



## **WSC Response to the Inception Impact Assessment Consultation on the Amendment of the EU Emissions Trading System (Directive 2003/87/EC)**

25 November 2020

### **The World Shipping Council**

The World Shipping Council (WSC or the Council) is a non-profit trade association that represents the liner shipping industry, primarily operators of containerships, vehicle carriers, and roll-on/roll-off vessels. WSC members carry over 90% of the world's containerised trade and a substantial share of the world's roll-on/roll-off cargoes. WSC Member companies transport over 40 million TEUs of European export and import cargo each year or roughly two-thirds of the EU's seaborne trade by value. Roll-on/roll-off cargo accounts for the import and export of over 6 million light vehicles to and from the EU and over EUR10 billion worth of heavy machinery each year. WSC members' operations and investments extend also to port terminals, warehouses, truck companies and information technology systems that are critical for EU logistics and supply chains. The World Shipping Council is listed on the EU Transparency Register under number 32416571968-71.

### **1) General Remarks**

The Council recognises the political importance of the EU ETS within the EU Green Deal Strategy. While WSC maintains – above all from a legislative efficacy standpoint – that shipping requires a global regulatory framework with the IMO being the appropriate body to provide it, WSC is pleased to contribute to this Inception Impact Assessment Consultation. At the outset we should also note that irrespective of whether introduced at national, regional or global level, a market-based measure such as an ETS for shipping can be most effective in deterring or changing behaviour if alternative behaviours or technical options are available to those incurring the charge. That is not yet feasible for trans-oceanic shipping, which lacks the carbon-neutral, and zero carbon fuels and technologies that are required for the significant changes needed in a green transition. Once those

technologies are available, carbon pricing and or regulations designed to mandate the use of these fuels and technologies become highly relevant. However, those technologies are not yet available for transoceanic ships.

Consequently, WSC believes that the first priority of the EU decarbonisation strategy for shipping should be to accelerate the vital research and development efforts needed to ensure that carbon-neutral and zero carbon fuels and technology are widespread by the early 2030s. These developments will not be stimulated by the introduction of a carbon charge alone. In this context WSC urges that the Commission seriously consider how it can best support the International Maritime Research and Development Board and fund proposed by industry and now under discussion at the IMO.

## **2) Extraterritorial Application of an EU ETS for Shipping**

The European Commission has stated its intention to extend the EU ETS to *'at least'* cover maritime voyages taking place within the European Economic Area (EEA). Previously, the most widely discussed geographical scope of application for an EU ETS has been to apply the relevant rules using the scope of application currently used by the EU Regulation on the Monitoring, Reporting and Verification of carbon emissions from shipping (MRV). This would see the EU ETS extended to cover intra-EEA voyages as well as extra-territorial voyages to and from the first non-EEA port outside the EEA. WSC is strongly opposed to including extra-territorial voyages extending outside the EEA. This would establish an extensive and unprecedented degree of control over extraterritorial voyages. Applying operational rules and monetary charges to voyages extending thousands of miles outside the EU invites a broad set of negative consequences summarised below and set out in detail via the WSC paper accompanying this submission.

Having examined the vessel schedules of WSC member lines it becomes clear that a very large proportion of the voyages and emissions covered by the MRV system would occur outside EU waters. In many cases the EU ETS would extend thousands of miles across the globe including the territorial waters of nations one or two oceans removed from the European Union. Should the EU apply emissions trading system requirements at a geographic scale now used in the MRV rules, the EU would likely create significant trade tensions and raise legal and diplomatic concerns about the geographic reach of its unilaterally imposed emission charges. Applied to extra-territorial voyages, the emissions trading system would not truly be regional in its scope and application, but rather quasi-global in its geographic reach.

Emission charges would not only be applied to imports and exports traded between the EU and its partners, the regulations would also impose costs on non-EU commerce. This is because significant cargo volumes are trans-shipped through EU ports to and from Africa, Russia, and other non-EU locations including numerous least-developed countries (LDCs). This means that significant cargo volumes arrive in Europe that are not destined for European customers. For such cargoes, the application of ETS would have a direct impact on the cost of delivering goods to non-EU states and not least LDCs. Lengthy voyages would see their imports and exports first subject to emission charges as they sail across the ocean to an EU port for trans-shipment and then again as the same cargo leaves

the EU for its ultimate destination.

Moreover, an EU ETS applied on the same geographic basis as the MRV could encourage other countries or regions to adopt similar regulations with extraterritorial reach whether in retaliation or of their own accord. Under such a scenario, as described in the accompanying WSC paper, individual voyages could become subject to a mosaic of overlapping carbon charges which would require bilateral or multilateral agreements with a multitude of States across the world to resolve.

Furthermore, the WSC paper also shows how adopting an EU ETS with extraterritorial impact is likely to present a significant impediment to the development of carbon reduction measures at the global level. This is because once in place, national or regional initiatives – particularly where revenue is concerned – are unlikely to be unwound or modified. Instead of catalysing global action, adoption of a regional MBM with extraterritorial effect may preclude global action at the IMO.

Such a situation would fragment global efforts towards decarbonisation, which instead need to be unified in order to be successful and efficient. Its effect might also extend beyond climate change to undermine the broader role of the IMO in providing global regulation of the shipping industry. Consequently, for the reasons mentioned above WSC urges the EU not to proceed to develop an EU ETS for shipping with extraterritorial impact beyond the European Economic Area.

### **3) Elements for consideration within an EU ETS applied to intra-EEA Shipping**

Notwithstanding the above, if the EU decides to proceed with an EU ETS that is applicable exclusively to intra-EEA voyages, WSC asks the Commission to consider the following points regarding the design of such a system.

**Responsible Operator:** It is essential that the definition of the shipping company subject to the ETS charge is done equitably and with a fair allocation of responsibility between the vessel operator and vessel owner, which may be two distinct entities in shipping. The current definition of companies required to report carbon emissions emitted under the MRV regulation would also provide an appropriate basis for the application of an intra-EEA EU ETS. It also provides a vital means of enforcement by linking the responsible party to the holder of the ship registry certificate.

By contrast, WSC is very much opposed to an amendment adopted by the European Parliament during the ongoing revision of MRV regulation which would shift obligations away from shipowners that charter out their vessels. By stating that the regulated entity is the party responsible for the '*commercial operation*' of the ship and the one '*responsible for paying for fuel consumed*,' a vessel charterer could evade any incentive to ensure that the vessels they put onto the market are as carbon efficient as possible. Moreover, as vessels can be chartered out to different parties multiple times during the course of one year the administrative burden of managing the system would be radically increased and enforcement made much more difficult. Consequently, WSC advocates that the Commission should maintain the definition of responsible operator as it currently stands in the MRV Regulation, in any extension of the EU ETS to shipping that it may put forward.

**Open vs Semi-Open vs Closed System:** WSC members are not in favour of a closed ETS system for shipping. Rather WSC believes that an ETS for intra-EEA shipping should form part of the larger industry wide ETS, with certain limits. It is widely accepted that shipping is a hard to abate sector due to a lack of available suitable clean fuel technologies. It is likely therefore to require all of the permits that it has access to without having to compete with other sectors. As a result, WSC believes that a semi-open system would be most appropriate whereby shipping could purchase allowances from other industries (excepting aviation), but as is the case with aviation, shipping permits would not be available to any other sector.

**Emissions Baseline:** In the design of an EU ETS for shipping the baseline used for any reduction of carbon credits is critically important. In order to remain consistent with the global carbon reduction strategy adopted by the IMO, it is important that the EU uses the same 2008 baseline as carriers have already taken significant actions to reduce emissions. While some MEPs have argued for the use of a 2018 baseline due to the availability of carbon emissions data collected under the MRV regulation, its use would severely prejudice and penalise the decarbonisation measures taken by first movers within the sector. Such carriers have made considerable improvements since 2008. They would be faced with a much steeper decarbonisation trajectory if 2018 were used as a baseline, and would have fewer decarbonisation measures left available to them, having already taken many. WSC urges that any carbon reduction trajectory developed under the EU ETS should use a 2008 baseline constructed through an examination of data used in the 4th IMO GHG Study.

**Centralised vs De-centralised Administration (Governance):** The consultation raises the question of whether a future EU ETS for shipping should be constructed either on the basis of a new centralised system or one administered via Member States. WSC members would favour a centralised EU system for both MRV and a future EU ETS that would avoid the administrative burden of carriers having to report on an individual basis per Member State. We believe this would also simplify the management of and EU ETS Ocean Fund for shipping as noted below.

**An Ocean Fund and Use of Revenue:** WSC favours the proposal from the European Parliament that an EU ETS for intra EEA shipping should allow maritime actors to make defined contributions to an EU Ocean Fund as an alternative to direct participation in the EU ETS. WSC supports the EP proposal that at least 50% of the EU ETS revenues generated should be allocated to the fund for the purpose of reducing GHG Emissions or improving energy intensity in the sector. As highlighted in our general remarks above, vital R&D activities are required to enable the whole shipping industry to transition from fossil to carbon-neutral and zero-carbon fuels and technologies. A dedicated EU maritime fund could make a very important contribution to a global R&D effort such as the IMRB proposal under consideration at the IMO.

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WORLD SHIPPING COUNCIL  
PARTNERS IN TRADE

# EU ETS DISCUSSION PAPER

10 September 2020

## Abstract

A brief examination of a potential EU Emissions Trading System (ETS) applied to maritime shipping should the EU elect to use the Monitoring, Reporting and Verification (MRV) Regulation scope of application that includes extraterritorial voyages. The paper also discusses the potential impacts if one or more systems of a similar nature are adopted by different governments.

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## Executive Summary

The European Commission has stated that it plans to bring international shipping into the EU Emissions Trading System (ETS). This paper examines the effect of introducing an EU carbon pricing mechanism for shipping that is applied not only to intra-EU voyages, but also to extraterritorial voyages outside of the European Economic Area (EEA). **The World Shipping Council asks EU decision-makers to consider the points in this paper as they discuss bringing shipping into the EU ETS and to limit the proposed ETS to intra-EU shipping.**

### **I. Material Impacts of an ETS Based on the EU MRV Scope**

The geographic scope of an EU ETS using the voyage parameters used in the EU MRV regulation is extensive and would establish an unprecedented degree of control over extraterritorial voyages. A large portion of the voyages and emissions covered by the system would occur outside EU waters and in many cases extend thousands of miles across the globe. While CO<sub>2</sub> allocations for shipping are as yet unknown, if one uses a carbon price of €25 per tonne of CO<sub>2</sub> generated in 2018, the ETS would impose trade costs of roughly 3.45 billion euros in a single year. Put differently, one sector would account for up to 25% of the total 2018 ETS revenues. Given the sizeable revenue generated and the fact that these revenues are generated as ships sail far from the EU, the application of emission pricing to extraterritorial voyages is likely to create significant trade tensions and raise legal and diplomatic concerns about the geographic reach of unilaterally imposed emission charges and operational regulations.

### **II. Retaliatory Measures & Effect on LDCs and other States**

Maritime transport is the backbone of global trade. It is also a highly competitive industry with relatively low margins. Should the EU proceed with a system with a broad geographic scope, other countries or regions may adopt similar regulations with extraterritorial reach. Under such a scenario, overlapping voyage segments could be subject to double charges or require bilateral or multilateral agreements with a multitude of States across the world.

Significant cargo volumes are trans-shipped through EU ports to and from Africa, Russia, and other non-EU locations including numerous less-developed countries (LDCs). This means that significant cargo volumes arrive in Europe that are not destined for European customers. For such cargoes, the application of ETS would have a direct impact on the cost of delivering goods to non-EU states and not least LDCs. Lengthy voyages would see their imports and exports first subject to emission charges as they sail across the ocean to an EU port for trans-shipment and then again as the same cargo leaves the EU for its ultimate destination.

### **III. Impact on IMO Progress and Global Reductions of GHG Emissions**

The geographic reach of an ETS based on the MRV scope is substantial, but it nevertheless falls far short of the effectiveness of mandatory global CO<sub>2</sub> reductions. The IMO has progressed on both technical and operational measures. The EU and other IMO Member States have had a fundamental role in securing a high degree of ambition and concrete absolute reduction goals. Adopting an ETS with a large extraterritorial impact is likely to present a significant impediment to the development of a global solution because once in place, national or regional initiatives – particularly where revenue is concerned – are unlikely to be unwound or modified. Thus, instead of catalyzing global action, adoption of a regional regime with extraterritorial effect may preclude global action in the IMO.

# Shipping in the EU Emissions Trading System: An Evaluation of Regional Regulations Applied on an Extraterritorial Basis

10 September 2020

**Background:** The European Commission has stated that it plans to bring international shipping into the EU Emissions Trading System (ETS). This is part of the broader Green Deal discussions within the EU about what regulatory and financial mechanisms will be used to address greenhouse gas (GHG) emissions from maritime shipping. This paper presents a brief examination of the effect of introducing an EU carbon pricing mechanism for shipping that is applied not only to intra-EU voyages, but also to extraterritorial voyages outside of the European Economic Area (EEA). This paper considers what impacts could be anticipated if one or more non-EEA countries were to adopt similar measures. In addition, the paper draws attention to the issue of cargoes trans-shipped through the EU to and from non-EU countries and especially cargoes trans-shipped to and from Less Developed Countries (LDCs). Finally, the paper examines what effect these actions may have on efforts to adopt GHG reduction measures for shipping at the global level.

**What Does Extraterritorial Application Mean in this Context?** When considering a given national or regional measure applicable to maritime shipping, the government or governments involved must consider the geographic coverage of the respective measures and obligations. Depending on the system in question, this may apply to activities while at berth or anchor, to voyages within a given jurisdiction, to all voyages within the 12-mile territorial sea, or some other formula that extends obligations beyond the territorial sea or Exclusive Economic Zone (EEZ).

In enacting the Monitoring, Reporting and Verification (MRV) Regulation adopted in 2015, the EU chose to apply reporting obligations to all voyages within the EU as well as the last leg of an incoming voyage and the first leg of a voyage departing the EU. Those incoming and outgoing voyage legs represent a large proportion of the sailings covered by the reporting obligations. Furthermore, in many cases those voyage segments involve voyages measured in thousands of miles, extending half-way around the world, and whose duration may be measured in weeks.

This paper examines what scenarios and impacts can reasonably be anticipated if the EU were to adopt a regulatory measure with financial obligations applicable to extraterritorial voyages (same scope as in the current MRV regulations) and what scenarios could unfold if other governments were to establish similar regulatory programmes. This paper also addresses how these actions may impact the probability of a more comprehensive global agreement at the IMO.

**Study Assumptions:** The paper examines three different scenarios where the responsible regulatory authority applies obligations to extraterritorial voyages based on last voyage segment entering the relevant territory and the first voyage segment following departure. In the first part of the paper, we examine a scenario where the EU applies a fee applicable to emissions via an ETS or via a fund using the scope of application as featured in the current MRV rules. In the second part of the paper we examine hypothetical scenarios in which Brazil, China, and the United States<sup>1</sup> apply similar systems with

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<sup>1</sup> The authors do not wish to predict or otherwise suggest that Brazil, China, or the United States would choose to adopt similar regulations with extraterritorial effect. Rather, the scenarios are constructed as a 'test of concept' to illustrate what trade challenges and complications arise if one or more countries with significant maritime trade activity decide to adopt similar regulations with extraterritorial effect.



overlapping effect due to extraterritorial application. In the third part of the paper, we consider the aggregate impacts if the IMO were to establish similar rules applicable to all international voyages on a global basis. In the fourth part of the paper we briefly consider cargoes trans-shipped through EU ports, potential EU charges on voyages into and out of the EU carrying these non-EU cargoes, and the implications for imports and exports from less developed countries (LDCs) that are trans-shipped through EU ports. Finally, we examine how adoption of national and regional systems that impose costs on extraterritorial voyages connected to a given country or region may touch upon sensitive trade interests and how one or more regional actions may impact the probability of action at the global level.

## **Part One: What Does Inclusion of Shipping in the EU ETS Look Like Using the MRV Extraterritorial Scope of Application?**

The European Commission is expected to make a formal proposal in 2021 outlining how commercial shipping calling EU ports could be included in the EU Emissions Trading System or ETS. Preliminary discussions suggest that one of the principal options to consider is whether the emissions trading system should apply to the same voyages currently covered by the EU MRV regulations. The European Parliament Environment Committee has also proposed a modified scope of application that would extend the system to voyage segments beyond the first and last non-EU port of call if the ship is determined to have not discharged a 'substantial' portion of its cargo at the port in question.

To fully understand the geographic reach of such a system, we briefly examine two ship voyages for illustrative purposes. In the first voyage, a ship travels from Shanghai to Rotterdam (non-stop), traveling roughly **10,500 nautical miles** (one way), consuming 3,220 tonnes of conventional fuel oil and generating roughly 10,027 tonnes of CO<sub>2</sub> (using a conversion factor of 3.114). This voyage takes roughly 26 days (one way). The ship sails over 21,000 nautical miles (round trip) with less than 14% of the voyage occurring within EU territorial waters. Using a carbon price of 25 euros per tonne of CO<sub>2</sub>,<sup>2</sup> a single round trip voyage of a single ship would incur costs resulting in approximately **€501350 in EU revenue**. Moreover, EU regulations would be applied and emission charges calculated as the ship sails through the Gulf of Suez and the Red Sea, across the Indian Ocean, through the Strait of Malacca, and across the South and East China Seas.

In the second voyage, a ship departs Portugal and sails non-stop to Rio de Janeiro. This voyage covers roughly 4,200 miles one way and is subject to EU emission charges as well as potential operational efficiency regulations for the full duration of the voyage even though the ship spends less than 1% of its voyage in EU territorial waters.<sup>3</sup>

The European Commission's 2019 Annual Report on CO<sub>2</sub> Emissions from Maritime Transport reports that maritime voyages covered by the EU MRV regulations generated 138 million tonnes of CO<sub>2</sub> in 2018 in total.<sup>4</sup> If each tonne of CO<sub>2</sub> emitted was subject to a €25 carbon price, revenues received by the European Union would total approximately 3.45 billion euros. The 2019 Report also states that ***"around two-thirds of the CO<sub>2</sub> emissions reported by the monitored fleet comes from voyages to or from a port outside the European Economic Area. These incoming and outgoing voyages are therefore***

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<sup>2</sup> 25 euros per tonne of CO<sub>2</sub> is selected as a representative carbon price based on EU carbon prices in early 2020 before COVID 19 significantly affected EU carbon prices. As a market driven pricing mechanism, the EU carbon price is subject to significant market variability.

<sup>3</sup> The Environment Committee of the EU Parliament has recently proposed that operational efficiency standards be imposed on ships calling EU ports.

<sup>4</sup> 2019 Annual Report on CO<sub>2</sub> Emissions from Maritime Transport SWD (2020) 82 final, Brussels, 19.5.2020

**responsible for the majority of CO<sub>2</sub> emissions.”** It is likely therefore that at least 50% of the emissions covered under the regulations **do not occur** within EU territorial waters.

The MRV database demonstrates that a very substantial portion of voyages covered involve operations that occur well outside the European Union. As illustrated in Figure 1, an ETS regime applied to shipping using the same scope of application as the MRV would reach thousands of miles around the globe, and would apply carbon charges to emissions generated by ships sailing along the coasts of multiple non-EU nations that are located adjacent to other oceans and separated from Europe by sailing times measured in weeks.

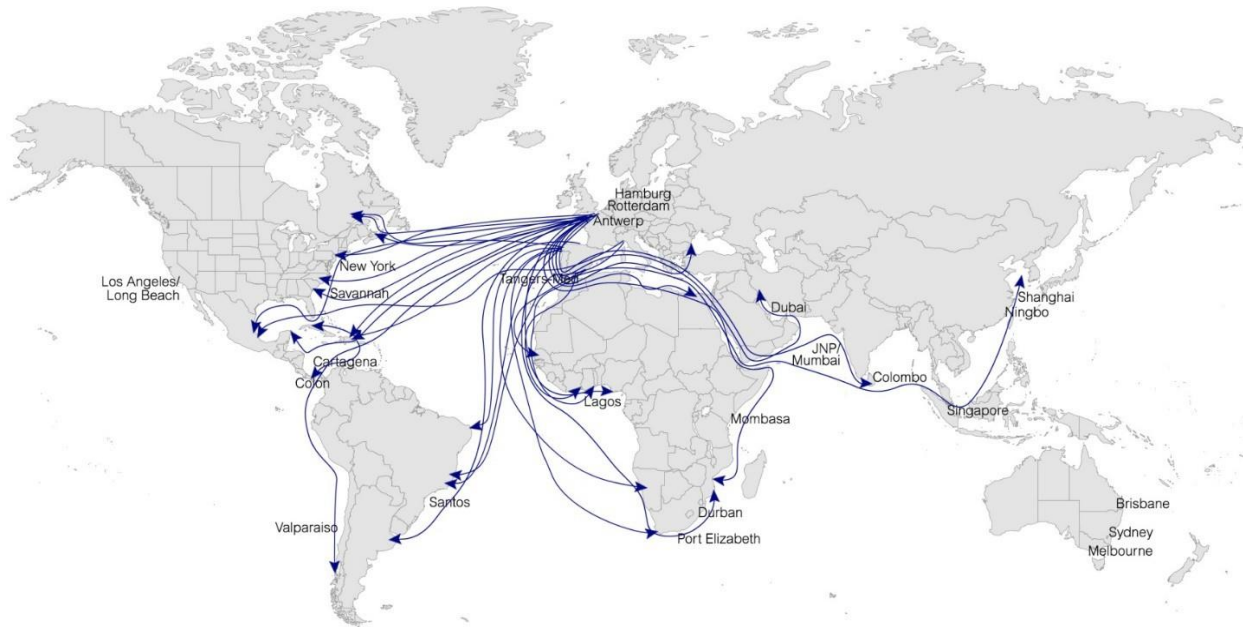


Figure 1: Geographic reach of international container shipping routes covered by the current EU MRV regulations<sup>5</sup>

Sample nautical distance to/from EU (nautical miles)			
Hamburg-London Gateway	411	Antwerp-Savannah	3857
Hamburg-Casablanca	1682	Rotterdam-Dubai	6257
Rotterdam-Shanghai	10467	Rotterdam-Colombo	6813
Le Havre-New York	3134	Rotterdam-Valparaiso	7456
Hamburg-Montreal	3203	Hamburg-Singapore	8633
Hamburg-Lagos	4423	Yantian-Rotterdam	9763

Considering the geographic reach of the MRV regulations, it is misleading to think of the regulations as merely regional in scope. The MRV regulations and those applicable in an EU ETS or in ‘EU operational efficiency standards,’ if applied to extraterritorial voyages, would be quasi-global in their reach and would impose emission charges on voyages that extend thousands of miles across the globe and within the jurisdiction of multiple States that are far removed from the EU. In many cases, operational

<sup>5</sup> The route lines reflect incoming and outgoing voyages (first / last voyage segments only) of international container services that are part of a larger international rotation. Source: Drewry Maritime Research, July 2020. The depicted route lines do NOT include domestic or intra-regional container services, dry bulk, tanker, general cargo, or other ship voyages.

regulations and emission charges would be applied to voyages that are separated from Europe by one or more oceans. Such an outcome might be viewed favorably by some politicians and some stakeholders, but it would lack legitimacy internationally and would most likely generate significant tensions with trade partners.

The emissions generated by these voyages are related to imports and exports of the EU, but these same emissions are also related to the imports and exports of numerous nations that are the providers or recipients of cargo transported on these voyages.

A national or regional regulatory system that imposes emission charges and operational efficiency rules with quasi-global reach raises a number of questions with important political, economic, legal, and diplomatic dimensions. The full range of questions that may arise is extensive, but for purposes of brevity we include a few of the more significant questions that require attention:

- Is it appropriate that a voyage extending hundreds or thousands of miles across the globe and largely outside the territorial waters and Exclusive Economic Zone of the regulating party should be subject to operational regulations and financial obligations that are calculated on the basis of miles sailed and emissions generated?
- Is it appropriate that a ship sailing in the territorial waters of a State far removed from the regulating State be subject to operational regulations that carry financial obligations absent a formal agreement between the parties?
- What trade issues and diplomatic tensions can be expected to arise with the application of unilateral operational rules and financial obligations on ship emissions while in transit across the globe absent agreement in an international body such as the IMO?
- How confident can we be that the ETS will be effective in actually reducing emissions (versus a situation where one is simply paying to pollute) when the IMO is poised to adopt operational efficiency standards to significantly lower emissions across the fleet and the availability of zero-carbon fuels and technologies will likely be constrained over the next decade?

## **Part Two: What happens if One or More Governments Adopt Similar Regimes?**

Should the EU choose to establish regulations that impose financial obligations and operational efficiency rules on voyages extending across the globe, we examine below what may be expected if one or more governments outside of Europe choose to adopt similar regimes. In short, a test of concept should examine how a system unfolds not only if one actor adopts such a regime, but also what potential scenarios unfold if additional governments adopt similar rules either as a retaliatory response to a perceived unilateral imposition by a trading partner or independently.

***Important Note:*** *We stress that this discussion paper does not assume or predict that any given country would choose to adopt similar regulations with extraterritorial application. What the paper seeks to do is to briefly outline the overlapping coverage of multiple systems and the consequent questions that arise in a scenario where one or more governments choose to adopt similar regimes. For discussion purposes, we briefly examine what the spatial coverage would look like if Brazil, China, and the United States were to choose to adopt similar regulations applicable to voyages arriving in or departing from their respective ports. The primary criteria in selecting these three countries is that they are all significant trading nations located on three different continents.*

Figures 2 - 4 illustrate the geographic reach of a number of international container shipping routes and the distances covered if these countries were to apply regulations to incoming and outgoing voyages in a manner similar to that used in the EU MRV regime. It should also be emphasized that the examples and the associated graphics reflect only a portion of the more significant international container shipping routes arriving in and departing from these countries. The maps do not reflect intra-regional container routes, bulk shipping routes, or the numerous regional and global voyages undertaken by the full range of ship types serving international commerce. Maps reflecting the full range of voyages undertaken by all ships entering or departing these countries would produce a map overwhelmed by route lines.

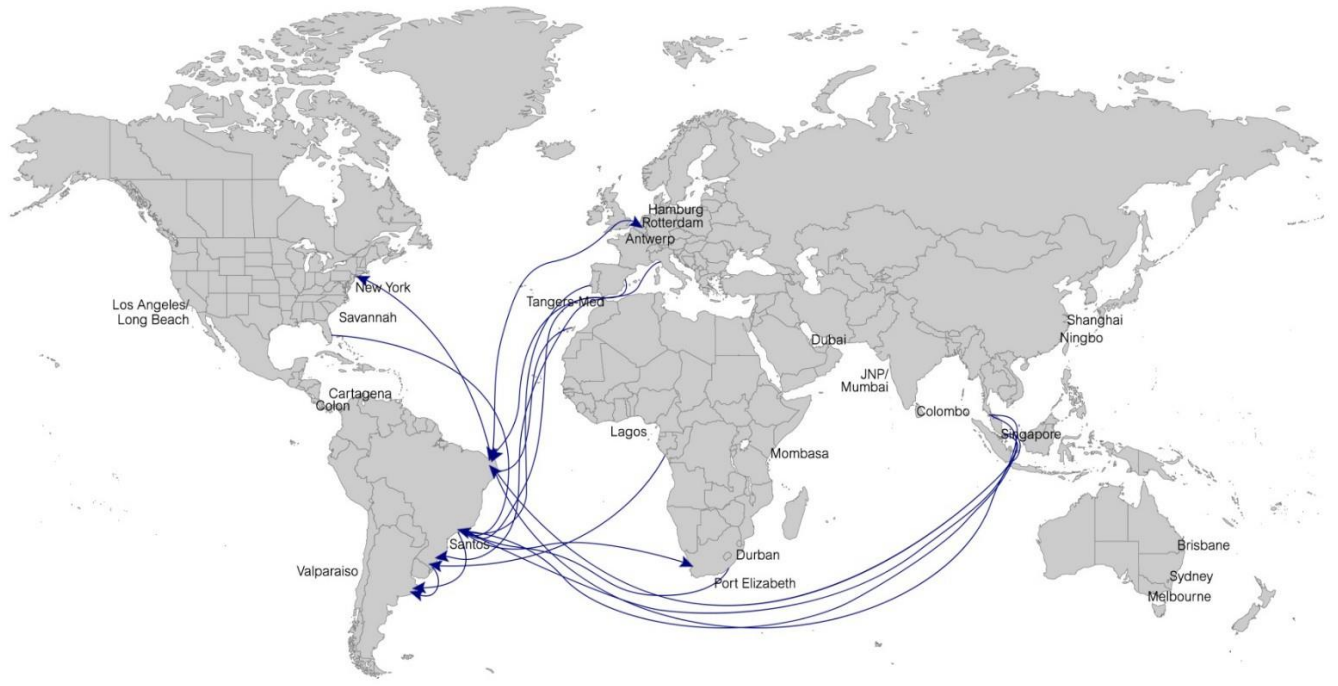


Figure 2: Container shipping routes to/from Brazil that are part of larger international vessel rotations<sup>6</sup>

Sample nautical distance to/from Brazil (nautical miles)			
Valencia-Suape	3550	Port Klang-Sepetiba	8694
Sines-Rio de Janeiro	4189	Singapore-Santos	8967
Livorno-Salvador	4393	Rio de Janeiro-Cap Town	3280
Pecem-New York	3297	Santos-Coega (Ngqura)	3808
Port Everglades-Suape	3434	Pointe Noire-Navegantes	3699

<sup>6</sup> The route lines reflect incoming and outgoing voyages (first/last voyage segments only) of international container services that are part of a larger international rotation. Source: Drewry Maritime Research, July 2020. The depicted route lines do NOT include domestic or intra-regional container services, dry bulk, tanker, general cargo, or other ship voyages.

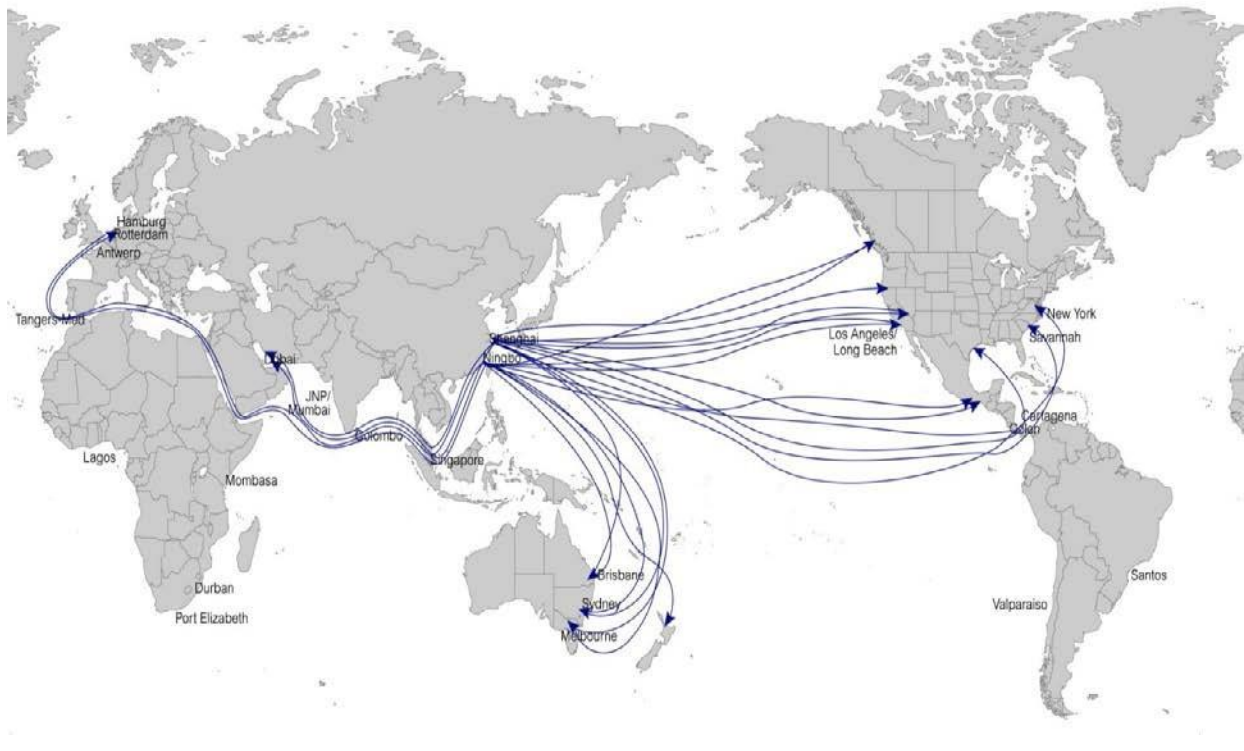


Figure 3: Container shipping routes to/from China that are part of larger international vessel rotations<sup>7</sup>

Sample nautical distance to/from China (nautical miles)					
Shanghai-Rotterdam	10521	Yantian-Long Beach	6358	Shanghai-Manzanillo ME	6857
Yantian-Rotterdam	9763	Ningbo-Los Angeles	5729	Shanghai-Colon	8630
Hong Kong-Jebel Ali	4923	Ningbo-Tacoma	5109	Charleston-Hong Kong	10834
Ningbo-Sydney	4500	Shanghai-New York	10609	Seattle-Dalian	5159
Hong Kong-Brisbane	3961	Shanghai-Savannah	10200	Norfolk-Xiamen	10791
Hong Kong-Tauranga	5130	Shanghai-Prince Rupert	4630		

<sup>7</sup> The route lines reflect incoming and outgoing voyages (first/last voyage segments only) of international container services that are part of a larger international rotation. Source: Drewry Maritime Research, July 2020. The depicted route lines do NOT include domestic or intra-regional container services, dry bulk, tanker, general cargo, or other ship voyages.



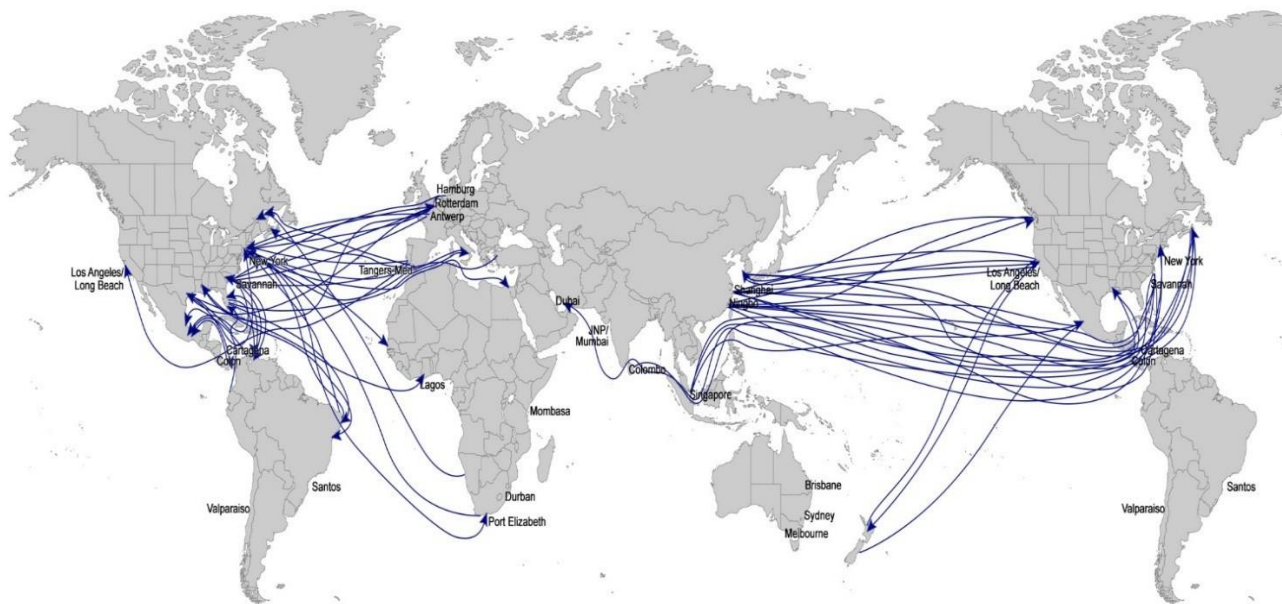


Figure 4: Container shipping routes to/from North America that are part of larger international vessel rotations<sup>8</sup>

Sample nautical distance to/from North America (nautical miles)			
Shanghai-Los Angeles	5705	Tauranga-Los Angeles	5652
Ningbo-Long Beach	5729	Le Havre-New York	3134
Busan-Los Angeles	5250	Bremerhaven-New York	3457
Busan-New York	10139	Hamburg-Montreal	3203
Colombo-Halifax	8075	Liverpool-Montreal	2776
		Damietta-New York	5074
		Valencia-Montreal	3601
		New York-Bremerhaven	3488
		Norfolk-Xiamen	10791
		Savannah-Busan	9716
		Houston-Kingston (Jamaica)	1274
		Vancouver-Busan	4619
		Charleston-Singapore	10572
		New York-Dakar	3343
		Port Everglades-Suape	3434

With the introduction of two or more carbon pricing schemes by trading partners we begin to observe voyages that are subject to regulation by two or more parties. These overlapping regimes grow in scope and complexity depending on the nature of the specific voyage and the number of countries adopting such rules. By way of example, the two voyages highlighted earlier (Rotterdam to Shanghai and Lisbon to Rio de Janeiro) would be subject to dual charges that may double the relevant payments<sup>9</sup> or require the negotiation of a bilateral agreement between the respective trading partners.

Depending upon the number of countries adopting similar regimes, numerous voyage rotations would become subject to a matrix of regulations requiring payment to multiple governments. It is not difficult to imagine the complexity of rules, bilateral agreements and consequent trade sensitivities that can be expected to arise in a maritime landscape that is regulated and subjected to charges by multiple maritime trading nations. Indeed, such a system would be completely contrary to the longstanding

<sup>8</sup> The route lines reflect incoming and outgoing voyages (first/last voyage segments only) of international container services that are part of a larger international rotation. Source: Drewry Maritime Research, July 2020. The depicted route lines do NOT include domestic or intra-regional container services, dry bulk, tanker, general cargo, or other ship voyages.

<sup>9</sup> The relevant payments could be doubled if both parties applied the same carbon charge. The additional payment could be higher or lower because the carbon price is being applied through the unilateral action of two parties.

international consensus that international ocean transportation should be free from multiple taxation regimes and from restrictions on free access to all trading nations.

### **Part Three: What are the Prospects for Global Rules if One or More National or Regional Regimes are Established?**

#### **Multiple Member State Regimes Plus Global IMO Regulation**

In this section we examine the question of whether action by the EU to establish binding operational efficiency standards and to impose related financial obligations on international shipping calling EU ports is likely to lead to adoption of a global operational efficiency standard, a market-based measure or another GHG policy instrument at the IMO.

We have already described a hypothetical situation in which one or more regional or national regulations have been established that impose operational requirements and/or financial obligations that apply to extraterritorial voyages extending across the globe. It is also clear that the revenues generated under such a system would be measured in billions of euros. At first glance one may be inclined to argue that national or regional regimes would be terminated should IMO Member States act to create a global regime with similar obligations and policy objectives. A more detailed consideration of this scenario, however, suggests a very different outcome.

First, we already have experience in which domestic legislation impacting international shipping has not been phased out or even harmonized following adoption of similar, but not identical global standards.<sup>10</sup> Equally important, the regulations in question here involve the collection of significant monies that would likely become part of the government's general revenue. It would be understandable that governments that had undergone an extensive legislative and regulatory effort to establish such requirements might be reluctant to terminate a regulatory programme that is uniquely tailored to the political demands that shaped its creation. It is even more likely that a government becomes highly reluctant to terminate a regulatory programme that generates significant revenue. Moreover, some governments can be expected to argue that the proposed IMO regime is materially different and that the specific national or regional requirements need to remain in place for one or more reasons. Thus, it is entirely possible, even probable, that IMO Member States would be reluctant to reach agreement on a global regime knowing that one or more national or regional schemes would likely remain in place.

Should agreement on a global regime still prove possible despite these concerns, the total cost of multiple overlapping systems would raise the financial costs to international trade to a level that would likely be significant for many countries – both developing and developed. It would be reasonable to estimate that the combined revenues generated under specific Member State regimes would amount to tens of billions per annum (working from the base estimate that the EU regime alone would generate 3.4 billion euros). An estimate of the cost of a global regime established through the IMO (again assuming a €25 carbon price and using 250 million tonnes as a gross estimate of fuel consumed by international shipping), would generate additional costs of approximately €19.5 billion per annum. If nations that have already established regimes with extraterritorial effect choose to maintain the requirements outlined earlier, total costs imposed on international trade would increase significantly and subject trade to multiple overlapping regulatory systems with administrative burdens that grow with each system

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<sup>10</sup> For example, despite adoption of global Data Collection System (DCS) regulations by the IMO, the European Union still maintains unique requirements with extraterritorial application as adopted in EU regulations for monitoring, reporting and verification of CO<sub>2</sub> emissions from maritime transport (Regulation (EU) 2015/757).

adopted. Of course, higher per-unit costs of carbon (exceeding the €25 figure used in this paper, as has been argued for in the EU) would result in much greater annual costs.

#### **Part Four: Trans-Shipment of Cargoes and Charges on Voyages Carrying Non-EU Cargoes**

A significant volume of cargoes destined for countries outside the EU are first shipped to the EU and then shipped to a destination outside the EU. Some of the most common areas with cargoes trans-shipped through the EU are Africa, Asia, South and North America, and the Russian Federation. This situation arises for broad spectrum of imports and exports originating from or destined to many non-EU locations. To put this in context, in 2014, *MDS Transmodal* performed some analyses for WSC of various liner shipping activities within the EU. Their analyses utilized a combination of their own proprietary *World Cargo Database* and 2012 data published by Eurostat. At that time, *MDS Transmodal* concluded that:

- 1) Total Containerized Cargo Moving between EU Countries and non-EU Countries:
  - Exports: 264 million UNITISED tonnes (29.3 million TEU)<sup>11</sup>
  - Imports: 192 million UNITISED tonnes (21.4 million TEU)
- 2) Total Cargo In-Transit via Ports in the European Union: 57.6 million UNITISED tonnes (6.4 million TEU) -- defined as container traffic transiting through EU ports but neither originating from EU countries nor destined for EU countries.

The 6.4 million TEU “in-transit” then represented about 12% of the total containerized cargo moving between EU countries and non-EU countries. These shipments face potential emission charges applied to incoming voyages to ports in the EU and then a second layer of charges as the same cargoes are shipped out to Africa, Russia, and many other destinations. Trans-shipment of cargoes is significantly higher in some EU ports, and these ports may encounter a notable change in activity if shippers seek to avoid charges on trans-shipped cargoes.

***Impacts on LDCs and other Non-EU States:*** Incoming and outgoing voyages are often long voyage segments as goods from South Africa, West Africa, Asia, South America, North America, Australia, New Zealand, and other distant locations are often trans-shipped through Europe. A significant portion of these shipments would originate from or be destined for LDCs that would bear significant additional trade costs that apply not only to imports and exports destined for the EU, but on cargoes originating from or destined for various non-EU locations around the world. In the case of trans-shipment cargoes, the additional trade costs are imposed by and collected by a third party (the EU) while adding substantial additional trading costs to many less developed economies.

#### **Conclusions**

An EU decision to subject extraterritorial voyages extending thousands of miles across the globe to unilateral regulations – either through an ETS or by imposing operational efficiency standards to ships while operating in waters far removed from the EU – would constitute a major and unprecedented exercise of unilateral authority over international trade and the operation of commercial shipping.

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<sup>11</sup> MDS Transmodal analyses estimated TEU using a conversion factor of 9 tonnes per TEU.



If the proposed scope of application for including shipping within the EU ETS followed the same definition of voyage and “port of call” as used in the EU MRV regulations, some of the most serious implications of such a decision would include the following:

#### **Geographic Reach of a System that Regulates Extraterritorial Voyages**

- The geographic scope of an EU ETS using the voyage parameters used in the EU MRV database is quasi-global in its application;
- A majority of the emissions covered and charges imposed by the system would be generated by voyage segments occurring outside EU waters, in many cases thousands of miles distant from the EU;
- Based on a carbon price of €25 per tonne of CO<sub>2</sub> and the reported 2018 CO<sub>2</sub> emissions covered by the EU MRV rules, the ETS would impose costs of 3.45 billion euros per year;
- The application of emission pricing to extraterritorial voyages is likely to create significant trade tensions and raise legal and diplomatic concerns about the geographic reach of unilaterally imposed emission charges and operational regulations.

#### **Impacts on Trans-shipped Cargoes from Non-EU States and LDCs**

- Significant cargo volumes are trans-shipped through EU ports to and from Africa, Russia, and other non-EU locations. These cargo volumes would face the potential of double charges – first on the inbound voyage as the ship sails to an EU port and then again on the outbound voyage as the same cargo leaves the EU enroute to its ultimate destination;
- Trans-shipment is a central aspect of the shipment of goods to and from LDCs because these nations in some cases do not generate sufficient cargo volumes to support many direct shipment options. These voyages are often measured in thousands of miles as many LDCs face long distances to market. As a result, LDCs would be disproportionately affected by an EU ETS that applies to extraterritorial voyages.

#### **Global Impacts and the Prospects for Reaching a Comprehensive GHG Agreement in the IMO**

- Should other countries elect to adopt similar regulations with extraterritorial reach, there would be multiple overlapping charges in the absence of bilateral or multilateral agreements;
- The geographic reach and complexity of multiple national or regional regimes would be significant;
- The significant revenues generated by national and regional systems would make it very difficult to retire national rules should a global regime be proposed;
- Adoption of an EU ETS regime applying emission pricing to extraterritorial emissions is likely to present a considerable impediment to development of a global market-based mechanism; and therefore
- Instead of catalyzing global action, development of one or more regional systems would impede or even preclude global action.

**In light of the above considerations, in a scenario in which the EU decides to include shipping within the EU Emissions Trading System or decides to impose operational efficiency standards, the regulations should be limited to intra-EU voyages only.**

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