

Regulation of Risk

Transport, Trade and Environment in Perspective

Edited by

Abhinayan Basu Bal, Trisha Rajput,
Gabriela Argüello, David Langlet



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International Shipping: Who Levels the Playing Field?

Ellen J. Eftestøl and Emilie Yliheljo

1 Introduction

1.1 *The Problem: Who Defines a Level Playing Field in Context of Climate Change Mitigation?*

International shipping is subject to many different rules and regulations, which together frame the market conditions of the industry. Framing a coherent – or level – playing field for an industry that by nature is truly international, is not an easy task. Ships are sailing on international waters; owners might be located in one country while the vessel is registered in another. Contracts are made according to the law in one state, but enforced by arbitrators or courts in another. The fact that the business is international opens for different forms of *forum shopping* – and other manoeuvres aiming at a favourable legal position. Jurisdiction follows to a large degree registration. The ship's flag displays to which jurisdiction it belongs.¹ A *flag of convenience*; that is seeking a country with an open registry, or a nation that allows registration of vessels owned by foreign entities – all with the purpose to cut operating costs or avoid the regulations of the owner's country, might be tempting. In order to avoid, or manage, this kind of *regulatory competition*, states need to collaborate.

International shipping is accordingly subject to governance through international collaboration. The legal framework surrounding the industry mainly stems from a United Nations (UN) specialised agency, the International Maritime Organization (IMO),² which is responsible for regulating the safety of life at sea, maritime security and the protection of the marine environment through prevention of sea pollution caused by ships.³ But also, the UN Conference on Trade and Development (UNCTAD)⁴ is involved in the global

1 The jurisdiction of the flag state is however not exclusive. The flag State has jurisdiction over the vessel at high seas, a coastal state has however certain jurisdiction over foreign ships in its territorial waters. The scope of the coastal state's jurisdiction is expanded when the ship enters coastal waters and ports.

2 Known as the Inter-Governmental Maritime Consultative Organization (IMCO) until 1982.

3 <<https://unsystem.org/content/imo>> accessed 19 March 2020.

4 Below in 2.1.2.2.

governance of international shipping. Furthermore, regional organisations, such as the European Union (EU) has recently activated themselves in regulatory issues related to shipping. The influence of the industry in this context is extensive and accordingly subject to discussion.⁵

The aim and intention of the regulatory efforts are diverse, but to *level the playing field*; to create a situation in which everyone has the same chance of succeeding, whilst at the same time ensure certain policy goals related to security and environmental protection, is essential. This is, however, not an easy task as different players have different interests. Indeed, interests and policies behind regulatory efforts taken by different actors, diverges accordingly.

Whilst utilising law as a regulatory tool to achieve certain policy goals, such as an efficient, sustainable and emission free transport industry is internally integrated in all EU activities,⁶ IMO's main focus has by tradition been related to safety and navigational issues.⁷ To actively use regulation as a tool to achieve policy goals is in other words not part of the IMO tradition. On the contrary, preparing regulation on topics related to commercial and economic issues has been handled by UNCTAD, with diverging success.⁸

Indeed, all organisations are committed to work towards common international policy goals related to security and – lately – sustainable development as defined by the UN development goals and the goal of the Paris Agreement of limiting global warming to below 2 degrees and preferably 1.5 degrees, which requires a drastic reduction in the so called greenhouse gas emissions (GHG) from all sectors.⁹ GHG are gases that trap heat in the atmosphere and hence contributes to global warming. There are several different greenhouse gases. For international shipping the current discussion relates to reduction of carbon dioxide (CO₂) which mainly enters the atmosphere through burning fossil fuels such as coal, natural gas, and oil, the latter is used as bunkers in shipping.¹⁰ As will be outlined below, CO₂ emissions from shipping are not

5 For an overview and discussion related to the work at IMO, see Harilaos N Psaraftis and Christos A Kontovas, 'Influence and transparency at the IMO: the name of the game' [2020] 22 *Marit Econ Logist* 151.

6 The EU has inter alia competence to regulate shipping, providing that the proposed regulation is within the EU transport policy, see below in 2.2.

7 On the IMO's role and task, see below in 2.1.

8 Below in 2.1.2.2.

9 Below in 1.2.

10 Burning other fossil fuels, solid waste, trees and other biological materials as well as chemical reactions e.g., manufacture of cement also contributes to increasing the CO₂ level. On the other hand, carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle. Other greenhouse gases are: "Methane (CH₄): Methane is emitted during the production and transport of

decreasing, on the contrary the emissions are predicted to increase.¹¹ The IMO has accordingly frequently been accused of being inefficient and slow in their regulatory efforts to combat this development, particularly the EU has been critical to what is considered inefficiency in IMO's struggle towards a carbon neutral shipping industry.¹²

The EU has as a result of what it considers lack of success on the international regulatory arena, itself tried to solve regulatory gaps by preparing regional solutions to identified regulatory needs. By virtue of the fact that market actors around the world are adjusting to the EU regulations in order to access its market, the European Union has positioned itself a regulatory global leader. To describe the phenomena Columbia Law School Professor Anu Bradford coined the term *The Brussels Effect* in a paper from 2012.¹³ In a recent volume from 2020: *The Brussels Effect – How the European Union rules the world*,¹⁴ Bradford follows up and expands the idea. The Brussels effect is explained in the following way:

The Brussels Effect refers to the EU's unilateral power to regulate global markets. Without the need to resort to international institutions or seek other nations' cooperation, the EU has the unique ability among nations today to promulgate regulations that shape the global business environment, elevating standards worldwide and leading to a notable Europeanization of many important aspects of global commerce. Different from many other forms of global influence, the Brussels Effect

coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills. Nitrous oxide (N₂O): Nitrous oxide is emitted during agricultural and industrial activities, combustion of fossil fuels and solid waste, as well as during treatment of wastewater. *Fluorinated gases*: Hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases")." See <www.epa.gov/ghgemissions/overview-greenhouse-gases> accessed 20 November 2020.

11 Below at 1.2.

12 Below at 3.

13 Anu Bradford, 'The Brussels Effect' [2012] 107 Northwest Univ Law Rev 1 <https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1275&context=faculty_scholarship> accessed 15 December 2020.

14 Anu Bradford, *The Brussels effect: How the European Union rules the world* (OUP 2020).

entails that the EU does not need to impose its standards coercively on anyone – market forces alone are often sufficient to convert the EU standard into the global standard as multinational companies voluntarily extend the EU rule to govern their global operations. In this way, the EU wields significant, unique, and highly penetrating power to unilaterally transform global markets, including through its ability to set the standards in diverse areas such as competition regulation, data protection, online hate speech, consumer health and safety, or environmental protection.¹⁵

As regards international governance on GHG emissions from shipping, the interplay between the IMO and the EU has led to a situation where international shipping is currently subject to *two* separate sets of legal rules aiming at emission reduction. Both are based on measuring and reporting; the IMO measuring scheme¹⁶ and the EU Monitoring, Verifying and Reporting (MRV) monitoring scheme.¹⁷ Hardly an optimal situation for an industry that needs to adapt to a new situation where GHG emissions in the future most likely will come with a cost, however currently unknown both as regard size and shape. Whereas the EU is proposing to include GHG emissions from shipping in the EU *Emission Trading System* (ETS), several IMO stakeholders advocate for a *carbon levy* for international shipping. The latter is at the moment discussed both by the IMO and the EU.¹⁸

The purpose of this chapter is to outline and examine the role of the IMO and the EU as regards rules and regulations applicable to international shipping, using the mentioned policy instruments on combating GHG emissions as examples.¹⁹ The chapter starts out by introducing the main regulator in international shipping the IMO as well as the regional contender, the EU (2). Thereafter the interplay between the EU and the IMO in creating a *level playing field* while taking the policy goal of GHG emission reduction into account, is discussed from both organisations point of view (3). Finally, some reflections

15 *ibid.*

16 Below in 3.2.1.

17 Below in 3.1.2.

18 More below in 4.

19 The MVR monitoring scheme is part of a large number of tools utilized by the EU to combat CO₂ emissions, such as the EU Taxonomy regulation (Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 [2020] OJ L 198/13) and accompanying documents. These tools are however not discussed in this Chapter.

on the current regulatory architecture in light of the so called Brussels effect, will be shared (4). First however, the paper continues with an introduction to the UN sustainability goals in context of international shipping.

1.2 *Global Climate Change Regime and International Shipping*

Despite the ongoing pandemic and the potential economic crisis to follow, climate change remains one of the biggest challenges the world is facing today. GHG emission reduction is hence top priority both on global, regional and national level. All sectors of society are – or will be – affected by global emission reducing efforts, international shipping being no exemption. GHG emissions are covered by the 1992 United Nations Framework Convention on Climate Change (UNFCCC)²⁰ and the 2015 Paris Agreement.²¹ Under all agreements the aim has been to stabilize or reduce GHG in the atmosphere. In 1992 all UNFCCC signatory states accepted to stabilise GHG concentrations in the atmosphere at a level that “would prevent dangerous anthropogenic interference with the climate system”.²² Under the Paris agreement, the signatory states agreed on an emission reduction target that would keep “...a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius”.²³

Because of its large dependence on fossil fuels, global shipping is estimated to be responsible for around 2–3 percent of total global greenhouse gas emissions, which is more emissions than any EU state: According to the EU Commission; if the shipping sector were a company, it would rank sixth in emissions in the world.²⁴ The situation is even more dramatic at EU level where shipping accounted for 13% of emissions from transport.²⁵ According to a new study from the International Maritime Organisation (IMO); the Fourth IMO GHG Study 2020, emissions from shipping will continue to increase.²⁶

20 United Nations Framework Convention on Climate Change (UNFCCC) (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107, 31 ILM.

21 <https://unfccc.int/sites/default/files/english_paris_agreement.pdf> accessed 21 December 2020.

22 *ibid* art. 2.

23 <<https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement>> accessed 21 December 2020.

24 EU Commission, Proposal for a Regulation of The European Parliament and of the Council amending Regulation (EU) 2015/757 in order to take appropriate account of the global data collection system for ship fuel oil consumption data COM(2019) 38 final [2019] at 1.

25 *ibid*.

26 Smazzare, *Reduction of GHG Emissions From Ships: Fourth IMO GHG Study 2020* [2020].

Depending on the development in world markets related to the COVID-19 pandemic, emissions are projected to increase from about 90% of 2008 emissions in 2018 to 90–130% of 2008 emissions by 2050.²⁷

Despite these alarming numbers, *international shipping was not included* in the national emission reduction targets set for Annex 1 Parties under the Kyoto Protocol²⁸ (i.e. developed countries) nor are they directly included the Paris agreement.²⁹ The Kyoto Protocol states explicitly that limitations and reductions of GHG emissions from marine bunker fuels shall be pursued by the Annex 1 Parties to the Kyoto Protocol under the IMO.³⁰ This implies that according to the international agreements, the IMO is responsible for establishing an international legal framework to ensure the needed reduction in GHG emissions from international shipping. It has hence been the responsibility of the IMO to decide on the goal, speed and tools for this.

2 Who Levels the Playing Field? – the Organisations and Stakeholders

2.1 *The International Maritime Organization – IMO*

2.1.1 A UN Specialised Agency

The choice of leaving the regulatory initiative to the IMO was predicted as the organisation has established itself as the main regulator of international shipping. The IMO was established through the United Nations Convention on the International Maritime Organization, 6 March 1948 (IMO Convention),³¹ initially titled the Inter-Governmental Maritime Consultative Organization (IMCO). This was, however, changed in 1982 to the International Maritime Organization (IMO), which will be used in the following. IMO's first meeting was organised ten years after it was established; in 1959.³² Headquartered in

²⁷ *ibid* 6.

²⁸ Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted 11 December 1997, entered into force 16 February 2005) 2303 UNTS 148.

²⁹ The Paris Agreement differs from the Kyoto Protocol in its approach as it is based on Nationally Determined Contributions, but the Paris Agreement does not contain obligations to reduce emissions from international shipping.

³⁰ Kyoto Protocol (n 28) art 2.2.

³¹ The convention was agreed at a UN conference held after the Second World War in Geneva in February 1948. Convention on the International Maritime Organization as amended (IMO Convention) (adopted 6 March 1948, entered into force 17 March 1958) 9 UST 621, 289 UNTS 48.

³² At the time the organisations was named The Intergovernmental Maritime Consultative Organisation (IMCO) which later changed name to IMO which will be used in the

London, United Kingdom, the IMO currently has 174 member states and three associate members. All of the Nordic³³ countries are members of the IMO. Norway became a member in 1958, followed by Denmark, Finland and Sweden in 1959.³⁴ The IMO facilitates cooperation among governments and the goal today is to achieve the highest practicable standards of maritime safety and security, and efficiency in navigation. It deals with legal matters related to international shipping, including liability and compensation regimes, as well as with facilitation of international maritime traffic. It is also responsible for providing technical assistance in maritime matters to developing countries. The IMO is hence responsible for assembling international conferences on shipping matters and for drafting international conventions or agreements on this subject. In addition, IMO produces non-binding legal material such as guidelines and recommendations. The work in IMO relies on collaboration and loyalty among the member states.³⁵ Since IMO is a worldwide organisation, both capacity and political willingness to implement the agreed rules, vary within the organisation. As stated on IMO's home pages: "*IMO has plenty of teeth but some of them don't bite*".³⁶ IMO accordingly constantly allocates time and effort to secure implementation and compliance of the rules. This is e.g. visible in IMO's strategic plan for 2018–2023, in which improving implementation is set out as the first strategic direction.³⁷

Creating a level playing field for its members is crucial for IMO. According to the homepages of the organisation, "...its role is to create a level playing-field so that ship operators cannot address their financial issues by simply cutting corners and compromising on safety, security and environmental performance".³⁸ Although the organisation is an important platform for governing international shipping, collaboration with other bodies in the United Nation System as well as with parties at global, regional and national levels is considered important.³⁹ The legal base for this is the IMO Convention art. 60 and 61. The latter grants IMO a right to co-operate with other intergovernmental

following. Augustin Blanco-Bazán, 'IMO – Historical highlights in the life of a UN Agency' [2004] 6 *Journal of the History of International Law* 259, 259.

33 *ibid.*

34 *ibid* 262.

35 <www.imo.org/en/About/Pages/Default.aspx> accessed 16 December 2020.

36 <www.imo.org/en/OurWork/Safety/Implementation/Pages/FlagStateImplementation.aspx> accessed 27 March 2020.

37 IMO Strategic plan Annex A p.5.

38 <www.imo.org/en/About/strategy/Pages/default.aspx> accessed 07 December 2020.

39 IMO Strategic plan (n 37) at 10, p. 5.

organizations which are not specialized agencies of the United Nations, but whose interests and activities are related to the purposes of the Organization.⁴⁰

As for the Members of most other international organisations, the IMO Members can be divided into developed, developing and least-developed States. The north-south division is also a term used to describe this situation.⁴¹ To monitor the problems related to the diverging interests of the Member States, IMO has established the principle of “*No More Favourable Treatment*”.⁴² This means that all ships in international trade shall be subject to equal and non-discriminatory regulation irrespective of flag or ownership. The principle is however, not indisputable and many Member States advocate that the principle of “*Common but Differentiated Responsibilities*” used for example in the international climate change regime, would be a more appropriate way to handle the common challenges, such as climate change.⁴³ The content of an equal and non-discriminatory regulation is accordingly a source of discussion. Obviously, the diversity between IMO’s member states influences the view on this.

2.1.1.1 *Lack of International Consensus and Democracy*

Indeed, there is no international consensus on what a level playing field really entails. On the contrary, from the very beginning, *lack of international consensus* has been – and continues to be – a problem for the IMO. After all, all members are competitors on the same global markets of international shipping. The collaboration was initially on a modest level, limited to technical questions related to safety or navigation, leaving commercial and economical questions outside the mandate.⁴⁴ The question of the mandate of IMO was linked to the discussion on whether IMO should be granted treaty-making power and whether it should become a UN specialized agency. The latter would give the organisation political responsibilities that might conflict with “pure shipping” interests.⁴⁵ As an example, could be mentioned that all Nordic countries were at the time opposed to a development where IMO would have an extended

40 Art 61: The Organization may, on matters within its scope, co-operate with other intergovernmental organizations which are not specialized agencies of the United Nations, but whose interests and activities are related to the purposes of the Organization.

41 Md Saiful Karim, *Prevention of pollution of the marine environment from vessels: The potential and limits of the International Maritime Organisation* (Springer 2015), 34.

42 *ibid.*

43 The principle was formalized in the United Nations Framework Convention on Climate Change (UNFCCC) (n 20).

44 Blanco-Bazán (n 32), 261.

45 *ibid* 261.

mandate and expressed, when joining, that they would withdraw if the organisation “were to extend its activities to matters of purely commercial or economical nature”.⁴⁶ The discussion on IMO’s mandate revealed a conflict of interest not only among shipowners from different jurisdictions, but also, and mainly, among shipowners on the one hand and shipusers/shippers on the other. Furthermore, it became obvious that the conflict was not only a conflict between contracting parties (shipowners and shippers); the conflict became a confrontation between developed and developing countries.⁴⁷ During the 1960s and 1970s, IMO was described as “a rich man’s club where only the interests of shipowners prevailed”.⁴⁸ The predominance of the shipowners interests was reflected in how the organisations was structured.

2.1.2 How IMO is Structured

2.1.2.1 *The Main Organs*

The foundation of the IMO, the IMO Convention, provided in its first version, for three main organs for the organisation: the Assembly, the Council and the Maritime Safety Committee (MSC). *The Assembly* was the highest organ of the organisation and should accordingly consist of all Member States. It should meet once every two years, with provision for extraordinary sessions if necessary. Its main tasks were to vote on the budget and decide financial arrangements, to determine the general policy of the organization to achieve the purposes the IMO and to adopt resolutions submitted to it by the Council and the MSC. *The Council* on the other hand, was the executive organ of IMO and responsible, under the Assembly, for supervising the work of the organization. It should consist of only 16 Member States and the principles for selecting these were based on the countries interests in international shipping on the one hand and in seaborne trade on the other.⁴⁹ *The Maritime Safety Committee* was responsible for developing regulations on technical and safety issues and hence the most important body of the organisation.⁵⁰ Out of its 14 members,

46 *ibid* 262.

47 *ibid* 263.

48 *ibid* 263.

49 Of the sixteen places in the Council should six be reserved for the six nations with the largest interest in providing international shipping services. Other six seats should be occupied by other nations with the largest interests in seaborne trade, and finally the last four seats were to be elected by the IMCO Assembly in equal numbers of two per each category among nations having a substantial interest in providing international shipping services and those having an interest in international trade, *ibid* 264.

50 According to the IMO Convention (n 31) Art 29, the MSC should consider “aids to navigation, construction and equipment of vessels, manning from a safety standpoint, rules for the prevention of collisions, handling of dangerous cargoes, maritime safety procedures

a substantive majority of 8 were to be elected among the largest ship-owning nations.⁵¹

The structure of IMO today is not very different from the structure designed in 1948. The highest organ of IMO is still the Assembly whereas the executive power lies with the Council. The number of committees have, however increased during the years. Today *five main Committees* operate within the IMO. The Maritime Safety Committee⁵² is accompanied by the Marine Environment Protection Committee;⁵³ the Legal Committee;⁵⁴ the Technical Cooperation Committee⁵⁵ and the Facilitation Committee⁵⁶ as well as a number of Sub-Committees which support the work of the main technical committees. Whereas all Member States are member of the Assembly, the real power lays with the Council and the Committees. During the years the elective process has changed and today the interests between the shipowners and shippers are more balanced.

The functions of *the Council* are governed by art 17 of the IMO Convention. The Council is the executive body of the CMI. It coordinates the activities of all the other organs of the organisation: The Council considers the draft work programme and budget estimates of the IMO and submit them to the Assembly. It also receives reports and proposals of the Committees and other organs and submit them to the Assembly and Member States with comments and proposals as appropriate.⁵⁷ The Council is in other words a central part of IMOs legislative and financial operations.⁵⁸ Currently there are 40 Member States (out of 174 Member States and three Associate Members)⁵⁹ represented in the

and requirements, hydrographic information, log-books and navigational records, marine casualty investigation, salvage and rescue and any other matters directly affecting maritime safety". <www.imo.org/en/About/Conventions/ListOfConventions/Pages/Convention-on-the-International-Maritime-Organization.aspx> accessed 22 July 2020.

51 "so as to ensure adequate representation of other Members, governments of other nations with an important interest in maritime safety, such as nations interested in the supply of large numbers of crews or in the carriage of large numbers of berthed and unberthed passengers, and of major geographical areas".

52 IMO Convention (n 31), Part VII, art 27–31.

53 *ibid* Part IX, art 37–41.

54 *ibid* Part VIII, art 32–36.

55 *ibid* Part X, art 42–46.

56 The Facilitation Committee has its legal base in the Convention on the Facilitation of International Maritime Traffic (adopted 9 April 1965, entered into force: 5 March 1967) 591 UNTS, 265.

57 IMO Convention (n 31) art 17.

58 Karim (n 41).

59 For a list of IMO Council Member States see the IMO's website: <www.imo.org/en/About/Membership/Pages/Default.aspx> accessed 05 August 2020.

Council. The Council Members are elected in certain groups representing specific commercial interests. In category a) 10 members are elected among states with the largest interest in providing international shipping services. In category b) another 10 members are elected among states with the largest interest in seaborne trade, whereas the remaining twenty members are elected among states that are not elected under a or b, and take a special interest in transport or navigation. The main principle for this third category c) is to “...ensure the representation of all major geographic areas of the world”.⁶⁰

At present, in the first category, we find world superpowers such as China, US, UK and Russia but also smaller states like Japan, Italy and Norway. Old shipping nations like Greece, the Netherlands and Spain are represented in category B, together with strong economic players like Canada, France, Germany and the United Arab Emirates. Also “new” economies like Brazil and India are found here. From a Nordic point of view it is interesting to find Denmark in category c) together with Bahamas, Belgium, Chile, Cyprus, Egypt, Indonesia, Jamaica, Kenya, Kuwait, Malaysia, Malta, Mexico, Morocco, Peru, the Philippines, Singapore, South Africa, Thailand and Turkey.⁶¹

Also, the election of members to the different *committees* have changed. The main principle is presently that all committees shall consist of all the Members.⁶²

60 IMO Convention (n 31) art 17 (c).

61 Council members for the 2020–2021 biennium: *Category (a) 10 States with the largest interest in providing international shipping services*: China, Greece, Italy, Japan, Norway, Panama, Republic of Korea, Russian Federation, United Kingdom, United States.

Category (b) 10 States with the largest interest in international seaborne trade: Argentina, Australia, Brazil, Canada, France, Germany, India, the Netherlands, Spain and the United Arab Emirates.

Category (c) 20 States not elected under (a) or (b) above, which have special interests in maritime transport or navigation and whose election to the Council will ensure the representation of all major geographic areas of the world: Bahamas, Belgium, Chile, Cyprus, Denmark, Egypt, Indonesia, Jamaica, Kenya, Kuwait, Malaysia, Malta, Mexico, Morocco, Peru, the Philippines, Singapore, South Africa, Thailand and Turkey.

62 The principle is laid down in art 27 (the Maritime Safety Committee), art 32 (the Legal Committee), art 37 (the Marine Environment Protection Committee) and art 37 and 42 (the Technical Co-operation Committee).

2.1.2.2 *Other UN Organs Governing International Shipping*

For IMO some of the political problems have been outsourced to the UN Conference on Trade and Development (UNCTAD) starting already in 1965.⁶³ UNCTAD was considered better fitted to deal with commercial and political questions as it was part of the United Nations Organization itself, whereas IMO was only a specialised agency within the United Nations System. However, it was not considered in the interest of IMO that UNCTAD had exclusive responsibility in commercial and political matters. As an example, UNCTAD was in charge of drafting the 1980 United Nations Convention on International Multimodal Transport of Goods.⁶⁴ Despite a huge legal gap in international regulation and consensus on the need of an international solution, there was no real political consensus on the convention, which accordingly never became an international success.⁶⁵

To avoid future similar failures the two UN bodies created a *Joint Group* which was in charge of carrying forward preparatory works to international conventions. The collaboration led to the adoption of the 1993 International Convention on Maritime Liens and Mortgages and the 1999 Convention on Arrest of Ships. Both conventions are in force and adopted widely.⁶⁶

2.1.2.3 *The Marine Environment Protection Committee*

With reference to environmental protection in general and the specific problem of GHG emissions from shipping, however, these problems remain with the IMO and are handled by the *Marine Environment Protection Committee*, which was established in the 70s through an amendment of the IMO Convention.⁶⁷ The Marine Environment Protection Committee (where all the Member State are represented, see above) is responsible for “...any matter within the scope of the Organization concerned with the prevention

63 In 1965. Blanco-Bazán (n 32).

64 *ibid* 264.

65 See e.g. Marian Hoeks, *Multimodal transport law: The law applicable to the multimodal contract for the carriage of goods* (Wolters Kluwer Law & Business 2010). See also Ellen Eftestøl-Wilhelmsson, *European sustainable carriage of goods: The role of contract law* (Routledge Taylor & Francis Group 2018).

66 See <https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XI-D-4&chapter=11&clang=_en> and <https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XII-8&chapter=12&clang=_en> accessed 16 December 2020.

67 The Marine Environment Protection Committee was established as a permanent subsidiary organ of the Assembly in 1973 in its 80th session. The ninth session of the IMO Assembly in 1975 institutionalised the Committee as an organ of IMO through an amendment of the IMO Convention (n 31) part IX art. 37–41. This amendment came into effect in 1982.

and control of marine pollution from ships”.⁶⁸ This obviously includes CO₂ emissions. The diverging interests of the IMO Member States along with the diverging underlying principles in the area of international shipping and international climate-change legislative collaboration, have made the work of IMO even more difficult. How to reach consensus on the way forward is not easy and the fact that IMO’s monopoly in governing international shipping is diminishing, or at least threatened by more homogenous and hence more efficient organisations, such as the EU, has not made it easier. Indeed, the mandate of the Marine Environment Protection Committee includes co-operation with “other organisations”, such as the EU.⁶⁹ It is however in the hands of the Council to enter into agreements with such organisations and for the Assembly to approve them.⁷⁰

2.2 *The European Union – Competence*

2.2.1 Shared with the Member States

As regards the EU, it is undisputable that the union has legal competence to govern international transport, including shipping. Following the entry into force of the Treaty of Lisbon in 2009,⁷¹ the competence of the EU is governed by the Treaty on European Union (the TEU) and the Treaty on the Functioning of the European Union (the TFEU), which together with certain fundamental principles of EU Law, represent the foundations of the European Union. In accordance with the *principle of conferral* established in Article 5 TEU, the EU’s competences are conferred on it by its Member States. The Union has no competence as of right, which means that unless the Treaties contain explicit agreement to the contrary, areas of policy remain within the sphere of the Member States’ competence and outside the competence of the EU.⁷² This was also the case earlier, but the rule was stated explicitly for the first time in the failed Treaty establishing a Constitution for Europe⁷³ and was then carried over into its replacement, the Treaty of Lisbon.

68 IMO Convention (n 31) art 38.

69 Ibid art 38 e) provides that the Environment Protection Committee shall “Consider and take appropriate action with respect to any other matters falling within the scope of the Organization which would contribute to the prevention and control of marine pollution from ships including co-operation on environmental matters with other international organizations, having regard to the provisions of art 25”.

70 IMO Convention (n 31) art 25 (a).

71 Consolidated versions of the Treaty on European Union (TEU) as amended by the Treaty of Lisbon, and the Treaty on the Functioning of the European Union (TFEU) [2010] OJ C83/1.

72 Arts 5 (1) and (2) TEU.

73 Treaty Establishing a Constitution for Europe art 1-1 [2004] OJ C310/1.

According to the TFEU art. 2, the competence of the EU can be either *exclusive or shared*.⁷⁴ In the area of transport, including shipping, the EU has been granted shared competence.⁷⁵ Accordingly both the EU and the Member States may *legislate and adopt legally binding acts* in the relevant area.⁷⁶ Obviously such shared competence could lead to conflicts of legally binding norms. For this reason, the mechanism by which competence is shared is governed in the Treaties. With regard to the Member States, their competence to legislate is restricted by the activity of the Union; the Member States shall exercise their competence to the extent that the Union has not exercised its competence or to the extent that the Union has decided to cease exercising its competence.⁷⁷ If the Member States have conferred a competence on the Union, and the Union makes use of its competence, it will be contrary to EU legislation to exercise that competence on a national level.⁷⁸ In the case of combating GHG gases, the EU has competence also through art. 191 TFEU, which gives the Union competence as regards environmental protection. However, even where competence has been conferred in an area, this competence is not unlimited, but is restricted by other principles of EU law.

2.2.2 Subject to Certain Principles of EU Law

Both the Member States and the Union have a *duty of loyal cooperation*. This is set out both in case law from the Court of Justice of the European Union (the CJEU)⁷⁹ and in the Lisbon Treaty. According to Article 4(3) TFEU, the Union and the Member States shall “in full mutual respect, assist each other in carrying

74 Art 2 (1) and (2) TFEU.

75 Art 4 (1) g TFEU.

76 Art 2 (2) TFEU.

77 Art 2 (2) TFEU, third and fourth sentences.

78 This was also stated in the so-called ERTA judgment from the ECJ. Case 22–70 *Commission of the European Communities v. Council of the European Communities, European Agreement on Road Transport (ERTA)* [1971] ECR 263.

79 Case C-25/94 *Commission v. Council*, [1996] ECR I-1469 para 48 “It must be remembered that where it is apparent that the subject-matter of an agreement or convention falls partly within the competence of the Community and partly within that of its Member States, it is essential to ensure close cooperation between the Member States and the Community institutions, both in the process of negotiation and conclusion and in the fulfillment of the commitments entered into. That obligation to cooperate flows from the requirement of unity in the international representation of the Community (Ruling 1/78 [1978] ECR 2151, paragraphs 34 to 36, Opinion 2/91 [1993] ECR I-1061, paragraph 36, and Opinion 1/94 [1994] ECR I-5267, paragraph 108). The Community institutions and the Member States must take all necessary steps to ensure the best possible cooperation in that regard (Opinion 2/91, paragraph 38)”.

out tasks which flow from the Treaties". This duty of cooperation flows from the requirement of unity in the international representation of the Community.⁸⁰ In the area of shared competence, the competences of the Union are in addition limited by the *principles of subsidiarity and proportionality*.⁸¹ According to the principle of subsidiarity the EU shall act

only and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member State, either at central level or at regional and local level, but can rather, by reason of the scale of effects of the proposed action, be better achieved at EU level.⁸²

This principle also accords with previous case law from the CJEU to the effect that the EU has competence to legislate if the objective of the proposed action will be better achieved at Community level,⁸³ and cannot be sufficiently achieved by the Member States individually.⁸⁴ The action should also not go beyond what is necessary to achieve the objective pursued.⁸⁵ The latter rule accords with the principle of proportionality, which states that the content and form of the EU action shall not exceed what is necessary in order to achieve the objectives of the Treaties.⁸⁶ However, according to the CJEU

it should be noted that the Community legislature must be allowed a broad discretion in an area ..., which involves political, economic and social choices on its part, and in which it is called on to undertake complex assessments. Consequently, the legality of a measure adopted in that area can be affected only if the measure is manifestly inappropriate

80 *ibid.*

81 Art 5 (3) and (4) TEU. More generally on the distribution of powers between the EU and the Member States, see Gabriël Moens and John Trone, *Commercial Law of the European Union* (Springer 2010), 26–30.

82 Art 5 (3) TEU.

83 Case C-491/01 *The Queen v. Secretary of State for Health, ex parte British American Tobacco (Investments) Ltd. and Imperial Tobacco Ltd.*, [2001] ECR I-11453, 180.

84 *ibid* 182.

85 *ibid* 184.

86 See Article 5 (4) TEU and Joined Cases C-453/03, C-11/04, C-12/04 and C-194/04 *ABNA Ltd. and Others v. Secretary of State for Health and Others*, [2004] ECR I-10423: "According to settled case-law, the principle of proportionality, which is one of the general principles of Community law, requires that measures implemented through Community provisions be appropriate for attaining the objective pursued and must not go beyond what is necessary to achieve it ..." at 68.

having regard to the objective which the competent institutions are seeking to pursue ...⁸⁷

In other words, the EU has quite a wide authority (*c.f.*, “must be allowed a broad discretion”) to decide when it is necessary to pass legislation in an area and will only exceed its powers if the measure is “manifestly inappropriate” in relation to the objective pursued. Accordingly, the objective being pursued by the relevant legislation, must form part of the European policy in question, which in the area of transport is specified in Title VI, Articles 90–100 TFEU. Initially, under the Treaty of Rome, the Council was obliged to take legislative measures only in the case of inland transport (road, rail and inland waterways). As regards *sea and air* transport, the Council was empowered to legislate when it unanimously thought fit. Due to policy reasons the Member states were not very interested in conferring legislative rights to the EU and hence the measurements adopted were limited and piecemealed until the mid-1980s.⁸⁸ It was not until the CJEU intervened in 1985, ruling in a landmark decision that the Council had failed to act, that the Member States had to accept that the Community had competence to act in the area of transport law.⁸⁹ The competence is, however, limited. Decisions must be taken within the framework of a *Common Transport Policy*,⁹⁰ which can be found in numerous policy documents and papers from the different EU institutions. As regards the specific questions related to emission charge of levy, the competence would probably be based on the taxation provision under article 113 TFEU.⁹¹ Despite the fact that potential measures of an EU ETS or EU carbon levy for international shipping would be based on measures performed beyond EU territory, this does not amount to an extraterritorial effect. The idea is that when a vessel voluntarily enters an EU port, the ship has subjected itself willingly to the requirements for port entry.⁹²

Regardless of a clear EU competence as regards international shipping, the political willingness to utilise this competence has had a slow start. However, from the beginning of the 90s security and climate change challenges drew interest to international shipping also from the European Union.

87 *ibid* 69.

88 Henning Jessen and Michael J Werner, *EU maritime transport law* (1st edn, C. H. BECK 2016).

89 Case 13/83 *European Parliament v. Council of the European Communities*, [1985] ECR 1513.

90 Article 90 TFEU.

91 Aoife O’Leary, David Holyoake and Marta Ballesteros, *Legal implications of EU action on GHG Emissions from the International Maritime Sector* (ClientEarth 2011), 6.

92 *ibid* 20.

Despite numerous statements of the need for global solutions, particularly as regards the UN climate targets and international shipping, as will be outlined below, the IMO is facing a “competitor” on the international (regional) regulatory arena.

IMO is unquestionably the main regulator in international shipping and upholding this position is the main vision of the organisation as expressed in its latest strategy (2018–2023): “IMO will uphold its leadership role as the global regulator of shipping ...”.⁹³ This should however be done; “...while addressing the challenges of continuing developments in technology and world trade and the need to meet the 2030 Agenda for Sustainable Development”.⁹⁴ Despite the fact that safety and security by tradition have been core areas for the IMO,⁹⁵ also *environmental issues* have played an important role. Following the Torrey Canyon disaster of 1967 where 120,000 tonnes of oil was spilled, the IMO became engaged in environmental issues, particularly related to pollution. Several measures were designed to prevent tanker accidents and to minimize consequences. The most important being the International Prevention of Pollution from ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78). Although MARPOL mainly governs accidental and operational oil pollution, the convention also covers pollution by chemical, goods in package form, sewage, garbage and *air pollution*. The IMO has in other words legal competence to tackle the international recognised climate targets and due to the growing international awareness and corresponding pressure, *sustainable shipping* has in recent years become a key issue for IMO. The speed and intensity in this work has not, however, been satisfactory for the EU, which has hence implemented its own legal framework for emission reduction, while all the time recognising the need for global solutions.

93 IMO Strategic plan (n 37) at 2.1.

94 *ibid* 2.2.

95 Henrik Ringbom: Regulating Greenhouse Gases from Ships: Some Light in the End of the Funnel? In Elise Johansen, Signe V Busch and Ingvild U Jakobsen (eds), *The law of the sea and climate change: Solutions and constraints* (CUP, Cambridge United Kingdom, New York NY 2020). Chpt. 6 at 6.3.

3 The Interplay between the EU and the IMO in Light of the Climate Targets

3.1 *The EU Headache: A Global and/or a Regional Solution?*

3.1.1 The Call for a Global Solution and the Response from the IMO Reducing emissions from transport, including shipping and aviation, both by nature global industries and hence first and foremost in need of global regulatory solutions, has been an EU policy goal for at least a decade. In the 2011 Whitepaper: Roadmap to a Single European Transport Area, the Commission called for a cut in emission from maritime transport by 40% (if feasible 50%) by 2050 compared to 2005 levels.⁹⁶ Simultaneously the IMO has recognised the need for reduction in GHG emissions from international shipping. In 2011, the IMO agreed on an amendment of MARPOL, which introduced a set of technical measures for new ships and operational reduction measures for all ships,⁹⁷ both with the aim to reduce emissions from shipping. The amendment introduced an Energy Efficiency Design Index (EEDI) for new ships as well as a Ship Energy Efficiency Plan (SEEMP) that should apply to all ships, new and old. The SEEMP established a mechanism for shipowners to improve the energy efficiency of both new and existing ships using operational measures such as weather routing, trim and draught optimization, speed optimization, just-in-time arrival in ports, etc.⁹⁸ The EEDI required all new ships to comply with minimum mandatory energy efficiency performance levels, increasing over time through different phases.⁹⁹ Both plans should apply to all ships of 400 gross tonnage and above, irrespective of flag and ownership.¹⁰⁰

The above mentioned efforts did, however, not satisfy the European Union, which continued to prepare for ways of including CO₂ emissions from shipping in its overall climate strategies. In 2013 a strategy for integrating maritime

96 EU Commission, Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system: Roadmap to a Single European Transport Area [2011], 29.

97 This was done through an amendment of MARPOL (resolution MEPC.203(62)), introducing a new Chapter 4 Annex VI “Regulations on energy efficiency for ships.” The regulations entered into force on January 2013. This was the first legally binding climate change treaty to be adopted since the Kyoto Protocol. Since this breakthrough MEPC 63 (March 2012) adopted four important guidelines (resolutions MEPC.212(63), MEPC.213(63), MEPC.214(63) and MEPC.215(63)) aimed at assisting the implementation of the mandatory regulations on Energy Efficiency for Ships in MARPOL Annex V.

98 *ibid* Regulation 22.

99 *ibid* Regulation 21.

100 See <www.marpol-annex-vi.com/eedi-seemp/> accessed 14 December 2020.

transport emissions in the EU's GHG reduction policies was published.¹⁰¹ In the strategy the Commission reinforced the commitment to *global action*, stating that the EU "...has a strong preference for a global approach led by the IMO, as the most appropriate international forum to regulate emissions from shipping".¹⁰² The goal for the EU was "across the board" emission reductions while maintaining a global level playing field for the shipping industry.¹⁰³ Neither IMO's EEDI nor its SEEMP satisfied these requirements. On the contrary, the Commission declared that the systems "...will bring improvement in terms of reducing the expected increase in greenhouse gas emissions, but alone cannot lead to the necessary absolute reductions of greenhouse gas emissions from international shipping to keep efforts in line with the global objective of limiting increases in global temperatures to 2 °C".¹⁰⁴

3.1.2 A Three Step Strategy for an Inclusion of Shipping in EU's Climate Policies

According to the Commission, further measures were needed and the EU wanted to push forward a global solution by taking a regional lead. Hence, the Commission introduced a three step strategy to include maritime transport into the European climate targets. The EU would (1) implement a system of Monitoring Reporting and Verifying (MRV) emissions from shipping, (2) introduce a definition of reduction targets for the maritime transport sector and (3) implement market-based measures (MBM).

As a first step and in response to the continuing absence of a global framework, union-wide rules for monitoring, verifying and reporting CO₂ emissions from shipping were adopted in 2015 through the *MRV Shipping Regulation*.¹⁰⁵ The main objective of the regulation was to provide reliable data on GHG

101 EU Commission, Integrating maritime transport emissions in the EU's greenhouse gas reduction policies, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2013) 479 final.

102 *ibid* 4.

103 *ibid* 4–5.

104 MRV Shipping Regulation, Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC [2015] OJL 123/55 as amended by Commission Delegated Regulation (EU) 2016/2071 of 22 September 2016 amending Regulation (EU) 2015/757 of the European Parliament and of the Council as regards the methods for monitoring carbon dioxide emissions and the rules for monitoring other relevant information [2016] OJ L320/1 (MRV Shipping Regulation). Preamble at (8).

105 *ibid*.

emissions from maritime transport. As CO₂ emissions from shipping relates to amount and type of fuel consumed, the task seemed easy. Fuel consumption was already measured and available for almost all ships over 400,000 gross tonnage operating in international transport. Under Regulation 18 of MARPOL Annex VI the *bunker delivery note* shall include the name and IMO number of the ship receiving the fuel, the port of bunkering, the marine bunker supplier contact information, fuel quantity and density.¹⁰⁶ The bunker delivery note contains in other words information on the purchased volume of bunkers as well as of its quality (density). The reliability and the accessibility of the information were considered key to ensure adequate information all over the supply chain about the carbon performance of the shipping sector.¹⁰⁷

In addition to this information, a *reporting and verification process* needed to be established. Since the key goal of the EU was (and is) to reduce GHG emissions, the Commission did not want to interfere with the IMO discussion on whether this should be achieved through energy efficiency improvement or fuel switch. Accordingly, the proposed MRV system did not impose a specific methodology for monitoring the CO₂ emissions. It was sufficient that the selected methodology and its uncertainties were reported.¹⁰⁸ This approach would allow ship-owners and ship-managers to build on existing practises. The idea was to introduce a fuel consumption based MRV scheme to be started at regional level, and serve as an example for a global solution and by this feed into the ongoing discussions at the IMO.

Under the MRV Shipping Regulation GHG emissions from intra-EU voyages, incoming voyages from a non-Union port to a port within the Union, as well as outgoing voyages from a Union port to a non-Union port are to be monitored, verified and reported, irrespective of which flag the ships sail under.¹⁰⁹ If subject to the MRV Shipping Regulation,¹¹⁰ the company operating the ship must monitor, verify and report annual CO₂ emissions and other relevant information arising from their ships' voyages during a reporting period, which is normally one year.¹¹¹ Both the monitoring and the reporting must be complete and cover CO₂ emissions from the combustion of fuels, while the ships are at sea

106 Regulation 18 of MARPOL Annex VI Regulation for the Prevention of Air Pollution from Ships, Appendix V – Information to be included in the bunker delivery note (Regulation 18(3)).

107 Commission 2013 (n 101), 6.

108 MRV Shipping Regulation, (n 104).

109 Subject to a threshold for small emitters and exemption of certain vessels fish-catching ships.

110 MRV Shipping Regulation, (n 104).

111 MRV Shipping regulation art. 9 and 11.

as well as at berth. The regulation emphasizes that the information must be reliable and accurate.

The obligation to monitor started in 2017 with the preparation of a monitoring plan.¹¹² The monitoring plan should be filled out by the ship owners and explain how they intend to monitor the relevant parameters required by the MRV Shipping Regulation. From 2018 onwards, companies are required to monitor CO₂ emissions from their vessels by applying the “appropriate method” for determining CO₂ emissions. Shipowners can choose between four methods, as explained in Annex 1, Part A, to monitor CO₂ emissions:

- 1) Bunker Fuel Delivery Note (BND) and periodic stocktakes of fuel tanks
- 2) Bunker fuel tank monitoring on board
- 3) Flow meters for applicable combustion processes
- 4) Direct CO₂ emission measurements

For each method, companies have to indicate the corresponding level of uncertainty. According to the 2019 Annual Report on CO₂ Emissions from Maritime Transport¹¹³ all companies relied on the first three monitoring methods during the first reporting period, whilst alternative four, direct CO₂ emission measurements, was not used. As regards the uncertainty associated with fuel monitoring, the companies relied upon default values following the guidance established by the European Sustainable Shipping Forum (ESSF).¹¹⁴ Although the MRV Shipping Regulation does not set targets for emission reduction, it was expected to bring down emissions by 2%.¹¹⁵

After having the monitoring plan assessed by an accredited verifier, the shipowners should monitor and report the different parameters and prepare an *emission report*. This should be done in an electronic inspection database called THETIS.¹¹⁶ THETIS is developed, maintained and hosted by the European Maritime Safety Agency (EMSA). EMSA has developed a new module in THETIS, namely THETIS-MRV, enabling companies responsible for the operation of large ships using EU ports to report their CO₂ emissions under the MRV Shipping Regulation. THETIS-MRV includes a mandatory and a voluntary

¹¹² *ibid* art 6.

¹¹³ EU Commission, SWT(2020) 82 Final Report from the Commission – 2019 Annual Commission Staff Working Document. Full-length report.: Accompanying the document Report on CO₂ Emissions from Maritime Transport C(2020) 3184 final [2020], at 14.

¹¹⁴ European Sustainable Shipping Forum, ‘Guidance/Best practices document on monitoring and reporting of fuel consumption, CO₂ emissions and other relevant parameters pursuant to Regulation 2015/757 on monitoring, reporting and verification emissions from maritime transport’ (2017).

¹¹⁵ MRV Shipping Regulation (n 104). Preamble at 13.

¹¹⁶ The name derives from the Greek goddess of the sea in mythology.

module. Through the mandatory module, companies will generate Emission Reports, which will be assessed by Verifiers who will issue an electronic Document of Compliance in the system. Through the voluntary module, companies may draft their monitoring plans and the system will make them available for verifier' assessment.¹¹⁷ The EU MRV Shipping regulation was intended to function as a model for a global mechanism,¹¹⁸ and it was successful in that the regulation proposal speeded up international efforts.

3.2 *The Parallel IMO Process*

3.2.1 The IMO Data Collection System – IMO DCS

In 2016, the MEPC 70 extended the strategy and adopted amendments to MARPOL which introduced the *IMO Data Collection System for fuel oil consumption of ships* (IMO DCS).¹¹⁹ The IMO DCS entered into force in 2018. Under the framework, ships of 5,000 gross tonnage and above are required to *collect* consumption data for each type of fuel oil they use, as well as other, additional, specified data including proxies for transport work. According to the IMO DCS the collected data should be *reported* to the flag State after the end of each calendar year and the flag State, having determined that the data has been reported in accordance with the requirements, should *issue a Statement of Compliance* to the ship.¹²⁰

Flag States are required to subsequently transfer this data to an *IMO Ship Fuel Oil Consumption Database*¹²¹ and the IMO is required to produce an annual report to the Marine Environment Protection Committee (MEPC). The Ship Energy Efficiency Management Plan (SEEMP) must hence include a description of the methodology that will be used to collect the data and the processes that will be used to report the data to the ship's flag State.¹²²

117 The system has been available from 7 August 2017 and can be reached at <<https://mrv.emsa.europa.eu>> accessed 14 December 2020.

118 MRV Shipping Regulation (n 104) recital 34.

119 Annex 3 Resolution Mepc.278(70)(adopted 28 October 2016) Amendments to the Annex of the Protocol of 1997 to Amend the International Convention for the Prevention of Pollution from Ships, 1973, as Modified by the Protocol of 1978 relating thereto Amendments to Marpol Annex VI.

120 *ibid* Appendix x.

121 IMO Ship Fuel Oil Consumption Database has been launched as a new module within the Global Integrated Shipping Information System (GISIS) platform and that Member States now have access to the Database. <www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Data-Collection-System.aspx> accessed 06 September 2020.

122 Resolution MEPC.278(70) Amendments to Marpol Annex VI Article 22 at 15, introducing a new Article 22A.

As a result of this, the EU MVR Shipping Regulation was amended in 2016 and 2019. The main objective of the latest amendment was to streamline the EU MRV Regulation to the IMO DCS, with the view to reduce administrative effort for companies and administrations.¹²³ Shipowners sailing in EU waters are accordingly subject to two parallel monitoring and reporting systems. However, as they are both based on fuel consumptions, the reports can be harmonised. As an example, can be mentioned that companies that are accepted as accredited verifiers, have developed digital tools to streamline the MRV and DCS reporting and verification process.¹²⁴

3.2.2 Defining a Reduction Target

Monitoring, reporting and verifying or collecting data on GHG emissions from international shipping is, however according to the EU Commission, not sufficient. In order to reach the climate target in the Paris Agreement, a set emission reduction target for transport is considered essential. The EU therefore set in 2011 an emission reduction target for shipping, of 40% (if feasible 50%) compared to 2005 levels.¹²⁵

The IMO was at the beginning not willing to set a fixed target for the reduction of emissions from international shipping. However, having the system for data collecting in place, the 72nd meeting of the MEPC in April 2018 agreed on an IMO *Initial Strategy* on the reduction of greenhouse gas emissions from ships.¹²⁶ The Strategy envisaged a GHG Strategy, which aimed to reduce carbon intensity of international shipping by 40% by 2030, compared to 2008 and to reduce the total annual GHG emissions by *at least 50% by 2050 compared to 2008*.¹²⁷

Opposite to the EU target, which relates to a reduction of all GHG emissions from international shipping, the IMO strategy is mainly related to a reduction of *the carbon intensity of international shipping*. The *carbon intensity reduction* target includes CO₂ emissions per transport work, as an average across international shipping and does not relate to the overall emissions from shipping. The IMO strategy hence relies on technical and operational measures. However, whereas the operational measures in the *Initial Strategy* applies to all ships,

123 EU Commission 2019 (n 24) at 1.

124 See e.g.: DNV GL's system: <www.dnvgl.com/maritime/insights/topics/EU-MRV-and-IMO-DCS/index.html> accessed 15 December 2020.

125 Commission 2011 (n 96) at 29.

126 IMO Strategic plan (n 37).

127 IMO homepage on <www.imo.org/en/MediaCentre/PressBriefings/pages/42-MEPC-short-term-measure.aspx> accessed 16 December 2020.

the technical measures, the EEDI, only applies to existing ships. Indeed, the Strategy envisages a revision of this, with the aim to strengthen the energy efficiency design requirements for ships with *a set percentage improvement target* for each phase to be determined for each ship type, as appropriate.¹²⁸ The Strategy furthermore identifies barriers and supportive measures including capacity building, technical cooperation and research and development (R&D).¹²⁹

The efforts taken by the IMO has, however, not been satisfactory for the EU (in particular not for the European Parliament). Members of the European Parliament (MEP), who participated in the 2018 MECP meeting, accordingly urged the IMO for more ambitious emission reductions, namely 70% to 100% emission reduction by 2050.¹³⁰ As a result of this, the EU continues to include international shipping in its general policies for emission reduction, such as the *Green Deal* from 2019.¹³¹

3.3 *The Way Forward – Market Based Measures and Technology*

3.3.1 The European Green Deal and the 2030 Climate Target Plan

The European Green Deal is an ambitious policy document. The final goal reinforces that of EU's Long Term Strategy of 2050 i.e. to transform the EU into a society with no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.¹³² The proposed actions include a proposal for a European Climate Law, containing a binding target of climate neutrality in the Union by 2050 as well as a *2030 Climate Target Plan* to increase climate ambition for 2030.¹³³ The 2030 Climate Target Plan 1) presents an increased 2030 intermediary emission reduction target of 55 per cent compared to 1990 levels (including both emission reductions and carbon removals); 11) previews a set of actions across various sectors and launches the

128 IMO Strategic plan (n 37) at 4.

129 *ibid* 5.

130 <www.europarl.europa.eu/legislative-train/theme-resilient-energy-union-with-a-climate-change-policy/file-monitoring-maritime-transport-ghg-emissions> accessed 05 September 2020.

131 EU Commission, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and The Committee of the Regions, The European Green Deal COM(2019) 640 Final [2019].

132 *ibid*.at 2.

133 EU Commission, Communication from the Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions, 'Stepping up Europe's 2030 climate ambition Investing in a climate-neutral future for the benefit of our people' COM (2020) 562 final [2020], at 2.

revision of EU's key legislative instruments to achieve the increased target and III) prepares the ground for debate on an increase of EU's contribution under the Paris Agreement.¹³⁴

In addition to MRV of CO₂ emissions from shipping, and defined GHG reduction targets for the maritime transport sectors, the Commission aims at developing further measures, including *market-based measures*, to combat the growing problem of CO₂ emissions from shipping.¹³⁵ This is clearly expressed in the Green Deal, which states that "... the Commission will propose to extend European emissions trading to the maritime sector".¹³⁶ CO₂ emissions from shipping would hence be subject to market-based measures as described in the three step plan presented by the Commission in 2013. The Green Deal is in other words, an integral part of the Commission's strategy to implement the United Nations' 2030 Agenda and the sustainable development goals.¹³⁷

The 2030 Climate Target Plan states that emission reductions are needed from all transport sectors, including the waterborn transport sector in order to achieve the 55 per cent EU-wide emission reduction target and calls for the maritime sector to scale up efforts to *improve efficiency of ships and operations, increase the use of sustainably produced renewable and low-carbon fuels* and for *technology development and arrangement* to occur already by 2030.¹³⁸ A strategy that is in line with the IMO efforts on technological and operational measurements. Development of renewable and low-carbon fuels is recognised as paramount. The Commission is assessing these in its *Fuel EU Maritime initiatives* that aim to increase the production and uptake of sustainable alternative fuels for these sectors.¹³⁹ The 2030 Climate Target Plan furthermore sets out actions to update the current 2030 Energy and Climate Policy Framework to achieve the proposed new target for 2030,¹⁴⁰ among others by reinforcing and increasing the role for emissions trading and energy taxation, i.e. economic incentives for emission reductions.¹⁴¹ The Commission is considering an extension of the EU Emissions Trading System (EU ETS) to all combustion of fossil fuels, also in the transport sector. Shipping is mentioned separately and

134 *ibid.*

135 EU Commission 2019 (n 131), at 10–11.

136 *ibid.*

137 *ibid* at 1.

138 EU Commission 2020 (n 133), at 3.

139 *ibid* 9–10.

140 *ibid* 12–13.

141 *ibid* 13.

recognising the trend with growing emissions, the Commission outlines that at least intra-EU shipping should be included in the EU ETS.¹⁴²

The desirability of international co-operation under IMO in relation to shipping is repeated but simultaneously the Commission states that it “...will give fresh political consideration to the international aspects of the EU ETS, taxation and fuel policies for ... maritime to ensure the gradual decarbonisation of all fuel use from transport relating to the EU with the ambition to include international emissions from ... navigation into the EU ETS”.¹⁴³ Also, other instruments such as updated methodology to promote the use of renewable and low-carbon fuels in the transport sector set out in the Renewable Energy Directive will be considered.¹⁴⁴ A proposal for the revision of the Emissions Trading Directive is expected by June 2021.¹⁴⁵

3.3.2 IMO – Expanding the Technical Requirements to Existing Ships

Also the IMO is scaling up its efforts to reduce CO₂ emissions from international shipping. The latest step in the IMO emission reduction action plan, was taken by the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 7) in November 2020.¹⁴⁶ The group proposed draft amendments to the energy efficiency measures in MARPOL Annex VI chapter 4, building on the existing EEDI and SEMP measures. According to the proposal, requirements to assess and measure the energy efficiency should apply to *all ships*, including existing vessels.

Accordingly, two new measures were proposed: 1) Technical requirements to reduce carbon intensity, based on a new Energy Efficiency Existing Ship Index (EEXI); and 2) Operational carbon intensity reduction requirements, based on a new operational carbon intensity indicator (CII). The dual approach aims to address both technical (how the ship is retrofitted and equipped) and operational measures (how the ship operates). The proposed EEXI is required to be calculated for every ship of 5,000 gross tonnage and above (equal to the ships that are subject to the CMI DCS). These ships should also have determined their required annual operational carbon intensity indicator (CII). The CII determines the annual reduction factor needed to ensure continuous

142 *ibid* 16.

143 *ibid*.

144 *ibid* 19.

145 EU Commission 2020 (n 133), at 2.

146 The proposed amendments was made in a ISWG-GHG 7 remote meeting 19–23 October 2020. The draft amendments was the forwarded to the Marine Environment Protection Committee (MEPC 75), remote session 16–20 November 2020.

improvement of the ship's operational carbon intensity within a specific rating level,¹⁴⁷ which should be recorded in the ship's Ship Energy Efficiency Management Plan (SEEMP).

According to the IMO framework, all large vessels (5,000 gross tonnage) new and old, are (or will be) under an obligation to collect and report on their fuel consumption and to apply to certain energy efficiency standards, all in order to comply with the UN development goals for emission reduction.

4 The Brussels Effect on the Levelled Playing Field in Shipping

On the basis of the above, it is fair to conclude that some kind of *Brussels impact* on the governance of emission reductions in international shipping can be recognized. Whether this impact classifies as a Brussels effect in the terms of Professor Anu Bradford's definition, is however not obvious. On the one hand the IMO has – probably as a result of political pressure from the EU – decided on a set target for emission reduction from the sector, on the other hand, the regulatory tools in use do not comply with the EU requirements. On the contrary, international shipping is to today subject to two separate legal frameworks when sailing in waters subject to EU governance.

Furthermore, we have not seen any emission reductions even close to the set targets: According to a new report from the IMO, GHG emissions from shipping have increased from 977 million tonnes in 2012 to 1,076 million tonnes in 2018. In other words, an increase of GHG emission of almost 10%. (9.6% increase).¹⁴⁸ Of the total amount in 2012, 962 million tonnes were CO₂ emissions, while in 2018 this amount grew 9.3% to 1,056 million tonnes of CO₂ emissions. The share of shipping emissions in global anthropogenic emissions has, accordingly increased from 2.76% in 2012 to 2.89% in 2018.¹⁴⁹

The EU has recognised the trend, and frustration with the slow progress under IMO is growing. In February 2017, the European Parliament attempted in the conjunction with the revision of the Emissions Trading Directive to

147 The rating would be given on a scale – operational carbon intensity rating A, B, C, D or E – indicating a major superior, minor superior, moderate, minor inferior, or inferior performance level. A ship rated D for three consecutive years, or E, would have to submit a corrective action plan, to show how the required index (C or above) would be achieved. Administrations, port authorities and other stakeholders as appropriate, are encouraged to provide incentives to ships rated as A or B.

148 Smazzare (n 26). Annex I, p. 1.

149 *ibid* Annex I, p. 3.

introduce an ultimatum by proposing to include shipping in the EU ETS in 2023 should IMO fail to adopt binding emission-reduction targets for the sector by 2021.¹⁵⁰ The ultimatum was not accepted into the final adopted revision of the Emissions Trading Directive adopted in 2018, as the IMO managed to set emission reduction targets.¹⁵¹ The questions were raised again in conjunction with the revision of the MRV Shipping Regulation in 2019.

The question was, however, not originally part of the proposed revision of the MRV Shipping Regulation until the proposal was discussed in the European Parliament. Here the ENVI Committee appointed Jutta Paulus (Greens/EEA, Germany) as rapporteur for the file. Her draft report of 24 January 2020 took a radical proposed to include maritime shipping in the EU ETS. According to Paulus the IMO has promised for more than 20 years that it will tackle shipping emissions and has only introduced its Data Collection System after the EU has implemented the MRV Shipping Regulation. No real progress has been seen, which Paulus finds it necessary that the EU takes action to achieve the Paris objective to limit the temperature increase to 1.5C above pre-industrial levels. The report furthermore expresses that although collecting data on emission is important, now is the momentum to actually use the collected data. Paulus hence proposes that the Emissions Trading Directive should be amended to cover maritime emissions. The Commission should adopt delegated acts for setting the total quantity of allowances for maritime transport in line with other sectors, and the method of allocation of allowances for maritime transport through full auctioning.

Despite this proposal, a door is held open for the IMO: The rapporteur namely emphasises that it is important that the Union and its Member States support measures at international level to reduce the climate impact of maritime transport and advises the Commission to keep under review any progress made towards the adoption of a market-based measure by IMO, and should in the event of adoption of a global market-based measure, consider how to ensure that there is consistency between Union and global measures in a manner that preserves the environmental integrity and effectiveness of Union climate action".¹⁵²

150 Amendments adopted by the European Parliament on 15 February 2017 on the proposal for a directive of the European Parliament and of the Council amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments (COM(2015)0337 — C8-0190/2015 — 2015/0148(COD)) amendments 5 and 36.

151 Above in 3.2.2.

152 Amendment 22. Proposal for a regulation. Recital 13 a (new). See <www.europarl.europa.eu/doceo/document/A-9-2020-0144_EN.html> accessed 16 December 2020.

It is not likely that the IMO will endorse the European Emission Trading System, or any other emission trading system. On the contrary, the organisation – and its stakeholders are discussing other market based measures for emission reduction in shipping such as a carbon levy. In 2019 a group of stakeholders produced a paper on *Carbon Levy Evaluation*, posing the question on whether a *carbon levy* in shipping could be an effective way to help reach the IMO greenhouse gas reduction goals. As explained in the report, both the *EU ETS* and a *Carbon Levy* is based on setting a price on carbon. The *EU ETS* can be referred to as a cap-and-trade system. The idea is that a cap is placed on emissions, and allowances are then traded. The *ETS* establishes the price indirectly by placing a limit on the total quantity of emissions allowed. This limit is enforced with tradable emission permits, typically called “allowances” that any emitter must use to cover its emissions. The market for these tradable allowances leads to a carbon price based on demand and supply. Under an *ETS*, overall emission levels are clear (equal to the cap), but the resulting carbon price is uncertain because it is determined by free market forces through supply and demand.

Under a carbon levy, an explicit price is placed on CO₂, or alternatively imposed through other costs that imply a carbon price. The advantages with a carbon levy is that the cost of controlling emissions would be certain (it would be equal to the levy), but since there is no fixed limit on emissions, the overall volume of emissions will be unknown. However, the levy can be adjusted over time, but as a result of technical criteria or political considerations, rather than by the supply and demand of carbon allowances.

The most important difference between the two systems is that a carbon levy will not set a cap for the emissions from the industry, it will only stimulate a reduction. Which system will prevail in the future remains to be seen. Indeed, the EU is pushing for including emissions from international shipping in its *ETS*. However, also other fuel policies for the industry, “such as taxation ... will be given fresh political consideration ... to ensure the gradual decarbonisation of all fuel use from transport relating to the EU”.¹⁵³

No one can predict the future. In the area of setting a level playing field for international shipping while maintaining international goals of combating climate change, there is no pure Brussels effect, however the impact of Brussels in speeding up the international efforts are obvious.

153 EU Commission 2020 (n 133) 16.

Postscript

The European Climate Law was adopted and entered into force in July of 2021.¹⁵⁴ In July of 2021 the European Commission also presented a comprehensive set of legislative proposals, the so-called fit-for-55-package, intended to deliver the Green Deal and the updated 2030 and 2050 targets.¹⁵⁵ The fit-for-55-package contains several proposed measures to regulate GHG emissions from shipping, including a proposal to include shipping in the EU ETS as a part of the renewal of the system. The Commission recognizes the progress made under the IMO but the measures are deemed insufficient to decarbonise international shipping in line with international climate targets.¹⁵⁶ The Commission hence proposes to extend the EU ETS to emissions from intra EU voyages, half of the emissions from extra-EU voyages and emissions occurring at berth in an EU port. The proposal of the Commission is to keep the Emissions Trading Directive under review in relation to international policy developments, meaning a continued dynamic relationship between the EU climate policy and efforts pursued internationally.

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