Maritime Piracy and Foreign Policy

Brandon Prins and Ursula Daxecker

Subject: World Politics Online Publication Date: Apr 2017
DOI: 10.1093/acrefore/9780190228637.013.522

Summary and Keywords

With piracy in the Greater Gulf of Aden seemingly eradicated, some analysts suggest that attacks against shipping no longer remains a salient global security concern. Indeed, the number of attacks attributable to Somali pirates dropped dramatically from 2011 to 2015, and small private maritime security firms have begun to go out of business as demand for armed guards on ships has diminished. But recent increases off the coast of Nigeria and around the Straits of Malacca confirm that the threat has not been entirely eliminated. In fact, Indonesia, Malaysia, and the Philippines recently agreed to conduct coordinated naval patrols to stem the rise in attacks in and around their waters and some Indonesian elites warn that the problem will only grow worse (Jensen & Kapoor, 2016). While the international community mounted a significant counter-piracy response to attacks in the Greater Gulf of Aden beginning in 2009 and shipping companies started to implement protective measures to safeguard their transports, piracy endures because the conditions driving it persist. Successful attacks against ships produce sizable payoffs and the risk of capture remains low in most places. Further, the continued presence of fragile governments, corrupt elites, joblessness, and illegal foreign fishing ensure that pirates will continue to pose a threat to marine traffic.

Current research efforts focus on the microlevel drivers of pirate attacks. While structural (country-level) indicators of poverty and institutional fragility correlate with piracy, local conditions on land proximate to anchorages and shipping lanes where incidents occur will likely provide additional leverage in explaining where pirates locate and why piracy endures. Existing research also suggests piracy may be connected to armed insurgency. As rebels seek resources to help fund their anti-state or separatist campaigns, piracy, like gemstones, oil, and narcotics, may serve as a means to pay fighters and purchase weapons. Spatially and temporally disaggregated analyses as well as the synthesis of research on civil war and maritime piracy will open up new lines of inquiry into the relationship between lootable resources and armed conflict.

Keywords: maritime piracy, armed conflict, political capacity, lootable resources, illegal fishing

Introduction

The sudden, dramatic rise of Somali piracy beginning in 2008 increased attention to the issue of maritime security. Attacks against cargo ships, such as the *MV Faina* and the *Sirius Star*, produced consternation among security officials.[1] However, the hijacking of the *MV Maersk Alabama* in April of 2009 and the subsequent rescue of the ship and its captain from Somali pirates drew worldwide media attention. The incident, while dramatic, was only one of nearly 50 hijackings that occurred in the Greater Gulf of Aden that same year. In fact, Somali pirates hijacked seven ships prior to the April 8th *Alabama* attack and 18 after. Another 19 attacks occurred off the coast of Yemen and one off of Oman. In total, nearly 200 piracy attacks and attempted attacks occurred in the Greater Gulf of Aden in 2009. This represented an increase of 75% from the year before. The attacks off Somalia, coupled with earlier incidents such as the bombing of the *USS Cole* and the sinking of the *SuperFerry 14*, the former by Al Qaeda and the latter by the Abu Sayyaf, linked maritime piracy to the challenge confronting the international community from violent non-state groups more generally. These modern sea brigands were no longer merely a criminal nuisance more or less confined to certain ports and anchorages in Africa and Southeast Asia. Perhaps pirates now represented a more significant threat to global security and economic prosperity.[2]

The linking of maritime piracy to terrorism clearly led to increased awareness and media attention. Yet, high-profile ship seizures, such as the *Alabama*, or the more recent attack on the *MV Orkim Harmony* off the southeast coast of mainland Malaysia in 2015, tend to provide a sensationalized picture of piracy that mostly obscures rather than elucidates key features of the contemporary maritime security environment. The relative absence of systematic and sustained research into both the structural conditions associated with piracy as well as the demand and supply side forces propelling variation in attacks over time and space has produced a narrow and limited understanding of this kind of criminal violence. Consequently, two very different conclusions are typically drawn about the threat of piracy, each of which demands different policy responses. On the one hand, pirates become linked to terrorists and a maritime 9/11 is the anticipated end result. Explosives get detonated on or against a very large crude oil carrier effectively closing a narrow waterway, such as the Suez Canal or Strait of Hormuz. Or, pirates hijack and ram a vessel into stationary ships at port, creating devastation and shuttering the harbor for a period of time. Such attacks could impose significant economic costs on the global community as well as generate widespread media coverage. On the other hand, piracy is frequently denoted as a local criminal problem driven by corruption, poverty, and illegal fishing. Attacks remain extremely rare, are opportunistic, and occur principally at ports and anchorages resulting in minor damage or theft. Piracy as a tool of terrorists requires collective and concerted effort by the global community. Piracy as armed robbery demands improved policing and local political leadership. These two very different narratives lead to both an over- and underestimation of the threat from modern pirates.

Compared to research on the correlates and consequences of civil war and insurgency, maritime piracy remains understudied, relying too heavily on individual case studies and anecdotes as evidence to draw general conclusions regarding the drivers of pirate attacks. But recent data collection efforts on maritime piracy (MPD, CMPD, MPELD) begin to offer researchers the opportunity to explore the underlying drivers of, and temporal trends in, piracy more systematically and comprehensively.[3] Access to this information led scholars initially to describe the extent, location, and type of maritime piracy observed regionally and globally. Such research set the stage for a second wave of studies that began to document factors associated with the incidence of piracy as well as explain piracy's temporal and spatial ebb and flow. Studies have also explored the economic and political consequences of maritime piracy and in some cases compared the effects to those caused by political and social unrest (Besley, Fetzer, & Mueller, 2012; Oliver, Jablonski, & Hastings, 2017; World Bank, 2013).[4]

Current scholarly efforts explore the subnational conditions associated with pirate attacks. This work connects to a larger research program that assesses the relationship between lootable resources and armed insurgency. Drugs, gemstones, and oil appear to help finance armed groups and increase the value of contested territory (Fearon, 2004; Ross, 2006). Conflict appears to erupt in and around such resource-rich areas (Buhaug & Rod, 2006; Lujala, 2010). Armed robbery on ships, kidnapping for ransom, and the reselling of stolen oil may similarly represent funding strategies for violent non-state groups. Evidence appears to connect piracy in the Gulf of Guinea to Niger Delta militants (Pérouse de Montclos, 2012), and the Tamil Tigers of Sri Lanka used attacks against ships to seize weapons and ammunition (Liss, 2003). More recently, the Abu Sayyaf has used kidnapping for ransom to raise funds for their insurgent activities in and around the Southern Sulu Archipelago.[5] Rebels may additionally partner with local or regional criminal organizations to operate more effectively in spaces lacking order and authority.

In this article, we explore the conditions associated with modern maritime piracy. First, we describe trends in attacks. Then we review extant research on the drivers of piracy and the strength of the evidence. Next we address the regional and international response to piracy and the effectiveness of countermeasures. We then consider how insurgencies, lootable resources, and piracy connect and what implications such associations may have on conflict patterns. Finally, we conclude by briefly reviewing our findings and suggest future directions for research and analysis.

Defining and Visualizing Contemporary Maritime Piracy

Maritime piracy was codified after World War II with the international Law of the Sea Convention, which entered into force in 1994 (after decades of deliberation) with the deposit of the 60th ratification document (Article 308). The Treaty delineates maritime piracy, but it does so in only eight short articles (100–107) that stretch little more than one page in length. Article 101 establishes that "illegal acts of violence or detention, or any

act of depredation, committed for private ends by the crew or the passengers of a private ship" against another ship on the high seas constitutes piracy and is punishable by member states. The definition, while seemingly reasonable, actually excludes most of the attacks against ships we observe today. Indeed, pirates operate predominantly in the territorial waters of states, which extend up to 12 nautical miles from a country's shoreline.[6] Consequently, we use a broader definition, developed by the International Maritime Bureau (an arm of the International Chamber of Commerce) that includes attacks within a country's territorial waters (more correctly referred to as armed robbery). The IMB classification also incorporates ship attacks that occur at port or anchorage, which would not trigger the two-ship requirement under the Law of the Sea Convention (Twyman-Ghoshal & Pierce, 2014).[7]

Using the broader IMB definition and data from the annual reports published by the Piracy Reporting Center (PRC), we observe 246 piracy incidents in 2015.[8] This represents an increase of one attack from 2014, but a 45% decrease in total incidents from 2010 when Somali piracy was approaching its apex. Figure 1 below illustrates self-reported piracy incidents from 1993 to 2015. Since the early 1990s (the start of data collection), reports of maritime pirate attacks have increased substantially but also ebbed and flowed over time. Pirates in Southeast Asia drove the first wave of piracy. With the collapse of the Suharto regime in 1998, coupled with the Asian financial crisis that hit one year earlier, attacks jumped substantially from 1997 to 2000, increasing by over 150% in a short three-year period. In response, Malaysia, Singapore, Thailand, and Indonesia increased aerial and naval surveillance as well as improved information sharing specifically in the Malacca Straits where pirates were operating, which helped reduce the number of attacks against steaming ships from nearly 60 incidents in 2000 to 12 by 2005 and only one in 2014. Yet, success in combating piracy in the Straits of Malacca displaced attacks to the South China Sea, the islands surrounding the Singapore Straits, and the ports and anchorages on the Indonesian islands of Borneo and Java.

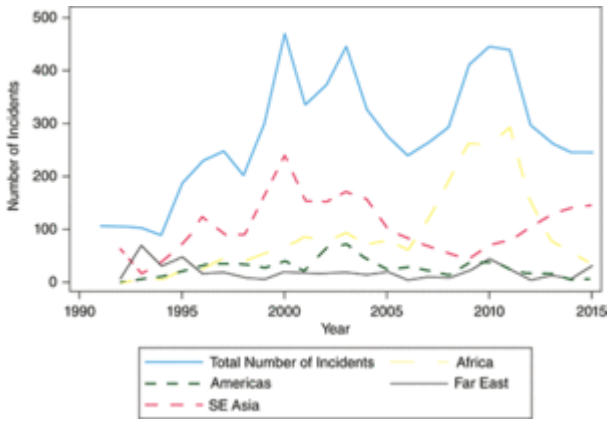

Figure 1. Piracy Incidents by Year and Region.

Just as regional counter-piracy efforts in Southeast Asia were showing real effect, piracy in African waters began to increase. The number of incidents doubled from 2006 to 2007 and doubled again from 2007 to 2009. Mostly Somali pirate gangs drove the increase, but

attacks in the Gulf of Guinea against oil transports emerged as well. Working from hubs in both Northeastern (Puntland) and Southern Somalia (Jubaland), Somali pirates eventually extended the reach of their attacks far across the Indian Ocean to the Maldives and north to the Strait of Hormuz. The reach of Nigerian pirates also increased, moving from ports and anchorages in and around Port Harcourt and Lagos to steaming ships transiting the Gulf. The international community responded forcefully to piracy off Somalia beginning in 2009 by creating three separate naval operations (Atalanta, Ocean Shield, and CTF 151) and establishing a protected transition corridor through the Gulf of Aden. The shipping industry also began to take the threat more seriously by both hardening and protecting ships.[9] The effect on piracy took some time, but by 2015 there were no reported Somali attacks in the Greater Gulf of Aden. Unfortunately, a similar counter-piracy effort was not mounted in the Gulf of Guinea and the problem has only worsened. The number of attacks increased substantially in the first six months of 2016, which was double the amount compared to the same time period in 2015.

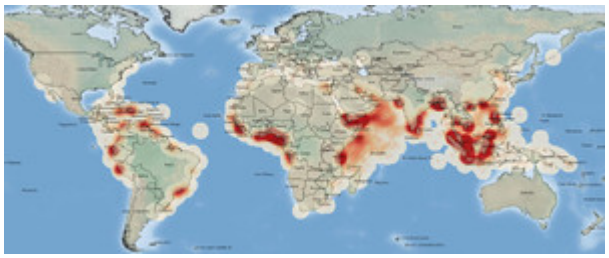

Figure 2. Global Heat Map of Pirate Attacks, 1993–2015.

Piracy tends to cluster in certain geographic areas and the clustering has remained fairly constant over time. Figure 2 maps over 6,000 pirate attacks that occurred between 1993 and 2015, and several hotspots clearly emerge in Africa and Asia. We have already noted piracy in the Gulfs of Guinea and Aden but we also observe a high hazard of attack in ports and anchorages on the eastern side of Borneo (Balikpapan and Samiranda) and throughout the Southern Sulu Archipelago (Sandakan and the Sulu Sea). The Indian ports of Kandla and Visikhapatnam also experience significant piracy as well as recently the Vietnamese port of Vung Tau. A somewhat lesser known piracy hotspot is Bangladesh and its primary port city of Chittagong. Over the 23 years of data contained in our dataset, Bangladesh is the third most piracy prone country, after Indonesia and Malaysia. On average, Bangladesh experiences nearly 20 attacks per year, most occurring while ships are stationary, loading, and unloading cargo.[10] In fact, 80% of piracy in Bangladesh occurs while ships are stationary, typically at offshore anchorages. In contrast, only 50% of piracy globally happens at ports and anchorages and less than 35% in Malaysian waters. Nearly 60% of pirate attacks in Indonesia occur while ships are stationary, but this has declined by over 10 percentage points in the past two years indicating resurgence in more sophisticated pirate operations.[11]

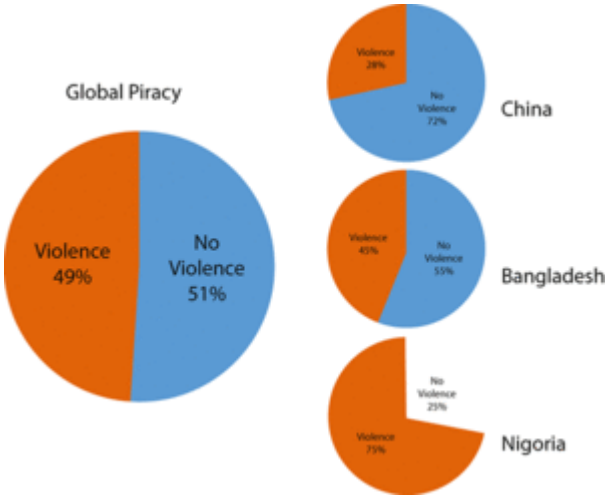

Figure 3. Pie Chart Showing Percentage of Violent Pirate Attacks, Globally and in Specific Countries.

We also see certain characteristics of pirate attacks shifting over time and space. Globally, about half of pirate incidents are violent, where the threat or use of force is reported. However, the use of violence by pirates varies considerably by country (see Figure 3). In China, for example, piracy mostly occurs at ports and remains nonviolent. Only 30% of incidents involve violence. In contrast, piracy in Nigerian and Somali waters has frequently been violent. Over 70% of Nigerian attacks and 85% of Somali attacks involve violence. Much of this is a function of where attacks take place. Opportunistic piracy at ports and anchorages frequently avoids confrontation. Pirate operations against steaming ships, however, will undoubtedly involve clashes between ship personnel and the assaulting brigands. Since 2010, nearly 70% of the pirate attacks in Nigerian waters have been directed against steaming ships. Compare that to only 35% in Indonesia over the same time period. So, the larger percentage of attacks against moving ships in Nigerian waters means more violence. But even stationary incidents are violent in Nigeria. Only 30% or so of incidents at ports or anchorages involve violence in Indonesia. In Nigeria, though, over 60% of stationary incidents are violent and nearly 90% of steaming incidents involve violence. It may be that piracy occurring in conflict zones reflects the overall higher level of violence transpiring on the ground.[12]

Pirates clearly confront dangerous and challenging conditions when attacking ships on the open water. Wind, waves, and rain make any assault against vessels at sea risky and potentially deadly. Consequently, pirates sensibly avoid precarious meteorological conditions. Hijackings by Somali pirates show distinct seasonality and drop substantially when wind and rain pick up due to the southwest monsoon in late spring and summer. Similarly, increasing rainfall in late summer in the Gulf of Guinea increases the risks associated with open water attacks and consequently results in fewer incidents (see Figure 4). Pirates also time their attacks with an eye toward the cover of darkness. Most piracy and armed robbery at sea occurs after the sun has gone down.

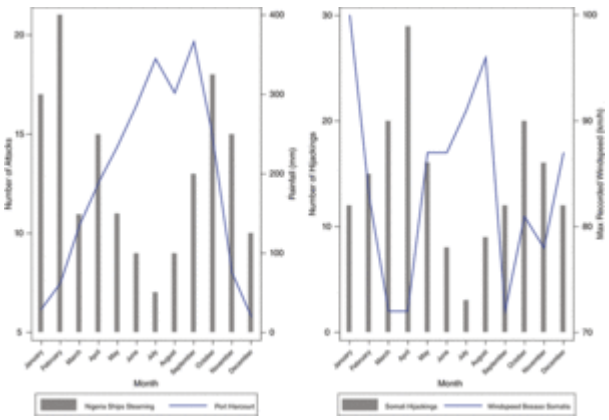

Figure 4. Climatological Effects on Maritime Piracy, Nigeria, and Somalia.

Globally, approximately 50% of incidents from 1993–2015 occur after midnight and before 6 am local time as Figure 5 shows. Opportunistic piracy, in particular, similar to armed robbery on land follows this pattern. Yet, pirate strikes against steaming ships occur more frequently during daytime hours due to the complexities and difficulties operating on the water in darkness. In fact, piracy off of Somali during the height of the crisis from 2009–2013 mostly occurred during late morning and early afternoon (see Figure 5).

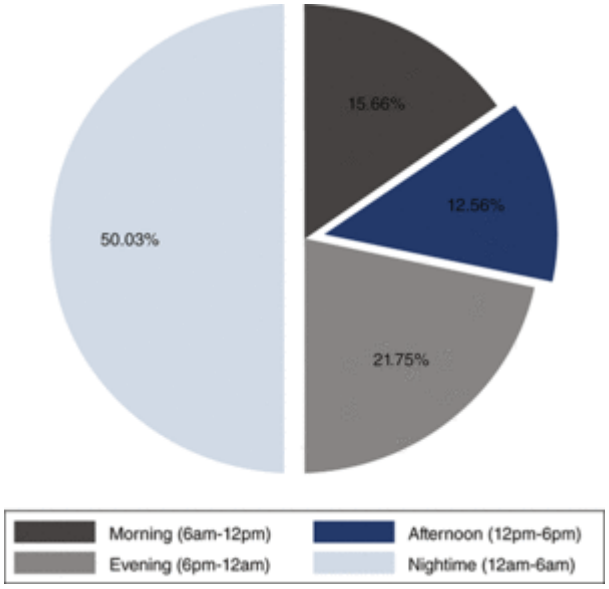

Figure 5. The Timing of Pirate Attacks, 1993–2015.

Despite persistent fear of a maritime 9/11 and continuing apprehension about higher shipping costs, piracy globally has actually decreased substantially since 2010. But the size of the annual decrease has gotten smaller each year, and 2015 saw the first increase in the global number of attacks since 2010. It’s possible that piracy may begin to increase once again as pirates have learned from and responded to counter-piracy efforts and strategies. However, it’s more likely that attacks have reverted back to an average level after the Somali surge from 2008–2012. The average annual number of attacks over the

25-year period from 1991–2015 was 277, with a median value of 264. In the first six months of 2016, 98 attacks occurred. Historically, 50% of the incidents observed worldwide in any given year occur between January 1 and June 30, with a 12% one standard deviation error bar. Projecting out for 2016, then, implies that the amount of piracy we should witness this year will be between 155 and 254 attacks. This forecast suggests that a large increase in global piracy remains unlikely. Maritime piracy will continue to level off in the mid-200s or decrease even farther than it has in the past several years. In fact, IMB reports 184 attacks through December 15, 2016, and so it seems the level of piracy observed in 2016 will be significantly below the 25-year average.

The Drivers of Modern Maritime Piracy

Describing spatial and temporal variation in pirate attacks clarifies the scope of the security problem confronting the international community. Piracy remains temporally persistent but geographically concentrated.[13] Hundreds of attacks occur each year, yet the vast majority occurs within or around the waters of a small subset of countries.[14] What underlying political, economic, and geographical conditions do these states confront that increase the hazard of attack? Do certain conditions have a larger effect on piracy than others?

Extant research demonstrates that the presence of fragile governments, poverty, illegal fishing, and armed conflict, coupled with large populations and geographic opportunity, all help to explain the emergence and persistence of maritime piracy. Political weakness, in particular, helps facilitate the development of pirate groups. Weak institutions provide the space for criminal organizations to operate without fear of investigation by, or opposition from, security forces.[15] Indeed, fragile states tend to be associated with corruption, crime, and social volatility, all of which enable piracy.[16] The Center for Systemic Peace (CSP) measures political weakness using an ordinal scale ranging from 0 to 25, with higher values representing increasingly fragile states. The average fragility score for countries without piracy is about 7. The same score for countries with piracy is 70% higher. We observe a similar relationship using World Bank data on government corruption, where piracy-prone countries are on average 60% more corrupt than countries lacking piracy. Clearly corruption, institutional weakness and maritime piracy associate, but they also are reinforcing. Trans-criminal organizations gravitate toward fragile states, yet these groups also entrench corruption and collusion. Still, the poorest and most fragile states may not experience the highest levels of pirate activity. Some evidence shows a curvilinear relationship between state capacity and maritime piracy, which suggests that a certain level of infrastructural development may be required for pirate groups to successfully unload their stolen cargo (de Groot, Matthew, & Shortland, 2011; Hastings, 2009). Daxecker and Prins (2013), however, observe a more linear relationship. It remains an open question whether the relationship observed at the country level applies subnationally. Indeed, pirate groups may emerge in weak states, but then locate in more institutionally stable regions of the country.

If state fragility provides the opportunity for criminal activity, economic deprivation provides the demand or willingness. Joblessness creates a pool of young men that can serve as the foot soldiers for rebel groups and pirate gangs (Daxecker & Prins, 2013; Iyigun & Ratisukpimol, 2010; Jablonski & Oliver, 2013).[17] Average GDP per capita in piracy-prone countries over the 1993 to 2012 time period was less than $2,000. It is nearly 400% higher in countries without piracy. Some of the countries that experience significant piracy represent some of the poorest places on the planet. According to the CIA's World Factbook, Somalia had a 2014 per capita gross domestic product (PPP) of $400. Both Bangladesh and Nigeria are significantly wealthier ($3,400 and $6,100 respectively), but both also suffer from considerable poverty and joblessness. Nigeria faces 24% unemployment and nearly 70% of the population falls below the poverty line. Such deep-rooted and persistent poverty makes piracy eradication difficult. Individual fishers, farmers, and shopkeepers can earn several thousand U.S. dollars from even one successful pirate attack, substantially more than several months' worth of difficult labor in the legal economy.[18] Of course, as piracy increases, alternative employment options decrease. Indeed, profits from pirate attacks push up prices, appreciating the local currency and resulting in decreases in primary commodity exports (Murphy, 2011). Farmers and fishers suffer accordingly. Clearly, an effective counter-piracy strategy must address wage stagnation and lack of job growth on land.

Evidence suggests many pirates are former fishers. Foreign fleets frequently enter the territorial waters of weak countries and deplete rich marine areas. This is certainly true in Somalia where illegal, unregulated, and unreported (IUU) fishing threatened the sustainability of valuable aquatic resources. According to the One Earth Foundation, foreign trawlers used to catch more than three times as many fish as Somalis, which helped to create the piracy problem in the Greater Gulf of Aden in the first place.[19] Foreign fleets were chased away by the threat of pirate attack and fish stocks recovered. With piracy eliminated, many Somalis fear that IUU fishing will return. We find that in many places the health of the fishing industry correlates with maritime piracy (Axbard, 2016; Daxecker & Prins, 2013). As the price fishers receive from their catch increases, attacks against ships decrease, suggesting piracy remains a reluctant occupation for many.[20]

Finally, coastlines and the physical positioning of states influence the incidence of piracy. Proximity to maritime chokepoints, such as the Bab el-Mandeb passage from the Red Sea to the Gulf of Aden or the Malacca straits separating Malaysia from the Indonesian Island of Sumatra, correlates with piracy. Thousands of cargo ships, oil transports, and fishing vessels transit both channels each year, presenting lucrative targets for local pirate groups. Coastline length also relates to piracy. Not only do long shorelines offer countless shelters that create logistical problems for maritime security forces, but also the light and fast boats pirates use enable them to elude security forces by hiding in the bays, coves, and waterways of countries such as the Philippines, Indonesia, Malaysia, Nigeria, and Bangladesh. It would seem impossible to police the 55,000 kilometers of coastline in Indonesia or the 36,000 kilometers in the Philippines. Robust and consistent evidence ties

both coastline length and chokepoint proximity to pirate attacks. Pirates clearly locate where opportunity exists as well as away from state power (Daxecker & Prins, 2015).

The Challenges and Effectiveness of Counter-Piracy Operations

The maritime security challenge presented by Somali pirates in the Greater Gulf of Aden was arguably met with a combination of intensified interdiction efforts and vessel hardening. Beginning in 2009, naval patrols increased, especially near the Bab al Mondab waterway linking the Red Sea with the Indian Ocean. The expansion in the number of naval ships in the area, as well as improved information sharing and convoying increased the risk of capture. The result initially was a decrease in the success rate of pirate attacks, particularly in the Gulf of Aden, although the actual numbers of attacks continued to increase from 2009 through 2011 (Di Salvatore, 2016). As the naval operations entered their fourth year, a dramatic reduction in the number of attacks occurred. While partly a function of the increased display of force, ship protection also improved over these four years making ship seizures more difficult.[21] Razor wire, water hoses, armed guards, and increased speeds all made successful ship attacks more difficult and more dangerous.[22] Couple naval efforts and ship hardening with improved stability on land, and the benefits of pirate attacks became less visible.[23]

If counter-piracy naval deployments and vessel protection eradicated piracy in the Greater Gulf Aden, then why have such efforts not been exported to other piracy hotspots?[24] It appears that the specific type of piracy practiced by Somali buccaneers as well as the near complete absence of political order on land facilitated interdiction efforts (Anyimadu, 2013). The hijacking of steaming vessels on the open water presented plain and visible targets for international naval forces despite the large risk area, and ship hardening increased the hazard of boarding and seizing transiting ships. State failure in Somalia also allowed naval forces greater freedom of action. Indeed, the UN Security Council adopted resolutions 1846 and 1851 in 2008 that legalized the pursuit of pirates into Somali waters and onto land. So in part the unique features of Somali piracy rendered the international efforts effective.

Piracy in the Gulf of Guinea and Southeast Asia presents a different challenge, one that is not as straightforwardly addressed with the deployment of naval forces. Attacks are predominately launched against stationary vessels with the intent of stealing equipment and cargo, and consequently police and local coastguard forces remain the most effective and immediate response. In West Africa, the UN Security Council has called for international support (resolution 2039) to help address regional piracy efforts, however, little besides intelligence sharing and training has occurred. Complex maritime boundaries, high levels of corruption, and prohibitions on the deployment of privately contracted armed guards on ships ensure counter-piracy operations will remain difficult.[25] Yet recent cooperative efforts by Indonesia and Malaysia have seemed to help reduce incidents in Southeast Asia. Indeed, members of hijacking gangs have been apprehended and prosecuted, in-

cluding what appear to be the architects of several recent attacks. Such collaborative actions were necessary as piracy incidents spiked in Southeast Asia from 2014 to 2015, increasing by 30% and accounting for 70% of all attacks worldwide. Two incidents, in particular, drove increased efforts to counter the maritime threat. The *Orkim Harmony*, a Malaysian tanker ship carrying 5 million U.S. dollars' worth of gasoline, was seized by 8 armed men on June 11, 2015. Two months later the *MT Joaquim*, another large oil tanker, was taken as it steamed through the Straits of Malacca. Both ships were recovered but the brazen and high-profile nature of these attacks spurred action from regional governments. Malaysia and Indonesia formed a joint rapid deployment force and the Malaysian Maritime Enforcement Agency now has a helicopter-equipped rescue squad stationed at Johor Bahru, which is located adjacent to the Singapore Straits (Yee & Din, 2016). As Figure 6 shows, attacks dropped dramatically starting in September of 2015, especially attacks directed against steaming ships, as a result of the concerted actions taken by the Malaysian and Indonesian governments.

Still, experts think more needs to be done. Privately contracted armed security guards would likely help to push down attacks by increasing the danger to pirates. However, strict firearm regulations in many Southeast Asian countries preclude such a countermeasure (Yee & Din, 2015). Expanded intelligence sharing among port and anchorage authorities throughout the region could also help by increasing the likelihood that hijacked vessels are identified and reported to authorities, plus increased surveillance would make off-loading stolen cargo more difficult.[26] Further, neither Indonesia nor Malaysia have signed on to the Regional Cooperation Agreement on Combatting Piracy and Armed Robbery against Ships in Asia (ReCAAP), which was established in 2004, entered into force in 2006, and is designed to "promote and enhance" cooperation among member states to combat piracy.[27] Territorial disagreements, sovereignty concerns, and disputes over exclusive economic zones continue to frustrate full ReCAAP participation (Panda, 2013). The integration of Indonesia and Malaysia into ReCAAP would likely build trust and deepen cooperative counter-piracy endeavors, both of which would help with piracy eradication.

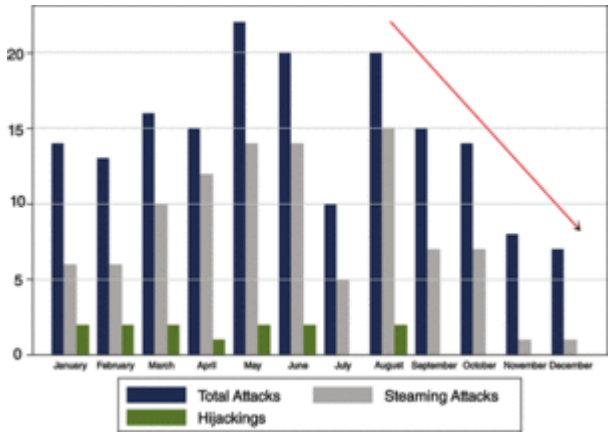

Figure 6. Southeast Asian Piracy by Month, During 2015.

Counter-piracy, like conflict resolution and the elimination of entrenched criminal networks, remains difficult. Clearly, local coastguard forces confront difficult and complex terrain that can make counter-piracy operations challenging. Pirates of course understand the physical environment and the ability (or inability) of state security forces to project power over geographic space and consequently locate away from government authority (Daxecker & Prins, 2015). Disputes over maritime boundaries further complicate counter-piracy efforts. Pirates evade security patrols by fleeing into the territorial waters of neighboring states, which impedes hot pursuit. In two prominent piracy hotspots (Southeast Asia and the Gulf of Guinea), maritime boundaries frustrate efforts to apprehend pirates. The South China Sea, in particular, provides many options for pirates to elude security forces since several territorial claims remain both unresolved and salient. Governments hesitate to chase pirates across these boundaries as jurisdictional conflict continues to aggravate relationships (Changgang, 2017). Similar boundary problems confront maritime security forces in the Gulf of Guinea (Lucia, 2015). Indeed, the discovery of offshore oil in many Gulf of Guinea countries contributes to forceful sovereignty claims.[28]

To be sure, many security experts insist more attention to root causes of piracy will have larger effects on piracy suppression than most interdiction efforts.[29] In the long term, poverty, entrenched corruption, economic and political marginalization, and environmental degradation all must be addressed more significantly to reduce the demand for piracy. Efforts need to include improving the efficacy and transparency of political institutions as well as facilitating economic development.[30] In the short term, vigorous policing of illegal, unreported, and unregulated (IUU) fishing should be prioritized. A recent report by the Overseas Development Institute estimates that “IUU fishing accounts for between one third and half of the total regional catch” in West Africa’s waters (Daniels et al., 2016, p. 11). Not only do foreign fishing fleets push local fishers out of work and into illicit activities, but they also increase local malnourishment, hunger, and community instability. Further, governments lose millions of dollars in lost revenue that could be used for poverty reduction, education, and sustainable development.[31] A recent agreement signed by 43 African states recognizes the high cost of IUU fishing and focuses new resources and efforts on preventing it (African Union Charter on Maritime Security, Safety and Development). Of course, it remains to be seen whether any efforts to combat IUU fishing can compete with the high demand for seafood in developed countries that incentivizes the illicit harvesting of marine resources.

Piracy and Political Violence

If countering IUU fishing can reduce the demand for piracy, so too can efforts to resolve rebellion. Many of the conditions facilitating maritime piracy also enable insurgency. Indeed, piracy and rebellion occur in many of the same places (see Figure 7 below).[32] It could be that weak states,[33] poor governance, and extreme economic dislocation drive individuals toward both rebel groups and pirates. Each group provides social belonging and an income to jobless and frustrated young men (Barrios, 2013).[34] Successful attacks

against ships result frequently in profits of around $5,000-$15,000 U.S. dollars, which is significantly more than what can be earned in the legal economy (UNODC, 2013; Valencia & Johnson, 2005).

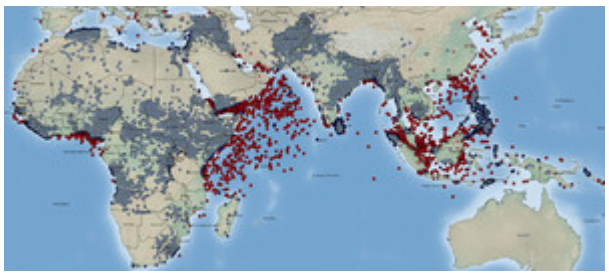

Figure 7. Maritime Piracy and Civil War (IMB and GED Geo-Referenced Data), 1993–2014. Blue dots = conflict events. Red dots = piracy attacks.

While similar conditions associate with both insurgency and maritime piracy, rebellion itself may contribute to the extent of the piracy problem witnessed in many countries. For example, the Abu Sayyaf militant group located predominately in the Southern Sulu Archipelago of the Philippines has increased kidnappings of fishermen and sailors to raise funds for rebel activities (Kemp, 2014; Liss, 2014).[35] The attacks clearly concern both the Indonesian and Filipino governments as they have moved quickly to counter the threat. In fact, Indonesian President Joko Widodo approved a military rescue operation to free the kidnapped mariners and the U. S. Navy has offered to assist countries in the region in their fight against the terrorist group (Marine Executive, 2016). Niger Delta militant groups have also carried out attacks against ships transiting the Gulf of Guinea to both raise revenue for insurgent activities and impose reputational and financial costs on the Nigerian Government (Rinkel, 2015).[36] Pirates target oil tankers carrying refined petroleum for siphoning and resale on the black market (Brock, 2013). Such activities likely raise substantial funds for Nigerian rebels. Since 2010, perhaps $100 million of oil have been siphoned from tankers in the Gulf of Guinea.

Evidence similarly ties Islamist rebels in Somalia to piracy. Alexander (2013, p. 69), for example, determines, “there is an increasing nexus between pirate organizations, al-Shabaab, and AQAM. It is known that funding from ransom is used to assist in financing terrorist organizations.” Tsvetkova (2009, p. 49) also notes the possibility of ransom payments from kidnappings and ship seizures going to al-Shababb. Indeed, al-Shabaab seized Haradheere in 2010, a known pirate den, and allegedly negotiated a financial arrangement on all ransoms collected (Kambere, 2012; Shortland & Varese, 2014, 2015). Finally, the Tamil Tigers of Sri Lanka engaged in extensive piracy during their 26-year insurgency. The rebel force created its own naval arm (Sea Tigers) that carried out attacks against the Sri Lankan navy, but the Sea Tigers also raided and looted merchants ships on the open water to raise funds for their anti-state campaign (Raman, 2006).

If insurgents depend on local resources to pay fighters, procure materiel, and maintain civilian support, then oil bunkering, kidnapping for ransom, and simple armed robbery

represent funding opportunities for many rebel groups. Indeed, siphoning hundreds of thousands of gallons of refined petroleum is worth several million U.S. dollars on the black market (UNODC, 2013).[37] Moreover, since many pirates raid ships at port or anchorage stealing simple ship-stores, carrying out such attacks does not necessarily require marine equipment or navigation skills (Murphy, 2009). This kind of armed robbery describes much of the piracy observed in Indonesia, Malaysia, Bangladesh, and Nigeria (likely resulting in profits of several thousand U.S. dollars per attack).[38]

Since resource appropriation empowers rebel groups, insurgencies can persist much longer. Possessing a consistent revenue stream helps facilitate and sustain rebellion. Fearon (2004), for example, finds contraband-funded wars to last 2.6 times longer than wars without lootable goods while Lujala (2010) concludes that extractable resources located within conflict zones increase conflict length by over 100%. The illicit selling of diamonds, narcotics, and timber provides rebel leaders with funds to build fighting forces capable of challenging the government. When accompanied by difficult terrain and located far from state power centers, rebel movements are difficult to suppress. Recent evidence suggests piracy similarly increases conflict length (Daxecker & Prins, 2017; Phayal, Prins, & Daxecker, 2016). Pirate attacks provide significant revenue that incentivizes continued rebellion. It seems, then, that the elimination of lootable resources accessible to insurgents may help shorten conflicts. Without the sizeable rewards from resource exploitation, rebel leaders find settlement a more attractive option. Leaders of the Free Aceh Movement (GAM) in Indonesia may have made just such a decision. Attacks against steaming ships spiked in the year 2000, many attributable to GAM. Governments in the region responded to the maritime threat and incidents dropped by 80% within five short years. Revenue loss, together with renewed government offensives on land, may have combined to produce a diplomatic opening that ultimately terminated the long-running insurgency.

Conclusion

Despite the recent elimination of maritime piracy in the Greater Gulf of Aden, the threat to shipping in many waterways remains. Corruption, poverty, and illegal fishing persist, which all ensure a steady supply of pirates. Armed conflict continues to erupt as well. In fact, 2015 witnessed the highest number of ongoing intrastate conflicts since 1991. Pirates and criminal gangs gravitate toward conflict zones intending to capitalize on the economic and political instability created by rebellion. The international community currently contributes over 85,000 soldiers to 16 UN peacekeeping operations worldwide, but conflict resolution remains especially challenging in places where resources motivate perpetual fighting.

Still, counter-piracy efforts have had important successes. So far in 2016, piracy attacks remain below average in every month except April and in some months the number of incidents are down nearly 100% (see Figure 8). Greater awareness by crews, ship-hardening improvements, and recent cooperative endeavors against pirates by states, such as

Indonesia and the Philippines, have made ship seizures more difficult. Further, the UN Office on Drugs and Crime established its Maritime Crime Program (MCP) in 2009 to assist governments with the apprehension, prosecution, and imprisonment of captured pirates. Not only have correctional facilities been built or refurbished in Somaliland and Puntland to hold many of the pirates captured during operations in the Gulf of Aden and Indian Ocean, but also the MCP now assists with counter-piracy capacity building in the Gulf of Guinea. The subsequent deployment of additional Nigerian warships in the waters off Nigeria appears to have helped reduce attacks in the area.[39]

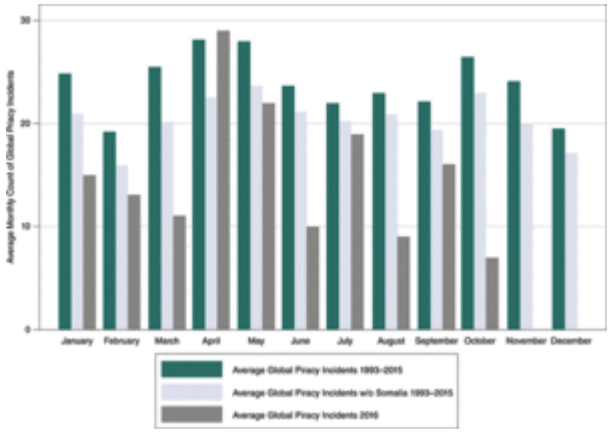

Figure 8. Average Global Monthly Piracy Incidents.

Security officials and maritime stakeholders also must address institutional corruption that leads to collusion between government office holders and pirates (Hastings, 2012; Hastings & Phillips, 2015; Murphy, 2009; Shortland & Varese, 2014). Hastings (2012, p. 689) notes, for example, that incidents in the South China Sea largely disappeared after the Chinese government eliminated collusion among local officials and pirate leaders. Similarly, corrupt customs officials and port employees have been known to provide information on ship movements and cargo to pirates operating in Indonesian waters (Storey, 2008). Consequently, counter-piracy efforts that ignore corrupt national and local elites will ultimately fail to eradicate the modern pirate scourge.[40]

Finally, more attention to subnational conditions associated with maritime piracy and armed conflict seems essential. Indeed, increasingly scholars employ disaggregated data to model variation in conflict risk within individual countries (De Juan & Pierskalla, 2014; Lujala, 2010; Tollefsen & Buhaug, 2015) and such research remains essential in confirming causal processes. For example, a government's ability to project power may fluctuate significantly across a country's territory. Noting such spatial variation can help to explain where rebels locate within a country and why insurgency erupts. Similarly, pirates locate away from state power and noting capacity at the center (typically a country's capital city) may help explain overall levels of piracy within a country's waters but cannot clarify variation in piracy across, for example, the Indonesian Islands of Sumatra or Kalimantan. Capturing subnational variation in both the opportunity and motivation to engage in maritime piracy will improve forecasts of pirate attacks and illuminate the factors driving such illicit activity (e.g., Axbard, 2016; Daxecker & Prins, 2016). To be sure, significant

challenges confront scholars that investigate pirate activity subnationally. Little information on pirate groups exists, such as where they are located, which group carries out attacks, and connections pirate groups may have to corrupt local elites and insurgents. Still, the inferential benefits of substate data collection and analysis remain compelling.

References

Alexander, J. (2013). Piracy: The best business model available. *JSOU* Report 13–7. MacDill Air Force Base, FL: Joint Special Operations University. Retrieved from **http://jsou.socom.mil/JSOU%20Publications/13-7_Piracy_Alexander_FINAL.pdf**.

Anyimadu, A. (2013). Maritime security in the Gulf of Guinea: Lessons learned from the Indian Ocean. *Chatham House Africa*, 2013/02, 1–18.

Axbard, S. (2015). Income opportunities and sea piracy in Indonesia “and” extractive industries, production shocks and criminality. Retrieved from **http://www.diva-portal.org/smash/record.jsf?pid=diva2:787097**.

Axbard, S. (2016). Income opportunities and sea piracy: Evidence from satellite data. *American Economic Journal, 8*(2), 154–194.

Barrios, C. (2013). Fighting piracy in the Gulf of Guinea: Offshore and onshore (Brief No. 20). Paris: EUISS. Retrieved from **http://www.iss.europa.eu/uploads/media/Brief_20.pdf**.

BBC News. (2005, March 2). Waves “brought waste to Somalia.”

Besley, T., Thiemo, F., & Hannes, M. (2012). One kind of lawlessness: Estimating the welfare cost of Somali piracy! Working paper. Retrieved from **http://ddd.uab.cat/pub/worpap/2012/hdl_2072_204087/89812.pdf**.

Brock, J. (2013, September 19). Nigeria’s stolen oil is sold and laundered abroad. *Reuters*. Retrieved from **http://www.reuters.com/article/us-nigeria-oil-theft-idUSBRE98I13P20130919**.

Buhaug, H., & Rød, J. K. (2006). Local determinants of African civil wars, 1970–2001. *Political Geography, 25*(3), 315–35.

Changgang, G. (2017). South China Sea: Pivotal quandaries in controlling piracy. *Foreign Policy News*. Retrieved from **http://foreignpolicynews.org/2016/09/17/south-china-sea-pivotal-quandaries-controlling-piracy/**.

Coggins, B. L. (2010). Nothing fails like success: Anarchy, piracy, and state building in Somalia. Working paper, Dartmouth University, Hanover, New Hampshire.

Coggins, B. L. (2012). Global patterns of maritime piracy, 2000–2009: Introducing a new dataset. *Journal of Peace Research, 49*(4), 605–617.

Collier, P. (2000). Rebellion as a quasi-criminal activity. *Journal of Conflict Resolution, 44*, 839–853.

Collier, P., Elliott, V. L., Hegre, H., Hoeffler, A., Reynal-Querol, M., & Sambanis, N. (2003). *Breaking the conflict Trap: Civil war and development policy*. Washington, DC: World Bank Publications.

World Development Indicators 2012. Washington, DC: World Bank Publications.

Daniels, A., Gutierrez, M., Fanjul, G., Guerena, A., Matheson, I., & Watkins, K. (2016). Western Africa's missing fish: The impacts of illegal, unreported and unregulated fishing and under-reporting catches by foreign fleets. *Overseas Development Institute Research Report*.

Daxecker, U., & Prins, B. C. (2013). Political stability and the incidence of piracy. *Journal of Conflict Resolution, 57*(6), 940–965.

Daxecker, U., & Prins, B. C. (2016). The politicization of crime: Electoral competition and the supply of maritime piracy in Indonesia. *Public Choice, 169*(3–4), 375–393.

Daxecker, U., & Prins, B. C. (2015). Seeking sanctuary: Government power and the location of piracy. *International Interactions, 41*(4), 699–717.

Daxecker, U., & Prins, B. C. (2017, forthcoming). Financing rebellion: Piracy as a rebel group funding strategy. Special issue of the *Journal of Peace Research on Forecasting*.

Daxecker, U., & Prins, B. (2015). Searching for Sanctuary: Government Power and the Location of Piracy. *International Interactions, 41*(4), 699–717.

Daxecker, U. E., & Prins, B. C. (2016). *Maritime piracy event & location database (MPELD)*. Knoxville, TN: Department of Political Science and Howard Baker Center for Public Policy.

de Groot, O., Matthew, D. R., & Shortland, A. (2011). Gov-aargh-nance: Even criminals need law and order. Working paper 11–01. Centre for Economic Development & Institutions. Brunel University, Middlesex, U.K.

De Juan, A. & Pierskalla, J. H. (2014, forthcoming). Manpower to coerce and co-opt: State capacity and political violence in Southern Sudan. *Conflict Management and Peace Science*.

Di Salvatore. J. (2016). Is criminal violence contagious? Reinforcement, contiguity and learning as diffusion mechanisms of piracy in Somalia. Manuscript, University of Amsterdam, The Netherlands.

Dixon, J. (2009). What causes civil wars? Integrating quantitative research findings. *International Studies Review, 11*(4), 707–735.

Ducruet, C., Itoh, H., & Merk, O. (2014). Time efficient at world container ports. *International Transport Forum Discussion Paper* 8.

Ellingsen, T. (2000). Colorful community of ethnic witches brew? Multiethnicity and domestic conflict during and after the Cold War. *Journal of Conflict Resolution, 44*(2), 228–249.

Ending the Drug Wars: Report for the LSE Expert Group on the Economics of Drug Policy. Oxford: Oxford University Press.

Fearon, J, & Laitin, D. (2003). Ethnicity, insurgency, and civil war. *American Political Science Review, 97*(1), 75–90.

Fearon, J. D. (2004). Why do some civil wars last so much longer than others? *Journal of Peace Research, 41*(3), 275–301.

Frécon, E. (2005). Piracy in the Malacca Straits: Notes from the field. *IIAS Newsletter* 36.

Gaibulloev, K., & Sandler, T. (2016). **Decentralization, institutions and maritime piracy**. *Public Choice, 169*, 357–374.

Gates, S. (2002). Recruitment and allegiance: The microfoundations of rebellion. *Journal of Conflict Resolution, 46*(1), 111–130.

Greene, J. A. (1999). Zero tolerance: A case study of police policies and practices in New York City. *Crime and Delinquency, 45*(2), 171–187.

Hansen, S. J. (2009). Piracy in the greater Gulf of Aden: Myths, misconception, and remedies. Norwegian Institute for Urban and Regional Research NIBR Report 29.

Hastings, J. V. (2009). Geographies of state failure and sophistication in maritime piracy hijackings. *Political Geography, 28*(4), 213–223.

Hastings, J. (2012). Understanding maritime piracy syndicate operations. *Security Studies, 21*(4), 683–721.

Hastings, J. V., & Phillips, S. G. (2015). Maritime piracy business networks and institutions in Africa. *African Affairs, 114*(457), 555–576.

Hauge, W., & Ellingsen, T. (1998). Beyond environmental scarcity: Causal pathways to conflict. *Journal of Peace Research, 35*(3), 299–317.

Hegre, H., Ellingsen, T., Gates, S., & Gleditsch, N. P. (2001). Towards a democratic civil peace? Opportunity, grievance, and civil war 1816–1992. *American Political Science Review, 95*(1), 33–48.

Hoque, A. K. M. S., & Biswas, S. K. (2007). Berthing problem of ships in Chittagong Port and proposal for its solution. *Journal of Mechanical Engineering, 37*(June), 66–70.

Iyigun, M., & Ratisukpimol, W. (2010). *Learning piracy on the high seas*. Boulder, CO: University of Colorado. Typescript.

Jablonski, R. S., & Oliver, S. (2013). The political economy of plunder economic opportunity and modern piracy. *Journal of Conflict Resolution, 57*(4), 682–708.

Jensen, F., & Kapoor, K. (2016, April 21). Indonesia fears piracy surge on shipping route could make it “New Somalia.” *Reuters*.

Kamal-Deen, A. (2015). The anatomy of Gulf of Guinea piracy. *Naval War College Review, 68*(1), 93–118.

Kambere, G. (2012). Financing Al-Shabaab: The vital port of Kismayo. CTX 2(3). Retrieved from **https://globalecco.org/financing-al-shabaab-the-vital-port-of-kismayo**.

Kashubsky, M. (2011). A chronology of attacks on and unlawful interferences with, offshore oil and gas installations, 1975–2010. *Perspectives on Terrorism, 5*(5–6), 139–167.

Kemp, T. (2014, September 23). It’s official: U.S. joins fight againt Asia pirates. *CNBC*.

Knutsen, C. H., Kotsadam, A., Olsen, E. H., & Wig, T. (2017, forthcoming). Mining and local corruption in Africa. *American Journal of Political Science*.

Liang, L. H. (2016, August 26). **Plunge in Gulf of Aden Piracy incidents comes at huge cost**. *Seatrade*.

Liss, C. (2003). Maritime piracy in Southeast Asia. *Southeast Asian Affairs, 1*(1), 52–68.

Liss, C. (2007). Maritime security in Southeast Asia: Between a rock and a hard place? Working Paper no. 141, Asia Research Center, Murdoch University.

Liss, C. (2014). Assessing contemporary maritime piracy in Southeast Asia: Trends, hotspots and responses. *PRIF report* 125. Frankfurt, Germany: Peace Research Institute Frankfurt.

Lucia, E. L. (2015). Fragility, violence, and criminality in the Gulf of Guinea. *GSDRC Research Report*.

Lujala, P. (2010). The spoils of nature: Armed civil conflict and rebel access to natural resources. *Journal of Peace Research, 47*(1), 15–28.

Marteache, N., Viollaz, J., & Petrossian, G. A. (2015). Factors influencing the choice of a safe haven for offloading illegally caught fish: A comparative analysis of developed and developing economies. *Crime Science, 4*(32), 1–13.

Mason, D., Gurses, M., Brandt, P., & Quinn, J. M. (2011). When civil wars recur: Conditions for durable peace after civil wars. *International Studies Perspectives, 12*(2), 171–189.

Menefee, S. P. (2010). Piracy in Bangladesh: What lies beneath. In B. Elleman, A. Forbes, & D. Rosenberg (Eds.), *Piracy and maritime crime: Historical and modern case studies*. Naval War College Newport Papers 35. Naval War College Press: Newport, Rhode Island

Murphy, M.(2011). Somali piracy. *The RUSI Journal, 156*(6).

Murphy, M. N. (2009). *Small boats, weak states, dirty money: The challenge of piracy*. New York: Columbia University Press.

Nations offer aid in fight against Abu Sayyaf piracy. (2016, July 5). *Marine Executive*. Retrieved from **http://www.maritime-executive.com/article/nations-offer-aid-in-fight-against-abu-sayyaf-piracy**.

Oliver, S., Jablonski, R., & Hastings, J. (2017, forthcoming). The Tortuga disease: The perverse effects of illicit capital. *International Studies Quarterly*.

Panda, A. (2013, November 2). ReCAAPing Asia's fight against pirates. *The Diplomat*. Retrieved from **http://thediplomat.com/2013/11/recaaping-asias-fight-against-pirates/**.

Pérouse de Montclos, M.-A. (2012) Maritime piracy in Nigeria: Old wine in new bottles? *Studies in Conflict & Terrorism*, *35*(7–8), 531–541.

Phayal, A., Prins, B., & Daxecker, U. (2016). *Fuelling Rebellion: Maritime Piracy and the Duration of Civil War*. Working manuscript. University of Tennessee.

Phayal, A., Prins, B. C., & Daxecker, U. (2017). Fuelling rebellion: Martime piracy and the duration of civil war. Paper presented at the Annual Meeting of the Peace Science Society, October 20, 2016, South Bend, Indiana.

Raman, B. (2006). The hidden sea tigers. *Outlook*. Retrieved from **http://www.outlookindia.com/website/story/the-hidden-sea-tigers/232882**.

Rinkel, S. (2015). *Piracy and maritime crime in the Gulf of Guinea: Experience-based analyses of the situation and policy recommendations*. Institute for Security Policy at Kiel University, Number 41. Retrieved from **https://www.ispk.uni-kiel.de/de/publikationen/arbeitspapiere/serge-rinkel-piracy-and-maritime-crime-in-the-gulf-of-guinea-experience-based-analyses-of-the-situation-and-policy-recommendations**.

Ross, M. (2006). A closer look at oil, diamonds, and civil war. *Annual Review of Political Science*, 9(June), 265–300.

Sambanis, N. (2001). Do ethnic and nonethnic civil wars have the same causes? A theoretical and empirical inquiry. *Journal of Conflict Resolution, 45*(3), 259–283.

Seyle, C. (2016). ***After the release: The long-term behavioral impact of piracy on seafarers and families***. Oceans Beyond Piracy and OEF Research Report.

Shane, J., Piza, E. L., & Mandala, M. (2015). Situational crime prevention and worldwide piracy: A cross-continent analysis. *Crime Science, 4*(21), 1–13.

Shortland, A., & Varese, F. (2014). The protector's choice: An application of protection theory to Somali piracy. *British Journal of Criminology, 54*, 741–764.

Shortland, A., & Varese, F. (2015, October). **State-building, informal governance and organised crime: The case of Somali piracy**. *Political Studies*.

Storey, I. (2008). Securing Southeast Asia's sea lanes: A work in progress. *Asia Policy, 6*(1), 95–128.

Sundberg, R., & Melander, E. (2013). Introducing the UCDP georeferenced event dataset. *Journal of Peace Research, 50*(4), 523–532.

Tollefsen, A. F., & Buhaug, H. (2015). **Insurgency and Inaccessibility**. *International Studies Review, 17*(1), 6–25.

Tsvetkova, B. (2009). Securitising piracy off the coast of Somalia. *Central European Journal of International and Security Studies*, 3 (1), 44–63.

Twyman-Ghoshal, A. A., & Pierce, G. (2014). The changing nature of contemporary maritime piracy. *British Journal of Criminology, 54*, 652–672.

United Nations Office on Drugs and Crime (UNODC). 2013. *Transnational organized crime in West Africa: A threat assessment*. Vienna: United Nations Office on Drugs and Crime.

Valencia, M., & Johnson, D. (2005). *Piracy in Southeast Asia: Status, issues, and responsibilities*. Singapore: ISEAS.

World Bank (2013). ***Pirate trails: Tracking the illicit financial flows from pirate activities off the horn of Africa. A World Bank study***.

Yee, G., & Din, N. (2015, June). Piracy in Southeast Asia. *APAC Marine & Trade Newsletter*, 3–4.

Yee, G., & Din, N. (2016, January). The continuing surge of piracy in Southeast Asia. *APAC Marine & Trade Newsletter*.

Notes:

(1.) The *MV Faina* was a Ukrainian cargo ship in route to Kenya carrying 33 T-72 Soviet tanks plus ammunition that was seized off the east coast of Somalia. The dangerous cargo and the fear that the weapons cache would fuel violence in Africa led to coordinated efforts by the United States, United Kingdom, and Russia to recover the vessel. The *Sirius Star* was seized off Somalia's southern coast less than two months later while carrying $100 million worth of crude oil.

(2.) As early as 2005, when serving as chief of naval operations, Admiral Mike Mullen noted the problem of piracy. It “can no longer be viewed as someone else’s problem,” he argued. “It is a global threat to security because of its deepening ties to international criminal networks, smuggling of hazardous cargoes, and disruption of vital commerce” (17th International Sea-power Symposium Report of Proceedings 2005, p. 4). Admiral Mullins also alluded to the challenge of violent non-state actors but did not connect pirates and rebels. Some evidence suggests that in some places they are indistinguishable.

(3.) For MPD (Maritime Piracy Dataset), see Coggins (2012). For CMPD (Contemporary Maritime Piracy Database) see Twyman-Ghoshal and Pierce (2014). For MPELD (Maritime Piracy Event and Location Database), see Daxecker and Prins (2016).

(4.) The price paid by mariners has been documented as well. Interviews with former hostages show abuse and elevated levels of symptoms associated with PTSD (e.g., Seyle, 2016).

(5.) In June of 2016 the governments of Indonesia, Malaysia, and the Philippines created a transit corridor in the Sulu and Celebes Seas for steaming ships (*Straits Times*, June 21, 2016). The *NY Times* reports kidnapping for ransom by the Abu Sayyaf. Retrieved from http://www.nytimes.com/2016/09/18/world/asia/philippines-piracy-abu-sayyaf.html.

(6.) These attacks are by definition armed robbery against ships and fall under the jurisdiction of the country where they occur. We find that 65% of pirate attacks occur within the territorial waters of states, and another 30% occur within the Exclusive Economic Zones of states (up to 200 nautical miles). Fewer than 5% of incidents actually occur on the high seas (international waters).

(7.) The IMB only includes self-reported incidents in its database. Some experts believe this results in significant undercounting, but the extent of the underreporting remains unclear, and false claims also may be a concern.

(8.) One part of our research project funded by the Office of Naval Research (grant # N00014-1-0050) combines piracy data from three separate sources, the IMB, the IMO (International Maritime Organization), and the Anti-Shipping Activity Messaging System (produced by the U.S. National Geospatial Intelligence Agency). When complete, we will have the most comprehensive dataset on maritime piracy. The Maritime Piracy Event and Location Database (MPELD) corrects for duplication, errors, and omissions in the incidents recorded by each individual dataset and will increase the number of observations by approximately 25%.

(9.) Shipping companies began employing armed security guards and retrofitting ships with protective measures, such as electrified deck wiring, high-pressure hoses, and sound guns, to combat piracy.

(10.) The loading and unloading of cargo at the Chittagong Port typically takes several days. Insufficient personnel and equipment to move goods as well as a lack of storage facilities on land contribute to the lengthy port stay for ships (Hoque & Biswas, 2007;

Menefee, 2010). Bangladesh has markedly improved its vessel turnaround time in recent years, going from 12 days in 2005 to less than four in 2013. Still, vessel turnaround time in the United States and China typically remains less than 24 hours (Ducruet, Itoh, & Merk, 2014). It is also worth noting that most of these attacks are petty thefts and so not all that different from opportunistic crime on land.

(11.) Somali piracy also predominately occurred at sea as ships were transiting the Greater Gulf of Aden. In part this is explained by the absence of ports and anchorages. Somalia has only four small ports compared to Indonesia's 154 (see http://www.worldportsource.com/index.php).

(12.) Not only do insurgent movements located within Nigeria contribute to the overall higher level of violence observed in pirate attacks, but also the ease with which weapons are obtained (many flowing in from Libya) plays a role as well.

(13.) The geographical spread of piracy has changed over time. In 1993, 20 separate countries experienced pirate attacks. This represented 11% of the recognized nation-states on the planet. In 2000, 52 separate countries suffered pirate attacks. This was close to 30% of the international system. Piracy clearly expanded spatially from the early 1990s to early 2000s. Since 2000, however, piracy has contracted back to early 1990 levels. In 2015 only 25 countries endured piracy, making it the most geographically concentrated year of piracy since 1994.

(14.) In 2015, over 80% of pirate attacks occurred within or around the waters of only 7 countries: Indonesia, Malaysia, Bangladesh, India, Nigeria, Vietnam, and the Philippines.

(15.) The type of piracy observed may vary by institutional context. Hastings and Phillips (2015) suggest that informal governance in Somalia constrained and influenced pirates and their activities while more formal state institutions in Nigeria regulated pirate attacks in the Gulf of Guinea. Gaibulloev and Sandler (2016) also note that fiscal decentralization may associate with fewer piracy attacks.

(16.) Piracy not only flows from weak state institutions. It also promotes institutional corruption. Leaders of pirate action groups, like other trans-criminal organizations, collude with public officials to ensure the continuation of their profitable activities. A similar relationship has been found with other valuable resource extraction endeavors (see Knutsen et al., 2016).

(17.) Low wages and unemployment correlate with increasing numbers of pirate attacks (Frecon, 2005; Jablonski & Oliver, 2013).

(18.) Such payoffs enable pirate leaders the ability to recruit new members. According to Valencia and Johnson (2005), successful attacks result in payoffs in the amount of $5,000 to $15,000 U.S. dollars.

(19.) Many Somali fishers also argued that the illegal dumping of toxic waste in their waters damaged marine ecosystems and forced them into piracy. Few trusted such accounts, but clear evidence of dumping emerged after the 2004 Tsunami, which washed broken containers onto Somali beaches (BBC News, March 2, 2005).

(20.) Fearon and Laitin (2003, p. 80) similarly note “recruiting young men to the life of a guerrilla is easier when the economic alternatives are worse.”

(21.) Shane, Piza, and Mandala (2015) find that specific safety and security measures, such as increased speed, safe rooms, fencing, and armed guards, reduce pirate attacks.

(22.) Jurisdictional quandaries led naval authorities to release many apprehended pirates. The opening of courts in Kenya, Mauritius, the Seychelles and Tanzania has reduced the incidence of catch and release. The UNODC’s Piracy Prisoner Transfer Program was also designed to prevent the release of captured pirates.

(23.) Siad Barre’s arrest in 2013 by Belgian authorities supports the conclusion that piracy was becoming too risky and less profitable. Barre was a notorious pirate leader in Somalia responsible for dozens of attacks over two decades. As the international community responded to piracy in the Greater Gulf of Aden, Barre began working with U.S. and EU authorities to assist in counter-piracy. Belgian authorities invented a fictitious movie company interested in Barre’s story to lure the former pirate to Brussels where he was arrested for the hijacking of a Belgian ship in 2009 (http://www.independent.co.uk/news/world/africa/the-pirate-who-fell-into-a-movie-trap-kingpin-mohamed-big-mouth-abdi-hassan-arrested-in-belgium-8880645.html).

(24.) The European Union’s counter-piracy naval operation in the Greater Gulf of Aden has been extended through 2018, but the size of the force has decreased.

(25.) Due to extensive political violence in West Africa, as well as the availability of weapons (many flowing south from chaotic Libya), political elites fear that privately contracted armed guards will only further militarize the environment. Nigerian piracy, in particular, is already decidedly violent and weapons on cargo vessels may only produce more and deadlier attacks.

(26.) Marteache, Viollaz, and Petrossian (2015) maintain that illegal fishing vessels easily find busy ports for the off-loading of illegal catches and the same surely applies to pirated goods.

(27.) http://www.recaap.org/AboutReCAAPISC.aspx.

(28.) In October of 2016, African leaders agreed to improve intelligence sharing to thwart pirates moving easily across boundaries and thereby avoiding capture. See https://www.enca.com/africa/african-nations-hail-maritime-deal. It remains to be seen whether the deal will have any effect.

(29.) Counter-piracy operations are extremely costly and thus difficult to keep indefinitely. Oceans Beyond Piracy estimates that around 1.33 billion U.S. dollars were spent in 2015 alone, which included vessel hardening, fuels costs, as well as over 300 million U.S. dollars spent on naval patrols. While still high, the costs are significantly lower than the 7 billion price tag of Somali piracy in 2010. See http://oceansbeyondpiracy.org/reports/sop2015/summary.

(30.) Institutional corruption impacts criminal activity more generally as well (see Coggins, 2010). However, increased policing, coupled with more trust in political institutions, appears to improve crime prevention (Greene, 1999).

(31.) The African Union estimates that IUU fishing costs West Africa approximately 285 million U.S. dollars each year (https://www.enca.com/africa/african-nations-hail-maritime-deal).

(32.) The figure hints at an association between piracy attacks and conflict events. The five most piracy prone countries from 1993 to 2015—Indonesia, Bangladesh, Nigeria, India, and Somalia—all experience, or have experienced, substantial political violence (Daxecker & Prins, 2017b). Piracy data come from the International Maritime Bureau (IMB). See Sundberg and Melander (2013) for a description of UCDP GED data.

(33.) Research on the onset of civil war expects and finds a similar causal effect from weak political institutions. Hegre, Ellingsen, Gates, and Gleditsch (2001), for example, observe the presence of anocracy related to civil war onset (also see Ellingsen, 2000; Sambanis, 2001). Political grievances likely exist in every country, but the inability of a government to project power over space enables group emergence and the ability to challenge state authority. Hegre, Ellingsen, Gates, and Gledtisch (2001, p. 44) interestingly note that political stability improves as governments shift toward the extreme ends of the Polity scale. Stable democratic governments, it seems, provide the economic and political conditions that alleviate popular grievances, while stable authoritarian states possess the institutional capacity to suppress emerging insurgencies (Mason, Gurses, Brandt, & Quinn, 2011).

(34.) Economic development also decreases the hazard of insurgency (Hauge & Ellingsen, 1998; Hegre et al., 2001). Collier and colleagues (2003, p. 53) write, “they key root cause of conflict is the failure of economic development.” Dixon (2009) concurs and remarks that the vast majority of research studies that include measures for affluence (such as GDP or GDP per capita) observe a negative and statistically significant relationship with civil war onset. A similar relationship tends to be found with piracy as well (see de Groot et al., 2011; Iyigun & Ratisukpimol, 2010). Collier (2000) insists that at the individual level, political entrepreneurs (rebel leaders) entice recruits with monetary payoffs (also see Gates, 2002).

(35.) Hastings (2012, p. 689) observes an increase in kidnappings for ransom during the height of the Aceh rebellion on the Indonesian Island of Sumatra. It is likely that some of the attacks, if not many, were carried out by insurgents themselves.

(36.) The Movement for the Emancipation of the Niger Delta (MEND) has additionally extorted oil companies through the kidnapping and ransoming of company employees (Kamal-Deen, 2015). The attacks embarrass the Nigerian government and threaten to reduce ship traffic in the Gulf of Guinea. In one attack in June of 2008, militants opened fire on a vessel owned by Royal Dutch Shell. The incident forced Shell to shutdown one of its primary oil fields in Nigeria, imposing significant costs on the company (Kamal-Deen, 2015; Kashubsky, 2011).

(37.) On July 15, 2014, pirates near the Malacca Straits captured a tanker carrying diesel fuel. The cargo was worth nearly two million U.S. dollars. See http://www.strategypage.com/htmw/htseamo/20140819.aspx.

(38.) The availability of lootable resources may produce a rebel-fighting force that is less concerned with the central grievances motivating the conflict.

(39.) See http://www.tv360nigeria.com/navy-extends-anti-piracy-operation/.

(40.) Daxecker and Prins (2016) maintain that elections sometimes trigger spikes in pirate attacks. Pirates (and other criminals) fear potential disruption to collusion agreements produced by elections. The disturbance is particularly likely in districts where elections are anticipated to be competitive.

Brandon Prins

Department of Political Science, University of Tennessee, Knoxville

Ursula Daxecker

Department of Political Science, University of Amsterdam