The Shipping Industry and the Spiraling Costs of Maritime Piracy

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As part of the background research for this paper, a cross-section of senior executives in the shipping industry were contacted to obtain their views on how the costs of piracy have impacted their businesses and decision-making. These views were mainly gathered through a survey but also included a number of one-on-one discussions.

Overall the responses tended to be very consistent, with only minor differences relating to the specific market/focus of the shipping line or body in question. The overwhelming feeling was one of resignation to the status quo, where they feel action against piracy is largely focused on private initiatives to protect trade, even when such initiatives are felt to rightly belong in the public sphere. These activities bear costs which fall mostly on the shipping industry and will eventually find their way through the supply chain to be added to the price to the end consumer. With prices of individual goods affected only slightly, and therefore essentially hidden, the concern is that inefficiencies in global trade will become institutionalized and without a specific trigger that might encourage firm international resolve to put an end to the problem, the shipping industry will continue to be exposed to unacceptable risk to cargo, the vessels and their crew.

A recent report titled 'The Economic Cost of Somali Piracy 2011' by Oceans Beyond Piracy (OBP), a program of One Earth Future Foundation concluded that Somali-based piracy cost the world between $6.6 and $6.9 billion in 2011. To put this into perspective, this figure is more than 110% of Somalia's annual GDP (at PPP). Of this total, the $160 million collected by pirates as ransom payments represents a disproportionately low 2%, with the vast majority spent on deterring pirate attacks - safeguarding vessels, their crew and cargo.

Given that almost 50% of the total economic cost of piracy comes from increased fuel consumption (either through maintaining higher speeds or re-routing around the high risk area) it is perhaps not surprising that the OBP report also showed that the shipping industry bore the

lion's share of these costs ($5.3 to $5.5 billion). This paper looks into the effects of these costs on the industry that bears them.

Impact of Cost

Whilst each individual transit through the high risk area (HRA) may incur significantly different costs based on the trade-lane being served, the type of vessel in question and the strategies adopted by each company to manage its risk, the amount borne by the shipping industry translates to an average cost for each vessel transit of roughly $125,000.

Using the OBP data to assess the specific cost elements incurred by the container shipping industry, it is evident that, counter-intuitively given the lower risk profile of container vessels, total additional costs for container vessels range from $135,000-$255,000 per transit, significantly greater than the average cost for the shipping industry as a whole. As the OBP report correctly points out, different costs fall on different sectors of the shipping industry. Container vessels generally rely on their inherent physical characteristics and have tended not to opt for re-routing around the HRA and often eschew the use and expense of armed guards but, with their higher freeboard and faster maximum speed, have incurred significant additional fuel costs (bunkers) in speeding up through the most sensitive regions. Further investigation shows that fuel makes up a much larger proportion of the additional costs (70% - 90%) than for other shipping sectors.

In the past few years, high oil prices mean bunkers are generally accepted to be the largest single cost element in container shipping, making up roughly 25% of the total. In recent years this has led to an industry-wide adoption of "super-slow-steaming" which strives to minimize bunkers by travelling at the most economic speed for the particular hull/engine design, commonly around 12-13 knots, well below their maximum speeds of 20+ knots. This cost-saving strategy is particularly effective in trades with longer sea-legs, such as Trans-Pacific, Trans-Atlantic and Indian Ocean crossings. By adopting a 'safety in speed' strategy, the container shipping industry is effectively buying its relative immunity from piracy through higher fuel consumption.

Container shipping is an extremely competitive industry where participants have a strong incentive to focus on reducing unit costs to better compete in the marketplace. A number of container lines have attempted to introduce security surcharges as a means of passing the additional costs attributable to piracy on to the trade, but in current market conditions most business is transacted on an "all-in rate" – i.e. inclusive of the various surcharges such as the bunker adjustment factor (BAF), currency adjustment factor (CAF) and the security surcharge. Essentially this means that the direct economic costs of piracy borne by the container shipping industry in 2011 (around $2.4 billion) have been fully absorbed by the same market participants who have recently announced combined losses of more than $6 billion in that period. This absorption of the direct additional costs due to piracy into the general cost structure of the industry means the visibility of these costs is lost to the underlying trade and thus it is impossible to gauge whether the small additional cost per TEU has had any impact on that trade. A number of shipping industry executives have bemoaned this lack of visibility as one of the primary reasons why this issue hasn't generated a stronger public response – it has been suggested by more than one participant that a small 'piracy surcharge' applied at the point of sale to the consumer would swiftly result in international resolve to curtail this problem.

A further outcome of the characteristics of container shipping (higher freeboard, faster speeds, absorption of costs) is that, in general, piracy appears to have had very little impact on trade patterns. Certainly on the prime East-West routes, all respondents to the survey suggested that there has been little or no impact on trading patterns or decision-making other than adherence to BMP4 (vessel hardening and crew training) and slightly faster transit times through the area.

The few trades that have been affected are those servicing the East African coast, specifically Kenya. This market is generally served using smaller vessels that are more vulnerable to pirate attacks and pass through the heart of the HRA. Some shipping lines are delaying the introduction of new services to this market while they assess the risks involved and all are carefully considering the type of vessels being deployed there. Lines are more likely to use larger container vessels capable of higher speeds, even though the underlying trade may not fully support such vessels, resulting in sub-optimal slot-cost dynamics. Conversely, there is some

evidence to suggest that the perceived security of container shipping when compared to bulk vessels has led to a significant shift from cargo moving in bulk to container vessels. The shift towards containerized transport has increased the transport cost per ton for many basic imported commodities such as sugar, cement and fertilizers. Furthermore, the increase in the number of containers has pushed up congestion levels in the container infrastructure which also adds cost to the transport chain.

As short-term strategies adopted to mitigate the risks of piracy, such as the use of citadels and a high maximum speed, become more firmly accepted across the shipping industry these have begun to impact some longer-term decisions. Citadels and other vessel hardening options are being incorporated into new vessel designs, especially in the bulk and tanker markets. The container industry is also being forced to forgo the option of designing more efficient slow-steaming container vessels with lower maximum speeds, as the capability to make at least 18-20 knots remains critical.

As a protective measure of last resort, the use of armed guards has become increasingly evident across the shipping sectors over the past year, with many operators believing them to be one of the prime reasons for the drop in attacks and hijackings. They are becoming almost a requirement to protect the more vulnerable vessels (i.e. low & slow) that operate in the HRA and are sometimes used on container vessels, if their use adds value to the counter-measures already in place.

The industry view on the use of armed guards is a pragmatic one, though adopted only reluctantly. Most participants have been forced to accept this solution since current international bodies have not been able to suppress the threat from piracy at sea, in spite of significant naval deployments. Private enterprise has therefore taken on a responsibility usually borne by governments, a development that many shipping industry leaders feel strongly about.

Furthermore, the industry is concerned that the on-going use, and qualified success, of armed guards provides little incentive for international bodies to back-track now despite widespread and repeated commitments having been made by governments and relevant international bodies

to permit the deployment of privately contracted armed security personnel on ships for the short-term only, and as a pragmatic solution only for so long as piracy continues to pose a significant threat off the coast of Somalia. The fact is that this 'sharing' of responsibilities has led sections of the maritime private sector to take on poorly defined or understood legal risks - as demonstrated by the recent case of the *M/V Enrica Lexie* in India - giving States fewer reasons to agree to a common international platform, as has been noted by more than one cynical executive.

With shipping lines focused on trying to provide cost-effective short-term protective/preventative measures, and given their experience of the difficulty in achieving a coordinated international response once the private sector has come up with a solution (even if it is legally grey), calls for funding and participation in longer-term and/or land-based PPP solutions to address the root causes of piracy are likely to be given short shrift.

Overall, the shipping industry is very concerned that, without some specific trigger to push for more forceful action to limit the pirates' activities, the current situation has become a new status quo. Whilst hidden within the cost structures of most of the shipping lines, these additional costs and inefficiencies will yet be passed onto consumers in import markets, and are in real danger of becoming institutionalized.

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