



The Economic Cost of Piracy

About the Cost of Piracy Project

At the end of 2010, around 500 seafarers from more than 18 countries are being held hostage by pirates. Piracy clearly affects the world's largest trade transport industry, but how much is it costing the world?

Oceans Beyond Piracy has completed a study on the economic cost of maritime piracy. The project set out to analyze the cost of piracy to three regions: (1) the Horn of Africa; (2) Nigeria and the Gulf of Guinea; (3) the Malacca Straits. The focus has inevitably been on the costs of Somali piracy because this is the region where contemporary piracy is most highly concentrated and is the greatest source of current data and information. The project primarily analyzes direct costs, but also considers some secondary (indirect) costs. We hope the model, report, and calculations produced by this study will be a useful tool for analysts and policy makers working towards solutions to piracy. The project is designed to be a collaborative effort, and we welcome any data sources, comments, or other suggestions that interested stakeholders might have.

Ransoms

Over the past five years, ransoms paid to Somali pirates have increased from an average of \$150,000 in 2005 to \$5.4 million in 2010. The largest known ransom payment was for the South Korean oil tanker, the *Samho Dream* (pictured below).¹ This vessel was ransomed for a record \$9.5 million in November 2010. By the end of 2010, approximately \$238 million was paid in ransoms to Somali pirates in that year alone.



Insurance Premiums

Shippers purchase four main types of insurance as indemnity against piracy: war risk, kidnap and ransom (K&R), cargo, and hull. The most significant increase in premiums has been in 'war risk' and K&R. The Gulf of Aden was classified as a 'war risk area' by Lloyds Market Association (LMA) Joint War Committee in May 2008, and is therefore subject to these specific insurance premiums. The Cost of Piracy Model calculates the additional cost of insurance to the shipping industry by using a lower bound estimate (10% of ships purchasing these insurance premiums) and an upper bound estimate (70% of ships). From these calculations, we estimate that total excess costs of insurance due to Somali piracy are between \$460 million and \$3.2 billion per year.

Navy Forces

By our calculations, around \$2 billion is spent each year on naval operations off the coast of Somalia. The cost of naval presence comes in two forms: (1) The cost of each contributing naval vessel. We calculate these costs by using approximations of the cost of deploying a ship per steaming day, and multiply this number by the number of vessels deployed each year (currently around 43); (2) The administrative and staffing budgets of the 'big three' naval operations: Operation Atalanta, Operation Ocean Shield, and Combined Task Force 151.²



Prosecuting Piracy

Over 750 Somali piracy suspects have either been tried for piracy, or await trial in more than 11 countries. To calculate the cost of piracy prosecutions, we worked out the number of prosecutions held in three regions: Africa and the Indian Ocean, Europe, and North America. We have then multiplied this number by an approximation of the average cost of prosecutions for piracy or similar crimes in each region. The project estimates the cost of piracy trials and imprisonment in 2010 to be around \$31 million.

Organizations Dedicated to Reducing Piracy

A number of intergovernmental organizations are dedicated to working towards a solution for maritime piracy. These funds represent operating costs as well as established trust funds. The total budget of these organizations is around \$24.5 million.

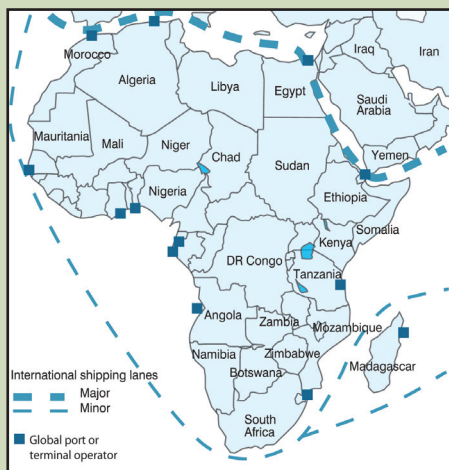
Organization	Funds
Contact Group on Piracy off the Coast of Somalia	\$3.7 million
IMO Djibouti Code	\$13.8 million
Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP)	\$2 million
UN Office of Drugs and Crime (UNODC)	\$5 million
Total Cost of Counter-Piracy Organizations	\$24.5 million



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Re-routing Ships to Avoid Piracy

For some vessels, especially 'low and slow' moving ships, which are at the greatest risk of piracy attack, avoiding risk zones altogether may be a safer or cheaper option. Total excess costs of re-routing to those ships is estimated to be between \$2.4 to \$3 billion per year.



Source: UNCTAD secretariat

The Secondary (Macroeconomic) Costs of Piracy

Secretary General of the United Nations, Ban Ki Moon stated in November 2010: "Piracy... has had an immense impact on the economies of East Africa and also the wider world... International trade routes are threatened and goods in the region as well as Somalia are becoming more expensive." The table below shows just some of the costs different countries suffer, as a result of piracy. Note that determining the macroeconomic impact of piracy is especially challenging because it is difficult to assess which costs result directly from piracy, and which costs are associated with general political or financial instability.

Country	Main Cost Factor	Loss Per Year
Egypt	Loss of revenue from Suez Canal fees (as ships re-route away from the Gulf of Aden)	\$642 million
Kenya	Trade Impact	\$414 million
Yemen	Trade Impact	\$150 million
Nigeria	Losses to oil and fishing industry	\$42 million
Seychelles	Losses to fishing and tourism industries	\$6 million
Total Macroeconomic Costs		\$1.25 billion

Deterrent and Security Equipment

Ship owners may attempt to protect their property and crew from piracy attacks by preparing their ships with security equipment and/or guards prior to transiting a high-risk zone. The total cost of this equipment is between \$363 million and \$2.5 billion per year.

Adding Up the Costs of Piracy

From the above calculations, the Cost of Piracy Project estimates the total cost of piracy in 2010 to be between \$7 and \$12 billion. This figure is not a definitive result, but an approximation. We welcome collaboration from interested parties in continuing this study into future years, as well as further developing the project. We also note that like all economic assessments, these estimates reflect the current economic environment. It is worth remembering that as the international economy rebounds from the present economic recession, these numbers could be expected to change substantially.

About the Oceans Beyond Piracy Project

One Earth Future (OEF), a private foundation, is committed to seeking effective solutions to emerging governance challenges. OEF's first project is a strategic commitment to the Oceans Beyond Piracy Project. Oceans Beyond Piracy seeks to engage and mobilize stakeholders to develop a global response that deals comprehensively with deterrence, suppression, and prosecution of piracy.

Cost Factor	Cost
Ransoms: (excess costs)	\$148 million ³
Insurance Premiums	\$460 million to \$3.2 billion
Re-Routing Ships	\$2.4 to 3 billion
Security Equipment	\$363 million to \$2.5 billion
Naval Forces	\$2 billion
Prosecutions	\$31 million
Anti-Piracy Organizations	19.5 million ⁴
Cost to Regional Economies	\$1.25 billion
TOTAL ESTIMATED COST	\$7 to \$12 billion per year

1. Photo Source: CBC News, <http://www.cbc.ca/world/sotry/2010/11/06/somalia-pirates-tanker-ransom-korea.html> 2. Photo Source: NATO 3. We do not include actual ransom value paid, as this is covered by insurance costs below. 4. We do not include the annual UNODC budget (\$5 million) in the total costs of piracy, as much of these funds are dedicated to improving the prosecutorial capacity of Kenya and the Seychelles, so are already accounted for in the cost of prosecutions.