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## **DOES FINLAND HAVE ENOUGH SEA TRANSPORT CAPACITY?**

*Finland* is more reliant on seaborne transport of goods than its neighbours. Nearly 90% of our foreign trade consists of shipping (FTA 2014). The overseas exports per capita figures also reflect our dependence on exports. The Nordic countries import 7.9 tonnes of goods per capita and year by sea, while Finland imports 8.7 tonnes (FC 2015).

*In normal conditions*, the commodity flows of foreign trade are transported on the terms of and steered by the market economy. *Our security of supply* is based on a functioning market and a competitive economy. But the markets may not be sufficient to uphold the basic economic and technical functions of society in the event of disruptions and emergencies. This is why *security of supply measures* are taken to prepare for the maintenance of functions vital to society as close to normal as possible, even in such circumstances (NESAs 2015).

Under normal conditions, the flag flown by a merchant vessel transporting goods to Finland is not a key consideration. Should market forces be disrupted or cease functioning altogether, however, Finland will be forced to evaluate the *performance and sufficiency* of its merchant fleet tonnage for necessary foreign transport. The maintenance of security of supply requires special measures in order to ensure the availability of *adequate ice-strengthened tonnage sailing under the Finnish flag* to secure the crucial transport required by society and industry in all circumstances. *Energy, chemicals and food deliveries* are the most important types of transport that require securing (GD 857/2013:3.4).

The eventuality of armed conflict is less likely than being forced to actively protect shipping that is vital to security of supply or to undertake transport in exceptional weather or ice conditions. In the 2010-2011 ice winter, transport on the Gulf of Bothnia was transferred under the control of the authorities (FMI 2015: Archive 2011). Traffic was restricted due to the ice situation for 174 days on the Bay of Bothnia and 155 days on the Gulf of Finland (BSIR 2010-2011).

The capability of our merchant fleet required for security of supply has been discussed in strategies and the justification sections of the state budget, from 2000 and forward. The transport capacity of our merchant tonnage has not been discussed. The legislative proposal on the competitiveness of vessels used for maritime transport (GP 148/2008) states that *“the perspective of security of supply alone requires an adequate amount of domestic tonnage. In general, however, the consensus is that the current tonnage (in 2008) is approaching the risk threshold with regard to security of supply.”* In 2008, this “risk threshold” tonnage sailing under the Finnish flag comprised

120 vessels with a total displacement of 1,160,371 tonnes (FTSA 13/2013). The share of Finnish vessels was 30.4% in all seaborne transport (Shipping statistics 2009).

*Is the security of supply of Finland's seaborne transport realised in the manner and at the level specified in the targets and declarations of intent set for it?*

### **The seaborne trade**

Of our 102.4 million tonnes of foreign trade in the "risk threshold year" of 2008, seaborne imports accounted for 58.1 million tonnes, of which Finnish vessels carried 39.1%, while seaborne imports accounted for 44.3 million tonnes, 20.3% transported by Finnish ships. The total share of Finnish ships in our foreign goods trade equalled 31.0% (FTA 5/2014). The *displacement* of the 120 Finnish ships registered in the list of merchant vessels totalled 1,160,371 tonnes in 2008 (FTSA 2013), which indicates that the authorities had a numerical definition for the *risk threshold*.

According to the *Baltic Port List 2013*, the volume of international shipping on the Baltic Sea amounted to 777.5 million tonnes, and 61.8 million tonnes domestic traffic, total 839 million tonnes. The countries bordering the Baltic Sea imported 285.48 million tonnes, with *Finland (44.7 million tonnes) being the second-biggest importer* after Sweden, and exported 491 million tonnes.

In the assessment of our transport needs, it should be noted that the majority of our imports come from the Baltic sphere, a total of 29.3 million tonnes or *65% of our total maritime imports*. Imports from Europe amounted to 38.83 million tonnes, no less than 87% of Finland's total imports (FC 2015). Russia's ports on the Gulf of Finland accounted for roughly 9.1 million tonnes of Finland's 10.6 million tons of crude oil imports. A total of 98,9 tonnes of crude oil was imported from Poland and 1.3 million tonnes from Norway. The share of energy products in our imports from Russia rose to 83%, consisting of crude oil and petroleum products. The other major import categories were fertilizer and chemicals.

The share of Finnish vessels in the import of crude oil and petroleum products approached 70%. We rely on a similar transport chain for the import of raw materials used in the production of fertilizer.

The harbour strike in 2010 halted 80% of our international shipping. In their 2011 study "Finnish Critical Industries etc", Yliskylä et al. used an extensive survey to chart the bottlenecks of Finnish industries in the event of a total cessation of imports. The dependence of our critical industries on imports is further described in **Table 1**.

Of Finland's imports, *more than 60% consists of raw materials and unrefined commodities* for the domestic market and processing for export (FTA 2014).

A total of 163 ships in average arrived or left Finland every day of the statistics year. Their average cargoes were 2,000 tonnes. The cargoes of the 80 ships arriving in Finnish ports every day amount to 160,000 tonnes and that *only accounts for imports*.

Transferring the *total daily goods volume of shipping, 320,000 tonnes*, to road or rail transport would require 7,000 railway carriages or 8,000 full trailer Lorries.

### ***Our tonnage is not enough***

According to the 2012 ship list (FTSA 2013), our merchant fleet comprised 116 vessels with a total displacement of 1,083,202 dwt, *which falls short of the “risk threshold”* by 77,169 dwt. Altogether we require a general cargo-carrying capacity (excluding oil, oil products and dry bulk) of 400,000 dwcc for import and export. If it were necessary to conduct our seaborne transport using vessels under Finnish command, this would require *approximately two voyages weekly*.

This is a technical impossibility, even on the Baltic Sea. For exports, this theoretical calculation method results in just two voyages each week. The merchant fleet under Finnish ownership and sailing under the Finnish flag is not capable of this.

Satisfying the needs for goods shipments and shiploads and meeting temporal transport needs in a manner required for *security of supply* would require a complete itemisation of all factors and efficient utilisation of the fleet. Importing commodities in containers once per week or as 16,000-tonne monthly shipments and daily imports of perishable goods would require functional connections and efficient use of merchant vessels appropriate for the cargo being transported. The increasing size of ships intended for larger waters makes it necessary for us to maintain a fleet of merchant vessels suited to the short distances and smaller shipments of Baltic transport. The question is fundamentally one of demand, transport needs and supply, and the available fleet. Ship size, transport frequency, packaging sizes and the goods being transported all influence the upkeep of the transport system to varying degrees. At the end of February 2014, a total of 116 ships sailed under the Finnish flag: one passenger ship, 17 ro-ro passenger ships (Ropax), 32 ro-ro vessels, 5 bulk carriers, 32 other bulk carriers, only 3 container ships, 8 tankers and 18 specialised vessels (FTA 2014). Keeping emergency stores of vital commodities creates a temporal buffer for the management of the transport chain. When the availability of goods is disrupted, we need time to carry out the corrective measures planned in advance.