

## The Piracy Issue

Most crime assessments are based on data reported by governments, meaning that those countries unable to provide data of sufficient quality are excluded from the estimations. Failed states do not as a rule operate statistical services; therefore, only countries with intermediate to high levels of governance are represented in prior analyses of the economics of crime.

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War and famine. Peace and milk. – *Somali proverb*

## Taming The Outlaw Sea

Admiral James G. Stavridis, US Navy and  
Lieutenant Commander Richard E. LeBron, US Navy

To many, the word “piracy” conjures images of swashbuckling rebels brandishing cutlasses and flintlocks. But piracy is more than theft, rape, and murder on the high seas. It is a systemic destabilizer of international norms of commerce, economics, and trade. Piracy is also intertwined with conditions ashore. In particular, piracy in the waters off the Horn of Africa today results from deep social, political, economic, and environmental problems in Somalia. It is the fruit of anarchy, extreme poverty, and the severe failure of the rule of law.

To bring about a lasting cure to the cancer of piracy, particularly off the Horn of Africa, two endeavors must be undertaken in parallel. First, the risk of failure in hijacking a vessel at sea must be increased to the point where piracy is no longer seen as an attractive and lucrative endeavor. In other words, pirates’ own calculations must yield deterrent conclusions. Second, governance, stability, and security within Somalia must be so improved as to foster less risky yet reasonably profitable alternatives to piracy.

Lawlessness upon the sea is nothing new. There is evidence of raiders launching from the coast of Asia Minor as early as the fourteenth century BC. As Rome’s maritime trade of wheat and other commodities flourished, piracy expanded. Gnaeus Pompeius Magnus (Pompey) was sent to wrest the seas from pirates. He wiped out Mediterranean piracy by countering pirates at sea and by presenting former and would-be pirates with stakes in profitable enterprises ashore. Though Somali pirates are unlikely to be presented with land to call their own, Pompey’s actions provide a valuable

demonstration of the balanced application of hard and soft power both at sea and ashore, one that is no less relevant and wise in combating piracy today than it was more than two millennia ago.

Today’s pirates, however, brandish not cutlasses and flintlocks but AK-47s and rocket-propelled grenades; they are aided by satellite phones, high-tech navigation gear, and competent and continually evolving networks ashore. The last few years have witnessed a rising trend in piratical attacks around the world. In 2009, the International Maritime Bureau (IMB) reported 406 attacks, compared to 293 in 2008 and 239 in 2006. The attacks are becoming more violent, brazen, and sophisticated. The number of incidents in which guns were used nearly doubled in 2009 from 2008 levels and has tripled since 2005. Somali pirates have also extended their reach, threatening not only the Gulf of Aden and the east coast of Somalia but also the southern region of the Red Sea, the strait of Bab el Mandeb, and the east coast of Oman. Since IMB figures are based on self-reporting and many attacks may go unreported, the actual figures may very well be much higher, particularly in areas where the level of international focus on piracy is lower than it currently is off the Horn of Africa.

The annual cost of piracy is not accurately recorded, but it is not trivial, even setting human costs aside. Piracy is estimated to cost anywhere between a billion and sixteen billion dollars a year. Some countries are investing to thwart piracy by increasing their military presences in high-risk areas. Some shipping companies are taking such measures as rerouting ships to bypass the Gulf of

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## Letter from the Director

It is ironic that, the week I write this letter, I am staying at a nautically themed bed and breakfast on the Washington coast. Apparently, it is inevitable to think about ships and the sea without eventually straying into thoughts of pirates. Here at the Ship House Inn, every surface is covered with netting and pictures of sea captains, many of the windows are actual portholes, and there are not a few references to pirates.

I have to admit that I am not immune to the romance of pirates as portrayed in popular fiction. I have seen most of the Pirates of the Caribbean movies and enjoyed the swashbuckling. We Americans are suckers for anyone who fights **the Man**, for the rebel, the iconoclast. After all, our country was founded on revolution and individual liberty.

...until we are **the Man** and the fighters are interrupting our way of life.

I have actually read articles asking the reader to see Somali pirates from the perspective almost of freedom fighters. The writers note the lack of government and economic infrastructure in Somalia, asking us to understand that piracy is really the only viable option for many people.

The economic cost to global trade of piracy is high and increasing. As several of our authors in this issue mention, the only long-term solution is to bring about stable government and economic structure on land, to create a society in which there is a reasonable expectation of prosperity so that its citizens do not have to turn to lawlessness in order to make a living.

A 2008 New York Times article says, "In Somalia, it seems, crime is one of the few industries that does [pay]." (Somalia's Pirates Flourish in a Lawless Nation, October 30, 2008). One pirate said that his "pirate team typically divided up the loot this way: 20 percent for their bosses, 20 percent for future missions (to cover essentials like guns, fuel and cigarettes), 30 percent for the gunmen on the ship and 30 percent for government officials."

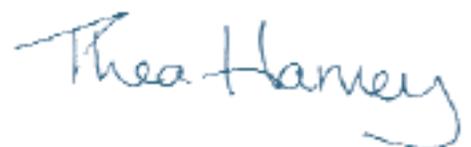
In addition, "Every time a seized ship tosses its anchor, it means a pirate shopping spree. Sheep, goats, water,

fuel, rice, spaghetti, milk and cigarettes – the pirates buy all of this, in large quantities, from small towns up and down the Somali coast."

It becomes easy to see why piracy is so hard to eradicate merely by military force alone. Indeed, even when military actions have succeeded in regaining control of a hostage ship and pirates have been captured, there is little legal structure for prosecuting them as criminals.

The articles in this issue explore the effects of piracy on economics and the possible uses of the discipline of economics on the problem of piracy. I found the two articles presented here by our members Renaud Bellais and Olaf de Groot to be particularly interesting. Dr. Bellais, while acknowledging the need for reform ashore, focuses mainly on Atalanta, the EU's naval program "to protect humanitarian aid and reduce the disruption to the shipping routes and the de-stabilizing of the maritime environment in the region." He points out that this represents the first full-size attempt to produce an international public good. It will be interesting to watch as we move forward to see how successful it might be, and whether it presents a useful precedent for other global public good frameworks.

Dr. de Groot and his co-author found that small improvements in governance could actually exacerbate the problem by providing more infrastructure for the pirates to exploit. He challenges the conventional wisdom that improvements in governance will lead to a reduction in piracy, and warns us that institutions-based solutions will require a strong anti-corruption component. I like this challenge – it will not be enough to bring about small improvements in the economy and administration of Somalia. True security can only be achieved by assisting Somalis to significant improvements in rule of law and economic opportunity.



# Keeping Pirates At Bay: The Atalanta Mission In The Horn Of Africa

Renaud Bellais

*This article is a summary of a paper that was presented at the Fifteenth Annual International Conference on Economics and Security, June 16–17, 2011, University of Bristol, Bristol UK.*

While piracy seemed to belong to another time and was limited in the 20th Century to some very specific spots (like the Strait of Malacca or Bab-el-Mandeb), it has become a renewed concern in recent years. The surge of piracy especially represents a major threat to international trade around the Horn of Africa. According to the UN, there are about 1500 pirates in this region, which is at the crossroads of East Asia, the Middle East, and Europe.

As maritime traffic carries about 90 percent of international trade, fighting piracy constitutes a major challenge. Since it is necessary to guarantee the safety of merchant fleets, this task should possibly be carried out by neighboring countries working together.

Nevertheless, several key factors have changed the stakes in East Africa:

- First, the collapse of Somalia and the weakness of surrounding states have created a void favoring the expansion of outlaw activities;
- Second, very dense maritime roads go near Somalia, and the global-

ization of economic activities has increased their importance;

- Third, pirates have enlarged their range of action far beyond coastal areas, threatening ships into international waters;

- Fourth, these pirates have switched to a more aggressive strategy, using heavy weaponry and a higher level of violence.

While the Horn of Africa only represented 5 percent of all acts of piracy in 2003, this figure steadily increased up to 55 percent by 2009 (Table 1, below). In June 2011, according to the NGO Ecoterra, there were 583 hostages and 40 hijacked ships in East Africa. From a local issue, piracy has evolved into a regional and even international issue.

Fighting piracy represents a natural experiment in the provision of an international public good. Indeed, following Inge Kaul's *Public Goods: International Cooperation in the 21st Century* (1999), one can analyze piracy as an international public bad requiring a public solution. However, there is no obvious institution able to provide such public good because there are several heterogeneous stakeholders and no compulsory funding mechanism.

There are 120,000 ships worldwide under 198 different flags. States do not

all have similar incentive to commit to fighting piracy in East Africa, for their interests are not identical either in maritime traffic or in this region.

At the international level, there is a risk of free-riding from public and private stakeholders who do not have the strongest concern about piracy. They are bound to underinvest (or not invest at all) in this fight, relying on the efforts of more involved actors, and benefiting from a public good without paying for it. Within a country, this free-riding issue is solved by state intervention. The national government supplies public goods thanks to compulsory funding in the form of taxes, and transforms free-riders into "forced passengers." This is not the case at the international level, since free-riding cannot be countered by an international institution collecting funds to finance international public goods.

However, an international approach seems unavoidable in fighting piracy, as both private and national solutions against piracy appear costly and quite ineffective. Private agents could accept paying higher insurance costs or ransoms, or "militarizing" their commercial ships. Unfortunately, this approach is expensive and does not suppress piracy; it can even nurture an "arms race"

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**Table 1: ACTS OF PIRACY AND ARMED ROBBERY AGAINST SHIPS**

YEAR	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total Acts of Piracy	370	383	452	330	266	241	282	306	406	489
in East Africa	22	24	22	13	49	31	60	134	222	172
in Indian Ocean	86	66	96	41	51	53	40	26	27	77
in Arabian Sea							7	1	2	16
Total Hostages				140	652	180	194	774	746	1027
Total Hijacked Ships	16	12	11	9	16	10	16	51	56	57

Source: International Maritime Organization, *Annual reports on acts of piracy and armed robbery against ships*, London, www.imo.org.

## Keeping Pirates At Bay: The Atalanta Mission In The Horn Of Africa (continued)

between ship owners and pirates. Furthermore, this strategy is somewhat ineffective; it is likely to displace the threat rather than suppress it, or simply postpone the attacks.

Similarly, some states can look to take isolated action. One could call this "the temptation of Venice;" that is, heavier and heavier naval protection of commercial fleets, as was employed by republic of Venice. However, in the face of a truly international public bad, this also is ineffective; the costs of protecting trade would greatly outweigh the benefits. Again, this does not suppress piracy, but only induces pirates to focus on unprotected ships or uncovered areas.

Therefore, piracy calls for a regional or international treatment. Who, then, is going to pay for providing such international public good? Partial cooperation between countries and lack of supranational enforcement mechanisms are likely to result in a sub-optimal provision of anti-piracy efforts.

This is why reactions to the situation in the Horn of Africa are so interesting: they represent the first full-size attempt to produce an international public good. In fact, there are not one but several missions being conducted by either individual countries or ad hoc coalitions. The largest ongoing one is the European Union mission.

Since December 2008, the European Union has been conducting an anti-piracy mission, called EUNAVFOR Atalanta, within the framework of the EU Common Security and Defense Policy. It grounds its legitimacy in the resolutions of the United Nations' Security Council. Atalanta aims at contributing to the protection of vessels of the World Food Program delivering food aid to displaced persons in Somalia; the protection of vulnerable vessels sailing in the Gulf of Aden and off Somalia; and the deterrence, prevention, and repression of acts of piracy and armed robbery in this region.

It is quite an impressive force, composed of more than 20 vessels and aircraft and about 2000 military forces. Today's coalition includes 26 countries:

13 EU countries providing operational contributions (including France, Spain, Germany, Greece, the Netherlands, Italy and the United Kingdom), nine other EU countries providing military staff, and four non-EU states (Norway, Croatia, Montenegro and Ukraine). In terms of aggregation technology of public supply, Atalanta can be interpreted as a "club good," in which only the most involved actors gather to provide a public good. Countries participate with regard to their own interests in stopping piracy in the Horn of Africa, and the size of each country's contribution seems correlated to their economic stakes.

**[R]eactions to the situation in the Horn of Africa are so interesting [because] they represent the first full-size attempt to produce an international public good.**

Nevertheless, in spite of the deployed resources and the scale of operations, this ad hoc coalition demonstrates the limits of a solution that only partially supplies an international public good. Let's look at three dimensions: the sub-optimal production of international public good; the ineffectiveness of a limited scope; and the lack of international coordination.

First, as expected with the weighted sum, Atalanta relies on each country's contribution and there is limited funding at the EU level. The joint funding only represents about €8m a year – shared between participating states on a GDP basis – and covers the running costs of Atalanta's headquarters. Contributing countries bear the costs for supplying forces according to their involvement. In such configuration, there is little incentive to provide the adequate level of funding and resources to cover an area

of two million square nautical miles. Moreover, this solution cannot succeed, as it does not include all stakeholders or, at least, the largest ones as expected in the production of a "club good." The coordination between Atalanta and other ongoing missions is grossly insufficient for the scope of the problem and total funding appears well below the level required for optimal production. Worse, as demonstrated in the literature on terrorism, dissipated actions just displace the problem; IMO statistics show a rise of attacks in the Indian Ocean and the Arabian Sea since the beginning of Atalanta.

Second, the Atalanta actions, even combined with other ongoing operations, are too limited to eradicate piracy. Indeed, deployed forces are only allowed to stop or prevent pirates, and their means to sanction pirates effectively are limited (Table 2, opposite right). It is useless to put pirates under arrest if they are fully aware that they cannot be prosecuted. This is even worse than doing nothing, since it informs pirates that there is no risk in continuing their attacks. Such lack of consequences only leads to a low level of deterrence in spite of the scale of in-situ forces. Consequently, anti-piracy operations do not reduce piracy but only displace pirates' actions away from protected areas.

Third, there is a lack of coordination between involved countries in the Horn of Africa. An adequate solution should have been set up by the United Nations, but it appears that countries have preferred either a stand-alone national solution, as China has implemented, or a "club good" approach, like the EU or NATO.

The current fight against piracy mainly focuses on means of repression, investing too little in reducing the economic and social grounds nurturing such activities. A purely military action can cure the effects, but not the causes. A comprehensive treatment is required, one with adequate resources. Indeed, the surge of piracy in the Horn of Africa is linked to the collapse of economic structures, and amplified by an

## Keeping Pirates At Bay: The Atalanta Mission In The Horn Of Africa

Table 2: EFFECTIVENESS OF ONGOING OPERATIONS (April 2008 - April 2011)

FORCE	Pirates arrested	Pirates sentenced	Prosecution rate
US-led CTF 150/151 (since September 2008)	124 + 48*	5	3%
EUNAVFOR Atalanta (since December 2008)	655 + 33*	69	10%
NATO (since November 2008)	218 + 33*	17	7%
National operations (US, Russia, India, France, China, Egypt, etc.)	320 + 70*	76	20%
Local authorities (Somalia, Puntland, Yemen, Seychelles, Kenya)	231 + 45*	154	56%
<b>TOTAL</b>	<b>1547 + 229*</b>	<b>321</b>	<b>18%</b>

Source: <http://www.bruxelles2.eu/>

\* not prosecuted

exceptionally severe drought. A purely police or military approach seems far too narrow to truly address what caused large-scale piracy to resume in the region a decade ago.

Ongoing operations have thus far proven ineffective. Atalanta alone costs €350m a year, while pirates have an estimated "turnover" of about €100m a year. Even though piracy has been curbed in 2010, it appears that Atalanta's

approach is inadequate in providing this international public good.

This natural experiment in producing an international public good underlines two points. First, such provision requires the creation of a supranational authority to avoid free-riding and under-funding, and to overcome the lack of effective coordination between stakeholders. Second, piracy should be treated in a broader perspective, reflecting the eco-

nomie and social problems of Somalia and the surrounding areas.

*This article, with sources and footnotes, will be posted at [www.epsusa.org/publications/newsletter/newsletter.htm](http://www.epsusa.org/publications/newsletter/newsletter.htm).*

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Volume 6, Issue No. 2 of the *Economics of Peace and Security Journal* is now available online. This issue, *On peace, war, and violence*, contains articles by Sterling Huang and David Throsby on economic, political, and social determinants of peace; Alvaro Riascos and Juan Vargas on violence and growth in Colombia; Steve Pickering on the (supposed) bellicosity of "mountain people;" Vincenzo Bove on the demand and supply of peacekeeping; John Gilbert, Tanigawa Takahiko, Krit Linananda, Edward Tower, and Alongkorn Tuncharoenlarp on the deadweight cost of war; and Zachary Tambudzai on determinants of military expenditure in Zimbabwe.

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# The Economic Cost of Piracy

From the Oceans Beyond Piracy Project, sponsored by One Earth Foundation



The USS Faragut (DDG 99) passes by the smoke from a disabled pirate skiff. *Source:* [www.cusnc.navy.mil/articles/2010/CMF022.html](http://www.cusnc.navy.mil/articles/2010/CMF022.html)

## About the Cost of Piracy Project

At the end of 2010, around 500 seafarers from more than 18 countries were 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 the Cost of Piracy Project, a study on the economic cost of maritime piracy.

The Cost of Piracy Project set out to analyze the cost of piracy to three regions: the Horn of Africa, Nigeria and the Gulf of Guinea, and the Strait of Malacca. 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. The model, report, and calculations produced by this study are intended to be useful tools for analysts and policy makers working toward solutions to piracy.

## 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*. 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: (1) war risk; (2) kidnap and ransom (K&R); (3) cargo; and (4) 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 Lloyd's 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, the total excess costs of insurance due to Somali piracy is estimated to be

between \$460 million and \$3.2 billion per year.

## Navy Forces

Around \$2 billion is spent each year on naval operations off the coast of Somalia. This figure is calculated based on two factors. The first factor is the administrative and staffing budget of the "big three" naval operations: Operation Atalanta, Operation Ocean Shield, and Combined Task Force 151. Factor two is the cost of each contributing naval vessel, calculated here by using approximations of the cost of deploying a ship per steaming day, then multiplying this number by the number of vessels deployed each year (currently around 43).

## Prosecuting Piracy

Over 750 Somali piracy suspects either have been tried for piracy or await trial in more than 11 countries. The cost of piracy prosecutions were calculated by working out the number of prosecutions held in three regions: Africa and the Indian Ocean, Europe, and North America. This number was then multiplied by an approximation of the average cost of prosecutions for piracy or similar crimes

## The Economic Cost of Piracy

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 toward 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 (Table 1, right).

### Re-routing Ships to Avoid Piracy

For some vessels, especially the “low and slow” ships that 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 are estimated to be between \$2.4 to \$3 billion per year.

### 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 (Table 2, right).

This figure is not a definitive result, but an approximation. The Project welcomes collaboration from interested parties in continuing this study into future years, as well as in further developing the project.

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.

### 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 in Somalia are becoming more expensive.”

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**Table 1: IGO COSTS OF REDUCING PIRACY**

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
<b>Total Cost of Counter-Piracy Organizations</b>	<b>\$24.5 million</b>

**Table 2: DIRECT COSTS OF PIRACY**

COST FACTOR	COST
Ransoms (excess costs)	\$148 million <sup>1</sup>
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 <sup>2</sup>
Cost to Regional Economies	\$1.25 billion
<b>Total Estimated Cost</b>	<b>\$7 to \$12 billion per year</b>

<sup>1</sup> Actual ransom value paid is not included, as this is covered by insurance costs below.

<sup>2</sup> The annual UNODC budget (\$5 million) is not included 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.

## The Economic Cost of Piracy (continued)

**Table 3: MACROECONOMIC COSTS OF PIRACY**

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
<b>Total Macroeconomic Costs</b>		<b>\$1.25 billion</b>

Just some of the costs different countries suffer as a result of piracy are shown in Table 3, above. 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.

*Oceans Beyond Piracy (OBP)* is an initiative sponsored by the One Earth Future

*Foundation. OBP aims to develop a global response to maritime piracy that deals comprehensively with deterrence, suppression, and prosecution of piracy while building the foundation for a longer-term solution. The initiative seeks to establish public-private partnerships by engaging and mobilizing a wide range of maritime community stakeholders including ship owners, seafarers, governments, international organizations, the insurance industry, and others with a genuine stake in this*

*issue. 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 OBP Project.*

*A summary of this article will appear at [www.epsusa.org/publications/newsletter/newsletter.htm](http://www.epsusa.org/publications/newsletter/newsletter.htm). The full report can be read at [www.oceansbeyondpiracy.org/sites/default/files/documents\\_old/The\\_Economic\\_Cost\\_of\\_Piracy\\_Summary.pdf](http://www.oceansbeyondpiracy.org/sites/default/files/documents_old/The_Economic_Cost_of_Piracy_Summary.pdf).*



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### From *Project Syndicate's Unconventional Economic Wisdom Series:* *The Price of 9/11*, by Joseph E. Stiglitz, September 1, 2011

“The September 11, 2001, terror attacks by Al Qaeda were meant to harm the United States, and they did, but in ways that Osama bin Laden probably never imagined. President George W. Bush’s response to the attacks compromised America’s basic principles, undermined its economy, and weakened its security.

“The attack on Afghanistan that followed the 9/11 attacks was understandable, but the subsequent invasion of Iraq was entirely unconnected to Al Qaeda – as much as Bush tried to establish a link. That war of choice quickly became very expensive – orders of magnitude beyond the \$60 billion claimed at the beginning – as colossal incompetence met dishonest misrepresentation.”

Read the full article at <http://www.project-syndicate.org/commentary/stiglitz142/English>.

# Governance and Piracy

Olaf J. de Groot and Anja Shortland

*In this article, the authors examine the incidence of piracy worldwide and question the assumption of a negative correlation between crime and governance. They show that a “sweet spot” exists in which a country’s infrastructure and markets are sufficiently well developed for lucrative property crime, but its corruption-fighting institutions are not. Contrary to popular opinion, piracy therefore peaks at intermediate levels of governance, rather than being associated with anarchy and state failure. A clear policy recommendation follows from this article: governance-based approaches to resolving piracy need to focus on fighting corruption.*

While piracy is a hot topic at the moment, unusual levels of pirate activity are not actually seen at present. The number of attacks in 2009 remained below its 2000 peak (Figure 1). The recent rise of Somali piracy has been offset by a decrease in the intensity of piracy in previous hotspots, namely Indonesia, Bangladesh and Nigeria. Moreover, a significant number of reported attacks are not successful, meaning pirates are fought off before they get on board, or chased away before they can steal anything. The recent increases in

**The recent rise of Somali piracy has been offset by a decrease in the intensity of piracy in previous hotspots, namely Indonesia, Bangladesh and Nigeria... a significant number of reported attacks are not successful, meaning pirates are fought off before they get on board, or chased away before they can steal anything.**

reported pirate activities are mainly due to a larger number of reports of unsuccessful attacks, rather than cases of successful piracy. Finally, most of the reported attacks are minor thefts from boats at anchor, rather than daring attacks on

ships on the high seas by swashbuckling adventurers.

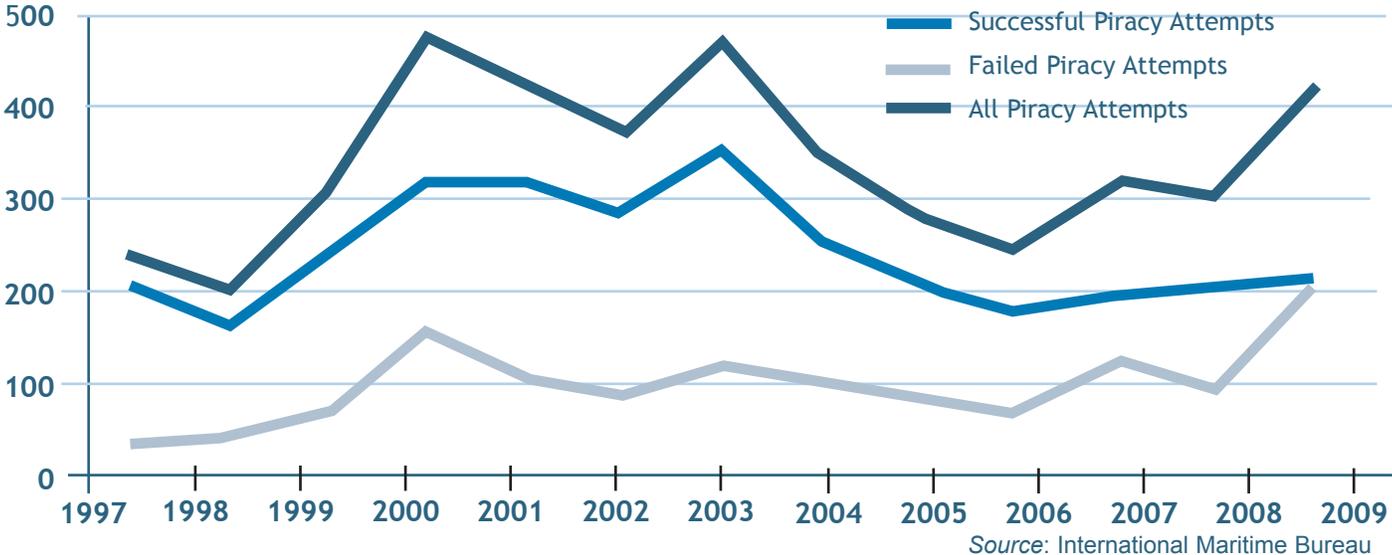
**The relationship between governance and piracy**

Piracy, like other forms of illegal activity, such as smuggling and corruption, has previously been argued to be negatively associated with quality of governance. However, a 2010 report showed a positive relationship between governance and piracy in Somalia: pirates in Somalia are based mostly in the relatively stable region of Puntland rather than in the anarchic Southern and Central Somalia. Pirates thus appear to benefit from improvements in contract and physical security.

A synthesis of these two results would be possible, if countries’ crime levels could be observed at all levels of governance. Most crime assessments are based on data reported by governments, meaning that those countries unable to provide data of sufficient quality are excluded from the estimations. Failed states do not as a rule operate statistical services; therefore, only countries with intermediate to high levels of governance are represented in prior analyses of the economics of crime. At these

*Continued on page 10*

**Figure 1: NUMBER OF SUCCESSFUL AND FAILED ATTEMPTS OF PIRACY**



## Governance and Piracy (continued)

higher levels of institutional quality, the relationship between governance and crime is negative. In the case study of Somalia, which showed that piracy increased in periods with better governance, the sample was also restricted, but at the opposite end of the spectrum. Somalia never even reaches an intermediate score on the governance scale. Automatically, this leads to the hypothesis that the relationship between governance and piracy is non-linear.

At the lowest levels of governance, piracy is not likely to occur for two reasons. First, at such a low level, the supply of valuable goods to be stolen and ships to be hijacked is small. Second, in order to profit from the spoils of piracy, there must be opportunity – a market – to transform loot into consumables. In the case of Somali piracy, pirates acquire hostages who need to be taken care of and kept safe from rival gangs for several months while ransoms are negotiated. Some local political stability is necessary for providers of private security to operate effectively. Pirates in the Strait of Malacca often stole significant amounts of cargo and sometimes entire ships. This required at least basic port facilities to unload cargo, a transport infrastructure to get the goods to market, and (wealthy) buyers for the goods to make the piracy operation worthwhile. None of these are available in Somalia. Anarchy, conflict, extremely low levels of governance, and a tattered infrastructure are, therefore a hindrance to the “piracy business.”

At higher levels of governance, the benefits to pirates from improvements in markets and facilities are offset by the increasing ability and willingness of governments to combat crime. Increased controls on corruption and improving capacities to capture and punish wrongdoers reduce piracy. For that reason, the influence of governance is likely to be non-linear, first increasing in governance towards a “sweet spot” and then decreasing (Figure 2, right).

### Petty thieves versus Blackbeard

A further important point is that not all pirates are equally sophisticated. At different locations in the governance

**[N]ot all pirates are equally sophisticated. At different locations in the governance spectrum, different forms of piracy are likely to occur.**

spectrum, different forms of piracy are likely to occur. The International Maritime Bureau (IMB) provides narratives on a range of all incidents of (attempted) piracy. In the hypothetical distribution of piracy in Figure 2, these occurrences can be shown to be grouped into four categories. Petty piracy requires very little infrastructure and can occur even at low levels of governance. However, as this is a low-key activity, it may also occur at high levels of governance; even developed countries find it difficult to stamp out property crime.

A more advanced form of piracy is hostage-taking. Traditionally, this is exercised by Nigerian pirates: hostages are taken “into the jungle” while the ships of origin are left behind. This is more complicated than petty theft because of the need for safe places to keep hostages. This is not particularly sophisticated, nor is it especially lucrative, as companies often drag their feet

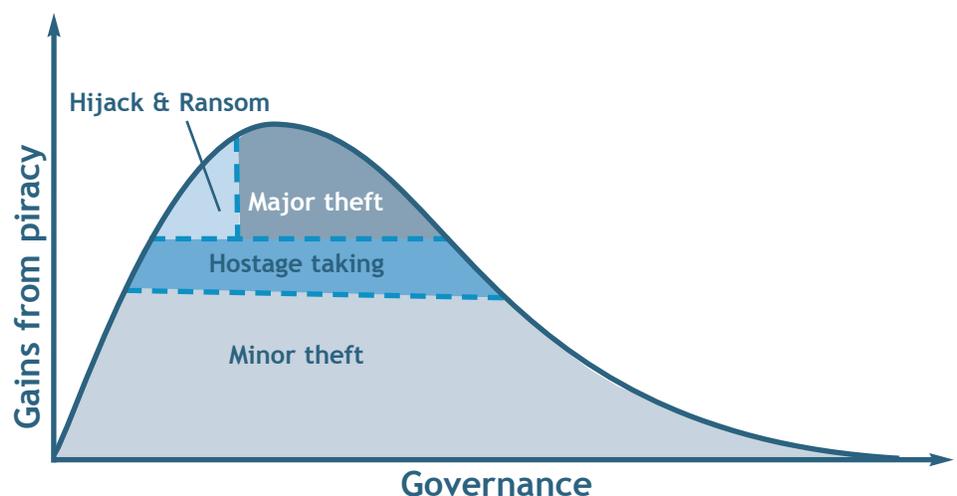
in the ransom negotiations to lower the final payment. Finally, as it can be a rather low-profile operation, K&R may also occur at higher levels of governance, as long as there are regions in which central governments are not able to exercise their control.

Compared to taking hostages, more money is extracted in “Hijack and Ransom” operations, the current Somali specialty. In this scenario, entire ships and crews are held hostage and returned to their rightful owner for significant ransoms. As the owners want their ship and cargo back, they tend to pay higher ransoms faster. Finally, there is major theft, in which entire ships and/or cargos are stolen. This is the optimal form of piracy (from the pirates’ perspective), as it yields the largest profits. However, in order for this to work, an advanced “shadow” economy is required: ports, infrastructure and access to functioning markets where the loot can be sold. Additionally, in order to give a ship a new identity or sell large amounts of illegally obtained cargo, the bureaucracy ought to be effective, but corruptible.

### Results confirm expected relationship

In order to be able to estimate the effects of the different variables, a so-called logit analysis was performed using data from the International Maritime Bureau.

**Figure 2: HYPOTHESIZED RELATIONSHIP BETWEEN GOVERNANCE AND PIRACY GAINS**



## Governance and Piracy

The advantage of this new dataset, compared to other datasets on illegal activities, is that it is directly reported by the victims of crime to the international organization, thus negating the necessity of an intermediary step in the form of a national authority.

This model predicts that the best conditions for petty maritime criminals exist in countries where the government effectiveness score is in the region between -0.9 and -0.5. Countries like Bangladesh, Cambodia and Cameroon are exactly in this range, while countries such as the Democratic Republic of Congo, Haiti, and Sierra Leone are “too dysfunctional” for a thriving piracy business. The model also provides evidence that the occurrence of low-level civil conflicts (providing weapons and trained men) increases the occurrence of petty piracy, and that the presence of deep ports plays a role as well. Finally, the poverty motive (measured by GDP per capita) is also clearly significant.

For “optimal forms of piracy” from the perspective of the pirates, it was expected that this would be most prevalent around the turning point of the curve in Figure 2. That would exclude the existence of a strong quadratic effect. Instead, government effectiveness and controls on corruption were found to have opposing effects, with government effectiveness increasing the occurrence of piracy, and improved controls on corruption decreasing it. For most countries the various governance indicators are tightly linked, so the condition of good government effectiveness coupled with high corruption only arises rarely.

Finally, the “Hijack and Ransom” piracy popular in Somalia is clearly a special case: there are few observations outside Somalia. Governance appears to have no influence on the occurrence of this form of piracy. However, this is because governance is measured at the country level and not the regional level which is relevant here. The disastrously low governance scores of Somalia reflect the anarchy around Mogadishu.

### Sample selection drives previous results

The non-linear results presented here

are clearly very different from previous analyses on governance and illegal activities. This seems due to a sample selection problem: previous analyses used government-collected data, requiring that a government existed and functioned reasonably well. For that reason, it is necessary to investigate what happens to the results when countries with low levels of governance are excluded. At first, the quadratic shape for petty forms of piracy is preserved. In fact, our result is initially strengthened by excluding the “outlier” of Somalia. However, when the threshold is increased even further, the quadratic relationship breaks down and only a linear trend can be recognized. This provides clear evidence that our results are different from previous analyses because the full range of the governance spectrum are observed.

**[C]ountries with good infrastructure, seeing only petty piracy at present, could experience an eruption in serious piracy if future political conflicts undermine the commitment and honesty of the bureaucracy...**

### Conclusions

The results of this study cast doubt upon the perceived wisdom that improvements in governance will lead to a reduction in piracy. In fact, for some countries minor improvements in governance are going to be associated with higher levels of piracy. Somalia in particular may benefit from improved governance as a country, but so will the pirates. If Somali pirates had the option of unloading cargo and stealing entire ships, it is unlikely that they would continue in the hijack and ransom business. This would indicate necessary caution in employing initiatives for “maritime devel-

opment” as a counter-piracy measure, unless accompanied by serious improvements in governance to put pirates beyond their sweet spot.

Furthermore, some countries that are currently too unstable to be piracy hotspots could become problems in the future. For example, Yemen - with its easy access to major shipping routes - is among the primary candidates for the future expansion of pirate activities. Similarly, countries with good infrastructure, seeing only petty piracy at present, could experience an eruption in serious piracy if future political conflicts undermine the commitment and honesty of the bureaucracy; Indonesia after the fall of Suharto is a good illustration. Overall, one clear policy recommendation follows from this article: piracy problems can only be resolved on land, but when looking at governance as a tool for reducing crime/piracy, it is very important to focus on fighting corruption.

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## Taming The Outlaw Sea (continued from page 1)

Aden, hiring private security guards, and installing nonlethal deterrence equipment, such as Secure-Ship, an innovative electrified fence that surrounds the whole ship and uses a high-voltage pulse to deter boarding attempts. But these actions all come at a price. Routing a tanker from Saudi Arabia to the United States via the Cape of Good Hope adds approximately 2,700 miles to the voyage and approximately \$3.5 million in annual fuel costs. Routing from Europe to the Far East via the Cape of Good Hope rather than through the Suez Canal would incur an estimated additional \$89 million annually – \$74.4 million in fuel and \$14.6 million in charter expenses – without considering the added costs associated with disruption of global supply chains. Also, insurance costs have soared over the last few years. The cost of war-risk insurance premiums for vessels passing through the Gulf of Aden, about \$500 in 2007, was \$20,000 in 2008. A shipowner with a vessel worth \$100 million can now reportedly expect to pay about \$150,000 to cover its payload – a cost that is ultimately passed on to the consumer.

Not all is bad news, however. The rate of successful hijackings in the vicinity of the Horn of Africa dropped in the second half of 2009, to an average of one in nine vessels targeted by pirates, compared to one in 6.4 in 2008. The decrease can be attributed to (1) expanded control of the sea around the Horn of Africa established through increased international cooperation and naval patrols, and (2) willingness of potential target ships to comply with recommendations and deploy effective protective measures. If continued, these measures, particularly self-protection by potential targets, will likely further reduce the rate of successful hijackings.

In Somalia, nearly ten million mostly nomadic pastoralist people live with neither a permanent national government nor a formal economy. Pervasive and violent crime is an extension of the general state of insecurity, and piracy is perceived pragmatically, as an opportunity for profit. In a recent National Public Radio report a Somali pirate declared, “I’ll be a pirate until I die.... We under-

stand what we’re doing is wrong. But hunger is more important than any other thing.” Another pirate acknowledged that “sometimes doing a bad thing is the only way to improve the situation for yourself and the people you love.”

Piracy off the Horn of Africa has its sources in economic deprivation and political instability. It is a multifaceted problem that calls for a comprehensive solution involving numerous actions ashore, beyond the obvious and expedient application of naval power at sea. If piracy in those strategic waterways is ever to be eradicated, it will require the cooperation of governments, nongovernmental organizations, international organizations, and the private sector to effectively deliver security, stability, sustained economic development, and prosperity in Somalia. Hard military and law-enforcement activities are necessary but not enough.

**[P]iracy must be resolved on land, by enabling Somalia’s government to deliver security and create jobs, thereby reducing the risk of engaging in legitimate enterprises ashore. Of course, this is much more easily said than done.**

### An Opportunity For Cooperation

Recognizing that no one nation possesses all the resources needed to guarantee safety and security throughout the maritime domain, the international community must commit enough maritime assets – platforms, capabilities, and ideas – to make acts of piracy both risky and difficult to conceal. This would prove effective in treating the symptom of piracy at sea. International operations such as NATO’s Operation Ocean Shield, the EU’s Operation Atalanta, and Combined Task Force 151 – all supporting inter-

national efforts to combat piracy off the Horn of Africa – are excellent examples of such a collaborative effort among international partners.

In addition, there exist expansive capabilities outside the military. Maersk Line, Limited, the world’s largest container shipping company, has operations in nearly three hundred ports around the world and makes thirty-three thousand port calls a year – one every fifteen minutes, every day of the year. No single navy can make such a claim, and no single nation can see what Maersk’s ships see every day – and that’s just one company. The implications of these statistics are enormous. If each one of the thousands of commercial vessels at sea were to contribute to a partnership for maritime surveillance and reporting, domain awareness would potentially improve by orders of magnitude, as would the ships’ own security.

Ultimately, however, piracy must be resolved on land, by enabling Somalia’s government to deliver security and create jobs, thereby reducing the risk of engaging in legitimate enterprises ashore. Of course, this is much more easily said than done. The internal challenges are daunting. Somalia’s internationally recognized Transitional Federal Government has been unable to establish itself as the legitimate regime, and most of the country is outside its control. To counter piracy at sea effectively, there must be a viable and legitimate central authority ashore capable of enforcing the rule of law. Neighboring nations have pledged their support to seizing, investigating, and prosecuting pirates off Somalia’s coast, but the solution to piracy in the Horn of Africa ultimately lies within Somalia itself. It is of little help in long-term piracy eradication if naval forces must operate in a catch-and-release mode because it is difficult or impossible to prosecute pirates.

### Stronger Together

In this interconnected world, international security and prosperity depend heavily upon the sea. Skillful cooperation and collaboration at sea and ashore are vital components to ensuring the free and lawful use of the world’s waterways.

Piracy in the Horn of Africa presents the international community with a complex and multidimensional challenge, as well as a golden opportunity to work collaboratively to solve it.

Beyond naval assets, the international community has an opportunity to take a comprehensive approach to countering

piracy. This would focus on a broad range of issues:

- deterring and disrupting piratical activity at sea;
- capturing pirates and bringing pirates to justice;
- developing regional and international agreements to prosecute suspect-

ed pirates effectively and humanely, and legally punish them when found guilty;

- enabling Somalia's Transitional Federal Government to extend and enforce the rule of law;
- encouraging the economic development of Somalia over the long term.

*Continued on page 14*



## Taming The Outlaw Sea

Countering piracy off the Horn of Africa is an effort that must reflect international will, most focus on building the capacity of Somalia's government and the governments of neighboring countries, and be coordinated centrally and skillfully (by an internationally sanctioned body) so as to achieve a holistic effect. The European Union, given its recent successes with Operation Atalanta and its growing commitment to combating piracy off the Horn of Africa, seems a logical choice of an international body to lead this effort.

At the same time, encouraging and protecting international humanitarian work ashore is becoming more complex. The combination of conflict, drought, floods, and disease that has ravaged the country for decades has created a humanitarian catastrophe for some 3.64 million Somalis – more than half the population – in need of livelihood or humanitarian support. This environment of extreme penury and human displacement, where one in five children under five years old is acutely malnourished, adds to internal instability and serves as a catalyst for illicit activities that in turn further destabilize the region. The creation of alternative livelihoods through public/private partnering ashore is vital. From the enablement of subsistence farming through irrigation, to the development of environmentally sustainable coastal fish farms, to environmental remediation that would support both agriculture and aquaculture, to the generation of microloans to facilitate the creation of small business – the range of possibilities is enormous, limited only by the imagination and will of the international community.

**Piracy in the Horn of Africa presents the international community with a complex and multidimensional challenge, as well as a golden opportunity to work collaboratively to solve it.**

Understanding that piracy is neither an at-sea problem alone nor a challenge with a single and isolated solution will go far toward taming the "outlaw sea." In addressing the root cause of piracy, the European Union, empowered by international consent and in partnership with the broader international community, must wisely consider, as the Greek historian Plutarch suggests, that "man by nature is not a wild or unsocial creature, but is transformed by the unnatural vice; whereas he may be softened by new customs and a change of place and life." Upon that consideration, the EU should do as Pompey did and give pirates a taste of an "honest life by dwelling in towns and tilling the ground," or by casting their nets and harvesting the fruits of the sea. The solutions to piracy will not likely be delivered by warships at sea alone; rather, they will emerge from a careful balance of security and development both afloat and ashore.

*This article is excerpted from a longer piece originally published in the Naval War*

*College Review, Autumn 2010 issue, Vol. 63, No. 4. The full text, including references, is available at: [www.usnwc.edu/getattachment/164f978e-4d6a-40d7-a9fa-9e306cab4f67/Taming-the-Outlaw-Sea](http://www.usnwc.edu/getattachment/164f978e-4d6a-40d7-a9fa-9e306cab4f67/Taming-the-Outlaw-Sea).*

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## UPCOMING EVENTS

- **September 22–23, 2011.** Responsibility in Economics and Business and The Legacy of E.F.Schumacher Conference. The conference will be hosted by the Center for Ethics, University of Antwerp in collaboration with the Business Ethics Center, Corvinus University Budapest. The conference is supported by the Fondation Charles Léopold Mayer and Batiself. For more information, see <http://www.eurospes.be/page.php?LAN=E&FILE=agendadetail&ID=1026>.
- **October 24, 2011.** EPS screening of *Inside Job* with award winning film maker Charles Ferguson. EPS will hold a special benefit screening of the groundbreaking documentary *Inside Job*. Award winning film maker Charles Ferguson will be answering audience questions. Location and exact time are to be announced soon. For updates on this event visit our website at <http://www.epsusa.org>.
- **November 10, 2011.** EPS Bernard Schwartz Symposium on Jobs to be held in Washington DC. EPS in partnership with Bernard Schwartz will continue our symposium series examining various aspects of the ongoing economic crisis. Exact location and time are to be announced soon. Updates on this event will be posted on our website at <http://www.epsusa.org>.
- **November 11–13, 2011.** ICAPE's 3rd international research conference, *Re-thinking economics in a time of economic distress*, will be held at the University of Massachusetts-Amherst, Amherst, MA. The 2007-08 financial crisis and subsequent economic downturn have raised many questions about how well prevailing economic approaches identify and explain pressing economic problems and suggest sound ways to solve them. Exploring what needs to change in economics and identifying productive paths forward are the central themes of The International Confederation of Associations for Pluralism in Economics 3rd international research conference. Full details about the conference are available at <http://www.icafe.org/conferences.html>.
- **November 16, 2011.** EPS benefit, an evening with Dr. Alan Blinder. Kathleen Stephansen and Andrew Racine will host an evening at their home with special guest speaker Dr. Alan Blinder. All proceeds will help further the work done by EPS. For further details about the event please contact Thea Harvey: [theaharvey@epsusa.org](mailto:theaharvey@epsusa.org).
- **January 13–14, 2012.** Eurasian Peace Science Conference at Koç University in Istanbul, Turkey. The Conference's goals are to broaden cooperation among Eurasian and Middle Eastern peace science scholars, encourage interaction with the worldwide peace science community, and bring together research on conflict and peace-related topics from throughout the world. For more information, see <http://conflictstudiescenter.ku.edu.tr/call.html>.
- **March 9–11, 2012.** Eastern Economic Association 38th Annual Conference will be held at the Boston Park Plaza Hotel, Boston, MA. The Eastern Economic Association is a not-for-profit corporation whose object is to promote educational and scholarly exchange on economic affairs. Towards that end, the Association encourages the freedom of research and discussion. Further information about the conference is available at <http://www.ramapo.edu/eea/>.

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## Annual meetings of the Allied Social Sciences Association and American Economics Association January 6–8, 2012 in Chicago, IL

Two sessions will be presented by EPS

Friday, January 6, at 10:15 am, Swissotel, Vevey 2  
**The Economics of Regime Change (Panel Discussion)**

Panel Moderator:

Richard Kaufman (Bethesda Research Group)

**Local Foundations for Strong Democracy**

Roger Myerson (University of Chicago)

**The True Cost of the Afghanistan and Iraq Conflicts:  
An Analysis of the Ten Years from 2001-2011**

Linda Bilmes (Harvard University)

**The Economics of the Arab Spring: A View from Egypt**

Hamid Ali (American University in Cairo)

**Women in Transitions**

Jennifer Olmsted (Drew University)

**Report from the South American Spring**

Mark Weisbrot (Center for Economic and Policy Research)

Friday, Jan 6, 12 2:30 pm, Swissotel, Grand Ballroom Salons I & II  
**Sustainability (Panel Discussion)**

Panel Moderator:

Michael Intriligator (University of California-Los Angeles)

**Sustainable Growth**

Robert J. Gordon (Northwest University)

**Sustainable Retirement**

Teresa Ghilarducci (New School)

**Sustainable Energy**

J. Barkley Rosser (James Madison University)

**Sustainable Jobs**

Allen Sinai (Decision Economics)

**Sustainable European Union**

Richard Parker (Harvard University)

Saturday, January 7, 6:30 – 10pm, Swissotel, St. Gallen 2 & 3

**EPS Dinner in honor of Robert J. Gordon**

Allen Sinai and Richard Parker – host committee co-chairs

Please check for details and updates soon on our website: [www.epsusa.org](http://www.epsusa.org).