ON THE ECONOMICS OF INTERNATIONAL SEA PIRACY—A CASE OF HISTORY REPEATING ITSELF

Barry Hart Dubner and Ritvik Raturi

INTRODUCTION

On 2 September 2011, Professor Dubner received an e-mail from a gentleman by the name of Andrew Mwangura which was sent from Mombasa, Kenya. This same gentleman, and between 20 and 25 people, including Professor Dubner, were invited to the Harvard’s Kennedy School of Government under the auspices of the World Peace Foundation and the Cambridge Coalition to Combat Piracy (December 2009) in order to express views on how to resolve piracy off the coast of Somalia. Included in this group were scholars, diplomats, senior ranking military officers, intelligence representatives, shipping industry officials, and other experts on maritime piracy. They came from all over the world to attend this important meeting. They met in a conference room in the Harvard Kennedy Center and discussed the situation for two and a half days. The results of these sessions became embodied in an article called “Combating Maritime Piracy: A Policy Brief with Recommendations for Actions.” Since that meeting and resulting policy brief, there have been numerous articles and studies by the United Nations’ maritime-economists. Most recently, the United Nations (U.N.) issued a Report of the Secretary-General on the Modalities for the

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Establishment of Specialized Somali Anti-Piracy Courts (hereinafter, Modalities Report).[^2]

Perhaps the most interesting statement on the current state of piracy does not come from U.N. documents and other articles, but from the aforementioned email that was received from Mr. Mwangura.[^3] He posed a series of questions and requested assistance in obtaining certain data on Somali sea piracy occurrences from September 2010 to August 2011. The request he posed is quite telling (see Appendix A). The questions demonstrate how the crime of piracy has expanded from the simple stealing of petty fund boxes and safes on board ships to the kidnapping of human beings and the hijacking of ships. The questions show that, even without the answers, exactly how bad the situation has become with regard to sea piracy committed in both near and far from the 1800 mile coast off of Somalia.

The answers to these questions can be found in many sources, including the United States Government Counter-Piracy Steering Group, the Contact Group on Piracy, and their five working groups and the International Maritime Bureau.[^4] The reason for asking these questions was never given but it is obvious that the simple crime of piracy has now become rather a


[^3]: See infra App. A.

[^4]: See Counter Piracy and Maritime Security (PM/CPMS), U.S. DEPT’ OF STATE, http://www.state.gov/t/pmm/ppa/piracy/c32662.htm (“The U.S. Government Counter-Piracy Steering Group is an "executive-level body created to implement the National Action and Partnership Plan to Combat Piracy off the Horn of Africa, this group is co-chaired by the Departments of State and Defense and reports to the National Security Staff. Also represented on this group are the Departments of Homeland Security, Justice, Treasury, Transportation, and the U.S. Agency for International Development."); see Background, CONTACT GROUP ON PIRACY OFF THE COAST OF SOMALIA, http://www.thecgpcs.org/about.do?action=background (last visited Feb. 12, 2012) (“Pursuant to UN Security Council Resolution 1851, the Contact Group on Piracy off the Coast of Somalia (CGPCS) was established on January 14, 2009 to facilitate the discussion and coordination of actions among states and organizations to suppress piracy off the coast of Somalia. This international forum has brought together more than 60 countries and international organizations all working towards the prevention of piracy off the Somali coast."); see International Maritime Bureau, ICC COMMERCIAL CRIME SERVICES, http://icc-ccs.org/home/imb (last visited Feb. 14, 2012) (“The International Maritime Bureau [(IMB)] is a specialized division of the International Chamber [o]f Commerce [(ICC)]" that was “established in 1981 to act as a focal point in the fight against all types of maritime crime and malpractice.”). Since 1992, the IMB has operated its Piracy Reporting Centre (PRC), the main objective of which “is to be the first point of contact for the shipmaster to report” an actual or attempted attack or even suspicious movements, “thus initiating the process of response.” IMB Piracy Reporting Centre, ICC COMMERCIAL CRIME SERVICES, http://icc-ccs.org/piracy-reporting-centre (last visited Feb. 14, 2012). The PRC’s “main aim” is to “raise awareness within the shipping industry, which includes the shipmaster, ship-owner, insurance companies, traders, etc[,] of the areas of high risk associated with piratical attacks or specific ports and anchorages associated with armed robberies on board ships.” Id.
strain economically on maritime shipping companies and countries, such as the United States and European Union. The purpose of this article is to show how and why there is a “cottage” industry developing to both prevent and fight piracy. Mr. Mwangura ends his e-mail as follows: “Everyone is crying out for peace, none of them is crying for justice. We want equal rights and justice.” (See Appendix A). The assumption is that this refers to the seamen and other civilian hostages that are being held over long periods of time. The waste of human life is appalling. The economics of the situation is one of the main causes of sea piracy.

I. The Extent of the Sea Piracy Problem

One of the key questions asked in Mr. Mwangura’s email was whether or not the prosecution of pirates had any effect. The answer lies partly with the economics involved. When reading the statistics, sea piracy seems to be getting worse, not better. For example, as of March 2011, Contact Group on Piracy off the Coast of Somalia (CGPCS) Plenary Session reported that pirates were holding 26 ships and 573 hostages; in July 2011, CGPCS Plenary Session reported 17 ships and 393 hostages; and in November 2011, CGPCS Plenary Session reported 10 ships and 243 hostages. These reports show that there is a continuing trend of pirates capturing fewer ships (“IMB credits the reduction in hijackings to the intervention by international naval forces.”). However, in contrast to the trend of fewer hijackings is the fact that piracy is a growing threat because the number of pirate attacks continues to be on the rise, “albeit with a decreasing rate of success.” In July 2011, the IMB released a report stating that pirates are now targeting areas frequented by crude oil tankers. Furthermore, “Ships, including oil and chemical tankers, are increasingly being attacked with automatic weapons and rocket-propelled grenade launchers. Whereas five years ago


7. Tenth Plenary Session, supra note 5, at 1.

pirates were just as likely to brandish a knife as a gun, this year guns were used in 160 attacks and knives in 35.” Owners of oil and energy tankers are also claiming that insider information is allowing pirates to target their ships.10

“The geographical area of the attacks now stretches to 2.8 million square miles, an area that is increasingly difficult for naval forces to patrol.”11 In addition, according to the Modalities Report, the expanding range of attacks has been achieved through the use of mother ships.12 The Modalities Report stated that Pirates are now

[u]sing large vessels with supplies for smaller pirate vessels used in attacks, and with as many as a hundred pirates on board to guard hostages and to deter rescue attempts. Pirate attacks now often involve the use of overwhelming force to overcome security personnel on board merchant ships. Hijacked crews have been used as “human shields” against military intervention, and have been threatened as a means to deter military attack.13

It is estimated that there are about “50 main pirate leaders, around 300 leaders of pirate attack groups, and around 2,500 ‘foot soldiers.’ It is believed that financing is provided by [approximately] 10 to 20 individuals. In addition, there is a large number of armed individuals guarding captured ships, and numerous ransom negotiators” working for the pirates.14

Against this background, this essay will explore the “classical” period of piracy to see how much difference there is between the operations of pirates centuries ago, in the Caribbean, for example, and operations that are being used today off of Somalia. It will be observed that everything has changed and nothing has changed meaning that though there are numerous new tactics used by pirates and their backers, the laws regarding piracy are essentially the same now as they were centuries ago; the prosecution of pirates and trying to create a prosecutorial system in a lawless country has become problematic, just as it was centuries ago; and the approach to the problem of sea piracy has been one of repeating past mistakes. This article will demonstrate that all of the economic and prosecutorial problems that exist today also existed hundreds of years ago.

The resurgence of piracy is obviously due to the fact that it has become a financial success for the pirates and their backers. Now most of the countries are waiting to see what is going to happen to the relationship

9. Id.
10. Id.
12. The Modalities, supra note 2, at 27.
13. Id.
14. Id.
between pirates and the various extremist groups in Somalia. Can the relationship of extremists and organized crime syndicates with pirates become so successful that nobody in the country of Somalia will be able to stop it? Will piracy develop in the same manner as the South American drug trade in the 1970s, a relatively small-time operation turning into a huge global crisis? These are some of the questions that this article is going to explore.

This discussion will commence with a look at some of the highlights of piracy that existed centuries ago.

II. The Classical Period of Piracy

When Professor Dubner became interested in writing about piracy it was because he had thought that the crime had disappeared from the face of the earth. He wrote the first book on International Law of Sea Piracy over 30 years ago. At that time, the main source of material was a 1932 study by the Harvard Research Group. The group proposed draft articles on the subject of sea piracy and concluded that they were going to prepare the draft articles (later adopted in the 1958 Geneva Convention and the 1982 United Nations Convention on the Law of the Sea (UNCLOS)) in an expeditious manner, because the crime itself had long ago been forgotten and was insignificant.

The classical or “golden age” of piracy, when pirates were at their strongest and sea piracy was at its height, extended from the 1660s to the 1730s. According to Defoe, “[t]his was at a Time that the Pyrates had obtained such an Acquisition of Strength, that they were in no concern about preserving themselves from the Justice of Laws.” Everybody has heard about Blackbeard (his real name being Edward Teach or possibly “Tech,” etc.), Bartholomew Roberts and others. One of the most interesting facts that could be related to piracy off of Somalia is that a sample of about 700 active pirates in the Caribbean between 1715 and 1725 was composed of different and mixed descent, ranging from American, West Indian, Swedish, Dutch, and others. Not only were they of different nationalities, but they were also racially diverse. “Based on data available from 23

17. Id. at 787 (“It is expediency that should be the chief guide in the formulation of a convention.”).
21. Id.
pirate crews active between 1682 and 1726, the racial composition of ships varied between 13 and 98 percent black.” 22 If this sample is representative, then 25-30 percent of the average pirates were of “African descent.”23 This is an important statistic because one of the arguments against attacking pirates ashore, which was made at the Harvard meeting that Professor Dubner attended in December 2009, was the fact that many of the countries that were trying to thwart piracy today, are composed of Caucasians and are usually Christian, whereas the Somalis are mostly people of color and Muslim. Today, the international community does not want to appear as though it is starting a racial or religious crusade over the crime of piracy. It will be demonstrated later in this essay that the economics of piracy requires an understanding of the religious dimension involved because Hawawal, which is an informal money transfer system used almost solely by Muslims, is also the primary system pirates use to launder ransom payments.24

In the classical period the total number of pirates that existed according to pirate historians “between 1716 and 1722 . . . were between 1,000-2,000 sea bandits.”25 In an interesting footnote, Leeson pointed out that the “Royal Navy averaged only 13,000 men in any one year between 1716 and 1726, making the pirate population in a good year more than 15 percent of the navy population.”26 In 1680, the total population of the American colonies was less than 152,000 according to Leeson.27 In fact, as late as 1790 when the first U.S. census was taken, only 24 places in the country had a population greater of 2,500.28

Unlike today where Somali pirates go out on skiffs and make use of mother ships, the average crew size, between the period of 1716 and 1726, was about 80 members.29 Some pirate crews were close to 120 members and crews of 150 to 200 were not uncommon.” 30 Several pirate crews were reported to be bigger than this. For example, Leeson notes that “Blackbeard’s crew aboard the Queen Anne’s Revenge was 300 men.”31

22. Id.
23. Id. (citing KENNETH J. KINKOR, BLACK MEN UNDER THE BLACK FLAG, IN BANDITS AT SEA: A PIRATES READER, 195, 200-01 (C.R. Pennell ed., 2001)).
25. Leeson, An-arrgh-chy, supra note 20, at 1054 (citation omitted).
26. Id. at 1054 n.14 (citing REDIKER, supra note 28, at 256).
27. Id. (citing JONATHAN HUGHES & LOUIS P. CAIN, AMERICAN ECONOMIC HISTORY 20 (4th ed. 1994)).
28. Id. (citing HUGHES & CAIN, supra note 30, at 28).
29. Id. at 1054 (citing REDIKER, supra note 29, at 256).
30. Id. at 1054-55.
31. Leeson, An-arrgh-chy, supra note 20, at 1055 (quoting DAVID CORDINGLY, UNDER THE BLACK FLAG: THE ROMANCE AND THE REALITY OF LIFE AMONG THE PIRATES 165-66 (2006)). “[A] sixth-rate Royal Navy ship in the early eighteenth century carried more crew members than the average pirate vessel (about 150) . . . Furthermore, some pirate crews were too large to fit in one ship. . . .[and would form] squadrons.” Id. at 1055 (citation omitted). Professor Leeson gives as an example Captain Bartholomew Roberts commanding
Apparently, many of the multiple pirate ships joined concerted plundering expeditions, for example:

The most impressive fleets of sea bandits belong to the buccaneers. . . . Captain Morgan commanded a fleet of 37 ships and 2,000 men sufficient to attack coastal communities on the Spanish Main. 32

Ships joining into fleets or becoming fleets apparently was nothing out of the ordinary in those days. The manner in which pirate organizations operate today is comparable to the way pirates operated in the classical period. Much like today, pirates in the classical period did not acquire their ships by purchase or otherwise; they stole them. 33 It has not been uncommon for pirates off of Somalia to steal a fishing vessel, for example, and use it as a mother ship. Naturally, all the pirates followed the basic rule of “no prey, no pay.” 34 As will be seen later in this paper, the amount of pay and how it is divided is very similar to the way things are done today. For example, after they captured a ship “[t]he hunters’ pay will generally be 200 pieces of eight; the carpenter, for his work . . ., would be paid 100 to 150 pieces of eight; the surgeon would receive 200 or 250 for his medical supplies.” 35 Pirates even had a set amount for the loss of limb or other injuries. For a loss of the right arm, (i.e., 600 pieces of eight or six slaves); for a left arm 500 pieces of eight or five slaves; “the left leg was 400 and four slaves; an eye 100 or one slave and the same award was made for the loss of a finger.” 36 Also, articles of piracy (i.e., a chasse-partie) would set forth all of the “duty” among the officers and crews. 37 In addition to the above amounts, which were withdrawn from the capital:

[T]he rest of the prize would be divided into as many portions as men on the ship. The captain draws four or five men’s portions for the use of the ship, perhaps even more, and two portions for himself. The rest of the men share uniformly, and the boys get half a man’s share. 38

a squadron of four ships to carry 508 men. Id. (citing CORDINGLY, supra, at 111, 165-66); REDIKER, supra note 28 at 107.

32. Id. (citing ALEXANDER O. EXQUEMELIN, THE BUCCANEERS OF AMERICA 171 (Alexis Brown trans., Dover 2000) (1678)).

33. Id. at 1064. “There is at least one eighteenth-century pirate, however, Stede Bonnet, who actually purchased the first ship he went on the account with.” Id. n.30.

34. Id. at 1070. (“The buccaneers called their articles a chasse-partie. These articles specified the division of booty among the officers and crew along with other terms of the buccaneers’ organization. All sea bandits followed the basic rule of ‘no prey, no pay.’ Unless a pirating expedition was successful, no man received any payment.”).


36. Id.

37. Id. at 1069-70.

38. Id. at 1070. See also id. at 1076 (“The evidence also suggests that piratical articles were successful in preventing internal conflict and creating order aboard pirate ships. Pirates, it appears, strictly adhered to their articles.”).
Piratical organization in the classical period also received a significant sum from their plunder:

At a time when Anglo-American seamen on a trading voyage to Madagascar were collecting less than twelve pounds sterling a year . . . the deep-water pirates could realize a hundred or even a thousand times more . . . The amount of money was rather enormous. In 1695, for example, Henry Every’s pirate fleet captured a prize carrying more than £600,000 in precious metals and jewels. The resulting share-out earned each member of his crew £1,000, the equivalent of nearly 80 years [sic]’ income for an able merchant seaman at the time. In the early eighteenth century, Captain John Bowen’s pirate crew plundered a prize ‘which yielded them 500 [pounds] per Man. Several years later, Captain Thomas White’s crew retired to Madagascar after a marauding expedition each pirate having earned £1,200 from the cruise. In 1720, Captain Christopher Condent’s crew seized a prize that earned each pirate £3,000. In 1721, Captain John Taylor and Oliver La Bouche’s pirate consort earned an astonishing £4,000 for each crew member from a single attack. Even the small pirate crew, captained by John Evens in 1722 took enough booty to split ‘nine thousand Pounds among thirty Persons’—or £300 a pirate. To put these earnings in perspective, compare them to the able merchant seaman’s wage over the same period. Between 1689 and 1740 this varied from 25 to 55 shillings per month, a meager £15 to £33 per year. 39

It will be shown that these figures are comparable to the figures that exist for Somali pirates today. For example, a Somali pirate today can earn between $168,630 and $394,200 in the course of five years, whereas their next best alternative yields a meager $14,500 over their entire life time. 40

One important fact that can be learned from reviewing classical pirate profits is that “[p]irate crew members—the piratical firm’s employees—jointly owned and operated the piratical firm.” 41 Sound familiar? This is because there have been numerous studies regarding the amount and structure of ownership and funding of pirates today. Pirates today operate through external funding, which comes from different sources, including the

39. Id. at 1077-78 (citation omitted) (Konstam’s original text states that £1,000 is the equivalent of nearly 80 years’ income for an able merchant seaman, whereas Leeson, in quoting Konstam, stated £1,000 is the equivalent of nearly 40 years income). In 1932 John Robert Moore, an American scholar of Daniel Defoe published his theory that Charles Johnson was really Daniel Defoe writing under his pen name. Moore’s argument was so persuasive that most libraries catalogued Johnson’s books under Defoe’s name for the next 50 years. Leeson cites Charles Johnson throughout his publication, however many of Leeson’s references may possibly be catalogued under Daniele Defoe. See e.g., BARR KARG & ARJEAN, THE EVERYTHING PIRATES BOOK: A SWASHBUCKLING HISTORY OF ADVENTURE ON THE HIGH SEAS 223 (Adams Media, 2007).

40. See GEOPOLICY, infra note 62, at iv.
underworld. In the classical period, however, pirates did not require external financiers, for "each employee of the piratical firm was nearly a partner: a near-equal firm-owner with an equal say in firm activities, such as whether the crew would continue on the account (or retire), who would lead the crew, and so on."\textsuperscript{43} In the classical period the pirate pay scale was extremely flat, the difference between the highest and lowest paid person was only a single share.\textsuperscript{44}

In contrast, modern day pirates have a large disparity within their pay scale. The stark difference in the pay scales of pirates and their backers allows the top commanding backer to receive nearly one hundred times more than a bottom level employee.\textsuperscript{45} Journalist Jay Bahadur, in an article titled “Pirates Inc.,” described one instance of this payment structure.\textsuperscript{46} Mr. Bahadur’s article focused on the pirates that captured crewmembers aboard the MV Victoria.\textsuperscript{47} The Pirates ransom payment was distributed as follows:\textsuperscript{48}

<table>
<thead>
<tr>
<th>Position</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officers</td>
<td></td>
</tr>
<tr>
<td>Commander-in-chief, Financial Backer</td>
<td>$900,000</td>
</tr>
<tr>
<td>“Computer”</td>
<td></td>
</tr>
<tr>
<td>Interpreter Loyanne</td>
<td>$60,000</td>
</tr>
<tr>
<td>Accountant Mustuku</td>
<td>$60,000</td>
</tr>
<tr>
<td>Supplies logistics officer</td>
<td>$30,000</td>
</tr>
<tr>
<td>“Commander of the Khat”</td>
<td></td>
</tr>
<tr>
<td>Attackers</td>
<td></td>
</tr>
<tr>
<td>First to board the MV Victoria</td>
<td>$150,000 (plus Land Cruiser bonus)</td>
</tr>
<tr>
<td>Mohamad Abdi</td>
<td></td>
</tr>
<tr>
<td>Eight others</td>
<td>$41,000 each</td>
</tr>
<tr>
<td>Cooks</td>
<td></td>
</tr>
<tr>
<td>Head Chef</td>
<td>$20,000</td>
</tr>
<tr>
<td>Sous-chef</td>
<td>$9,000</td>
</tr>
<tr>
<td>Holders</td>
<td></td>
</tr>
<tr>
<td>20 men</td>
<td>$12,000 each</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$1,800,000</td>
</tr>
</tbody>
</table>


\textsuperscript{43} Leeson, \textit{The Invisible Hook}, supra note 41, at 151.

\textsuperscript{44} Id.


\textsuperscript{46} Id.

\textsuperscript{47} Id.

\textsuperscript{48} Id. M.V. Victoria was hijacked by eight pirates in the Gulf of Aden on May 5, 2009 while on its way to the Saudi port of Jeddah. One million, eight hundred thousand dollars in ransom was paid. The table shows how the ransom payment was divided. Id.
After discussing what each pirate received, Mr. Bahadur stated:

As in any pyramid scheme, the clear winner was the man on the top. Computer was responsible for supplying start-up capital worth roughly $40,000, which went toward the attack boat, outboard motors, weapons, food and fuel. For this investment he received half of the total ransom, or $900,000. After subtracting the operating expenses of $230,000 that the group incurred during the Victoria’s captivity in Eyl, Computer’s return on the investment would have been enviable 1,600 per cent.

The hijacking of the MV Victoria, which amounted to a ransom payment of $1.8 million, represents a small part of the greater pirate industry that causes over $12 billion of damage annually. Because of this, we now turn to the statistics provided by two recent economic studies which show in detail the financial impact of piracy on the international community.

III. THE PRESENT DAY ECONOMICS OF SEA PIRACY AND THE COST TO THE ECONOMIC COMMUNITY

A. Background

During the meeting at the Harvard’s Kennedy School of Government, one of the main concerns expressed was the fact that piracy had changed over the years from the simple theft of a ship’s money or of a ship to a criminal industry backed by organized crime. There, in December 2009, it was estimated that “[a]bout 1,500 pirates were involved, with 7 syndicates and fewer ‘bosses’ controlling separate but linked enterprises [that are] largely financed and brokered from Kenya, Dubai, Lebanon, Somalia, and elsewhere.”

Although Russia was mentioned, nothing was shown at the time that indicated that the Russian mafia was involved. A chart concerning finances (“the money paper trail”) was introduced at this meeting, as follows:
Thereafter, in July 2011, a report was issued by the Financial Action Task Force Groupe d’action Financière (FATF*GAFI). The FATF “is an independent inter-governmental body that develops and promotes policies to protect the global financial system against money laundering and terrorist financing.” The report was broken up into two parts: maritime piracy for ransom (MPR) and kidnapping for ransom (KFR). One of the more interesting points made by the study was as follows:

With ransom demands and payments for the release of vessels and hostages escalating, there appears to be a definite link to money flows related to both those who are financing piracy and the proceeds of this criminal activity. Despite this, international maritime operations involving...
warships from dozens of countries remains the primary response against PFR.57

If this is so, it is because the international community believes that stopping the acts of piracy at these stages should take priority due to the number of sailors that are being held for ransom as well as being killed and tortured. Also, industry professionals who deal with the payment of ransoms have little interest in insisting on the understanding of where the monies are being distributed. What they are more interested in is getting the vessels back.58

The FAFT report shows that within the past few years the piracy for ransom situation has grown rapidly:

In 2010, hijackings off the coast of Somalia resulted in 49 vessels captured and 1016 hostages taken, as well as eight fatalities. Another four vessels with 165 crew members were hijacked elsewhere in the world. As of 3 March 2011, 33 vessels were being held, including one that was converted to use as a pirate “mother ship.” A total of 711 were also being held. In the first two months of 2011, seven fatalities resulted from PFR-related attacks.59

As this is going on, “[r]ansoms are rising exponentially, having increased from an average of $150,000 per vessel/crew accrued in 2005 to an estimated $5.2 million per vessels/crew in 2010.”60 “[A]pproximately USD180-238 million were reportedly paid in ransoms in 2010. The total

57. Id. at 7 (emphasis added). The result of this report is that the piracy off the coast of Somalia, is creating major problems for the international community: inter alia, “money laundering/proceeds” and the “multi-dimensional threat to financial systems, including . . .] shipping costs, inflation of insurance premiums for vessels and cargos, freedom of commerce on the high seas, and the rise in ransom payments themselves.” Id.

58. Id. “One of the most spectacular increases in the costs of piracy in recent years has been the increasing price of ransoms paid to release hijacked ships. Ransoms are generally sought by Somali pirates. Pirates in other regions have more often stolen the vessel or cargo, rather than ransoming the value of the seafarers’ lives and their ship. In November 2010, the highest ransom on record, $9.5 million, was paid to Somali pirates to release the Samho Dream, a South Korean oil tanker. Indeed, 2010 set a remarkable record for the cost of ransoms, with the year kicking off to a $7 million ransom paid in January to release the Greek supertanker MV Maran Centaurus, which had been carrying $162 million of crude oil from Saudi Arabia to the United States.” FATF Report, supra note 51 at 9. FATF emphasized that if a pirate organization knows an individual, business, or other entity is willing to pay ransoms, the greater the likelihood that those who pay will be targeted again. Id. Also, “the more companies are willing to pay regularly, the more lucrative piracy as a business becomes. Today insurance costs have skyrocketed to the point that some companies would rather take a chance sailing through pirate-ridden waters and pay ransoms than repeatedly pay monumental premiums.” Mayann Lawlor, Signal Magazine, Piracy Threatens Global Economy (June 2010), available at http://www.afcea.org/signal/articles/templates/Signal_Article_Template.asp?articleid=2304&zzoneid=285.

59. FATF Report, supra note 54, at 7-8 (footnote omitted).

60. Id. at 8.
cost of PFR-related incidents, including vessel-related cost, depreciation and spoilage of goods, together with increased cost to manufacturers, shipping companies, maritime insurers, labor cost were estimated to be [USD] 7-12 billion per annum." ⁶¹

Consistent with the economic studies presented in the FATF Report, in May 2011, the following table was presented by Geopolicy: ⁶²

**HEADLINES (Based on Available Data):** ⁶³

<table>
<thead>
<tr>
<th>Low/High Pirate income (2010): Using 1,500 Pirates</th>
<th>~US$33,000-US$79,000/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Lifetime Earnings (2010): Using 1,500 Pirates</td>
<td>~US$168,000 US $394,000</td>
</tr>
<tr>
<td>Next Best Alternative:</td>
<td>~US$500/year</td>
</tr>
<tr>
<td>Pirates Incomes Compared to Average Income:</td>
<td>~67-157 higher</td>
</tr>
<tr>
<td>No. Pirates Could Double by:</td>
<td>~2016</td>
</tr>
<tr>
<td>Total Cost of Piracy 2010:</td>
<td>~US$4.9-8.3 billion</td>
</tr>
<tr>
<td>Projected Increase by 2014:</td>
<td>~US$13-15 billion</td>
</tr>
<tr>
<td>Major Stakeholders:</td>
<td>Financiers, Sponsors, Officials, Pirates, Maritime Insurers, Security Companies, Navies, Merchant Marine</td>
</tr>
</tbody>
</table>

In the economic model, Geopolicy assesses the cost and benefits of international piracy and creates a “value chain” where the greatest rates of return on international counter pirate investment and policy are to be found. The model includes [a]: i) a cost-benefit analysis at the individual pirate level, based on existing socioeconomic and market data ii) the aggregate cost-benefit analysis at the international systems level[,] and iii) comprehensive data on the resurgence of piracy by

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⁶¹. *Id.* (footnotes omitted). In calculating the total damage that piracy has caused to the international community it is also important to note that [t]he total cost of ransom is estimated to be around double the value actually paid to pirates. The total cost is duplicated by a number of factors, such as: the cost of negotiations, psychological trauma counseling, repair to ship damage caused while it is held captive, and the physical delivery of the ransom money, often done by helicopter or private plane. Finally, large costs result from ships being held and out of service. For instance, it costs around $3 million for a cargo ship to be held for two months at a charter hire rate of $50,000 per day. Bowden, supra note 50, at 9-10 (footnotes omitted).


⁶³. *Id.* at cover page.
functional classification sovereign jurisdiction . . . [which] include[s] trend, comparator, and predictive analysis.\textsuperscript{64}

Geopolicy also made what they called an “executive summary outline” which it hoped would benefit the CGPCS.\textsuperscript{65} In the summary and subsequent study, Geopolicy estimates the cost of piracy to the international community as between $4.9-8.3 billion in 2010.\textsuperscript{66} It foresees estimates of $13-15 billion by the year 2015.\textsuperscript{67} The report also states that the income to pirates off the coast of Somalia alone in 2010 was between $75-238 million and could rise to $200-400 million by 2015.\textsuperscript{68} “Assuming only 1,500 active pirates exist off the coast[s] of Somalia, a pirate can expect to earn between $168,630 and $394,200 over a theoretical five-year career.”\textsuperscript{69} If these individuals were not pirates they could hope to earn, at best, approximately $14,500 over their entire working life.\textsuperscript{70} This “report also runs scenarios based on 3,000 pirates.”\textsuperscript{71} It predicts that the amount of increase in the number of pirates will jump from 200 to 400 in an annual rate based on present demand assumptions.\textsuperscript{72} By the time this study by Geopolicy was written, “[t]he expansion of global piracy incidents . . . increased from 276 in 2005 to 445 in 2010 (219 of which were off the coast of Somalia).”\textsuperscript{73} “This [number] could increase to more than 600 incidents by 2015, based on the application of supply/demand and opportunity cost theory.”\textsuperscript{74} The study suggests that the significant proportion of proceeds (between forty and fifty percent) are transferred out of Somalia using informant money transfer systems, presenting a vulnerability to the Anti-Money Laundering/Countering the Finance of Terrorism (AML/CFT) system.\textsuperscript{75}

As a result of this data, Geopolicy proposes a 3-phase independent economic research program which includes: strengthening and overcoming data paucity constraints; producing quarterly updates for the international community; undertaking country level financial tracking and sponsorship research; strengthening the understanding of the entire value chain; and

\begin{footnotesize}
\textsuperscript{64} Id. at iv.
\textsuperscript{65} Id.
\textsuperscript{66} Id. at iv, 9.
\textsuperscript{67} Geopolicy, supra note 62, at iv.
\textsuperscript{68} Id.
\textsuperscript{69} Id.
\textsuperscript{70} Id. The figures are comparable to that of the classical period where a small pirate crew could take £300 in one expedition whereas the next best alternative was £15 to £33 per year. Leeson, An-arrgh-chy, supra note 20, at 1078.
\textsuperscript{71} See Geopolicy, supra note 62, at iv.
\textsuperscript{72} Id.
\textsuperscript{74} See Geopolicy, supra note 62, at iv.
\textsuperscript{75} Id.
\end{footnotesize}
developing a framework of corrective measures that focus on policy, institutional, security sector reform, law enforcement, prevention, and systems monitoring.\textsuperscript{76}

An interesting point that the Geopolicy study raises is that the origins of piracy off the coast of Somalia can be traced back to the political, economic, and social unrest, which characterized Somalia in the mid-1990s.\textsuperscript{77} It also points out that in the absence of a functioning central government, some Somali fishermen assumed the role of protecting Somali waters from both illegal dumping of waste by foreigners as well as over-fishing.\textsuperscript{78} The report calls these vigilante activities, which has led to selecting piracy as a way to supplement livelihoods.\textsuperscript{79} Additionally, it also points out that there are few legal alternatives for some of these impoverished Somalis.\textsuperscript{80} Some authors have suggested that Somalia may be better off stateless and set forth before and after scenarios to demonstrate their point, which to the authors, is simply ridiculous.\textsuperscript{81}

The main problem is that the crime of international sea piracy is becoming institutionalized with respect to entrenched organization structures and self-financing mechanisms.\textsuperscript{82} There have been suggestions of linkages between pirates and terrorist groups, but that connect has not been determined definitively.\textsuperscript{83} Piracy has been considered \textit{haram} (forbidden) under Islam, yet there are many anecdotes of Somali pirates paying “docking fees” and “taxes” to Al-Shabaab and possibly to other Islamic terrorist groups.\textsuperscript{84} There was a report by a foreign press in February 2011, indicating that al-Shabaab ordered pirates in central Somalia to provide a cut of twenty percent of their profits to the terrorist group.\textsuperscript{85} When the pirates refused to do so, al-Shabaab reportedly detained four of the pirates’

\textsuperscript{76} Id.
\textsuperscript{77} Id. at 8.
\textsuperscript{78} Id.
\textsuperscript{79} Id.
\textsuperscript{80} Id. (citing U.S. DEP’T OF STATE, PIRACY REPORT (2011), \textit{available at} www.state.gov/t/pm/ppa.piracy.c32662.htm).
\textsuperscript{81} Because Somalia has been able to improve its performance on a number of human development indicators despite the absence of government leads authors to formulate arguments that suggest Somali is better off stateless. The fact of the matter is Somalia has endured two decades of war, beset by droughts and now the only lucrative opportunity in that region is piracy. The cash brought in through piracy may cause some economic growth, but at what cost? A state run by terrorists and organized crime syndicates is by no means better than a state which functions through an elected government. \textit{See}, e.g., Peter T. Leeson, \textit{Better Off Stateless: Somalia Before and After Government Collapse}, \textit{35 J. COMP. ECON.} 689 (2007).
\textsuperscript{82} Bahadur, supra note 45.
\textsuperscript{83} FATF Report, supra note 54, at 9.
\textsuperscript{84} Id.
\textsuperscript{85} Id.
Though, in December 2011, Islamist militants were ousted from the Somali capital, Mogadishu, and U.N. officials viewed this event as a brief window of opportunity to set up a working government in Somalia. The worry, nevertheless, still remains that piracy will continue to be an "attractive option to [certain] terrorist groups in the future."

B. Analyzing the ‘Money Trail’ of Present Day Sea Piracy

In order to restrain the growth of Somali Piracy, the Geopolicity group points out that the key focus of future research should be in, "(i) the payment of money and laundering of ransom payments (ii) asset tracing (iii) where relevant informal money transfer systems (iv) pirate value chain analysis . . . " In addition, the important fact to be considered is that the ransom payment can be collected and consolidated anywhere in the world. The payments made for the release of crews and vessels can also be spent and converted into different types of financial instruments, or used to purchase real property and other fixed assets in multiple jurisdictions as well:

A common ratio that academic experts use in theorizing about the amount of PFR-related monies remaining in Somalia versus the amount leaving there is 60/40. However, even if indeed “only” 40% of ransom proceeds leave Somalia, the actual and potential exploitation of the financial sector by those who commit and support PFR globally still represents a money laundering and terrorist financing threat. For example, based on the USD 238 million in ransoms reportedly paid to Somali pirates in 2010, approximately USD 95 million would comprise the 40% sent out of the country. This is a significant amount of illicit finance relative to the region that could enter the international financial system in a variety of jurisdictions . . .

The Report of the FATF also shows that there are three basic means of financing the piracy industry. In all three cases, the pirate leader is well-connected and a person respected in the community, and is thus able to draw upon his personal network for protection and problem solving:

86. Id. The link between piracy and terrorism can also include the sale or transfer of hostages to terrorist groups. See, e.g., Abdalle Ahmed, Somalia: British Couple Held Hostage in Harardhere Transferred to Unknown Location, Pirate Says, RBC RADIO (Apr. 29, 2010, 01:52 PM), http://www.raxanreeb.com/dev/2010/04/somalia-british-couple-held-hostage-in-harardhere-transferred-to-unknown-location-pirate-says/.
88. FATF Report, supra note 54, at 10.
89. GEOPOLICITY, supra note 62, at 13.
90. FATF Report, supra note 54, at 10.
91. Id.
92. Id. at 17.
1. A cottage industry structure in which the whole operation is owned by a single funder. He may lead the group, and, if the hijacking is successful, takes the largest share of the ransom payment.

2. A shareholder or cooperative structure in which individual pirates invest in the operation and share the PRF proceeds. Each pirate is equipped with his own weapon and other gear, and supplies his own food and other necessities. The boat is owned by a member of each “cooperative.”

3. A syndicate or committee structure formed by several investors. Syndicates are responsible for the majority of hijackings. They arm and equip several pirate groups and draw up contracts for PFR operations and the distribution of ransom payments. Successful syndicates can command as much as a 50 per cent share of a ransom payment.\(^{93}\)

Of the three forms of financing piracy, the syndicate model, according to the FATF, has generated the most amount of interest.\(^{94}\) Today, shares in a given syndicate can cost between five to ten thousand dollars each.\(^{95}\)

The committee may have direct access to the pirate leadership, or may choose to . . . use a facilitator to transport the funds to the pirate group. An agreement specifies the amount of money they are collectively providing; usually has the name of the individual receiving this money and how much the investors require as a return.\(^{96}\)

The pirates will issue two types of shares in the venture: “A” shares, in which the individual receives a percentage of the ransom, and are reserved for investors, pirate leaders and the successful pirate crew; and “B” shares, which entitle the individual to a fixed fee.\(^{97}\) The report indicates that “A” shares generally go to investors, pirate leadership and pirate crew, and “B” shares are paid to individuals with singular tasks such as armed guards, interpreters, and middlemen.\(^{98}\) This investor scheme setup also displays characteristics similar to those employed in conventional organized crime.\(^{99}\)

\(^{93}\) Id.  
\(^{94}\) Id.  
\(^{95}\) FATF Report, supra note 54, at 17. One report indicated that at present, it costs investors approximately six thousand dollars to send a team of pirates out searching for ships to hijack. This money goes toward the purchase of food, ammunition, and fuel and the rental of rocket-propelled grenade launchers and speedboats. Even though it costs investors six thousand dollars to send a team of pirates, each investor must be prepared to fund several failed attempts. When an investor’s team succeeds, the investor receives upwards of thirty percent of the total ransom. Walker, supra note 52. Based on this report, an investment of approximately 40 thousand to one hundred thousand dollars can bring in millions of dollars profit. Because of the potential payoff for investors piracy is turning into an extremely lucrative enterprise.  
\(^{96}\) FATF Report, supra note 54.  
\(^{97}\) Id.  
\(^{98}\) Id.  
\(^{99}\) Id.
Accompanying the distribution of shares schematic, the FAFT Report indicates that in 2006 the estimated total ransom money paid to Somali pirates was $5 million in 2006; $25 million in 2007; $70 million in 2008; $80 million in 2009 and $180 million in 2010. 100

Even the type of notes that comprise the ransom payment differ from “USD 100 notes (90%); USD 50 notes (7%) and in USD 20 notes (3%). Eighty percent of the ransoms are delivered by airdrop as it entails less risk than any other method . . . . [M]any experts believe that a significant amount of the money—from 40-60%—never leaves Somalia. Proportions of the profits are offered to various groups, including [t]he initial investors, payments to local clan chiefs and militia, reinvesting in weapons and equipment, payments to the pirates’ leader and the other pirates, both the initial hijackers as well as the guards. 101

The report goes on to indicate that the proceeds of piracy have been used to purchase real estate in Puntland as well as areas in Kenya such as Eastleigh in Mombasa. 102

In addition, the report has set forth various case studies in order to illustrate not only the brazen nature of Somali piracy but also the somewhat uncoordinated nature of the international community in detecting, interdicting, and deterring hijacking. 103 The report claims that the “disjointed nature of cooperation between shipping companies, maritime insurance underwriters, law enforcement, financial intelligence units, and post-incident investigators in sharing information” ultimately leads to the inability to follow the financial trail pirates almost always leave behind. 104 One of the conclusions of the case study is that the “Somali pirates are becoming ‘[i]ncreasingly reliant on the international financial system and other money service provider to move cash off-shore [in order] to finance other activities. ’” 105

The report also demonstrates the generic typology for PFR operations off the coast of Somalia:

[A] vessel is seized, the owner or management company is contacted, and a ransom payment is negotiated, often by third party intermediaries. The insurance company of the hijacked vessel then arranges for a cash payment. The cash is obtained from a financial institution, which may be the insurance company itself, and packaged for delivery, often being

100. Id. at 18. “The actual figures are assumed to be higher than these, because the shipping industry does not always report the total ransom amounts accurately.” FATF Report, supra note 54, at 18.
101. FATF Report, supra note 54.
102. Id. at 19.
103. See generally FATF Report, supra note 54, at 11-12.
104. Id.
105. Id. at 13.
airdropped to a prearranged location. These payments seem to demonstrate two money laundering/terrorist financing vulnerabilities: that these payments often do not result in bulk cash disclosures/declarations and/or suspicious transaction reporting to the FIUs [Financial Intelligence Unit]. This occurs either because jurisdictions lack these requirements and/or those facilitating the payments of ransoms are successfully evading these reporting requirements. Once ransoms are paid and the cash subsequently enters Somalia, “following the money” becomes difficult because there are no mechanisms to identify the source and destination of these funds and because the trail goes cold if such payments were not previously reported to FIUs and other AML/CFT authorities.\textsuperscript{106}

Rather than the typical classical situation where pirates buried their loot on some remote, usually uninhabited island, or tendered over a percentage of it to the government that was sponsoring them, the Somali piracy situation presents the need for targeting financial activity of pirates, especially their financiers and instigators, through the freezing and seizure of assets, and the confiscation of the proceeds and instrumentalities of piracy.\textsuperscript{107} This method

\begin{quote}
[c]ould help to (1) disrupt financial support to pirate organizations, (2) track and seize (either through post-conviction or non-conviction based forfeiture, depending on the jurisdiction) assets enabling pirate operations, (3) prevent pirates from using the international banking system and other formal financial systems, and (4) prevent pirates from using cash couriers and other informal-value transfer mechanisms to transmit funds. . . .\textsuperscript{108}
\end{quote}

One of the most important findings is that

\begin{quote}
[o]ne of the most challenging conditions is the lack of capacity in the regions where piracy occurs. In particular, Somalia has no formal authorities or structures to implement an AML, and Puntland is known for its complicity. The countries surrounding Somalia are characterized by lack of capacity: Kenya has no FIU [Financial Intelligence Unit] and has not begun implementation of its ALM law. The AML/CFT regimes of Ethiopia, Seychelles, Yemen, and Tanzania are in varying degrees of development and implementation while, Uganda does not have an ALM law at all.\textsuperscript{109}
\end{quote}

\textsuperscript{106.} \textit{Id.} Note that FIU stands for Financial Intelligence Unit, AML stands for Anti-Money Laundering, and CFT stands for Countering the Finance of Terrorism.

\textsuperscript{107.} \textit{Id.} at 20.

\textsuperscript{108.} \textit{Id.}

\textsuperscript{109.} FATF Report, \textit{supra} note 54, at 22.
This is particularly alarming because these regions account for the majority of piracy prosecutions today.\textsuperscript{110} “Even in countries [that have a] traditionally higher capacity including countries that have a cursory ALM/CFT regime, there is a lack of consistency regarding bulk cash reporting, interdiction and investigation, \textit{hawala} money server business regulation, reporting regimes and investigation.”\textsuperscript{111}

Where does this all lead us? In terms of the “number of [s]tates prosecuting acts of piracy off the coast of Somalia in their courts,” the statistics show that the number of participating courts has risen from [ten] to [twenty]; and the total number of prosecutions taking place has nearly doubled from 528 to 1,011.”\textsuperscript{112} Kenya alone has convicted 119 pirates and Somalia, surprisingly has, according to U.N. data, tried 290 pirates in Puntland and convicted 240 of them.\textsuperscript{113} In Somaliland, there were 94 trials and 68 convictions, and in South Central Somalia there were eighteen trials held.\textsuperscript{114} Altogether, approximately 20 states have tried pirates, and over 1,000 trials have been held since the date of this U.N. report.\textsuperscript{115} Much of the international resources, which are being spent today are used to arrest and prosecute pirates through international naval operations. By allocating the majority of resources to prosecuting pirates at sea, less emphasis has been placed on prosecution through the tracing of the ransom payments. Given the syndicate nature of piracy and the fact that nearly 50% of the ransom is


\textsuperscript{111} \textit{Id.} at 22. \textit{Hawala} (also known as \textit{hundi}) is an informal money transfer system, used almost solely by Muslims, based on performance and honor of a huge network of money brokers who are primarily located in the Muslim World — Middle East, Africa and Asia. \textit{Hawala} has its origins in classic Islamic Law — the Sharia — and is mentioned in texts already as early as the 8th century. \textit{Hawala} itself later influenced the development of the Western Common Law and Civil Law such as the French \textit{Aval} (\textit{Avallo} in Italian). In the most basic variant of the \textit{Hawala} system, money is transferred via a network of \textit{Hawala} brokers, or \textit{Hawaladars}. A customer approaches a \textit{Hawala} broker in one city and gives a sum of money to be transferred to a recipient in another, usually foreign, city. The \textit{Hawala} broker calls another \textit{Hawala} broker in the recipient’s city, gives disposition instructions of the funds (usually minus a small commission), and promises to settle the debt at a later date. The disposition is executed based solely of the mutual trust and credibility between the two brokers without any further documentation. As the system does not depend on the legal enforceability of claims, it can operate even in the absence of a legal and judicial environment. No records are produced of individual transactions — only a running tally of the amount owed by one broker to another is kept. \textit{Hawala} is attractive to customers because it provides a fast and convenient transfer of funds, usually with a far lower commission than that charged by banks. Furthermore, the transfers are informal and not effectively regulated by governments, which is a major advantage to customers. \textit{Hawala} is also an ideal system for laundering money for those who trust the system. See \textit{Hawala System}, supra note 24.

\textsuperscript{112} The Modalities, supra note 2, at 27.

\textsuperscript{113} \textit{Id.} at 27-28.

\textsuperscript{114} \textit{Id.} at 28.

\textsuperscript{115} \textit{Id.}
distributed to only a few individuals, the figures make it clear that finding the few individuals that invest in piracy can result in bringing down an entire operation. Because of this, reports such as those from Geopolicity explicitly state that it is vital to target piracy through the pirate value chain, concentrating on the payment of money, laundering of ransom payments, tracking of assets, and analyzing the informal (hawala) money transfer systems.\footnote{FATF Report, supra note 54, at 13.}

The next section explores the complexity of tracing ransom money. What is important to note is that there are two simultaneous streams of commerce in which pirate ransom money can be placed. Low level Somali pirates that collect ransom payments are likely to place their share of profits into their local economies, whereas piracy investors are more likely to divert funds through an intrinsic money laundering system. Interestingly, because of this dichotomy, financial analysts must employ two radically different strategies in attempting to trace the movement of ransom payments. Furthermore, tracing this ransom money also reveals lucid ways in which modern piracy is beginning to parallel piracy in the classical period.

C. Tracing the Ransom Payments Made to Pirate Organizations

Everybody agrees that the crime of piracy can only be stopped if the conditions in Somalia improve. Somalia has endured two decades of war, beset by drought and famine; it is now the home to both a lucrative piracy industry and Islamist militant groups.\footnote{See Somalia’s Rare Window of Hope, BBC News (Dec. 13, 2011), http://www.bbc.co.uk/news/world-africa-16156157.} For this reason, Somalia is considered the ultimate failed state.\footnote{Id.}

Today, piracy in Somalia is starting to develop into a mini-economy, which employs hundreds of people, all of whom share the ransom.\footnote{Mary Harper, Chasing the Somali Piracy Money Trail, BBC News (May 24, 2009), http://news.bbc.co.uk/2/hi/africa/8061535.stm.} Reports indicate that piracy in “Somalia is attracting big-time criminals from all over the world.”\footnote{Id.} As in the classical period, piracy today is a transnational crime, and the entity, i.e. Somalia, operates without rules, regulations or a functioning government.\footnote{Id.} Because of this, “Somalis do not need to launder the money they make from piracy because their unique financial system operates on trust and honour, bypassing banks and other financial institutions.”\footnote{Id. This system of trust and honor also helps explain how pirates, in both the classical era and today, can steal valuables from other ships, and share their profits, without cheating or killing each other. In the classic era pirates operated through a democratic style institution and their practices were institutionalized as the “custom of the coast.” The success}
involve documentation; most transactions are done verbally, so there is no paper trail. The hawala system also “makes it almost impossible to find out what happens to money made from ransom payments or any other transactions in Somalia.” [Furthermore,] the fact that most ransoms are paid in cash means they simply disappear into the Somali community, rather than ending up in banks or other financial bodies.”

Given the paucity and exceedingly opaque nature of the economic data involved in pirate transactions, analysts are beginning to use atypical methods for tracing the cash flow of ransom payments. For example, Anja Shorthand, from the Economics and Finance Department at Brunel University, has used province-level market data, nighttime emissions, and high resolution satellite imagery to show that significant amounts of ransom monies are spent within Somalia. Nighttime emissions, which are an excellent proxy for local and regional production and income in statistically challenged countries, shows that ‘pirates appear to invest their money principally in the [Somali] cities of Garowe and Bosasso rather than in the backward coastal communities.” Garowe and Bosasso are also known for providing “the material inputs and the ‘fire power’ of [many] pirate operations.” The change of light emissions is one method of detecting the distribution of piracy income because, in impoverished regions, these

of pirates in the classical period was in many respects dependent on their organizational achievements and mutual fairness. Being organized and mutually fair was less problematic due to the fact that many of the pirates in the classical period were legitimate crewmen that walked away because of ill-treatment by their former officers. Today, piracy is not only growing but is becoming more organized than ever before. Trust, honor, organization, and fairness is also the backbone of the piratical financial system, Hawala. Just as many pirates in the classical period were legitimate crewmen, pirates today began as legitimate fishermen whose waters were dumped in and over-fished by different organizations. Somalia is stateless and unable to protect its territorial sea; therefore, it is rather easy for organizations to exploit and pollute the Somali coast. This exploitation has led fishermen to lose their livelihood and turn to piracy. As an aside, this trust and fairness among pirates is also the reason why Pirates, like other colorful outlaws, have fascinated many readers throughout the ages. See Pirates Had Democratic Ways, WORLD SCIENCE (Feb. 22, 2008), http://www.world-science.net/othernews/080222_pirates.htm. See also Analysis: Somalia Piracy Began in Response to Illegal Fishing and Toxic Dumping by Western Ships off Somali Coast, DEMOCRACY NOW! (Apr. 14, 2009), available at http://www.democracynow.org/2009/4/14/analysis_somalia_piracy_began_in_response.

123. Harper, supra note 119.
124. Id.
125. Note that Geopolity proposed in its independent economic research program that strengthening and overcoming data paucity constraints will strengthen understanding of the entire piracy value chain. See GEOPOLICY, supra note 62, at iv.
127. Id. at 1.
128. Id. at 3.
emissions indicate a clear sign of the movement in disposable income.\textsuperscript{129} The report also used high resolution satellite images to corroborate the nightlight emission results; in Garowe, the satellite images showed “massive investment in housing and hotels, infrastructure, and religious and educational facilities between 2002 and 2009, with much of the development taking place in the latter part of the period.”\textsuperscript{130}

Anja Shorthand’s study also shows that finding pirates is extremely challenging because of the deep-rooted “culture of sharing” in Somalia.\textsuperscript{131} Those who are more in Somalia raise their social status by sharing resources within social, clan-based networks, where individuals have an obligation to assist other members.\textsuperscript{132} “A Somali proverb says: ‘The man who owns 100 goats, but his relatives have nothing, he is poor.’”\textsuperscript{133} When “Pirate Chief Abshir Boyah [was] questioned on how he spent his considerable profits from piracy, [he stated,] ‘it’s not like three people split a million bucks. It’s more like three hundred.’”\textsuperscript{134}

Investors, on the other hand, who take the lion’s share, do not operate within a “culture of sharing,” and therefore are less likely to spend ransom money on items that create local economic development.\textsuperscript{135} Rather, investors tend to spend ransom money on imported status goods such as sport utility vehicles (SUVs) and divert their proceeds through intricate money-laundering schemes.\textsuperscript{136} For analysts, tracing piracy ransom money through an intricate money-laundering scheme is extremely difficult. Appendix B shows how an intricate money-laundering scheme works when illegal proceeds are mixed with legitimate used car sale profits in Africa, and are sent to banks through exchange houses.\textsuperscript{137} The data in Appendix B

\begin{itemize}
\item \textsuperscript{129} Id. at 16.
\item \textsuperscript{130} Id. at 3. The province-level market data, nightlight emissions and high-resolution satellite imagery seems to provide a good initial step towards finding where suspected pirate organizations are likely located.
\item \textsuperscript{131} Id. at 3.
\item \textsuperscript{132} Shortland, supra note 126, at 7.
\item \textsuperscript{133} Id. at 4.
\item \textsuperscript{134} Id. at 8.
\item \textsuperscript{135} Id. at 6, 7.
\item \textsuperscript{136} Id. at 7.

In all, hundreds of millions of dollars a year sloshed through the accounts, held mainly by Shiite Muslim businessmen in the drug-smuggling nations of West Africa, many of them known Hezbollah supporters, trading in everything from rough-cut diamonds to cosmetics and frozen chicken, according to people with knowledge of the matter in the United States and Europe. The companies appeared to be serving as fronts for Hezbollah to move all sorts of dubious funds, on its own behalf or for others.”).
was gathered from a drug money laundering operation, which had ties to organizations in Africa, Europe, China, South America and the United States.\textsuperscript{138} Maritime security expert Christopher Ledger has expressed that the drug trade and piracy are similar in many respects; drug trade, “which started off as a relatively small-time operation” has grown into a “huge global crime,” which is also the path maritime piracy seems to be taking.\textsuperscript{139} Moreover, international piracy is starting to replicate the drug industry in the United States, where billions of dollars are spent each year in trying to attempt to keep the drug situation under control.

\textbf{CONCLUSION}

The prosecution of criminals and the economics of criminal activity are intimately related. In terms of piracy, the CGPCS established Working Group 5 to focus on and coordinate efforts to disrupt the pirate enterprise ashore, but so far, a report has not been issued. In order to improve the economic conditions ashore, CPGCS has advocated the “Kampala Process, a Somali counter-piracy dialogue forum which discusses, inter alia, how to best strengthen the capacity to prosecute suspected pirates.”\textsuperscript{140} One of the top priorities listed by the CGPCS has been “to increase the number of prosecutions,” as more than 1,000 pirates have been detained and prosecuted in 20 jurisdictions across the world as of July 2011.\textsuperscript{141} The authors’ conclusion is that none of the prosecutions will hold water if there is so much money out that the judges and lawyers can be bought off. It is hard to believe with the millions of dollars being spent by the UNODC and other groups in Somalia, that something will not be done; however, the authors are very pessimistic about the way things are going regarding funding of the pirates given the amount of cash involved.

It does not help to see headlines indicating that the pirates have their own stock exchange.\textsuperscript{142} Yes, that is sadly true. Apparently, “the world’s first

\textsuperscript{138} See infra App. B.
\textsuperscript{139} See Harper, supra note 119.
\textsuperscript{140} See Ninth Plenary Session, supra note 5, at 2. The “Somali Contact Group on Counter-Piracy[,]” also called the Kampala Process, was established on the basis of a request by Working Group 1 of the CGPCS at a technical meeting between the Transitional Federal Government (TFG), Puntland and Somaliland in January 2010 with a view to promote internal coordination, information-generation and sharing, and to coordinate their respective counter-piracy offices. Since the initial meeting, Galmudug has joined the Kampala Process. United Nations Political Office for Somalia (UNPOS), in collaboration with partners, provides secretariat functions, based in Hargeisa, to advance an integrated law reform strategy for Somalia. \textit{Kampala Process}, \textit{Oceans Beyond Piracy},\textsuperscript{141} http://oceansbeyondpiracy.org/matrix/activity/kampala-process (last visited Mar. 9, 2012).
\textsuperscript{141} CGPCS, Ninth Plenary Session, supra note 5, at 2.
piracy] stock exchange was established in 2009 in Harardheere, [which is located about] 250 miles northeast of Mogadishu, Somalia.\textsuperscript{143} It is open 24 hours a day and it allows investors to profit from ransoms collected on the high seas which can approach $10 million for successful attacks against Western commercial vessels.\textsuperscript{144} There are over 70 entities listed on this exchange, which provide Somali pirates with access to capital and pay investors a share of the profits.\textsuperscript{145} A former pirate stated to Reuters that “‘[t]he shares are open to all and everybody can take part, whether personally at sea or on land by providing cash, weapons or useful materials. . . . We’ve made piracy a community activity.’”\textsuperscript{146}

CGPCS has stressed the international community’s anger at the ongoing suffering of kidnapped innocent seafarers, and their Tenth Plenary Session noted the important deterrent role of military Vessel Protection Detachments (VPDs) in preventing vessels from being pirated.\textsuperscript{147} Though international navies have substantially increased the difficulty in hijacking ships, investors have been forced to place more resources into maximizing the return from each captured ship.\textsuperscript{148} The increasing amount of financial investments from both the piracy benefactor and international community has caused maritime piracy to evolve into an environment where both pirates and navies are more violent than ever before.\textsuperscript{149} Navies are struggling to cope with the increasing surge of pirate attacks; while piracy itself has become “an expanding phenomenon[,]” both in terms of the level of activity and range.”\textsuperscript{150} It is hoped that the international community will be able to get all of this under control at some point. At present, there needs to be coordination between the results shown regarding the economics and financing of sea piracy with 1) the prosecution of pirates and 2) the organizers and backers of the various financial institutions that are involved with this enterprise. U.N. has issued numerous reports, which emphasize that in order for any viable success to be shown piracy has to be solved

\textsuperscript{143.} \textit{Id.}
\textsuperscript{144.} \textit{Id.}
\textsuperscript{145.} \textit{Id.}
\textsuperscript{146.} \textit{Id.} To date, there are four banks in Somalia indicated to be involved with the stock exchange, all of which are probably wholly owned by the government of Somalia as well as an independent bank known as the Universal Bank of Somalia. In order to prevent U.S. citizens from engaging with this stock exchange, the U.S. Treasury Department, it is suggested, could mandate a standard of care by issuing guidance to American financial institutions making certain that they are not doing business for this exchange or any other piracy exchange that is set up. \textit{Id.}
\textsuperscript{147.} \textit{CGPCS, Tenth Plenary Session, supra} note 5, at 2.
\textsuperscript{148.} Shorthand, supra note 126, at 2.
\textsuperscript{149.} Violence begets violence and pirates today are not only more organized but also more willing to kill than ever before. \textit{See, e.g.}, Edward H. Lundquist, Pirates Are Becoming More Violent (May 15, 2011), http://www.defensemedianetwork.com/stories/pirates-are-becoming-more-violent/.
\textsuperscript{150.} \textit{See, e.g.}, Nick Childs, Navies Struggle with ‘Swarming’ Pirates, BBC NEWS (Apr. 1, 2010), http://news.bbc.co.uk/2/hi/8598726.stm.
within the gates of Somalia.151 The economics of piracy, however, is beginning to show that if piracy is not solved within Somalia’s borders soon then piracy may replicate the South American drugs trade in the 1970s—a relatively small-time operation which turned into a huge global crisis.

APPENDIX A
Andrew Mwangura’s E-mail Request:

1. A complete list of all ships and hostages currently being held. The number of ships and hostages (along with date and location taken)
   · Asking Price, Current location and whether the ships are being used as mother ships

2. A complete list of all successful ransoms.
   · Name, flag, country of ownership, number of crew
   · Initial asking price for each ship
   · Eventual ransom paid
   · Time held in captivity before release

3. A complete list of all pirate groups and financiers, including the locations they work out of.
   · A list of all pirate groups and their names, and an estimate of the number of pirates.
   · Comparison to the number of groups over the same period last year, and the number of pirates.

4. A complete list of hostages who died in this period, and how they were killed.

5. An accurate figure of the number of attacks over the period mentioned above.
   · Included in this should be a month-by-month breakdown of Number of attacks vs. success rate.

6. A detailed look at the following trends:
   · Increase in violence against hostages.
   · How much has this increased?
   · Why is this changing?
   · The use of VPDs
   · How many vessels have VPDs today compared to one year ago (estimate of actual number and percentage of merchant shipping in piracy danger zone)?
   · How does this correlate to the number of successful attacks?
   · What is the general feeling in the shipping industry?
   · Will VPDs help quell the problem or cause more violence?
· Are there still concerns over rogue companies setting themselves up and providing poor security?
  · Change in pirate tactics
  · How have pirate tactics changed?
  · Are they using more force?
  · Do they have better weapons?
  · Are they ranging even further out to sea?
  · Are they now targeting governments for ransoms more, and why?
  · Are they keeping more sailors on land, and why (numbers, please)?
  · Are they using the media more to push negotiations (examples and evidence, please)?

7. Community opposition to piracy
  · How much has this grown? How has this force the pirates to move?
  · What were the old hotspots and what are the new hotspots?
  · Anti-piracy initiatives
  · What new initiatives are we seeing, for example land-based programs?
  · How has the focus changed, if at all?

Prosecutions and deaths
  · How many pirates have been captured over the last year?
  · How many have been prosecuted over how many had to be released?
  · How many pirates have been killed?
  · How does these figures compare to the previous year?
  · Have prosecutions had any effect?

Ransom payments
  · Was the seizure of the ransom in Mogadishu a one-off, or could ransom payments be targeted in the future?

Navies
  · How many attacks have the navies disrupted?
  · How does this compare to the previous year?
  · Has this had any effect on the number of successful attacks?
  · Have they changed their tactics (for example, when they formed a barrier close to the Somali coast and targeted pirate vessels)?
Costs
· How much has this cost the shipping industry over the last year?
· How does this compare to the previous one-year period?

Pirates and al-Shabaab
· Are there any links between the pirates and al-Shabaab? We need evidence (names, dates and payments made, and where they were paid).

APPENDIX B 152

Money Laundering at Lebanese Bank
The chart below shows the intricate money-laundering system the Lebanese Canadian Bank used to divert money to the Shiite militant group Hezbollah, according to United States officials.
