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Modern Maritime Piracy: Countermeasures and Preventive Actions by the Greek Ocean (/deep sea) Shipping Industry

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Abstract

The evolution of the maritime Piracy phenomenon constitutes a top-priority issue for the global maritime community. In this work, the phenomenon of Modern Maritime Piracy as well as the analysis of current countermeasures and deterring strategies of pirate attacks are investigated and their effectiveness rated. More specifically, the work is comprised of the necessary references concerning maritime piracy, a short presentation of the current legal framework governing maritime piracy as well as a reference concerning the insurance cost in High Risk Areas. The main part of this work investigates the Greek Shipping industry’s beliefs and standing point of the most efficient and best available practice/technique towards safe and pirate-free transit. The inquiry was conducted through a special questionnaire which was distributed to Greek ocean (/deep sea) shipping companies.

JEL Classification: H56.

Keywords: Modern Piracy; Hotspots; Countermeasures; Legal Framework; Cost; Greek Shipping Industry.

1. Introduction

Maritime piracy is not a modern day phenomenon or a sign of our troubled times; on the contrary the early beginnings can be traced back in time to the age of maritime exploration for mankind. The International Maritime Bureau (IMB) defines piracy in the following manner: “[...] is an act of boarding or attempting to board any ship with the apparent intent to commit theft or any other crime and with the apparent intent or capability to use force in the furtherance of that act”. [Article 101 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) and Armed Robbery as laid down in Resolution A.1025 (26) adopted on 2 December 2009 at the 26th Assembly Session of the International Maritime Organization (IMO)] In recent decades –and for the majority of modern times– piracy attacks had halted and the phenomenon tended to be fully eradicated. How-
ever, in the 80s, intense piracy-related activities were reported in the Malacca Straits (which consist of the main shipping channel between the Indian Ocean and the Pacific Ocean) against trade ships, aiming for their cargos (Perrakis and Tsaltas, 2007). From 1994 until 2005, approximately 3,480 attacks have been recorded while the numbers for the next years are as follows: 239 (2006), 263 (2007), 293 (2008), 410 (2009), 445 (2010), 439 (2011), 297 (2012) and 188 (until the 30th of September 2013) based on the IMB's Annual Report. The primary countries where piracy attacks take place are Indonesia, Somalia, Nigeria, Bangladesh and Malaysia; these are responsible for 59% of piracy attacks reported globally. Furthermore, pirate attacks take place in open sea, off Colombia and Venezuela (ICC, 2013).

The most dangerous/high-risk area concerning maritime piracy is Somalia, a country located in the Horn of Africa, with 3,330 km of coastline extending both northeast to the Gulf of Aden and southeast to the Indian Ocean. More than 22,000 vessels transit yearly through the area due to maritime transport from Asia and the Persian Gulf to the Mediterranean through the Suez Canal; these are routed to important ports in Europe and the Americas (or reverse) without being required to circle the African continent which would demand both time and money. This key fact renders imperative the need for obstruction-free shipping (Siousiouras and Dalaklis, 2011).

The causes of piracy in the areas characterized by high percentages of piracy attacks can be correlated to the nearby corresponding countries’ low economic growths—pivotal of less developed countries (LDCs)—as a result of which there is a rise in crime and criminal activities. The majority of the general population is recorded to be living in poverty and the state governments are unable to efficiently deal with such phenomena; this fact intensifies the feeling that criminals enjoy a life of impunity. More specifically, Somalia, as a country with no government since 1991, divided into warlord fiefdoms after civil wars, with no armed forces or security forces is in economic ruins with little expectations to recover on its own. The main bread-winning activity of citizens in Somalia (where the average Somalian earns $600 per year) is fishing; however, due to lack of monitoring and essentially the territorial waters undefended, foreign fishing trawlers began illegally fishing on the seaboard. This lack of policing even lead to the dumping of waste off the coast of Somalia, both toxic and chemical waste, resulting in the erosion of the fish stock and the disruption of the marine ecosystem thus depriving local fishermen of their only source of income: fishing. The citizens of coastal town benefit financially from the pirates and thus, have no incentive to take part in an operation against them. Lastly it has to be noted that, besides fishermen with excellent knowledge of the waters in the area, pirate bands (referred to as PAGs: Pirate Action Groups) also include mainland Somalis with weapon training, adept and skilled in communications and modern day technologies (Bahadur, 2011).

2. A theoretical approach

2.1 Pirates’ Modus Vivendi

Piracy is considered to be season-dependent; i.e. during the wet/monsoon season this phenomenon is mostly suspended. Thus, the months with the highest percentage of pi-
Pirates are usually equipped with a mother vessel (large fishing boat or a smaller commercial one) from which smaller high-speed (up to 25 knots) open speedboats (skiffs) fitted with up to 2 outboard engines (or a single larger 60HP engine) emerge in order to approach the targeted commercial liner. Often times, the mother vessels themselves are manned with their own crews and when permitted by size and situational limitations, the skiffs themselves can be drawn on-board the mother vessel in order not to be detected by the anti-piracy forces (Mihanetzis, 2009).

The attacking pirate groups are composed usually by teams of 6 to 8 persons while the targeted ships are chosen based on a variety of criteria (preferably targeting slow-moving vessels with low freeboards). Usually, more than pirate skiffs are employed and the attack takes place from either quarter or the stern, mainly in the cover of twilight. Should the attacks be made during the day, the approach will be directed utilizing the sun’s position in order to exploit the limited visibility. Pirates often avoid launching attacks during the night time except in the cases of clear sky and full moon. The ascension onboard is conducted using rope ladder or hooks and then, the crew is immobilized under the threat of violence and use of weapons (which are provided by/from Yemen and Mogadishu). These weapons utilized in pirate assaults could be easily obtained by the stock of battles and skirmishes between Cambodia and Afghanistan (Russel, 2010). Armament used includes AK-47 assault rifles, RPG-7 rocket launchers, hand-grenades and semi-automatic weapons. Herein lies a characteristic difference between Somali pirates and Nigerians or those plaguing the Malacca Straits: Somalis hold the ship and crew hostage and demand their ransom demands to be met while non-Somalis target first and foremost the ship’s cargo and the ship itself. Each pirate attack lasts typically anything from 15 to 45 minutes and as soon as the ship has been taken over, it is rerouted to a safe hanger, where teams of 25-30 persons take shifts guarding the seized vessel.

2.2 Anti-Piracy/Protection Measures

Taking into consideration that approximately 20% of all vessels transiting through high-risk areas fly European flags, the necessity of European participation in all piracy-fighting attempts can be easily deducted. The European Union Naval Force (“EU NAVFOR”) is responsible for conducting “Operation Atalanta” as well as for setting up the “Maritime Security Center-Horn of Africa” (MSCHOA) initiative which “[...] provides 24-hour manned monitoring of vessels transiting through the Gulf of Aden whilst the provision of an interactive website enables the Centre to communicate the latest anti-piracy guidance to industry and for Shipping Companies and operators to register their movements through the region” (http://www.mschoa.org/on-shore/about-us). Furthermore, EU NAVFOR introduced and brought into effect the practice of “group transits”; i.e. coordinating simultaneous multiple vessel transits through the same high-risk area in order to minimize the risk of pirate attack. These counter-piracy operations began with the purpose in mind of safely-escorting vessels destined for Somalia and belonging to the “African Union Mission to Somalia” (AMISOM) as well as to the “World Food Programme” (WFP). This initial NATO Operation, requested by the UN Secretary-General Ban Ki-moon was titled “Al-
“Lied Provider” and in addition to the above mandate also included piracy-preventive initiatives. Succeeding this Operation was “Allied Protector” which further increased the region’s general level of security and evolved to Operation “Ocean Shield” (Siousiouras and Dalaklis, 2012).

“Operation Atalanta” (given the task force designator Task Force 465) is EU’s counter-piracy operation off the coast of Somalia and as such, operates within the framework of the “European Common Security and Defence Policy” (CSDP) and in accordance with relevant UN Security Council Resolutions (UNSCR) and International Law. It was initially scheduled to last until December 2009; subsequently, it was extended by the Council of the EU until December 2012 and later announced (March 2012) that the initiative would be extended until December 2014.

Most Directives concerning the suggested piracy countermeasures are mainly related and refer to Somalia-based piracy; however, these apply and are enforced on all afflicted piracy-ridden areas and are classified into three main groups: those that are taken before the voyage begins, those that are brought in effect as the ship enters high-risk areas and those that refer to the ship’s measures for the deterring and discourage pirate attacks (IMO, 2011).

**Companies Measures before the Voyage:** The company must –prior to the voyage– conduct a full risk assessment, identifying and assessing the pirate attack likelihood and risk (via the gathering of piracy reports and intelligence concerning pirate attacks from the MSCHOA and NATO), gauging the possibilities for co-operation with the military as well as pointing out the vessel’s characteristics that could withstand a pirate threat. Furthermore, it is advised to register the ship via the MSCHOA portal prior to the vessel’s entry to high-risk areas and to review the “Ship Security Assessment” (SSA) and Ship Security Plan (SSP) implementation. Information should be provided to the Captain for the Recommended Group Transit (as organized by MSCHOA), who should also be up-to-date concerning the National Convoys (where a number of naval military forces protects and escorts convoys through International Recommended Transit Corridors). Lastly, the crew should be adequately trained in order to cope with pirate-related dangerous situations.

**Measures upon Entering High Risk Areas:** The vessel’s Master should immediately submit a “Vessel Movement Registration Form” by fax or email to MSCHOA. Maneuvering practices should be conducted prior to the high-risk areas’ entry; afterwards it is of little use. The crew must be set to full readiness status and the contingency plan (with all contacts and emergency communication telephone numbers) should be made readily available. The BMP4 suggests that vessels should steer clear from Yemeni waters as it is difficult for foreign naval military forces to protect them while under attack there.

**Ship’s Measures:** When transiting through high-risk areas, the crew look-outs should always keep visual contact with the surrounding waters in order to spot and identify on-time suspicious crafts. The vessel’s speed should be at least 18 knots, in order to deny pirate skiffs approach opportunities. Enhanced bridge protection is strongly advised, since the ship’s bridge is the main focus of any given pirate attack. The use of razor wire inhibits the climb of pirates onboard the vessel. Water sprays and foam monitors are employed since usage of water delays the attacks and prohibits the pirate skiffs to approach.
too close to the vessel under take. The alarm should be sounded immediately in order to
notify all crew about the impending attack while the use of closed-circuit television
(CCTV) in conjunction with the existence safe muster points and the establishing of a ci-
tadel secure designated location impervious to ballistic attacks, where the crew can re-
sort to in case of pirate attack emergency while at the same time maintaining control of
the ships’ propulsion and telecommunication systems. Lastly, the employment of unar-
med or armed security contractors is strongly suggested (Kritikou, 2012).

2.3 Legal framework

Maritime piracy is considered to be the most ancient international crime. Modern
day piracy at sea is connected with a multitude of ways both to the organized crime and
black market/underground economy of these developing countries as well as the general
state of lawlessness, lack of government and corruption. The suppression of piracy is of
the outmost interest and a high priority for the international community; the first com-
pleted attempt to deal with maritime piracy –from the aspect of International Law– took
place through the 1958 Geneva Conventions on the High Seas (Siousiouras and Dalaklis,
2011). Furthermore, the issue of piracy was also referred on the 1982 Law of the Sea
Convention (Montego Bay, Jamaica) by articles 100 to 107. According to the Geneva Con-
vention, Piracy is defined and considered to be an international crime only if it takes
place in the open sea or the exclusive economic zone while Pirates themselves are clas-
sed as enemies of mankind (“hostes humani generis”) (Perrakis and Tsaltas, 2007).

Based on the Universality Principle/Jurisdiction each state is permitted to prosecute
certain types of crimes. The international crime of Piracy falls on the category of crimes
whose repression is deemed inadequate by national legislations, such as the Law of the Sea.
Thus, each state’s vessels are entitled to intervene on foreign ships sailing on the open sea
that are deemed suspect of piracy attacks and ultimately make the arrests of onboard pi-
rates. Furthermore, both on the exclusive economic zone as well as on the contiguous zone,
suppression of piracy can take place, conducted by any naval military vessel of any coun-
try, as long as the coastal state’s sovereign territorial rights and authority are not challen-
ged. To the contrary of this, the suppression of piracy acts that take place on the country’s
continental shelf is the responsibility of that specific coastal state (Pollatos, 2012).

Pirates, classed as enemies of mankind, forfeit their right to be put on trial on court
of law according to their citizenship. Thus, the court from the state that made the ar-
rest/seize can hand down sentences for persons convicted of piracy. In the case though,
that the evidence does not hold water and make a solid/proven case that a pirate act had
taken place, then that state is responsible towards the flag state of the vessel seized and
liable for all damages or losses. The majority of states possess a valid legal framework
under which the pirates are arrested/prosecuted. However, due to high costs and diffi-
culties inherent in the process, they prefer to either release persons accused of piracy
(which, in turn, intensifies the sense and feeling of impunity in the consciousness of the pi-
rates, driving them to repeat this vicious cycle of pirate attack attempts – failure – capture –
release) or turn them over to Kenya. In 2009, USA, the UK and the EU signed a memo-
randum of cooperation that stated that pirates who would be arrested will be delivered
to Kenya for trial (Korontzis, 2012). Lastly on this, the confusion (*in properly dealing with captured/arrested pirates*) that has taken place is evident since certain countries have taken extremely austere measures. For example, it has been reported that Russian vessel which arrested pirates, ensuingly released them in a small boat in the Indian ocean (no food or water provided), left to perish (Sterio, 2012). This form of corporal punishment is far from ideal, highly indicative yet of the disposition of certain states towards maritime piracy.

2.4 Piracy cost

The economic part of the piracy matter is not at all negligible; these pirate attacks have inflicted a heavy economic toll on the shipping companies. The total piracy-countermeasure weight that the maritime industry has to lift can be summarized to include the following: the cost of increased speed, the cost of re-routing, the cost of security services and equipment, actual ransoms being handed to pirates (*ransom payment are typically shared between the owner of the vessel, the charterer and the owner of the cargo –if not the same person as the charterer*) as well as the added insurance cost. It is worthwhile to mention the fact that what actually significantly raises the total cost of a transit through a high-risk are the piracy counter-measures themselves. For 2010, the total estimated cost of piracy amounted to $7-12 billion while estimated ransom amounted to $176 million; re-routing cost $2,4-3 million; the security costs ranged from $365 million to $2,5 billion while the insurance premiums skyrocketed to $460 million to $3,2 billion. Furthermore, the estimated cost of Somali-based piracy for 2011 reach $7 billion; 85% of this figure can be attributed to the maritime industry companies while the rest to the governments. Points worthy of reference include the following: 40% of this $7 billion is attributed to the increased speed (*up to 18 knots*). Security cost $1,06 to 1,16 billion (17%) and this increased figure can be traced back to the use of armed personnel onboard the vessels; an increase of 25% more than the previous year. Ransoms were paid on 2% of the incidents (*cost of $5 millions*) and even the number of attacks was smaller than that compared to the previous year, the ransoms paid increased by a $1 million. The insurance costs reached $635 million even though companies received reductions on their premiums due to the employment of armed guards onboard their vessels. In the year 2012, the Somali-based piracy cost has been estimated to range between $5,7 – $6,1 billion. All costs in 2012 have been reduced with the exception of security. The cost of employing armed guards has increased by 79% as compared to 2011 (Ocean beyond Piracy, 2012). More specifically concerning the ransom demands, these ranged between $690 thousands and $3 million in 2008, with an increasing tendency in the coming years which reached the amount of $9 million in 2010. The highest even ransom to be paid out to the pirates was on November 2010 ($9,5); these were given to facilitate the release of the South Korean oil tanker “Samho Dream” (Beloff, 2013). The finalized amount agreed with the pirates and the negotiating company is seldom revealed, leading to an extensive fluctuation (Koumoutsakos, 2012). Lastly, on 2012 it has reported that 40% of all vessels had employed security crew on board, a cost estimated at $3,000 per day for a crew of four (Besley et al., 2012).
3. Experimental part

3.1 Greek ocean shipping industry

Greece is traditionally a maritime nation and the Greek Merchant Navy is considered to be in both European and Global powerful positions. It ranks 1st in EU concerning gross tonnage (GT) while globally ranking 7th. Out of 25 thousand vessels transiting through the Gulf of Aden, it is estimated that 7,000-8,000 are of Greek interest. Thus, the piracy phenomenon is directly affecting the Greek ocean shipping industry, which has seen quite a few pirate attacks on her fleet; this constitutes imperative the need for deterring actions for piracy-suppression. A summary report on pirate attacks on Greek interest ships is as follows:


3.2 Methodology of Research

This unit/chapter will deal with the views and position held by the Greek Shipping concerning the effectiveness of suggested/advised piracy-deterring actions in general as well as with the counter-measures the companies specifically take to shield themselves against pirate attacks. The research was conducted via questionnaires being completed by relevant maritime companies. The work has so far gathered 37 Greek Shipping companies (accumulated in an anonymous manner), that answered to a variety of questions...
related to the efficiency of anti-piracy measures (such as those referred to and examined the previous unit). The invited parties were asked a multitude of questions rating effectiveness and noted their answers in the questionnaire; the range of possible answers included the scale “Not effective/ Maybe Effective/ Effective/ Very Effective/ Extremely Effective”. Furthermore, they were asked to note what countermeasure was in effect and applied already in their firm.

3.3 Study results

Most -52%- of the company representatives that participated in the survey were between 25-45 years of age, 40% were in the 46-65 age and the majority of the companies’ representatives have more than 20 years of experience in the maritime sector. The percentages of vessels’ types participating in this study were mostly tankers (44%) and bulk carriers (47%), with an average fleet age of 4-10 years (60%). 44% of the companies participating in this study were founded before 1980 and 74% answered that its fleet transits through high-risk areas (where 50% has already been attacked by pirates at least once).

Concerning the effectiveness of anti-piracy measures:

- 49% believes the following to be “Extremely Effective”: to “Avoid high-risk areas” (which -due to the extra cost intrinsic to re-routing- is usually impossible, as the participants themselves clearly stated). Only 11% characterized this to be “Not Effective” while the rest participants thought and found this to be either “Effective” or “Very Effective”.
- 46% believes that “Armed Security” are “Extremely Effective” measures (where another 41% consider “Armed Security” to be “Very Effective”).
- 40% rates “Naval forces to monitor and destroy pirate skiffs” and “Crew Training” as “Extremely Effective” and another 36% considers “Crew Training” to be “Very Effective”.
- Next in line are 32% of answers considering “Extremely Effective” measures to be: “Risk Assessment”, “Registration with Naval Forces (EUNAVFOR, MSCHOA, UKMTO)” and “Designation and use of a convenient citadel”.
- 28% believes that “Participation of the vessel in a convoy system” is “Extremely Effective”(36% consider this to be “Very Important”).
- 24% rates as “Extremely Effective” the following: “Anti-piracy plan at the office”, “Use of razor/barbed wire used operate as an electric fence”, “Maneuvering practices” (this seems to have mixed review since another 24% considers is “Not Effective”) “Increasing Vessel’s movement speed”.
- 20% believes that “Use of water spay or water cannons” and “Vessel’s freeboard more than 10 metres” and “Enhanced bridge protection” are “Extremely Effective” (29% “Very Effective” and 37% “Effective”).
- Only 18% considers the “Enhance the International Legal Framework to make punishment of pirates more effective” to be effective while 41% classifies it as “Maybe Effective”.
- Only a 9% regards “Closed Circuit Television” as effective and an even smaller percentage (6%) regards “Blinding Weapons/Dazzle Weapons” effective.
None of the participants regards “Dogs onboard vessel” to be “Extremely Effective” and on the contrary, 63% consider this to be “Not Effective”.

“Our armed security” is thought to be “Extremely Effective” only by 6% whereas 29% consider it “Effective” and 38% consider it “Maybe Effective”.

Only a 5% regards that to “Assist Somalia in setting up Government initiatives to fight piracy” is “Extremely Effective”, while 40% finds this to be “Not Effective”.

Concerning the question “Please rate how the cost of antipiracy measures influences the decision for their implementation” 44% answered “High” and 36% “Very High”; both indicative of how strong an impact piracy-prevention costs have on the Company.

On the question “How the cost of antipiracy measures influences the decision for their implementation” 44% answered “Moderately” and 28% “Little”.

The insurance cost for transit through high-risk areas is regarded by 48% to be “High” and by 36% to be “Neither high nor low” while only a 12% answered “Very High”.

The majority (47%) of questioned companies answered that they expect the maritime piracy situation to remain the same, while equal parts (26% each) tend to believe it will either improve or worsen.

3.4 Measures implemented by Greek Shipping

Concerning the anti-piracy measures already in effect by Greek companies the results are the following:

- 100% of the questioned representatives answered the following: “Risk Assessment before Vessel’s transit”, & “Registration with Naval Forces (EUNAVFOR, MSCHOA, and UKMTO)”.

- 93% answered to have utilized the following defenses: “Crew Training”, and “Designation and use of a convenient citadel”.

- 87% stated having employed the following countermeasures: “Anti-piracy plan at the office” and “Use of razor/barbed wire used operate as an electric fence”.

- 80% stated employing “Armed Guards”, and “Increasing Vessel’s Speed”.

- 73% of the questioned representatives answered the following: “Water spay or water cannons”, “Maneuvering Practices” and “Enhanced bridge Protection”.

- 67% answered to “Participate in a convoy system” and 60% stated to employ “Vessel’s freeboard more than 10 metres”.

- Finally, a small percentage stated to employ the use of “Closed-circuit television”, “Blinding weapons”, “Use of Unarmed Guards” and to “Avoid high-risk areas”.

4. Conclusions

This work dealt with modern maritime piracy making clear and full references to this phenomenon’s causes, modus operandi, counter-measures, legal framework and economic dimensions. In this light, what became evidently clear is the already decided firm policy of the International Community for combating maritime piracy through short-term planning, dealing with each individual attack or hijack on its own basis. However, the
root of the “evil” is found in the true causes that led to the piracy phenomenon taking such great extent. Following this, only through international assistance for the region’s economic development and stability—when citizens will be able to procure their everyday needs—will piracy become extinct.

By examining the views of Greek Shipping on efficiency of these anti-piracy measures the following are evident: the crew’s training and readiness, the implementation and use of armed guards, all in conjunction with naval forces present to actively pursue and destroy pirate skiffs are considered to be the most promising means to suppress piracy at sea. These views are found to be in harmony with recent studies concluding that piracy has been effectively dealt with and its economic impact lessened, which is attributed to both having armed guards onboard as well as naval forces patrolling the high-risk areas (Ocean beyond Piracy, 2012). A strong impression and surely, food for further thought is the fact that the Greek Shipping industry does not regard that “assisting Somalia in setting up Government initiatives to fight piracy” is a viable and helpful solution to suppression of Somali-based piracy; similarly, limited efficiency is thought of legally enforcing harsher penalties after having arrested the pirates.

Concerning the Greek Shipping Industry’s piracy counter-measures, it is concluded that all actions suggested by the Best Management Practices (BMP4) are fully incorporated and implemented; priority is being given to Registration with Naval Forces, Risk Assessment and plan formulation prior to the voyage, as well as the crew’s training and the use of a convenient citadel. Furthermore, it is also clear that the employment of private security contractors onboard the vessels is considered an efficient counter-measure for piracy; this was not allowed by national legislation for the vessels flying the Greek flag up until recently when relevant bill was successfully passed (Law 4058/2012).

Finally, contrary to the apparent limitation of the piracy phenomenon (mainly in 2012 due to the presence of naval forces in the area), most Greek companies tend to believe that the situation will remain the same, at least for the near foreseeable future. Due to this belief, they set the basis for their fleets’ safety under the credos: “better safe than sorry” and “prevention is better than the cure”.

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