged excursion vessels.
In the context of trying to develop short sea shipping within the gateways and trade corridor rationale, the decision issued by the CTA in the CFL Prospect's case is in many ways alarming. It states that creating commercially viable waterborne services that would support containerised supply chains requires a type of vessels that is basically absent from the Canadian fleet and for which Canadian shipyards can claim very little experience.

Conclusion

Overall the analysis of the temporary licence system paints a portrait apparently common to sectors under a protectionist framework. Established market players effectively maintain a desirable level of activity, but the system seems to have difficulties to integrate new market segments, even more so supporting these new business opportunities. Considering the recognized evaluation that coastal trading is not used to its full potential in Canada and the political will to make a better use of this mode for both optimal utilisation of supply chains' infrastructures and environmental rationales, it seems that a public framework supportive of the development of new market segments is a critical requirement. A certain re-evaluation of the cabotage dispositions is called for in the industry with the now established consensus among carriers to request the end of the importation duties on foreign-built ships – at least in the St. Lawrence Great Lakes system. In the context described in this study, we conclude that stakeholders should take a more comprehensive look at priorities set by the current coastal shipping regime, and at its performance, to insure that the system remains in line with their overall objectives.

References

Canada Border Services Agency. 2008. *Temporary Importation of Vessels*. Memorendum D3-5-7.

Canadian Transportation Agency. 2009. *Canadian Transportation Agency Guidelines Respecting Coasting trade Licence Applications.* http://www.cta.gc.ca/doc.php?did=416&lang=eng. Consulted Feb. 26th 2009.

Guy, E. and Urli, B. 2009. *Analyse comparative des mesures d'intervention publique en support au transport maritime*. Transport Québec. Forthcoming.

Guy, E. 2006. *Libéraliser pour augmenter la compétitivité du cabotage : les cas de l'Australie et de la Nouvelle-Zélande.* pp. 30-44. In *Competition as a driver of change. Proceedings if the 41st Annual Conference of the CTRF.* CTRF.

Transport Canada. 2008. *Les transports au Canada en 2007.* TP 14816.