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DESIGNING AN EU SHIP RECYCLING LICENCE: A ROADMAP¹

Caroline Devaux² and Jean-Philippe Nicolai³

December 2019

Abstract: Faced with the widespread use of dismantling sites in Asia, whose processes present alarming health and environmental issues, the European Commission has raised the question of implementing a financial mechanism to encourage shipowners to use higher standards for ship recycling. This mechanism would take the form of a recycling licence applicable to any vessel wanting to call at a port within EU territory, whether flying the flag of an EU Member State or of a third country. The present paper aims to critically assess the main features of the EU's proposed mechanism from a legal and economic perspective and to examine the criticisms the mechanism has received to date. Our study shows that reform is desirable but that the nature and success of the proposed licence remain uncertain, depending on whether the mechanism is able to provide sufficient incentives. In this light, the paper makes several suggestions designed to improve the project's economic and legal viability. It also shows that such a project could speed up the entry into force of the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships adopted in May 2009, whose ratification process has been severely delayed.

Keywords: Shipbreaking; Financial instruments; Pollution; Hong Kong Convention; EU Regulation on Ship Recycling; World Trade Organization.

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1. Introduction

The practice of ship dismantling in Southeast Asia (mainly Bangladesh, India, and Pakistan) began in the 1970s and presents considerable challenges to environmental protection and human health. Most of these shipyards demolish ships directly on the beach without adequate infrastructure and employ low-skilled and poorly equipped workers to perform the various phases of dismantling, including the handling of highly toxic components.⁴ The resulting social and environmental risks are alarming: there are frequent work accidents; the dismantling sites concerned show high levels of toxic substances in the air, water, and sediment, causing the gradual extinction of animal and plant species in the surrounding area; and large numbers of workers, who work and live nearby, have developed chronic diseases.⁵

Faced with the widespread use of these dismantling sites – more than 800 ships are dismantled per year, most of them in Asia⁶ – the European Union (EU) is attempting to tackle the issue

¹ We would like to thank Antoine Bommier, Christophe Charlier and Samuel Ferey for their helpful comments. We also thank participants at the French Association of Law and Economics Conference (Nancy, France, 2018) and at the CIRED seminar (Paris, France, 2018). The financial support of the Swiss Re Foundation and the ETH Zurich Foundation is gratefully acknowledged.

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⁴ Ships are made of various dangerous substances, such as asbestos, ammonia, heavy metals, hydrocarbons, oily residues, and ozone-depleting substances.

⁵ For a general introduction to existing scientific analyses of the effects of these shipbreaking practices, see European Commission, "Ship recycling: reducing human and environmental impacts", June 2016, issue 55.

⁶ According to the NGO shipbreaking platform, from April to June 2018, 220 ships were dismantled worldwide, with 169 being sold to beaches in South Asia.

and to limit the devastating effects of this practice conducted on the other side of the world. The issue is even more pressing since China, which was considered as a greener alternative to ship recycling over the Indian sub-continent, decided to ban the import of foreign ships on its territory in January 2019.⁷ To make ship recycling greener and safer, the European Commission is considering the desirability of introducing a ship recycling licence applicable to all vessels calling at ports located within EU territory, whether flying the flag of an EU Member State or of a third country.⁸ Any ship could obtain such a licence by paying a contribution depending on its characteristics. These contributions would then be refunded at the end of the vessel's life. As a global player, the EU aspires to curb the globalized practice of ship dismantling by mobilizing an innovative approach based on incentives rather than constraints.

Although the EU project is currently at an embryonic stage,⁹ it is worth considering the idea of a recycling licence as of now. This article studies the desirability, feasibility, and potential effects of such a licence from a legal and economic perspective. After identifying the economic rationale behind current ship dismantling practices (2), and introducing the main features of the recycling licence project (3), we examine the criticisms addressed by stakeholders to date, which then leads us to make a number of suggestions to improve the viability of the licence (4).

2. Economic Rationale behind Current Practices

According to the European Economic and Social Committee, dismantling a ship in higher quality shipyards, such as those in the EU, is expensive, averaging around €2 million.¹⁰ In addition to these costs, EU shipyards also face the issue of capacity constraints, as there is currently no real dismantling sector in the EU.¹¹ In contrast, dismantling a ship in Asia is a profitable operation for at least three types of actor. First, the operation is beneficial for shipowners, who can make a profit by selling the ship directly to dismantling sites or to cash buyers.¹² Second, dismantling sites also benefit from the operation, due to lower labor and infrastructure costs, a lack of regulations, and high demand for steel in South Asian countries.¹³ Dismantling sites are generally adjacent to industrial production sites, allowing immediate reuse of the steel from ships and consequently the development of industrial sectors.¹⁴ Third,

⁷ «Scrapping scrap, saving earth», *China Daily*, 24 December 2018.

⁸ European Commission, "Report from the Commission to the European Parliament and the Council on the feasibility of a financial instrument that would facilitate safe and sound ship recycling", Brussels, 8.8.2017, COM (2017) 420 final. See also the study commissioned by the European Commission, ECORYS-DNVGL-Erasmus University of Rotterdam study for DG Environment of a Financial instrument to facilitate safe and sound ship recycling, June 2016.

⁹ The project has been put on hold for the moment, see the European Commission Communication previously cited, COM (2017) 420 final.

¹⁰ Economic, Social and Environmental Council opinion, "The European maritime transport policy with respect to sustainable development issues and climate commitments", CESE11, April 2017, p. 47.

¹¹ See the European Commission, *Green Paper on better ship dismantling*, COM (2007) 269 final, May 22, 2007. For an analysis of the evolution of the ship demolition market, see S. Knapp, S.N. Kumar, and A.Bobo Remijn, "Econometric analysis of the ship demolition market", *Marine Policy* (2008) 32, pp. 1023-1036.

¹² For more information on the methods of selling a ship for recycling, see the Shipping Industry Guidelines on *Transitional Measures for shipowners selling ships for recycling, in preparation for the entry into force of the IMO Hong Kong Convention and the EU ship recycling regulation*, Second edition 2016, pp.12-16. Shipowners can expect to achieve a gain of \$1 to \$4 million per vessel.

¹³ The price for raw materials in Asia is higher than in Europe. See K.P. Jain, J.F.J. Pruyn, and J.J. Hopman, "Material flow analysis (MFA) as a tool to improve ship recycling", *Ocean Engineering* (2017) 130(1), pp. 674-683.

¹⁴ For a study, see S.M.M. Rahman, R.M. Handler, and A.L.Mayer, "Life cycle assessment of steel in the ship recycling industry in Bangladesh", *Journal of Cleaner Production* (2016) 135(11), pp. 963-971.

these activities are a source of income for the States hosting these dismantling sites on their territory,¹⁵ meaning that they have little incentive to regulate operating conditions on the sites.¹⁶

Consequently, these activities appear to be economically unfair, with an unequal distribution of costs between the maritime stakeholders (shipowners, intermediaries, and dismantling sites) who benefit from the dismantling, and shipyard workers and local populations, who must bear the costs of the resulting health and environmental damage.¹⁷ Stated differently, the social costs of ship dismantling are not internalized. Reform is therefore necessary, all the more so if it is led by the EU, an important actor in this globalized practice since it provides more than a third of the ships to be scrapped.¹⁸

3. The Ship Recycling Licence

The project to create a ship recycling licence, which has promising features (3.2), aims to strengthen the pre-existing legal framework, which suffers from several weaknesses, including that of being easily circumvented (3.1).

3.1. *The Limits of a Legal Approach*

Although the specific legal rules applicable to ship recycling are recent, the practice fell under the scope of the Basel Convention of March 22, 1989,¹⁹ which imposes restrictions on waste exports. However, this international Convention has been beset with problems from the outset: it is possible to circumvent the rules by simply changing flag,²⁰ there are difficulties applying the legal regime to ships,²¹ and there is insufficient recycling capacity in OECD countries, which means that many States parties are reluctant to apply the prior consent procedure to ships to be dismantled.²²

¹⁵ For an analysis on Bangladesh, see S. Alam and A. Faruque, "Legal regulation of the shipbreaking industry in Bangladesh: the international regulatory framework and domestic implementation challenges" *Marine Policy* (2014) 47, pp. 46-56. More generally, see World Bank, "The Ship Breaking and Recycling Industry in Bangladesh and Pakistan", 2010.

¹⁶ Or they lack the necessary financial and technical capacity for implementing such policies, on this point see S.M.M. Rahman and A.L. Mayer, "Policy compliance recommendations for international shipbreaking treaties for Bangladesh", *Marine Policy* (2016) 73, pp. 122-129.

¹⁷ On this point, see F. Demaria, "Shipbreaking at Alang-Sosiya (India): An ecological distribution conflict", *Ecological Economics* (2010) 70, pp. 250-260 and more generally Md Saiful Karim, who argues that international and national regulatory systems are failing to ensure environmental justice in the shipbreaking industry, *Shipbreaking in Developing Countries. A Requiem for Environmental Justice from the Perspective of Bangladesh*, Routledge, 2017.

¹⁸ In 2015, 78% of total dismantled tonnage in the world was beached, with European owners accounting for around one third, see the European Commission, "Ship recycling: reducing human and environmental impacts", June 2016, issue 55, p. 3.

¹⁹ The Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal entered into force on May 5, 1992. For an analysis, see A.E. Moen, "Breaking Basel: The elements of the Basel Convention and its application to toxic ships", *Marine Policy* (2008) 32, pp. 1053-1062 and T. G. Puthucherril, "Trans-boundary Movement of Hazardous Ships for Their Last Rites: Will the Ship Recycling Convention Make a Difference?" *Ocean Yearbook* (2010) 24, pp. 283-330.

²⁰ These circumventions are almost systematic according to the European Commission, which refers to "widespread non-compliance". In 2009, more than 90% of ships flying the flag of an EU Member State were dismantled outside the OECD, mainly in South Asia. See "Proposal for a Regulation of the European Parliament and of the Council on ship recycling", March 23, 2012, COM (2012) 118 final, p.2.

²¹ Communication from the European Commission to the Council, "An assessment of the link between the IMO Hong Kong Convention for the safe and environmentally sound recycling of ships, the Basel Convention and the EU waste shipment regulation", March 12, 2010, COM(2010)88 final, p. 6. For an analysis, see S. Bhattacharjee, "From Basel to Hong Kong: International environmental regulation of ship-recycling takes one step forward and two steps back", *Trade Law and Development* (2009) 1 (2), pp. 193-230.

²² A procedure provided for in Articles 4(1)c and 6 of the Basel Convention.

The Hong Kong Convention, adopted under the auspices of the International Maritime Organization (IMO) on May 15, 2009, is the first text specifically devoted to ship recycling.²³ Although not yet in force,²⁴ it is a major step forward in promoting safer ship recycling. The Convention not only sets standards for the ship dismantling practices performed on a State party's territory, but also goes further by controlling the materials used in the construction of ships and throughout their lifetime until they are dismantled.²⁵ Two different categories of State are therefore subject to the obligations set out in the Hong Kong Convention. The Convention first of all lays down obligations for flag States parties to the Convention: ships intended for recycling, for example, must have an inventory of potentially hazardous materials on board as soon as the ship is built, and this inventory must be updated throughout the ship's life. The Convention also limits, or even prohibits, the use of certain particularly hazardous materials in the construction of ships.²⁶ Ships must be inspected periodically and, if necessary, sanctioned in the event of non-compliance with the provisions of the Convention. The Convention also provides a series of obligations applicable to the States parties on whose territory dismantling sites are located. The requirements are, however, very general and accommodate a wide margin of appreciation from States parties.²⁷ For instance, the Convention requires them to take all necessary measures to "prevent, reduce, minimize and, to the extent practicable, eliminate accidents, injuries and other adverse effects on human health and the environment caused by Ship Recycling".²⁸

While France was one of the first States to ratify the Convention,²⁹ States with a large fleet remain reluctant to follow in France's footsteps for the time being, so the Convention's entry into force has been considerably delayed. Despite these ratification difficulties, the EU has taken a leading role by encouraging its Member States to ratify the Convention, even though some parts of the Convention fall within its exclusive competence.³⁰ The EU Regulation on Ship Recycling of November 20, 2013, which came into full force in December 2018, is in line with this objective of promoting the Hong Kong Convention.³¹ The EU Regulation in fact anticipates the implementation of the Hong Kong Convention by transposing its provisions into

²³ Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships, hereafter "the Hong Kong Convention".

²⁴ The Hong Kong Convention has been ratified by fifteen States: Norway (2013), France (2014), Congo (2014), Belgium (2016), Panama (2016), Denmark (2017), Turkey (2019), Japan (2019), Serbia (2019), Netherlands (2019), Germany (2019), Estonia (2019), Malta (2019), Ghana (2019) and India (2019) representing 30,21% of world merchant shipping tonnage and the combined annual ship recycling volume of the Contracting States during the preceding 10 years is 13,948,274. Requirements for the Convention to enter into force are high: ratification by 15 States, representing 40% of world merchant shipping by gross tonnage, and a combined maximum annual ship recycling volume of not less than 3% of their combined tonnage.

²⁵ For a detailed analysis, see M. Tsimplis, "The Hong Kong Convention on the recycling of ships", *Lloyd's Maritime and Commercial Law Quarterly* (2010) 305 and more generally T.G. Puthucherril, *From Shipbreaking to Sustainable Ship Recycling. Evolution of a Legal Regime*, Brill/Nijhoff, 2010.

²⁶ See Annex, Chapter 2 Part A Rule 4 and Appendices I and II of the Hong Kong Convention.

²⁷ The Hong Kong Convention thus appears to provide only minimum standards. For more information on this aspect see N. Matz-Lück, "Safe and Sound Scrapping of 'Rusty Buckets'? The 2009 Hong Kong Ship Recycling Convention", *Review of European, Comparative & International Environmental Law* 2010 (19) 1, pp. 95-103. For a critical analysis of the Hong Kong Convention, see S. Bhattacharjee, "From Basel to Hong Kong: International environmental regulation of ship-recycling takes one step forward and two steps back", *op.cit.*

²⁸ Article 1.1 of the Hong Kong Convention.

²⁹ French law n° 2012-1290, November 22, 2012 authorizing the ratification of the Hong Kong Convention.

³⁰ Council decision of April 14, 2014 concerning the ratification of, or the accession to, the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009, by the Member States in the interests of the European Union, 2014/241/UE.

³¹ EU regulation n° 1257/2013 of the European Parliament and of the Council of November 20, 2013 on ship recycling and amending Regulation (EC) No 1013/2006 and Directive 2009/16/EC (hereafter "the EU Regulation"). Full entry into force on December 31, 2018. See Article 1 of the EU Regulation.

EU law. The EU even goes further by imposing more stringent environmental, safety, and health protection requirements on recycling facilities in order to achieve a level of protection “substantially equivalent to that prevailing in the EU”.³² It also provides a procedure for the approval of centralized recycling facilities at a European level, with the European Commission having to draw up a European list of ship recycling facilities that meet the requirements of the Regulation.³³ The latter aspect is particularly innovative since the European list is global in scope, being open to recycling facilities located outside European territory.³⁴ In addition, several requirements, in particular with regard to the inventory and bans on dangerous goods, also apply to ships flying the flag of a third country when they call at a port or anchor in a Member State,³⁵ with vessels being subject to controls and, where appropriate, sanctions by port States.³⁶

Nevertheless, like the Basel Convention, the EU Regulation is based on flag-state jurisdiction, and may thus suffer from severe limitations in its application, as ships can be “reflagged” at the end of their life. Its effectiveness is therefore bound to be limited.³⁷ One way of overcoming these limitations, and to give teeth to the existing legal framework, would be to combine the legal instrument with a financial dimension. This was exactly the idea of the European Parliament’s Environment Committee, which proposed the creation of a ship recycling fund. The members of the European Parliament nevertheless opposed the proposal by a narrow majority in April 2013³⁸ and adopted an amendment calling on the European Commission to propose an incentive-based scheme. The recycling licence therefore appeared as a follow-up to this failed initiative.

3.2. Main Features of the Licence

The financial instrument envisaged by the European Commission in its report of August 8, 2017 would consist of a pre-obtained licence providing any vessel with access to an EU port, whether flying the flag of an EU Member State or of a third country. In order to obtain the licence, a contribution would be paid annually by shipowners for each of their ships. The premium would be calculated taking into account the characteristics of the ship, in particular the tonnage, the type of transport concerned, the potentially hazardous materials on board, and the vessel’s lifetime. The licence would be valid for a certain period of time, regardless of the number of stopovers in European ports. Contributions would be paid to a new or existing European agency, which would then return all the sums collected for a ship once it had reached the end of its life, provided that it was dismantled in a recycling facility on the European list. The licence is thus intended to encourage shipowners to use EU-approved recycling facilities. If shipowners decide to use non-compliant recycling facilities, they would lose all their rights acquired under the licence and these funds would be acquired by the European agency.

³² As allowed by Article 1.2 of the Hong Kong Convention. See Recital 7 of the Regulation. In particular, recycling facilities must operate from built structures, which excludes any beaching practices, Article 13.1.c. of the EU Regulation. On the interaction between the Hong Kong Convention and the EU Regulation, see G.A. Moncayo, “International law on ship recycling and its interface with EU law”, *Marine Pollution Bulletin* (2016) 109 (1), 2016, pp. 301-309.

³³ Article 16 of the EU Regulation.

³⁴ Article 15 of the EU Regulation. The European list currently contains two Turkish facilities and one US facility, see below paragraph 4.2.

³⁵ Article 12 of the EU Regulation.

³⁶ Article 12.5 of the EU Regulation.

³⁷ It is noteworthy that the EU Regulation establishes port state controls that could reinforce its efficacy regarding the inventory of substances required on board.

³⁸ 299 votes against, 292 in favor, 21 abstentions, see report on the proposal for a regulation of the European Parliament and of the Council on ship recycling, COM (2012) 0118, March 28, 2013, Article 5a.

The recycling licence is based on the “polluter pays” principle, a cornerstone of European environmental law, since shipowners would bear the costs of the licence, i.e. the costs of the safe and environmentally sound recycling of their ships, by including them in the ship’s operating costs. More specifically, the premium should fill the financial gap (which represents an additional cost for the shipowner) between recycling in a non-compliant recycling facility and in a facility on the European list. Consequently, the recycling licence could restore economic efficiency because the social costs resulting from ship recycling would no longer be borne by the site workers, or by the local population living nearby, but by shipowners. It has therefore emerged as a desirable instrument for encouraging shipowners to opt for safer recycling options, although it remains highly criticized by some stakeholders.

4. Analysis of Criticisms & Suggested Improvements

The European Commission’s initiative has received considerable support, starting with the European Economic and Social Committee,³⁹ the European Parliament, and several labor unions, as well as professional and non-governmental organizations.⁴⁰ On the other hand, it is strongly criticized by shipowners,⁴¹ who have called on the EU to focus on promoting the Hong Kong Convention. We now examine the main criticisms raised by stakeholders and suggest improvements to enable an efficient mechanism to be put in place.

4.1. Is the Licence a Hidden Tax?

The recycling licence is often denounced as a hidden tax, the question being the extent to which the licence system will effectively encourage shipowners to opt for recycling facilities on the European list.

The answer to such a question depends on the methodology used to calculate the premium attached to the ship and granted to the last owner. The mechanism will be an incentive if the premium received by the last shipowner is equal to the difference between the two options, i.e. between an approved recycling facility and a facility that does not comply with European standards. However, it should be borne in mind that various shocks may occur, relating for example to the recycling costs of EU-approved dismantling sites or of non-approved sites, and also to the prices of raw materials.⁴² It seems, however, very difficult, if not impossible, to forecast long-term trends in the price of raw materials. Furthermore, ships may also be damaged during their life, which could reduce their operating period. As a result, the amounts collected through the licence system may not be sufficient for the mechanism to act as an incentive. In this case, shipowners would prefer to use recycling facilities outside the EU list, and would therefore not require the fees paid to be refunded. The contributions paid by these owners would ultimately be retained by the EU, thus generating tax revenue. Consequently, a non-incentive mechanism could arise both from poor shock anticipation or from strategically underestimating the difference between the two options.

³⁹ EESC opinion, “Shipbreaking and the recycling society, Economic, Social and Environmental Council”, October 19, 2016, CCMI/145-EESC-0000.

⁴⁰ Supporters include the European Ports Association (ESPO), the Association of Shipbuilding and Sea Equipment SEA EUROPE or the NGO Shipbreaking Platform. On the importance of involving the relevant parties in the design of maritime policy, see J.I. Alcaide, E. Rodríguez-Díaz, and F. Piniella, “European policies on ship recycling: A stakeholder survey”, *Marine Policy* (2017) 81, pp. 262-272.

⁴¹ See the various statements of the European Shipowners Association (ECSA), the Asian Shipowners Association (ASA), and the International Chamber of Shipping (ICS), which cover 80% of the world’s commercial tonnage on their respective websites.

⁴² For an analysis, see T. Karlis, D. Polemis, and A. Georgakis, “Ship demolition activity. An evaluation of the effect of currency exchange rates on ship scrap values”, *SPOUDAI Journal of Economics and Business* (2016) 66(3), pp. 53-70.

A mechanism to periodically re-evaluate the contribution would therefore be necessary in order to better adjust the licence system to developments in the cost differential between the two different types of facility.

4.2. *Is the Licence a Hidden Subsidy?*

The recycling licence is also criticized for being a hidden subsidy, again raising the question of the nature of the licence and its effectiveness. The effectiveness of the licence is intrinsically linked to the content of the European list of approved recycling sites. Crucial questions arise in this respect: are all approved facilities efficient? Are efficient installations automatically approved? Two criteria must be taken into account to determine the nature of the recycling licence: the sustainability of the recycling process and its efficiency. On the one hand, a dismantling site is considered sustainable if recycling is done in an environmentally friendly way. On the other hand, we consider that if two installations offer the same environmental and health quality, then the one less expensive for the shipowner is efficient. If it is difficult to find other facilities with the same level of environmental and health quality, an alternative approach must be used. A facility will be considered as inefficient if it is more expensive for a shipowner to have his ship dismantled by the latter than to have it dismantled by a lower-quality facility and paying for the difference between the damages generated by each facility.⁴³ Note that inefficiency can result from high wage costs, low employee productivity but also from a low demand for industrial sectors close to the dismantling site for raw materials.

At this stage, it would be useful to define a typology of existing recycling facilities. Three categories of installation can be identified.

- The first category – *inefficient but sustainable facilities* – includes sites that carry out dismantling operations that respect the environment and human health (they are sustainable) but that generate very high costs for the shipowner (they are inefficient).
- A second category – *efficient but unsustainable facilities* – includes sites that can dismantle ships at advantageous conditions for the shipowner (they are efficient) but in a way that is dangerous to human health and the environment (they are unsustainable).
- A third category is composed of *efficient and sustainable recycling facilities* that implement dismantling processes that respect the environment and human health (they are sustainable) and offer favorable conditions for the shipowner (they are efficient).

If efficient and sustainable recycling facilities were included on the European list, licensing would be equivalent to the internalization of environmental and health externalities by shipowners. In contrast, if only inefficient but sustainable installations were included on the European list, the mechanism would be akin to a hidden subsidy. A portion of the sums collected would be used to correct the inefficiency of recycling process or to alleviate market

⁴³ We chose not to use the traditional definitions of cost-efficiency to highlight that environmentally friendly recycling and environmentally unfriendly recycling are not comparable services. The concept of efficiency that we use could be called social-cost efficiency. Indeed, it does not only take into account the private costs but also the social costs, which include environmental and health costs.

discrepancies. As a consequence, the mechanism would no longer be strictly based on the “polluter pays” principle since the cost paid by the polluter (shipowner) would be much higher than the cost of environmental and health externalities.

The content of the European list is therefore crucial for determining whether the recycling licence is a hidden subsidy or not. Established in December 2016, the European list only included European shipyards until May 2018.⁴⁴ Following the fourth update to the list on December 6, 2018, the European list now contains 26 shipyards, including 23 facilities located in 12 EU Member States, two facilities in Turkey, and one facility in the United States of America.⁴⁵ The introduction of foreign dismantling sites suggests that efficient and sustainable facilities have been included in the list. However, one important scenario must be highlighted. If the production capacity of sustainable and efficient sites is low, shipowners will have to use the sustainable and inefficient sites on the list, which would be a hidden subsidy. It is important to note that until now about 97% of ship recycling has been carried out by only five States in the world: India, Pakistan, Bangladesh, China and Turkey.⁴⁶ This shows that the ship recycling capacity elsewhere in the world is low (about 3%). In addition, China has recently decided to ban the import of foreign ships into its territory,⁴⁷ further reducing the global capacity for environmentally friendly ship recycling. Thus, it will take time to obtain sufficient environmentally friendly ship recycling capacity to meet the objectives of the EU recycling licence and the 2013 EU regulation.

The answer therefore remains uncertain for the time being and will only become clearer once studies comparing recycling facilities and their production capacity are available. It appears clear, however, that combining sustainable and inefficient facilities with facilities that are sustainable and efficient is a crucial element of the list. The methodology used by the European Commission, which is responsible for periodically revising the European list by way of implementing acts,⁴⁸ needs to be clarified as it could significantly affect recycling facilities. The European Commission should also avoid moving to the other extreme: if the European listing requirements imposed on recycling facilities are too high, it may discourage many sites from doing their best to meet the requirements. However, if the listing requirements increase gradually and become more ambitious over time, recycling facilities will have a greater incentive to improve the quality of their infrastructure and their dismantling processes in order to comply with EU requirements.

4.3. Compatibility with WTO law

The recycling licence would aim to require vessels flying the flag of a Member State or of a third country to pay an annual contribution to be able to call at a port in the European Union. The contribution would then be returned to the vessel at the end of its life. This mechanism may be inconsistent with Article V of the GATT,⁴⁹ which lays down the principle of freedom

⁴⁴ Commission Implementing Decision (EU) 2018/684 of May 4, 2018 amending Implementing Decision (EU) 2016/2323 to update the European List of ship recycling facilities pursuant to Regulation (EU) No 1257/2013 of the European Parliament and of the Council.

⁴⁵ Commission Implementing Decision (EU) 2018/1906 of November 30, 2018 amending Implementing Decision (EU) 2016/2323 to update the European List of ship recycling facilities established pursuant to Regulation (EU) No 1257/2013 of the European Parliament and of the Council.

⁴⁶ See the data analysis of the NGO Shipbreaking platform available online (<https://www.shipbreakingplatform.org/our-work/the-problem/>).

⁴⁷ «Scrapping scrap, saving earth», *China Daily*, 24 December 2018.

⁴⁸ Article 16 of the EU Regulation. Furthermore, Article 30 provides for the possibility of revising the European List no later than 18 months before the entry into force of the Hong Kong Convention.

⁴⁹ General Agreement on Tariffs and Trade, 1947 revised in 1994.

of transit between GATT Members. By being Members of the GATT, States are required to allow goods in transit from any other Member or to any other Member to pass through their territory.⁵⁰ Thus, any Member precluding transit through its territory for traffic in transit entering its territory from any other Member, or exiting its territory to any other Member, via the routes most convenient for international transit, will be in breach of Article V:2 of the GATT.⁵¹

More specifically, Article V:1 of the GATT defines the notion of “traffic in transit” as covering goods (including baggage) but also vessels and other means of transport (except aircrafts) that pass through a State (which is a WTO Member), with that passage being only a fraction of a complete voyage beginning and ending beyond its territory. The notion has therefore a broad scope of application and refers to all goods, containers (either loaded or not), and vessels with trans-shipment, warehousing, breaking bulk or change in the mode of transport.⁵²

By requiring vessels in transit to pay a contribution, the EU recycling licence project may conflict with Article V: 3 of the GATT, which prohibits the imposition of any customs duties or other transit-related charges on vessels and aims to eliminate “unnecessary delays or restrictions” on traffic in transit. An exception is nevertheless provided for charges resulting from transportation, transit administrative procedures and services rendered during the transit period, such as bunkering or offloading of sludge for instance (article V:3 *in fine*). The first key question is therefore to know whether the EU recycling licence could constitute an “unnecessary restriction” on traffic in transit. And how should this last notion of “unnecessary restriction” be interpreted? The answers to these questions remain speculative, since there is no case-law on Article V:3 of the GATT.⁵³ Two ways of interpreting this provision may be foreseen. If a contextual interpretation is chosen, focusing on the objectives pursued by the State imposing the restriction (objectives that may not be exclusively related to transit regulation), the EU might succeed in showing that its measure is necessary to achieve the objective of ensuring a higher level of environmental and social protection. In contrast, if a more literal interpretation is favored, focusing on the objectives of Article V of the GATT (facilitating international transit and ensuring that goods undergo an appropriate transit procedure), the measure in question may be considered unnecessary because of its burdensome nature. The recent Trade Facilitation Agreement, which entered into force on 22 February 2017 following the ratification by two-thirds of the WTO membership, seems to confirm this second more restrictive approach, as its article 11: 6 provides that formalities, documentation requirements and customs controls on traffic in transit shall not be “more burdensome than necessary to: (a) identify the goods; and (b) ensure fulfillment of transit requirements”.

A second key question is to know whether the EU recycling licence would qualify as a “transit duty” or a “charge” under Article V:3 of the GATT. This latter provision only allows GATT Members to impose charges resulting from transit administrative procedures or transit services provided and they shall be limited in amount to the expense of such procedures or cost of such services. The EU recycling licence does not fall into these categories and might therefore be

⁵⁰ Article V:2 of the GATT. This provision also specifies that freedom of transit should be provided on the “most convenient routes for international transit”, a Member is therefore not required to guarantee transport on necessarily any or all routes in its territory, see also *Columbia – Indicative Prices and Restrictions on Ports of entry*, report of the Panel, 27 April 2009, WT/DS366/R, paragraph 7.401.

⁵¹ See *Russia – Measures concerning traffic in transit*, report of the Panel, 5 April 2019, WT/DS512/R, paragraphs 7.172 and 7.173.

⁵² Article V :1 of the GATT.

⁵³ Note that the Panel in *Russia – Measures concerning traffic in transit* (report of 5 April 2019, WT/DS512/R) did not address Ukraine’s claims under Articles V:3, V:4 and V:5, see in particular paragraph 7.6.3.2.

inconsistent with Article V:3 of the GATT. But the licence being a charge remains unclear, and this brings us back to the question of the nature of the licence, which varies depending on whether the last shipowner would have incentives to comply with the European list of recycling facilities or not (see Section 4.1).

A third issue relates to the calculation of the contribution, which is dependent on the specific characteristics of the vessel, and may therefore be contrary to Article V: 2 of the GATT, which prohibits any discrimination between ships based on their flag or on other considerations relating to the ownership of goods and ships. To be consistent with Article V: 2 of the GATT, the nationality of vessels and of shipowners must not affect the amount to be paid by shipowners.

Finally, if the EU recycling licence was to be considered as a charge or a regulation imposed on traffic in transit, would it meet the test of reasonableness laid down in Article V:4 of the GATT and reiterated in Article 11:1 of the Trade Facilitation Agreement ? To pass the test, the EU might have to demonstrate that alternative measures, which would be less trade-restrictive, were not available to achieve the measure's objective to make ship recycling greener and safer.

Article XX of the GATT sets out exceptions that the EU could potentially use to justify its recycling licence mechanism. The recycling licence, which is intended to ensure the safe and environmentally sound recycling of vessels, may fall within the scope of the general exceptions set out in paragraph (a) relating to the protection of public morals; paragraph (b) relating to the protection of human, animal, or plant life or health; or paragraph (g) relating to the conservation of exhaustible natural resources.⁵⁴

The EU would remain competent in terms of determining the level of protection pursued under these exceptions. The possibility of invoking such exceptions under Article XX of the GATT is nevertheless complex because it requires a series of requirements to be demonstrated on the part of the invoker. In order to benefit from Article XX, the EU would first have to prove that the objective pursued by the licence falls within the scope of one of these three exceptions, using scientific expertise, for instance.⁵⁵ It would also have to prove that the recycling licence is a necessary measure with which to achieve this level of protection and that no other measure could achieve the same objective with fewer trade-restrictive effects.

Finally, the EU would have to show that the measure in question meets the requirements set out in the "chapeau" of Article XX of the GATT, i.e. that it does not constitute "a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade." This requirement is intended to prevent any abuse or misuse of the specific exceptions set out in Article XX. The recycling licence could appear to be a means of arbitrary discrimination if applied in a rigid manner or without taking into account the different conditions of GATT members,⁵⁶ hence the need to include possible adjustments in the recycling licence system.

The conformity of the recycling licence with the GATT is therefore a problematic aspect of the project, although the EU could potentially rely on the exceptions set out in Article XX, in particular paragraphs (a), (b), and (g), to justify its measure.

⁵⁴ Conservation of exhaustible natural resources including those of living species, United States - Shrimp, WT / DS58 / AB / R, paragraph 128.

⁵⁵ European Communities - Measures Affecting Asbestos and Products Containing it, WT / DS135 / AB / R, paragraph 178

⁵⁶ United States - Shrimp, WT / DS58 / 23.

4.4. Effects on the Hong Kong Convention's Ratification Process

Another criticism is that the introduction of a ship recycling licence would hinder the Hong Kong Convention's ratification process. Shipowners fear that the adoption of more stringent measures for ship recycling (such as the EU Regulation coupled with the recycling licence) will reduce the incentive to introduce less ambitious rules (such as those of the Hong Kong Convention). The adoption of a highly restrictive measure may lead companies to consider that regulation is inevitable and that it will ultimately be implemented. Given this risk, it is in shipowners' interests to push for the adoption of a less demanding ship recycling measure. In this light, the position of shipowners appears to be a strategic move: by calling on the EU to focus on the Hong Kong Convention, shipowners' associations want to avoid the adoption of a more demanding legal regime. As a result, we observe that shipowners are beginning to voluntarily implement the Hong Kong Convention although it has not yet entered into force. For example, the Baltic and International Maritime Council (BIMCO) has published a new standard contract incorporating the provisions of the Hong Kong Convention.⁵⁷ The International Chamber of the Merchant Navy also provides guidelines for the maritime sector and suggests transitional measures to prepare for the entry into force of the Hong Kong Convention.⁵⁸ Furthermore, several shipowners have already decided to invest in dismantling-site infrastructure in Asia and to push for these sites' inclusion on the European list.⁵⁹ Finally, more and more States are showing interest in the Hong Kong Convention and nine States decided to ratify the Convention in 2019.⁶⁰

4.5. Interaction with Existing Regulatory Instruments

Another source of concern for stakeholders relates to the interaction of the ship recycling licence with other existing or potentially emerging incentive mechanisms on the international stage.⁶¹ The interaction of the EU recycling licence with other instruments is a crucial aspect of environmental policy. It is essential that other States are encouraged to introduce ship recycling regulations that are more ambitious than the Hong Kong Convention.

Suppose, for example, that a sufficiently large regional organization decides to introduce the same licensing system as the EU. Vessels wishing to call at ports located in these two geographical areas would then have to purchase both licences, in other words pay a double annual contribution. The coexistence of two ship recycling licences therefore undeniably represents a double cost for the same ship if both geographical areas have established a different list of authorized recycling facilities. The same issue could also arise with regard to other instruments, such as port tax, ship recycling guarantees, recycling accounts, recycling

⁵⁷ RECYCLECON contract.

⁵⁸ International Chamber of the Merchant Navy, *Shipping industry guidelines on transitional measures for shipowners selling ships for recycling in preparation for the entry into force of the IMO Hong Kong Convention and the EU ship recycling regulation*, 2016, second edition.

⁵⁹ See for instance the following declaration of the shipowners' association, "European shipowners invite Commission to acknowledge emerging sustainable shipping practices in India" (<http://www.ecsa.eu/index.php/news/european-shipowners-invite-commission-acknowledge-emerging-sustainable-shipping-practices>) and "Ship recycling yards seek certifications", *Business and the Environment*, 01/2011.

⁶⁰ Turkey (2019), Japan (2019), Serbia (2019), Netherlands (2019), Malta (2019), Germany (2019), Estonia (2019), India (2019), Ghana (2019).

⁶¹ For example, China decided to introduce a financial mechanism in 2013 for the construction and recycling of Chinese-flagged ships.

insurance, or a second-to-last owner liability clause.⁶² The recycling licence would appear redundant if the ship were subject to another instrument; with the exception of the liability clause which could be compatible with a recycling licence as the two instruments are complementary, offering different kinds of incentives. Adjustments relating to the functioning of the licence are therefore necessary.

Introducing exemptions or financial deductions to the licence system could reduce the costs incurred by shipowners. Exemptions should, however, only exist between financial mechanisms that have a similar list of recycling facilities in order to maintain high environmental standards. Harmonizing the European list with other lists is therefore another important element in ensuring the compatibility of the different mechanisms found on the international stage. Moreover, if shipowners have already taken out a recycling guarantee or recycling insurance for their ship, or if they have a recycling account, the EU recycling licence would be a duplication and would add nothing to the first financial mechanism, which already provides for the ship to be sent for dismantling at the same recycling facilities as those provided for in the European list. In this case, the ship should be exempted from the EU recycling licence system. Beyond these exemptions, the introduction of financial deductions could also contribute to the interaction of the recycling licence with other existing regulatory instruments, such as another recycling licence or a port tax. In this case, a deduction of the sums paid under the other financial mechanism could be introduced in order to avoid freezing excessively large amounts of shipowners' money.

5. Conclusion

The recycling licence project shows that the EU has managed to recover from the failure of its ship recycling fund in 2013 and propose a new financial instrument to strengthen the 2013 EU Ship Recycling Regulation that entered fully into force on December 31, 2018. According to our study, it appears that this type of instrument is desirable for three reasons. First, the practice of ship-dismantling in South Asia, which generates conditions harmful to workers' health and to the environment, is also economically unfair. From this perspective, the recycling licence would allow the social costs of ship dismantling to be internalized. Second, the current legal framework for ship recycling is easily circumvented by a change of flag or the sale of the ship to a cash buyer. The licence therefore has the potential to encourage shipowners to comply with the applicable legal regime. Third, we have demonstrated that such a project could accelerate the Hong Kong Convention's ratification process, making it possible to envisage implementation in the near future.

The question of its feasibility requires a more nuanced answer both from a legal and an economic viewpoint. Its compliance with WTO law is uncertain and the EU will probably need to justify the mechanism by employing the general exceptions of GATT Article XX. From an economic viewpoint, the project is feasible on the condition that the licence is truly incentive-based, in order to ensure that social costs are internalized. In order to act as an incentive, the recycling licence requires several adjustments. One of the key aspects relates to the European list of recycling facilities, which should contain efficient and sustainable installations. Another key aspect is the interaction of the EU recycling licence with other regulatory instruments, which could be facilitated by introducing a series of exemptions and financial deductions. Finally, the licence system, especially the contribution to be collected from shipowners, will

⁶² The different regulatory instruments are analyzed and compared by the European Commission in its communication, see "Report from the Commission to the European Parliament and the Council on the feasibility of a financial instrument that would facilitate safe and sound ship recycling", Brussels, August 8, 2017, COM (2017) 420 final, pp.43-50.

need to be periodically reviewed to keep abreast of developments in the cost differential between recycling facilities on the European list and non-compliant recycling facilities. The present paper shows that if the licence is not incentive-based, it could be qualified as a hidden tax. The recycling licence could thus be economically feasible, on the condition that these adjustments are made. The EU therefore appears to be on the right track, although it is likely to encounter various obstacles along the way, particularly at the political level, as shipowners' associations are still reluctant to adopt such a licence system.