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Setting a Course for Viable Sustainability

Pitting economic concerns against environmental challenges is hardly a zero-sum game. Yossi Sheffi | MIT

Some 90 percent of the world's goods are transported by sea. Ships also account for about 3 percent of global greenhouse gas (GHG) emissions. Furthermore, this GHG figure could grow by a minimum of 50 percent and perhaps as much as 250 percent by 2050 if no action is taken to curb emission levels.

Projected increases in world trade volumes and hence the demand for maritime transportation could enlarge the industry's carbon footprint.

The challenge facing regulators is how to set effective targets for reducing ship emissions while supporting the industry in its crucial role of enabling trade and maintaining global economic growth.

This tradeoff exemplifies the environmental sustainability challenge faced by companies every day across all industry sectors. All companies – be they manufacturers, retailers, logistics companies – are consuming valuable resources.

At the same time, they are providing the goods and services, as well as the jobs that people rely on.

Consequently, the maritime debate, like the debate in every other industry, is not a confrontation between greed and green.

As I argue in my new book, *Balancing Green*, reconciling economic growth with sustainability is often framed as a capitalistic bad guy versus green good guy argument. Not only is such a representation inaccurate, it's counterproductive.

The real tension between economic and environmental performance is about *some* stakeholders versus *other* stakeholders – between stakeholders who want to guard the environment and reverse

environmental degradation and those who want affordable goods and services and jobs. Both points



of view are valid.

In the case of ship emissions, some countries, notably members of the European Union (EU) and Japan, are pushing for stringent limits on the amount of GHG gases that the world's merchant fleet should be allowed to emit.

Some shipping-dependent countries such as Brazil, China and the United States are concerned about the cost implications of such measures and oppose strict limits based on absolute targets.

Ships are long-term assets, and phasing them out before they reach the end of their service life is a costly proposition. Leading ship registration countries such as Panama also fret about the adverse impact of stringent emissions targets on their maritime businesses.

Respecting all points of view

At a meeting in April 2018 of the United Nations International Maritime Organization (IMO), more than 170 member nations agreed to a compromise target: The industry will cut emissions by 50 percent below 2008 levels by 2050. Note, however, that the new limit does not meet the requirements of the Paris climate agreement adopted under the 2015 UN framework.

Some countries demanded a 70-100 percent reduction target while others argued the issue is less urgent and that it's not feasible to adopt an absolute GHG reduction target at this time.

On a country level, the debate regarding ship emissions is an example of the argument between environmental and economic concerns. Some countries believe that sustainability is "the challenge of our time" while others are not ready to sacrifice economic growth, jobs and possibly standards of living in the name of sustainability.

Shipping was originally excluded from the 2015 Paris Accord while the IMO promised that the industry would pull its weight in controlling emissions. The April 2018 IMO compromise agreement falls significantly short of the cuts that proponents of stringent targets lobbied for, and there are worries that the gains will be blunted by increasing trade volumes.

Still, the compromise provides a blueprint for moving forward in the sense that countries with very different priorities agreed on certain steps towards sustainability.

The secret is being prepared to negotiate and gain an understanding of the other party's position without moralizing. These are not "good vs. bad" issues but competing – and perfectly valid – points of view.

Technological progress

The IMO also brokered an international accord in 2015 to limit sulfur for ship fuel oil, but in another nod to economic reality, the limit applied only to Emission Control Areas (ECAS) established by the organization.

Meanwhile, technological development is enabling the industry to become more sustainable and more economic. This is another feature of the maritime sustainability debate that offers wider lessons.

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As I explain in my book, the so-called Pareto frontier is where the low-hanging fruit has been harvested. Decisions that led to better outcomes on both economic and environmental dimensions have been taken, and further gains require some tradeoffs to be made. It is these tradeoffs that pit groups, industries and countries against each other.

Fortunately, the world is not static.

Technology can push out the Pareto frontier by expanding the range of options available to decision makers. In the shipping industry example, such a development is innovation in the form of new vessel management processes, new materials and the inexorable advance of technology.

This has already happened to some extent.

For example, advances in fuel efficiency have led to cleaner burning ships. In fact, a report by the <u>International Transport Forum</u> published in March this year concludes that deployment of all known technologies could make it possible to almost completely decarbonize maritime shipping by 2035. Moreover, other innovations are in the pipeline. Electric-powered ships and wind-assisted ships are under development, as are highly automated vessels that are part of more efficient shipping operations. Maritime's Pareto frontier is expanding.

The lessons for other industries and government are two-fold.

First, respecting all points of view can lead to useful compromises (albeit ones where both sides may not be happy with). Second, technological progress may offer solutions even if economic growth

continues and major parts of society are not willing to reduce their standard of living in the name of environmental sustainability.

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