

The expected impacts on developing countries from a maritime Market-Based Mechanism (MBM) ¹

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Executive Summary

Even though the expected cost impact on global trade from a maritime MBM is low, estimated at less than 0.2% of the trade value, the impact on the most vulnerable countries should not be ignored given their greater reliance on imports. However, all developing countries may be compensated the full cost impact of the MBM.

The compensation of the cost burden can be achieved through the Rebate Mechanism, in which each developing country would be entitled for an unconditional payment (rebate) equal to the cost burden from the maritime MBM. Furthermore, the most vulnerable would receive climate change finance from the revenue raised from developed countries, and thus be net beneficiaries of the MBM.

Another option to reduce the impact on remote and small countries is to set the ship application threshold at a level that would exclude the majority of ships serving such countries. This option has some disadvantages however. It would eliminate ships operating in other parts of the world and could lead to competitive distortions, and thus such threshold should not be set too high and for a long period of time.

The expected impacts on developing countries from a global maritime MBM

The maximum potential increase in the total value of seaborne trade, due to the maritime MBM is estimated to be under 0.2%, which is equivalent to \$2 for every \$1,000 value of imported goods (see separate briefing note). It has been argued that the impact of a global MBM will likely be quite uniform.³ Even under such circumstances, the overall impact on economy of the most vulnerable countries, including many Least Developed Countries (LDCs) and Small Island Developing States (SIDS), will be generally much greater than on others, as the most vulnerable countries typically rely heavily on imports.

To illustrate this, the IG indicator - imports vs. GDP - is defined as imports of goods by sea and air as a percentage of gross domestic product (GDP).⁴ The global IG is estimated as 18%.⁵ Out of 180 countries analyzed, 10 countries have an IG score at least 4 times greater

¹ A maritime MBM means a global Market-Based Mechanism, or measure, for greenhouse gas (GHG) emissions from international maritime transport, such as a levy on shipping fuel or an Emission Trading System (ETS).

² The contents of this briefing note are the author's sole responsibility, E-mail: andre@imers.org.

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³ See document IMO 2011.

⁴ IG is defined to specifically reflect the imports of goods by sea and air (i.e. excluding imports by land), and calculations are for 2007. For comparison, a similar World Development Indicator is defined more widely as imports of goods and services as % of GDP (available at <http://data.worldbank.org/indicator/NE.IMP.GNFS.ZS/countries>).

⁵ Author's calculations, using methodology described in document IMO 2011.

than the global average, and 8 of the 10 are LDCs or SIDS. Five of them have an IG greater than 100, meaning that their imports by sea and air are greater than their GDP, and that they import more than 5 times the global average (they are Singapore, Seychelles, Lesotho, Kiribati, and Maldives). Generally, developing countries are more reliant on imports than developed countries. For instance, there are 36 countries with an IG at least 3 times greater than the global average, and 60% of them are LDCs or SIDS, and the remaining, but one, are developing countries/regions.

In summary, even though the impacts on prices of imported goods from a maritime MBM will be very small, many of the most vulnerable countries will be impacted more than others given that their economies heavily rely on imports. This is why it is important to come up with a mechanism to adequately compensate these countries to ensure that they are not unfairly impacted.

Outline of proposed options to ensure the most vulnerable would not be negatively affected (eg LDCs, SIDS)

The International Union for Conservation of Nature (IUCN) submitted a proposal for a Rebate Mechanism (RM) to the IMO to compensate the economic impact of a maritime MBM on developing countries.⁶ The same proposal also suggested that a ship size threshold could be used to reduce the impact of an MBM on remote SIDS and small LDCs.

Rebate Mechanism

The rebate mechanism can apply to any revenue raising MBM, such as a levy on fuel, GHG contribution or emission trading scheme (ETS). It has already been integrated with one proposal, namely the International Maritime Emission Reduction Scheme (IMERS).

In the RM, all ships would participate in a scheme, with revenues collected in a central fund. Each developing country would automatically receive a rebate of a proportion of the revenues, calculated according to that country's share of imports from non-adjacent partners (a proxy for imports by air and sea). The remainder of revenues, representing the costs to developed countries, would be disbursed to developing countries for the climate change purposes, comprising adaptation, mitigation, and technology. A developing country could voluntarily forego its rebate and would receive recognition for doing so.

Thus the RM would ensure, at the least, no economic disbenefit to any developing country, and a positive net benefit to any developing country that receives additional climate change assistance. Furthermore, the most vulnerable countries would benefit the most through additional means, such as the disbursement of net financing raised. For instance, a significant pool of adaptation funding could be reserved to the most vulnerable SIDS and LDCs (for instance 40%). In such circumstances, these countries would benefit from climate change finance which would be circa 6 fold greater, or more, than the compensatory rebates already paid.^{7 8}

⁶ In documents MEPC 60/4/55 and MEPC 61/5/55; available at: <http://imers.org/files/docs/mepc60-4-55.pdf> and <http://imers.org/files/docs/mepc61-5-33.pdf>, respectively.

⁷ Based on the following calculations: 30% of the gross revenue is assumed to be spent on rebates for developing countries; the remaining 70% of the gross revenue, which equals the net revenue, is spent on climate change mitigation, adaptation, and technology; for illustrative purposes, the net revenue is split between the three areas as 40%, 40%, and 20%. For simplicity of calculations it is assumed that

Threshold

One potential option to partially eliminate the impact on the most vulnerable developing countries, including SIDS, is to limit the scope of MBM application. The threshold for applying a MBM could be set at a ship size level that is higher than 400 gross tonnage (GT), for instance at 4,000 GT, for an initial period of time. This would practically exclude the majority of all ships serving the remote SIDS, as their ports typically can receive only smaller ships (Faber and Rensma 2008). However, this would not eliminate all impacts as some goods may be first shipped on large ships, subject to the MBM, and only carried on small ships, not subject to the MBM, on the final leg to the small port. If this approach was combined with the rebate mechanism as described above, questions could arise whether a developing country should be entitled to the rebate, even if the ships serving that country were not subject to the MBM.

Increasing the application threshold to 4,000 GT (as an example) will accelerate though the global implementation, given that it will significantly reduce the number of ships subject to the instrument without necessarily having a major effect on emissions – it is estimated that the total emission coverage would only be reduced by 9%. Therefore, the initial coverage of emissions from international shipping would remain relatively high at 91%, when compared with the emissions coverage for ships of 400 GT and above. Yet the number of ships subject to MBM would be nearly halved in this initial period, given that the total number of ships over 400 GT and over 4,000 GT in 2010 was approximately 43,700 and 24,300, respectively (for details see IMO 2010, Table 7-1).

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the gross annual revenue is \$10 billion (in reality it may be double that). Thus the amount of adaptation financing from the maritime MBM is calculated as \$2.8 billion (= \$10bn x 0.7 x 0.4). For illustrative purposes it is assumed that 40% of this funding, i.e. \$1.12 billion annually is reserved for a group of most vulnerable countries (MVC) comprising LDCs and SIDS, excluding Singapore. The MVC group therefore comprises more than 80 countries, and the group's combined rebate amounts to \$194 million as its combined share of imports by sea and air is 1.94% (calculated using methodology described in IMO 2011). Therefore the MVC adaptation financing (\$1.12 billion) alone is nearly 6 times larger than the cost of the MBM to MVC, already compensated through the rebates (1,120/194 = 5.8). MVC is likely to also benefit from mitigation and technology financing, likely to a lower degree as these countries typically do not offer large mitigation potential. The mitigation and technology benefits are not included in the calculation of the benefit multiplier above.

⁸ It is noted that for some countries, such as Maldives and Sechelles, a notable share of imports is consumed by foreign visitors. Thus it could be argued that such economies could somewhat benefit even from the rebates, given that some of the potential price increases on imports would be paid by the foreign visitors rather than domestic customers. Accordingly, the benefit multiplier for these countries and the group of vulnerable countries as a whole, may be greater than in the illustrative calculations.

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