

## Bridging the Decarbonization Gap in Shipping

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There is a disconnect, in the rhetoric of politicians and public figures at the top of many large multinationals making strong statements about the urgent need to achieve net zero, with what many organizations actually do. The value drivers which affect every day commercial decision-making, or the short-term survivalist policies of the parties steering critical decisions, are so ingrained, that climate strategy has a hard time jostling for priority. The impact is not direct, and may be only tangible many years from now, and the events of the past 18 months have demonstrated that geopolitical or economic headwinds, such as an energy crisis, can expose even the most vocal advocates of addressing climate change.

This is partly just being realistic. As we understand the problems more deeply, investors, regulators, and the media apply more rigorous assessment of the proposed solutions, and it is clear some are not fit for purpose. Some big names are retreating from carbon credits. At the same time companies and countries, even those claiming a leadership role are rolling back commitments as they reevaluate the targets they set and partly adopt more centric views, which puts more pressure on others to achieve the same shared goals that everyone signed up to.

More research is being done on the viable economics of reducing emissions, considering some of the subsidies available, regulations, and direct costs such as the EU's carbon trading scheme, technological advancements, and consumer-driven demand for more sustainable products. In competitive markets, and this includes shipping, wider business, and indeed national economic security in an increasingly fractured geopolitical "marketplace", competitive advantages matter a great deal. Economics must make sense. At the same time, leadership matters because, in an era of great uncertainty, calculations and projections are reliant on buy-in and consensus from others - to create the critical mass of customers

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or fuel supply, align technology, or secure political agreements. “Collaboration” is how many businesses share the costs of decarbonization and meaningfully progress projects.

It’s said that shipping is the second oldest industry in the world. This is clear when it comes to how ship economics work when confronted with a new challenge like decarbonization. Time charter equivalents, the daily earnings of a ship, reduce going at slower speeds – unless the market is particularly bad. Faster voyages mean less waiting for the next payday, which usually outweighs any cost benefit of sailing at “eco speed”. Regulation could start to change that, but unlike the EU which is applying an actual cost of carbon with the inclusion of shipping in its Emissions Trading Scheme (ETS), the IMO’s current measures look like mainly enforcing a “speed limit” on less efficient ships. This could still create an economic argument for cleaner shipping insofar as shipping dynamics create more earning potential for faster ships, but it’s a measure lacking gravitas.

The direct costs of carbon are the most interesting to charterers, as direct costs can be contextualized in the same language as their existing value drivers: price. Shipbrokers occupy a position closely linked

to the price or cost part of the equation. Combined with operational exposure, these arms shipbrokers with insight relevant to a crucial and seemingly overlooked part of the decarbonization process: the optimization of the existing merchant fleet. Nowhere has more room for optimization than the chemical sector. Voyages and contracts of affreightment see multiple charterers, parcels, and grades, with different handling requirements, multiple berths and ports, and various loading and discharging operations at each, shipped alongside each other, making the costs, and the optimization opportunities, challenging to untangle.

Borne from decades of experience including forensic analysis of multi-parcel chemical voyages and COAs, Quincannon’s goal is to enable this cost breakdown with a detailed, scalable, practical, and intuitive emissions modeling tool. The modeling can highlight areas of efficiency and inefficiency, with port stays representing a high proportion of overall emissions in the chemical tanker sector, an emissions-intensive subsection of the industry. When this emissions modeling is linked via the same model into a calculation for the EU’s ETS, for example, costs are quantified and qualified, logically, and instantaneously.

As intermediaries, we offer balanced analysis and by showing detail and transparency, we can advance collaboration between parties on both sides of the chartering lineup, and potentially with third parties such as terminals. With a logical breakdown, we can model emissions reduction strategies: port efficiencies; vessel and fuel types; virtual arrival; and the impact of cargo handling requirements. The tool achieves this within one framework, with percentage and cost impact outputs of reduction

strategies, which can be factored into decision-making. Broader opportunities to track year-on-year improvements coupled with the opportunity to be benchmarked alongside peers will provide compelling data points to support Clients' own ESG targets and fulfill their carbon reporting objectives. Buy-in from stakeholders and counterparts – “collaboration” – can be advanced by the demonstrable focus and self-reflection that Quincannon's modeling offers.

The decarbonization of the shipping industry will be achieved not through revolution, but by a myriad of advancements more akin to an evolution, some realized over the longer-term and some more immediate. Constructing a new ship contributes to 4% of its overall 25-year life cycle emissions (according to analysis from Chatzinikolaou and Ventikos 2014), as well as the significant price and only a small minority of shipowners and charterers are committing to this sort of expense. Better utilization of existing assets is right up there as a key part of the overall solution. Without changing ships or fuels, reductions of 5-10% emissions may be achievable through planning optimizations in the bulk chemical tanker trader. Factor in already available eco ships or eco fuels, up to 1/3 of carbon reductions compared to historical movements on a shipping supply chain are within reach.

An equitable emissions and cost breakdown of voyages and cargo movements is the start, paving the way for informed planning and chartering decisions. Quincannon Associates welcomes all interest in this project – please reach out directly for more details.



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