

# **Applying Market Based Instruments to control the emissions of Greenhouse gases by the shipping industry.**



**BIMCO**

## **Introduction**

In September 2009 the shipowners associations of Australia, Belgium, Norway, Sweden and the United Kingdom launched a document called “*A global cap-and-trade system to reduce carbon emissions from international shipping*” (<http://www.british-shipping.org/publications/> top left document on that site) setting out their views on how market based instruments should be applied to control the emissions of Greenhouse Gases by the worldwide shipping industry.

BIMCO has studied the proposals set out in “*A global cap-and-trade system to reduce carbon emissions from international shipping*”. While we wholeheartedly endorse aspects of the paper, we believe that other aspects are misguided and in order to inspire and move the debate forward within the international shipping industry, we set out our views in this paper.

For quite some time BIMCO has been in clear favour of an IMO controlled climate Compensation Fund rather than a cap-and-trade system. It is, however, within BIMCO’s mandate to keep an open mind to other options which may emerge.

The objective of this paper is thus to create a platform for further discussion within the ship-owning community while seeking to unite the industry rather than creating a polarised or one-sided view.

### **The case for market based instruments**

BIMCO agrees that shipping is the most fuel efficient form of industrial transport and that the industry’s greenhouse gas emissions account for only a small percentage of the overall emissions. Even though the shipping industry transports 90% of all goods it is only accountable for some 15% of the transport sector’s CO<sub>2</sub> emissions. On a global scale shipping is accountable for approx. 2.7% of the anthropogenic CO<sub>2</sub>.

BIMCO accepts that the shipping industry could become more fuel efficient. Fuel efficient ships are a desire for any shipowner, but unfortunately not always the main priority for the shipbuilders. Whilst some large and powerful shipowners have the ability to impact the ship designs to some degree, most of the smaller shipowners have no choice but to accept the standard design.

It must also be remembered that the industry and its ships operate as part of the supply chain to meet the demands and expectations of the forces behind world trade. Although fast containerships do consume significant amounts of fuel they are still the most efficient means of transport for containers and should be viewed as fuel efficient alternatives to airfreight.

Two generally available studies from IMO (the MARPOL Annex VI Expert Group and the 2009 GHG Study) conclude that despite the anticipated technological improvements in fuel efficiency, the CO<sub>2</sub> emissions from the shipping sector are projected to increase by

approx. 25% simply as a response to the expected growth in world trade. Seen in light of recent political signals from a.o. EU where a 20% reduction is an expected target, means other than technical and operational will need to be employed if shipping is to be subjected to similar targets.

BIMCO therefore believes that the industry could be subjected to market based instruments to manage its emissions of greenhouse gases, but only so long as these measures are “universal” and:

- a. apply to the shipping industry worldwide regardless of the flag flown, and
- b. all other means of industrial transportation, including road haulage are made subject to similar measures.

Any market based instrument introduced to the shipping industry that is not “universal” will distort the market and mean that their objectives will be unlikely to be met. A failure to apply a market based instrument regime throughout the shipping industry will lead ships migrating to those flags where the regime does not apply. A failure to apply it to all forms of transportation would be liable to encourage a modal shift to a less fuel efficient form of transport.

### **The case for shipping having its own regime**

Shipping is the most international industry of all. Ships are designed in one country, built in another country, flying the flag of a third while the owner resides in a fourth country. The crew are hired in a fifth and sixth country while the ship might be trading between a number of additional countries. Ships are assets which in a normal market are easily traded between companies and which can change name and flag over night.

Shipping is the servant of world trade and the industry is fundamentally different from other industries. Even aviation works under different terms. Shipping is integral to the globalisation process and has to be able to adapt to increases in world trade.

BIMCO believes that the International Maritime Organization (IMO) is the organisation best able to design an appropriate regime for the shipping industry. It is furthermore believed that world trade would best be served if the United Nations Framework Convention for Climate Change (UNFCCC) could reach agreement at their forthcoming conference of parties to be held in Copenhagen (COP15) for targets for emission reductions from the shipping industry and then delegate responsibility for achieving these targets to IMO.

BIMCO believes that in view of the unique position of the shipping industry it should have its own regime of market based instruments that are specifically designed for the industry. We do not believe there is any sense in following an established approach unless that established approach is suited to the particular circumstances of the shipping industry. It would be surprising if the approach which has been proven to work in controlling emissions from stationary power stations owned by a small number of big

operators would work efficiently for 60,000 ships trading internationally and owned by a large number of mainly small operators.

### **Criterion for a regime for the shipping industry**

IMO's Marine Environmental Protection Committee (MEPC), has in its meetings in 2008 and 2009 developed 12 principles for market based instruments applied to the shipping industry which must be:

- (1) effective in contributing to the reduction of total global greenhouse gas emissions,
- (2) binding and equally applicable to all flag States in order to avoid evasion,
- (3) cost-effective,
- (4) able to limit, or at least, effectively minimize competitive distortion,
- (5) based on sustainable environmental development without penalizing global trade and growth,
- (6) based on a goal-based approach and not prescribing specific methods,
- (7) supportive of promoting and facilitating technical innovation and R&D in the entire shipping sector,
- (8) accommodating to leading technologies in the field of energy efficiency; and
- (9) practical, transparent, fraud free and easy to administer,
- (10) credible to stakeholders and able to demonstrate compliance with climate change goals, incl. monitoring,
- (11) credits for actions already taken which have resulted in GHG reductions to date, and
- (12) high degree of certainty so that business can invest with confidence.

BIMCO agrees that any market based instruments applied to the shipping industry must as far as practically possible conform to these principles.

### **Alternative solutions**

In accordance with the usual IMO approach of goal-based rather than prescriptive regulations, any new technology which will provide the same objective should be looked at favorably.

If an owner chooses to install a carbon capture or other carbon abatement measures onboard his ship, exemption from MBI regulation should be granted to that ship.

### **The risks of applying a conventional cap and trade emissions trading regime to the shipping industry**

A conventional cap and trade emissions regime may involve allocating a base allowance to shipowners based on their historic emissions and requiring them to buy carbon credits to cover any emissions over and above the base allowance.

BIMCO recognizes that such an approach is similar to regimes adopted regionally and is forcing each emitter to pay the market price for each additional emission unit they

require. However, BIMCO believes that a conventional cap and trade system would be damaging to world trade if applied to the shipping industry for the reasons outlined below:

- The shipping industry has no barriers to entry and as a consequence has a large number of owners and users of the 60,000 ships that it comprises. This structure has served world trade well as the industry has been able to grow in size to meet the requirements of world trade. In allocating emission rights to each shipowner you are inevitably granting a valuable right which is likely to enrich the shipowners of today, in particular those downsizing their business or leaving the trade. Furthermore it will limit the ability of new shipowners to come into the market.
- If shipowners are required to buy carbon credits for any increase in their emissions this means that in order to expand their fleet they will have to buy emission rights for that expansion. This would be seriously detrimental to the industry as it would inhibit the ability of shipowners to expand their fleets in order to service a growth in world trade.
- In a conventional system the only party that should be allocated the allowances is the economic owner of a vessel. BIMCO would further suggest that under modern financing structures it is not always easy to identify who the economic owner is.
- Even if the economic owner was identified, in most cases he would not necessarily be the “managing” owner i.e. the party responsible for the efficient operation of the ship. In addition, the “managing” owner leases the ship to the “disponent” owner (the charterer) who then commands and controls most of the CO<sub>2</sub> producing activities of the ship (e.g. where to load and discharge, how much, how fast to proceed, which route to take, etc)
- As has already been stated the shipowners comprise a broad range of companies ranging from the owner of a single ship to the owner of hundreds of ships. Smaller owners currently do not suffer from significant competitive disadvantage against the larger owners. BIMCO believes that the introduction of a conventional emissions trading regime, quite apart from the costs, would greatly disadvantage the smaller owners as they do not carry the management infrastructure to trade emissions, whereas the larger owners in many cases will already do so.

Over and above these arguments an Emission Trading Scheme would be quite complicated with money and carbon credits flowing around between a large number of entities and a huge administrative machine would have to be developed to police it.

For all the above reasons BIMCO cannot support the application of a conventional cap and trade system in the shipping industry.

## **The perceived shortcomings of the Compensation Fund approach.**

BIMCO recognises that a few concerns have been expressed in relation to the Compensation Fund proposal such as:

- It provides an incentive to reduce emissions that may not be so strong compared to a cap and trade system. This might be because it spreads the cost of reducing the emissions to the targeted level over the whole of the cost of the fuel and not just to the amount burned in excess of the targeted emission level.
- It does not appear to interface with emissions trading regimes around the world,
- It is questioned whether there will be sufficient carbon credits if a number of industries expect to offset their GHG emissions by buying offsets. This is a concern covering both the Compensation Fund as well as the ETS.

BIMCO believes that these concerns are not necessarily well founded and some of them could be overcome by for instance:

- As more and more credits will need to be purchased in the future, the Fund will need to be increased. This will mean an increase in number and size of the contributions from owners;
- Shipping is a unique industry compared with land based industries and would therefore not necessarily fit into any land based trading regimes;
- The size of the levy will be a reflection of the amount of emissions to be offset and the prevailing carbon price;
- The current offset system may run into a shortage of carbon credits, but new alternatives such as reforestation, establishment of solar cell parks, etc. may be agreed by COP 15.

BIMCO believes that the compensation fund proposal has numerous benefits.

A carbon levy is predictable, which is necessary for a business like shipping where ships bid for cargoes worldwide, and it is more cost efficient than a cap and trade system. The levy will steadily provide substantial funds directly to climate change mitigation and adaptation projects as well as to emission targeted shipping research which will enable the requisite technological breakthrough to make shipping even more energy efficient<sup>1</sup>

The increased benefits of the levy in the area of technological investment is also pointed out in the US Congressional Budget Office study (see below): *“The smoother price path offered by a CO<sub>2</sub> tax would better enable firms to plan for investments in capital equipment that would reduce CO<sub>2</sub> emissions (for example, by increasing efficiency or using low-carbon fuels) and could provide a more certain price signal for firms considering investing in the development of new emission-reduction technologies.”*

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<sup>1</sup> (1)NEW STATESMAN magazine of November 23<sup>rd</sup> 2009, article “Cloud control” by Bjorn Lomborg – Director of the think tank the Copenhagen Consensus Centre at Copenhagen Business School.

Furthermore, BIMCO believes that under the Compensation Fund proposal a central unit operated by IMO would be empowered to collect a levy on bunkers and truly target the funds generated to develop fuel efficient technology. The Compensation Fund is explained in more detail in Annex 1.

BIMCO believes that the Compensation Fund proposal is much simpler to administrate and easier to enforce than the alternative approach to cap and trade emissions trading regime. The latest paper to IMO on the Compensation Fund (yet to be submitted) demonstrates a very matured concept.

### **Independent studies on Market Based Instruments**

BIMCO has reviewed two very pertinent documents:

- 1) “Lessons Learned from the European Union’s Emissions Trading Scheme and the Kyoto Protocol’s Clean Development Mechanism”, Report to Congressional Requesters, United States Government Accountability Office (**GAO**), November 2008. This study documents and stresses the uncertainty of the effects of ETS (and CDM) so far on actual emission reductions and long term economic impact, while the effects on Technology Development and Innovation are judged as being “likely minimal”.
- 2) Policy Options for Reducing CO<sub>2</sub> Emissions, A CBO study, The Congress of the United States, Congressional Budget Office (**CBO**), February 2008, Pub. No. 2930.

The second document is a comprehensive study and a thorough comparison of various ETS forms vs. a Levy. It is in this context important to note that the Compensation Fund is not a levy in the general sense of the word as it will bypass any national treasury regimes and go directly into an IMO controlled and administered fund. The comparison between an ETS and a Levy is, however, highly relevant for this paper.

The CBO paper compares the efficiency and CO<sub>2</sub> reduction potential of ETS vs. Levy (including a worldwide levy) and concludes briefly that a levy on emissions would be the most efficient incentive-based option for reducing emissions and could be relatively easy to implement.

It goes on to conclude that an inflexible annual cap would be the least efficient option among those considered here, whereas the net benefits of a levy could be roughly five times as high as the net benefits of an inflexible cap.

Further analysis in said document shows that the CO<sub>2</sub> reductions would be nearly double with a levy scheme than a cap scheme (with a levy system the companies involved will keep benefiting while reducing emissions but with a cap there is no further incentive once the cap is reached).

## **The way forward**

BIMCO urges all shipowner associations, national as well as international, to sit around the table and agree on a single solution to controlling greenhouse gas emissions from shipping industry that meets the IMO principles.

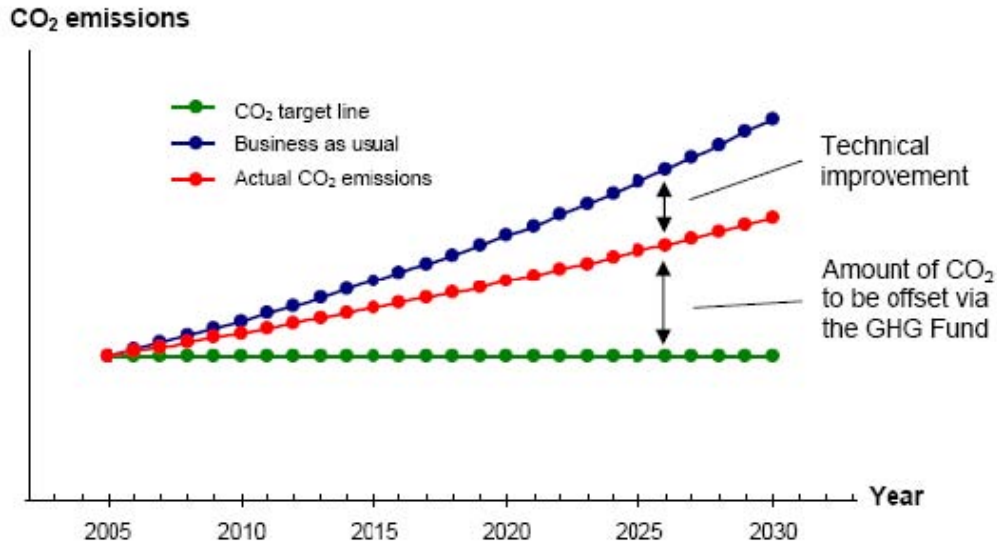
BIMCO has supported the Compensation Fund in IMO as they believe it is the most practical solution to the problem that has been tabled. This is in line to the US Congressional Budget Office report conclusions that a given emission reduction could be achieved at a fraction of the cost via a carbon levy, as opposed to cap-and-trade. New proposals and ideas have and no doubt will continue to surface and BIMCO believe the industry should keep an open mind to any new proposal and should judge it on its merits.

BIMCO hopes that this paper will be seen as a constructive contribution to develop the debate in the shipping industry. BIMCO will keep an open mind with a view to finding a solution that can unite our industry and get international acceptance.

## ANNEX 1

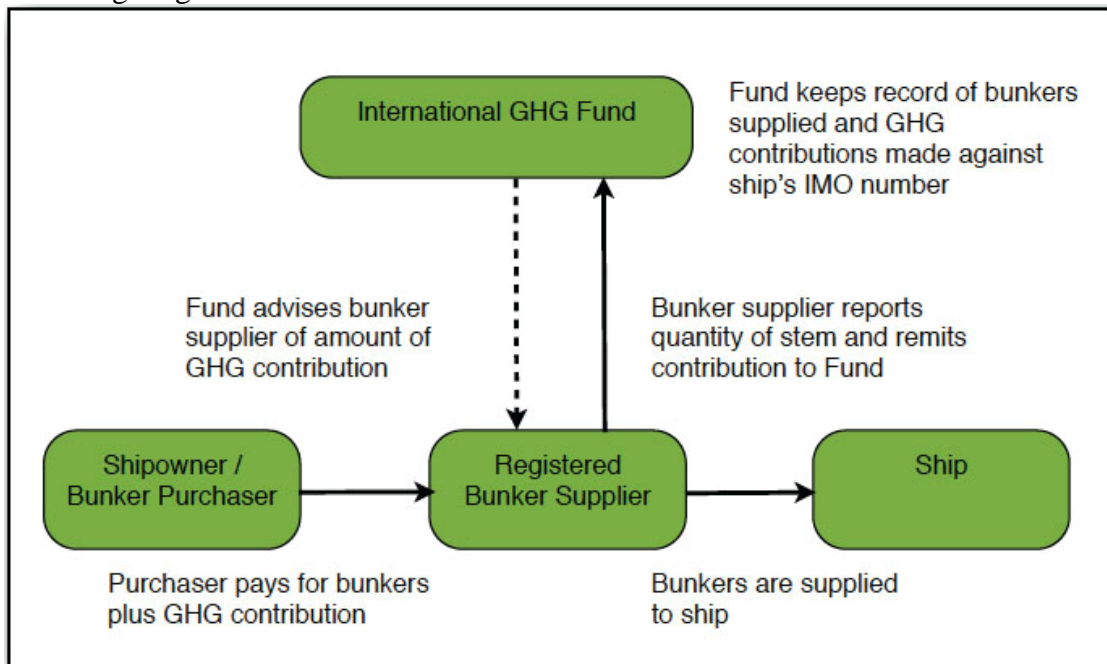
### The Compensation Fund

The basic principle of the Compensation Fund is outlined in the drawing below.



Scenario with a constant target line from 2005 to 2030. Technical and operational improvements will reduce emissions part of the way, but the rest will need to be abated by means of a MBI. (Source: Danish Shipowners' Association)

The compensation fund proposal is relatively simple to operate as can be seen from the following diagram:



Flowchart of money in the Compensation Fund (Source HKSOA)

BIMCO and a number of member states at IMO have felt able to support the compensation fund because it meets the 12 principles set out by Marine Environmental Protection Committee and:

- Would be Transparent,
- Would be easy to administer,
- Would not favour large companies over small companies,
- Would be cost predictable.

The latest version of the Compensation Fund proposal, which will be submitted for MEPC 60 in March 2010, contains several paragraphs explaining that the Fund should not be regarded as a tax. The GHG contributions are all about offsetting some of the future GHG emissions from shipping. The GHG contributions will be channelled directly to the IMO controlled Fund and avoid any national tax regimes.



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