The rationale for Operation Atalanta
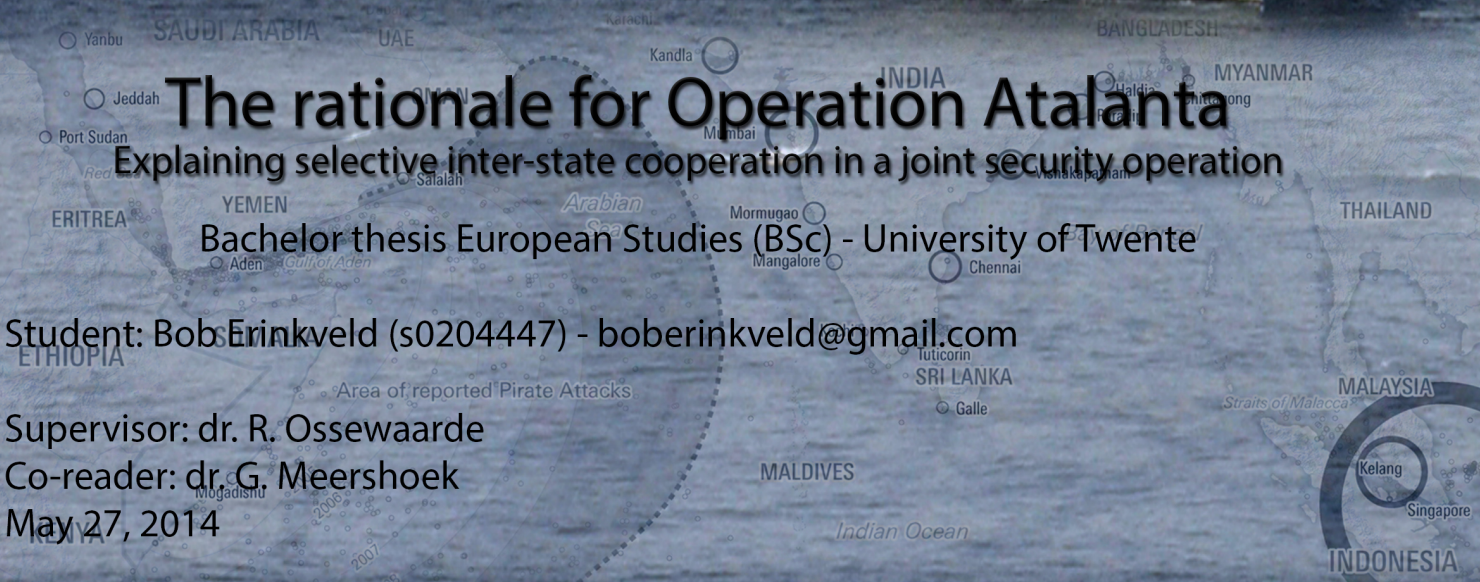## Explaining selective inter-state cooperation in a joint security operation

Bachelor thesis European Studies (BSc) - University of Twente

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Preface

Five and a half years ago, it was hard for me to even imagine finishing two Bachelor degrees. With a good deal of motivation and perseverance, however, I have finished a Bachelor of Arts degree in History in July 2013 at the University of Utrecht. And now the time has come to finish my Bachelor of Science degree in European Studies at the University of Twente.

I would like to take the opportunity to thank both universities and its teacher for guiding me toward my degree. In particular, I owe a great deal to dr. RingoOssewaarde, whose teachings of sociology was not only very valuable, but enlightening too. I feel fortunate that he consented to supervise my bachelor thesis' research process. Thank you. Also, I would like to thank dr. GuusMeershoek for co-reading my thesis.

A good deal of motivation is necessary to finish one's studies. I like to think that, ultimately, the people around you are able to motivate you best. Therefore, I would like to thank each and everyone who has made my student days in Enschede worthwhile: (former) roommates, football teammates, and of course everyone who do not fit these categories. Finally, I would like to thank my family for always supporting me. And especially my brother, Thijs, who is – without a single doubt – my biggest source of inspiration.

Abstract

In December 2008 the European Union launched a counter-piracy operation to curb Somali piracy practices that are chiefly conducted in the Gulf of Aden. Not all EU member states were operationally involved: rather, their contributions were entirely voluntary. This paper reviews to what extent states are driven by national interests. These are defined and operationalized as economic costs (vessel transit frequency through the Gulf of Aden) and human costs (transgressions of human security, e.g. kidnapping, killings). Although participating states altogether definitely have much more at stake than non-participating states, their participation was not entirely commensurate their losses. It was found, furthermore, that states often react to other states' decisions (i.e. deployments), thus not only taking – to a limited extent – national interests into account, but the strategic environment as well.

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I. Introduction

Context

In December 2008the EU launched European Naval Force Somalia (EU NAVFOR) - Operation Atalanta, a multilateral military effort to combat Somali piracy, which has haunted a large share of the Gulf of Aden since 2000 but became very acute in 2008 (Treves, 2009). EUNAVFOR conducts operations to protect vessels of the World Food Programme (WFP) delivering food to emergency areas in Somalia, protects African Union Mission on Somalia shipping, deters and prevents acts of piracy and armed robbery, monitors and secures a transit corridor for vulnerable shipping in the Gulf of Aden and monitors fishing activities off the Somali coast (European Union, 2012). The operation is jointly funded by EU member states, with each state contributing a share relative to their domestic GDP (a procedure known as the Athena Mechanism).[1] This joint funding serves to bear common costs, such as those pertaining to Operation Headquarters (located in Northwood – UK) and Force Headquarters (onboard the Flagship) and transport. Additionally, a number of states make an operational contribution: Portugal, Germany, Sweden, the Netherlands, France, Spain, Luxembourg, Belgium, Italy, United Kingdom, Greece, Romania and Finland. Furthermore, a number of non-EU countries contribute in a similar manner: Norway, Ukraine, Croatia and Montenegro. These countries contribute to the operation mainly by deploying aircrafts (for reconnaissance purposes) and/or maritime vessels. Each state bears the cost of the resources it deploys and as such the costs for contributing states are proportionate to its involvement in the operation (European Union, 2012).

Motivations for participation range from domestic and transnational concerns and interests (Sterio, 2010). Domestic concerns over piracy are two-fold. First, there is the risk of vessel crew members or even passengers on commercial ships being kidnapped by pirates and subjected to harsh treatment in order for the pirates to demand a ransom. There have even been several instances of killings of hostages by Somali pirates. Second, economic considerations generally revolve around the destabilizing effects of piracy on international trade. With approximately 20 per cent of both EU and global trade passing through the Gulf of Aden,[2] delays (either because of the seizure of vessels by pirates or detours resulting from re-routing) and mounting insurance and security costs clearly impose a significant burden on international trade (Germond and Smith, 2009): in 2012, for instance, the costs of Somali piracy to the international economy was estimated between 5.7 and 6.1 billion dollars (Oceans Beyond Piracy, 2013). Transboundary concerns are typically motivated by international security concerns. First, there is the possibility of the revenue resulting from acts of piracy being transferred to terrorist and/or criminal organizations in Somalia and thus potentially causing a hazard to regional and international security. Second, piracy constitutes a threat to energy security and a risk to the marine environment, as weapons (e.g. machineguns and grenade launchers) wielded by pirates may inflict damage on vessels carrying chemical substances (such as oil) and therefore cause severe marine pollution. Finally, even ships carrying resources for humanitarian relief in Somalia (such as the World Food Program shipments) are not safe from piracy (Germond and

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[1] The funding of EU NAVFOR ATALANTA amounted to EUR 8.4 million for 2010 and EUR 8.05 million for 2011. For 2012, parties agreed to a budget up to 8.3 million EUR. Furthermore,a budget of EUR 14.9 million is provided for the common costs of the prolonged mandate until December 2014 (European Union, 2012).
[2]Maritime Security Centre Horn of Africa (date unknown).*European Union Naval Force (EU NAVFOR) Somalia – Operation ATALANTA.*Retrieved June 3, 2013 from http://www.mschoa.org/on-shore/about-us/eu-operation-atalanta

Smith, 2009). The purpose of this research is to determine to what extent participating states are driven by national interests. These interests are conceptualized as quantitative - or quantifiable - national economic and human security interests.The aim of this research is therefore to contribute to the knowledge regarding state incentives for participation in multinational/-lateral security operations. It will enrich the understanding of the extent to which domestic factors play a role in supranational cooperation and integration processes, in particular those touching upon the controversial domain of security governance.

Problem definition

Whereas both constructivist (c.f. Struett et al, 2012) and institutionalist (c.f. Orsini et al, 2013) accounts on the emergence of global governance architectures in anti-piracy efforts have been advanced, stricly rationalist approaches – emphasizing consequentalist logic on part of the decision-making agents - have thus far been ignored, although Rothe & Collins (2011) have proposed a constructivist account of how economic considerations have been framed in political discourse on Somali piracy and hence motivated a military response. Furthermore, whereas Shortland and Vochtknecht (2011:28) have asserted that "quite possibly the mission has been a highly effective counter-terrorism operation", thereby stressing concerns over international security, they have not captured the relevance of domestic state interests. Sterio proposes that both threats to international security (emanating from Somalia's state fragility and empowerment of terrorist organizations) as well as economic considerations sparked Operation Atalanta, adding that "no single country's interests are harmed through the pirate attack" (2010: 1451) given the transnational diffusion of economic interests. Germond and Smith (2009) hint at the relevance of member states' national interests, but take a predominantly (historical) institutionalist approach in their analysis of the decision-making process of Atalanta, in which the relative significance of member states' foreign and domestic interests, the growing importance of a maritime dimension to EU security policy and the rise of Somali piracy remains unresolved.

Although the point of transnationalization of maritime trade interests is certainly valid (as we shall later see), there are vast differences in the extent of interests enjoyed by various European states. The variety in national contributions raises questions concerning the rationale of EU member states to provide for operational contributions, especially given the potential risks for the force deployed and - most notably - the inevitable costs of deployment. Why do some member states contribute in operational terms, whereas others do not? Why do some countries contribute more resources than others? Of course, political considerations and even the availability of military resources are also relevant for determining contributions to the operation, but confining the analysis to the interplay between domestic interests and participation in the operation will uncover the relevance and importance states attach to a number of core state interests in general. Most importantly, however, is there any relation between the extent to which national economies and the physical integrity of domestic citizens are harmed by Somali piracy and the magnitude of participation of the associated state in Operation Atalanta?

Research aim

To address this question, participation is first dichotomized into 'yes' or 'no' in order to delineate contributing and non-contributing states. Second, for participating states, the costs of their involvement are related to the extent to which they are affected. In other words, do states act based

on cost-benefit considerations, and are these costs and benefits confined to that particular state only? Given the complexities of accurate cost-estimation, in particular regarding the costs of Somali piracy, cost-benefit considerations are conceptualized not as strict cost-benefit considerations but rather as being to some extent corresponding to the magnitude of contribution. The research thus considers, in the context of joint EU security operations and particularly Operation Atalanta, if and in what sense states are driven by national, rather than supranational interests. Three sub-questions address the key components of the main research aim:

1) What is the relationship between the national amount of trade potentially at risk (i.e. annual vessel transit frequency) in the Gulf of Aden and participation (i.e. estimated costs borne by the contributing state) pertaining to the same state?

2) What is the relationship between the amount of trade historically captured (i.e. total number of ships hijacked in the given period) in the Gulf of Aden and participation (i.e. estimated costs borne by the contributing state) pertaining to the same state?

3) What is the relationship between the human costs pertaining to an EU member state and participation?

The relationship between the extent to which domestic interests are potentially or actually affected are related to state responses – i.e. annual expenditure for Atalanta versus annual vessel transit frequency, the date of deployment versus the date of attacks on 'domestic' vessels and transgressions against domestic citizens. In other words, are states more likely to respond if their interests are affected? The findings of this research indicate that most participating states contribute to the operation as there are domestic interests at stake, whereas virtually all non-participating states defect from participation given their negligible interests in the Gulf of Aden. However, the absence of cost-benefit considerations by the states implies that strategic interaction among the actors is ultimately decisive in shaping the constellation of the operation.

Inasmuch as piracy is often viewed "as a product of rational cost-benefit analysis conducted by the potential pirates" (Kiourktsoglou&Coutroubis, 2012: 53), this research is concerned with the extent to which counter-piracy operations are guided by a rational cost-benefit logic. The analysis is therefore premised on the assumption that states will offset the estimated costs (i.e. of employing counter-piracy measures) against benefit (i.e. the absence of Somali piracy). In my analysis, I thus relate incurred piracy attacks, vessel transit frequency and human 'costs' sustained to state participation. Some states do not participate, for the states that do I have estimated the costs states have to bear for their operational deployments. The third chapter on methodology deconstructs the research questions into relevant variables (vessel transit frequency, number of ships hijacked, human costs, estimated operational costs), state data sources (Suez Canal Authority, International Maritime Bureau, Oceans Beyond Piracy, EU NAVFOR, respectively), discuss data limitations and the relation to theory and the strategy for analysis. The data analysis (chapter four) is first concerned with general differences between contributing and non-contributing states, after which a succinct account of each state is provided through a systematic descriptive analysis of the research questions. These results are then discussed by relating them to the theories discussed, thus enriching our understanding of global governance. The conclusion summarizes the findings, theoretical and practical implications and proposes future research directions.

Chapter II – Theoretical framework

The question as to what motivates states to participate in Atalanta is at the very heart of international relations theories that deal with inter-state cooperation. This chapter considers the most commonly adopted theories in explaining European integration, and more specifically within the context of the Common Foreign and Security Policy (CFSP). Three predominant strands of theory will be discussed here: rational choice theory, institutionalism and constructivism (c.f. Sodha, 2011; Galariotis, 2008; Tonra, 2003; Jupille et al, 2003; Toje, 2008; Held & McGrew, 2002; Martin, 2008). Domestic interests being central to this research, this framework provides a theoretical justification of whether interests are shaped according to a calculative, utility-maximizing logic (rational choice theory), strategically within a procedurally constrained environment (institutionalism) or discursively through social interaction and in accordance with generally accepted norms (constructivism). After a concise overview of each theory, their often contending assumptions are compared and discussed and their merits and limitations addressed. The final section considers all theories in light of this thesis' research question.

Constructivism

Constructivists find common ground in the idea that knowledge is constructed through social processes and hence constructs social reality (Carlsnaes et al, 2002: 95). Constructivism highlights the impact of values, norms and social rules and conventions on the behavior, role and identities of actors within (institutional) frameworks. More closely related to the research questions of this thesis, it is an approach "based on the hypothesis that state interests are derived endogenously from the social interaction of actors rather than created exogenously, taken as pre-determined 'givens' before any social interaction takes place" (Galariotis, 2008:1).

Institutionalism

Institutionalism locates actors within organizational structures that are influential in shaping human behavior and hence in decision-making. Thus, "an institutionalist approach is one that emphasizes the role of institutions and institutionalization in the understanding of human actions within an organization, social order, or society" (March and Olsen, 1998: 948). The concept of institutions is not always clear-cut: it may be defined as a set of social and cognitive features that influence behavior, or point to more formalized procedures and structures (e.g. formalized decision-making procedures and agenda-setting).

Rational choice theory

Rational choice theory (RCT) postulates that actors in a given circumstance will always seek an optimal outcome based on the actor's preferences and possible courses of action. According to RCT, rationality is instrumental in determining actors' behavior; in reviewing their potential strategies, actors are always driven by motives of utility maximization, the latter being determined by the actor on the basis of a cost-benefit calculation. These core premises of RCT are the cornerstone of RCT's conception of an agent as 'rational economic man'. Whereas constructivism and institutionalism do not incorporate incentive structures and the behavioral consequences, this is central to RCT. In other words, although "rationalism [is] incapable of grasping the generative origins, institutional architecture, and ideational components of the global […] order" its focus on incentive structures

promises a more direct, logical and straightforward approach to explaining behavioral consequences (Cooley, 2003).

The divide

The meta-theoretical debate surrounding these theoretical strands has ranged from outright polemical in nature to sympathetic to contrary paradigms. In recent years, due to inadequate explications of empirical regularities, these theories have not remained in exclusive realms; rather, various tenets and axioms of each of these theories have supplemented their counterparts to increase explanatory power, scope, logical coherence and robustness (c.f. Wagner, 2003, Hodgson, 2012, Ostrom, 1991). As such, these theoretical approaches should rather be perceived as 'compound' theories, each capable of generating a broad array of specific theories and hypotheses about a wide range of state behavior. The theoretical debate has often focused on the constructivist-rationalist divide, with institutionalism often taking the middle ground. For example, more specific approaches to institutionalism have diverged into rational institutionalism (emphasizing agents employing constrained rationality – or 'logic of consequences' - within an institutional structure that affects the outcome as well), historical institutionalism (detailing the development of regularized practices and routines through a logic of 'path dependence') and sociological institutionalism (claiming that social agents act according to a 'logic of appropriateness' – or according to socially constituted and culturally framed rules and norms – in political institutions). More recently, a constructivist-institutionalist synthesis – discursive institutionalism – has resulted in an analytical framework that stresses the conveyance and exchange of ideas and discourse within institutional structures (Schmidt, 2008). Yet more competitive dialogues have also ensued among proponents of the various strands. Primarily, the divergence results from disagreements over the relevant explanatory variables. The extent to which state behavior is motivated by the actors' perception of the optimal outcome (i.e. rational behavior) rather than culture and identity, emotions and affects, and norms and values, or even the external constraints imposed by the institutional environment, has sparked ongoing debates between sociologists, political scientists and international relations theorists.

RCT assumes that agents act based on *individual*, exogenous preferences. In other words, RCT employs methodological individualism: the assumption that social situations or collective outcomes are the result of individual actors alone, with no role for larger institutions. Notwithstanding external factors (e.g. institutional constraints) or internal barriers (e.g. emotional appeals or heed to norms and values), RCT assumes 'rational economic man' to behave in order to optimize gains in his own interest, based on a calculative logic that incorporates nothing outside materialist reality. This is contrary to the ideational reality constructivists adhere to. For them, material structures – with the probable exception of basic necessities – are given meaning by the social context through which they are interpreted. RCT assumes these preferences to be transitive and fixed; preferences can be valued hierarchically and do not change over time. In cases where actors are states, "they directly or indirectly locate the source of state preferences inside the state" (Martin, 2008: xiv). For their part, these preferences are based on actors' information (presumed to be genuine, accurate and complete) and beliefs about the causal connections between actions and *expected* outcomes (Jupille, 2003). Constructivists, on the other hand, stress the social processes in preference formation (thus allowing for change in preference), whereas institutionalists emphasize the interactive process between agent and the institutional environment. Constructivists (notably Alexander Wendt, Martha

Finnemore and Peter Katzenstein) thus emphasize a process of interaction between agent and structures (conceptualized as the body of norms, rules and identities), whereby agent interests emerge from and are endogenous to interaction with institutional structures (Finnemore, 1996a). RCT, on the other hand, forecloses social processes in the formation of collective preferences and identities and the realization of collective choices. In this sense, RCT's methodological individualism thus imposes the problem of translating multiple preferences into aggregates.

Agents therefore follow a consequentialist logic of action to undertake means-end calculation in choosing their optimal course of action.This optimality assumption would imply selfish behavior in many cases, although many accounts of the European integration process have observed altruistic or other-regarding tendencies. Optimality is defined as the largest *perceived* sum of benefits, after offsetting costs and benefits against one another (Jupille, 2003). This importance of perception is particularly prominent in more recent adaptations of RCT; hence, while they maintain that values – and the preferences derived from them – are instrumental in determining the behavior of agents, the choice process is in fact a subjective endeavor, based on the information available to the agent, its interpretation of that information and its perception of eventual outcomes (Hechter& Kanazawa, 1997). Tversky and Kahneman (1986) posit a generalized description of how agents arrive at a final perception of expected outcomes. First, agents are presumed to conduct "a preliminary analysis of the decision problem, which frames the effective acts, contingencies, and outcomes". The framing of the decision problem is steered by norms, habits and expectancies of the agent. Thus, two different formulations of the same problem will elicit different prospects and thus different preferences as to the course of action. Furthermore, agents eliminate options that are expected to be subordinate to other alternatives. In the second phase, "the framed prospects are evaluated, and the prospect of highest value is selected" (Tversky&Kahneman, 1986:257). In other words, "the formation of preferences concerning specific actions must include a process by which actors weigh the relative importance of different interests […]" (Katznelson & Weingast, 2005: 17).

The notion of rationality adopted by rational choice theorists has varied substantially in scope and has attracted criticism from opposing currents of thought. One of the criticisms of RCT is that it adopts a rather narrow and limited conception of rationality by focusing on intentionality, self-interest and optimization of individual gains (Boudon, 1998). Furthermore, rationality is often conceived as being instrumental and objective. It is conceived as being objective in that it assumes that preferences are predetermined and unproblematic, and that an actor is an intelligent being, fully informed (or partially)[3] and thereby able to contemplate all possible courses of action and to make a sound inference of the likely consequences of such actions. Similarly, 'rational economic man' is conceived as being strictly calculative, unhampered by the human psyche, ignorant of social reality (e.g. norms and rules) and acting autonomous from procedures that filter and modify their actions (e.g. institutions). Constructivists defy this conceptualization, claiming that while they adhere to rationality and reason to be fundamental to their explanations, their notion of rationality is of a practical and communicative nature. According to this view, agents do not necessarily choose the most optimal strategy, but "follow rules that associate particular identities to particular situations, approaching individual opportunities for action by assessing similarities between current identities

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[3]The concept of 'bounded rationality', postulated by Herbert Simon, states that rationality is confined by the information and limited amount of time for making a choice at the disposal of an agent, as well as the cognitive limitations of the human mind. More complex applications and models of RCT, for instance, draw on prospect theory to infer and incorporate the actors' distinct perceptions and prospects within choice processes.

and choice dilemmas and more general concepts of self and situations" (March & Olsen, 1998: 951). A further critique to RCT is that it is sustainable only when payoffs are manifest; only then can we conceive what the agents conceive, and only then can we falsify the hypothesis. In the absence of transparent payoffs, falsification is impossible. In recent years further elaboration of RCT and syntheses with other strands of theoretical thought have been put forth to account for the deficiencies mentioned above. Cognitive and constructivist approaches have been incorporated in RCT models to account for the impact the human psyche and cultures may have on social and political outcomes, thereby diminishing the robustness of RCT (Hodgson, 2012).

The 'logic of consequences' collides with the 'logic of appropriateness' central to the constructivist school. The ostentatious asymmetry between these two logics could, however, be bridged by an institutionalist account of strategic interaction among actors. Rather than pitting utility-maximizing and rule-guided behavior against each other, it focuses on the interactive process of deliberation among actors that result in "the rules of the game" that shape the final outcome (Risse, 2000).Thus, the two logics are not mutually exclusive: actors "calculative [expected] consequences and follow rules, and the relationship between the two is often subtle" (March and Olsen, 1998: 952). Notwithstanding the myriad strands of institutionalism, constructivist and rationalist accounts have been synthesized with institutionalism: the former in the guise of sociological and the latter as rational choice institutionalism. Sociological institutionalism is concerned with "norms of behavior, intersubjective understandings, culture, identity, and other social features of political life" emphasizing the social and cognitive features of institutions, whereas rational choice institutionalism adapt rational choice theory to a structural and constraining institutional environment (Finnemore 1996b: 325). According to rational choice institutionalism (ardently advocated by Pollack, 2006), agents partake in institution building to reduce transaction costs, pursue goals more economically, and/or secure expertise (Kassim&Menon, 2003: 122). It applies core RCT tenets to an institutional environment: agents (X) are assumed to have fixed preferences, follow a highly instrumental utility-maximizing logic that incorporates anticipation of other actors' behavior, hence affecting agent X bargaining behavior. Institutions facilitate strategic interaction through enforcement mechanisms and by providing information that reduce uncertainty for each agent about the corresponding behavior of others. The institutional setting is thus highly influential in determining policy outcomes (Hall & Taylor, 1996; Jupille, 2003).

Theory and Operation Atalanta

A constructivist account of Atalanta would hold that anti-piracy efforts are driven by a (historically and socially constructed) body of norms, values and rules; for instance, historical condemnation of piracy by the global community has formalized into conventions legally prohibiting piracy, and this body of values, norms and formal rules has been the vehicle driving international piracy efforts. Institutionalism, on the other hand, would posit that institutions have been instrumental in mobilizing actors and resources for anti-piracy efforts; for instance, the EU has labeled the fight against (Somali) piracy an urgent concern (agenda-setting) and qualified majority voting (QMV) in the EU makes it more probable that agreement is reached, as opposed to decision-making procedures where unanimity is required, and therefore stalemate is more likely to result from the latter procedure. Yet while both theories may be able to explain the concerted effort against Somali piracy, they are difficult to reconcile with the differences in member states' contributions to operation

Atalanta.[4] RCT, with its focus on cost-benefit considerations and employment of methodological individualism, would imply that there are different costs and benefits holding for different states; therefore, courses of action taken differ per state.Costs are those inevitably resulting from operational deployments, whereas the potential benefits are those accrued from a Gulf of Aden without piracy. Of course, Somali piracy engenders costs other than adverse trade impacts and human costs, but this is beyond the scope of this research. In an RCT context, EU member states are therefore the agents[5] – 'rational economic man', as it were – that are assumed to employ a rational, calculative logic to participation in Operation Atalanta. However, in institutional settings where strategic interaction is endemic, methodological individualism and imputed and fixed preferences in particular become problematic. Thus, one needs to incorporate behavior by the strategic community into account when considering actor behavior, as the latter may be contingent on the former (although power relationships may define the extent to which an actor heeds its strategic environment). Furthermore, although preferences may be considered fixed at the outset of decision-making, bargaining within an institutional environment will often lead actors to reconsider their preferences and strategies.

Conclusion

The debate between the theories here discussed has centered chiefly among the main tenets of rational choice and constructivism, or instrumental goal-seeking behavior versus action inspired by social emulation, with their applications seeking to discover under what conditions the 'logic of consequences' versus 'logic of appropriateness' prevails, respectively. The application of RCT has been attacked due to its alleged inability to be empirically tested and falsified. Thus, as rational choice theory itself cannot be tested, specific hypotheses and substantive theories and assumptions derived from RCT are the alternative. This means that rational choice theory itself cannot adequately explain all social phenomena; hence, practical applications to substantive issues are necessary. Given the multi-actor scenario, a rational institutionalist account seems to hold most promise for explicating the 'ontological blind spots' likely to emerge as a result of methodological individualism. Actor behavior is contingent on other actors' behavior within a strategic environment, albeit subject to power relationships (although this may be relatively insignificant within the 'horizontal' strategic setting of the EU). A constructivist account is hard to reconcile with the research question, given the materialist component. Furthermore, a 'logic of appropriateness' is difficult to confirm given the variance in state participation and contribution.

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[4] Although constructivism may be able to account for it, at least partly, by observing how national cultures can be aligned with EU security operations and its related body of norms and values.
[5] While much can be said to cast doubt whether nation-states are indeed unitary actors, I must assume them to be so, as not doing so would pose a major obstacle to this research. And after all, is it not the outcome (i.e. the chosen strategy) that ultimately counts? I seek to observe whether states, *ultimately*, employ rational logic in their decisions if there are clear material interests at stake.

Chapter III – Methodology

The research aim is to observe a relationship between domestic economic and human security interests (benefits)[6] versus the 'magnitude' of participation (i.e. scale of costs) of states in operation Atalanta. Economic considerations are primarily concerns of adverse trade impacts, which is thus sub-categorized into the number of (domestic) ships sailing through the Gulf of Aden (drawn from data by the Suez Canal Authority) and historically sustained piracy attacks (drawn from data by the International Maritime Bureau). Data on human 'costs' (i.e. kidnapped, abused, or killed) is provided by Oceans Beyond Piracy reports. Data on participation (i.e. operational deployments) is gathered from the EU NAVFOR website. This data is subsequently processed by means of a cost-estimation procedure that captures the components of deployment, maintenance and operating costs (see Appendix D). All EU member states and non-EU member states involved in Atalanta (i.e. Norway, Ukraine, Croatia,[7]Montenegro) are included in the sample. Given that no complete and wholly accurate data exists on the effects of Somali piracy, politicians and policy makers are likely to use their best judgments – i.e. estimations and perceptions – in determining their strategies. I therefore resort to a more descriptive analysis based on the data available, in order to account for the complexity of relevant decision-making variables.

Variables, operationalization and data compilation

Four variables are relevant to this research: impact on trade, human costs,pirate attacks and magnitude of contribution. First, in the absence of clear figures on financial losses due to Somali piracy, impact on trade is operationalized as the number of ships sailing through the Gulf of Aden. This is subcategorized into the number potentially at risk (i.e. all ships sailing through the Gulf) and the number actually captured within the demarcated period.[8] This data is gathered from the Suez Canal Authority, which publishes data on the number of ships sailing through the Suez Canal and then through the Gulf of Aden, categorized per nation (the flag state registered with by the particular ship) and on a monthly basis. The number of ships and number of people actually affected per state is based on data by the International Maritime Bureau, which publishes data on pirate attacks (in particular, date and type and flag state of vessel). Human costs are operationalized as the number of people kidnapped, abused or even killed by Somali pirates and are categorized per nationality on the basis of citizenship.[9] Further data on human costs is readily available through an Ocean Beyond Piracy report on human costs of Somali piracy and refers to the number of people kidnapped, abused, or even killed and has been supplemented by newspaper articles that identify the nationality of affected seafarers. Finally, the magnitude of contribution (i.e. costs for operational engagement in Atalanta) per state is based on data of their deployment of military resources, which is extrapolated

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[6]The benefits are related to protection of national interests. Diminishing financial and human losses can therefore be seen as benefits.

[7]As of 2013, Croatia has acceded to the European Union, but since it joined Atalanta as a non-EU state, it is regarded here as a non-EU member state involved in Atalanta.

[8]Of course not every location in the Gulf of Aden is proportionately prone to pirate attacks. Yet, for the purpose of clarity and investigative simplicity, I do not take into account an estimate of the risk for each location.

[9]I will categorize human costs as such (kidnapped, abuse (i.e. equivalent to violations of human rights) and deaths) as each 'category' denotes a certain level of severity. Are states more inclined to respond to deaths of their citizens than 'mere' kidnappings? It would be most surprising if this is indeed the case, and even statistical correlations of significance may in fact point to a coincidental relationship. Yet, for the sake of precision and accuracy, I nevertheless distinguish them as such.

by estimated mean costs of similar military resources. These data are then extrapolated to an estimate of the costs borne by states allocating naval resources to Atalanta, thus reflecting the 'magnitude' of contributions per state (Appendix D). The extrapolation is based on operating costs disclosed by the British House of Parliaments for naval vessels and aircraft. A more precise cost estimation is established by accounting for differences in number of personnel (based on pay scales by the Dutch Navy) and daily fuel costs (based on data by a 2010 Government Accountability Office (GOA) report on Maritime Security, as used by Ocean's Beyond Piracy reports on their reports on the economic costs of Somali piracy). A similar, if however more crude, methodology of cost estimation has been applied by Ocean's Beyond Piracy for their reports on the economic costs of Somali piracy and by the European Institute in their analysis of EU and U.S. efforts to combat Somali piracy. Finally, the cost estimates have been compared to similar estimates and methodology of a 2004 U.S. Army report on operating costs estimates; with a rather similar methodology, no discrepancies were found in terms of cost estimates.[10] However, not all detachments of resources are reported by EU NAVFOR. For instance, while the Netherlands has provided a sizeable contribution of Vessel Protection Detachments (VDP's; consisting of small boats manned by Marines),[11] this has not been reported by EU NAVFOR. We should therefore consider the cost estimates provided here as minimums. Still, given that unreported deployments are of a low-cost nature, the difference is therefore marginal.

Of course, the extent of global economic integration problematizes the very notion of 'national' trade. As Struett*et al.* (2013) astutely point out, "[…] a single vessel [registered with one flag state] usually involves dozens of national interests." Not only does this complicate jurisdiction for the international (legal) regimes addressing Somali piracy, it also renders the notion of *national* interests for the purpose of his research less straightforward. In the words of Burnett (cited in Struett et al., 2013) a vessel can be "managed by a company in Cyprus, chartered by the French, skippered by a Norwegian, crewed by Indians, [and] registered in Panama." For the purpose of this research, I assume that the flag state the vessel is sailing under is the most relevant, and therefore defines the nationality of the ship and its commodities. In the face of risk of piracy to the vessel or in the event of actual pirate attacks the vessel is most likely to resort to the national government of the flag state it is sailing under to press for anti-piracy measures. Thus, national governments can be held accountable by corporations that own vessels sailing under the flag of the same state as the national government.[12] That such accountability may lead to pressure exerted by seafarer organizations and that this can be influential, is exemplified by a Dutch case: in September 2011 the Dutch government

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[10] Night, K. & Mathis, I., U.S. Army Corps Institute for Water Resources (date unknown). *Appendix H: Guide to Deep-Draft Vessel Operating Costs*. Retrieved July 30, 2013 from
http://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/10-R-
4_DeepDraft_AppendixH_VesselOperatingCosts.pdf
[11]Ministerie van Defensie (date unknown). *Beveiligingsteamschepen*. Retrieved July 30 from
http://www.defensie.nl/missies/somalie/beveiligingsteams_schepen
[12]*"The flag of a ship has, from earliest days, provided an indication of that vessel's nationality – the country under which it derived its legal status and whose laws applied to its operations. [..]Flag states are provided with extensive powers of oversight and control of the safety of ships flying their flags, with specific obligations for the inspection of their ships, jurisdiction and administration of the owning entities, the Master and officers and crew of the ship."*
See Seafarers' Rights (date unknown). *Flag state responsibilities and seafarers' rights*. Retrieved May 5 from
https://www.seafarersrights.org/seafarers_subjects/flag_state_responsibilities_seafarers_rights

complied with Dutch seafarers requests to increase anti-piracy and on-board security measures. [13] In this sense, lobbying was influential in the decision-making process. This is not to say that political accountability is ultimately decisive, but that lobbying helps define national interests. Thus, this research will demarcate economic, or more specifically, national trade interests according to the flag state of the ship carrying goods.

Sampling

All EU member states contribute to Operation Atalanta; some provide mandatory financial assistance to the mission, whereas others contribute operationally, by deploying military personnel and equipment. The following table lists the countries included in the sample, divided according to whether or not they voluntarily contribute resources to Operation Atalanta. The observant reader may notice that there is a rather clear demarcation with West- and Central and Eastern European countries.[14]

Voluntary/additional contributions	Non-voluntary
Portugal, Germany, Sweden, Netherlands, France, Spain, Luxembourg, Belgium, Italy, United Kingdom, Greece, Finland, Romania, Norway, Malta	Austria, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Hungary, Ireland, Latvia, Lithuania, Poland, Slovakia, Slovenia

Interestingly, the fact that there is a division between states contributing additional resources and states 'merely' providing the mandatory financial assistance, virtually divides the sample into both an experimental and control group. Of course, the fact that the research here is not designed for experimental purposes means that I cannot control potentially intervening or confounding variables (e.g. budgetary or electoral considerations), but the observation of significant differences between both groups will improve the degree to which rational choice theory can explicate the research questions.

Data collection and compilation

As Operation Atalanta commenced in December 2008, data on pirate attacks in 2008 and their estimated impact is necessary to judge how urgent the matter became for the European Union. In order to account for the developments in Atalanta, the same data is required to relate to these developments. Previous years are excluded given the relatively far lower number of Somali piracy attacks and because it is very unlikely that the decision to employ a joint maritime operation took far

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[13]Rijksoverheid (January 1, 2011). *Overheid aan zet bij extra bescherming koopvaardij tegen Somalische piraterij*.Retrieved June 5, 2013 from http://www.rijksoverheid.nl/nieuws/2011/09/01/overheid-aan-zet-bij-extra-bescherming-koopvaardij-tegen-somalische-piraterij.html

[14] The only exception being Romania. This observation could be reason for positing two distinct hypotheses. First, that signs of domestic affluence (West-European countries in general being more affluent than Central/Eastern European countries) are ultimate cause for differences in participation and contribution (this would strongly correlate with a rational choice theory framework). Or, more abstractly and taking the form of conjecture, it could be posited that West-European countries have formed a "security community" over the past decades and, as such, that West-European countries are more inclined to cooperate in joint security efforts and Eastern countries are more reluctant to do so.

more than one year (Atalanta commenced in December 2008). Currently, data for all relevant variables is only available up until December 31, 2012. Therefore, data is collected from the period January 1, 2008 – December 31, 2012.

Data limitations

The data for this research is neither fully complete nor entirely accurate, nor can it ever be. First, not all pirate attacks are reported to the International Maritime Bureau (IMB), therefore no complete account exists. Second, I have drawn from a host of newspaper articles to add to the data on pirate attacks by including information on ransom payments, nationality of crew members, and so forth. I have been successful in most cases, yet some cases have gone unreported by newspapers. Third, the relevance of the Gulf of Aden to a state's national trade can be depicted in various ways. Ideally, the net worth of all goods transiting the Gulf would paint this picture, but no data exists on this. I have therefore opted to use the number of vessels affiliated with a state (either with the owner residing in that state or the vessel flying the state's flag) to denominate the importance of the Gulf to a state's national trade. Finally, the costs of participation in Atalanta is based on data of deployment by EU NAVFOR. However, this list is not complete, in that not always the duration of deployment is noted. Second, costs have been estimated by using proxies and cost estimates for several types of military resources. Of course, costs differ per type of resource, but no data was available for all these resources. Furthermore, these different types are not expected to differ too much from each other.

Data analysis

The data analysis will consider all research questions systematically by relating the 'domestic importance' of the Gulf of Aden to the number of vessels per state that transit the Gulf, the number of ships (successfully) attacked and the human costs incurred to state responses (i.e. time span after adverse impacts on domestic interests, number of deployments and most importantly the magnitude of contribution). In order to account for the differences in impact on interests and state responses, I have to delineate the data temporally. In other words, I delineate the number of vessels transiting the Gulf of Aden annually, as I do for the number of operational deployments and magnitude of contribution. Such a demarcation by year is rather arbitrary (it does not account – for instance – for long times states may take to reach a decision to contribute, or when resources are deployed elsewhere) but it is necessary to account for the variation in these variables. In the analysis, I first consider the two samples of participating and non-participating states to see how much they differ in terms of economic interests at stake and economic and human costs incurred in recent years, before systematically detailing how each state is (potentially) affected by Somali piracy. The similarities and differences across states subsequently provide an appreciation of the strategic calculus of states. The results from analysis therefore serve two uses. First, it provide a measure of the extent to which states respond to the joint operation after adverse impacts on their domestic interests. Second, it will add to the understanding of strategic dynamics within the institutional confines of the Common Defense and Security Policy (CDSP) by relating differences and similarities in state responses to the final outcome that is Operation Atalanta. In the analysis, I outline changes over time (delineated on an annual basis) in the number of pirate attacks on 'domestic' vessels, changes in vessel transit frequency and human costs, which is subsequently related to the magnitude of contributions. The aim is to uncover patterns and regularities, which should be central if states employ individualist calculative logic based on their domestic interests. A descriptive overview, as such, illustrates

whether and if so to what extent states respond after domestic interests are harmed. Second, in particular in cases where it is hard to discern such a relationship, a strategic analysis is conducted by relating deployments per state to other prior deployments by other states.

IV. Data analysis

The following data analysis considers the research questions of this thesis systematically. It is conducted by means of a descriptive overview of the interests harmed (i.e. ships attacked and citizen's security violated) and potential interests at risk (i.e. vessel transit frequency) which is offset against state responses (i.e. time span between impact on interests and deployment of resources, number of deployments and the magnitude of contributions). This analysis is divided into two sections; the first one considers averages of both contributing and non-contributing countries to establish whether there are indeed disparities between both sample groups. In both sections, I first consider the importance of the safe maritime transits through the Gulf of Aden for states by looking at the vessel transit frequency per state. Then I turn to human 'costs' incurred by states. Third, I relate the number of attacks to a state's participation. Finally, I relate all aforementioned variables and data to the magnitude of contribution to find out whether states are more likely to spend more on Atalanta if they incur more costs or if there is potentially a lot at stake for them. The conclusion compiles and aggregates all relevant findings and relates it to the theoretical framework.

    I.   **Contributing versus non-contributing countries**

On average (2008-2012), the number of vessels owned and/or flying the state flag from a country participating in Atalanta was 242,[15] compared to an average of 3 for non-contributing states. Contributing states therefore account for almost 81 times as many vessels transiting the Gulf of Aden than non-contributing states. For non-contributing states, Denmark and Cyprus have been left out, as their numbers of vessels were far higher and thus would have yielded next to useless averages. This significant difference indicates that for contributing states, there are far more economic interests at stake than for non-contributing states. For contributing states, the average share of maritime trade transiting the Gulf of Aden (calculated as the total number of vessels that belong to a state compared to vessels transiting the Gulf) was 33,46 %.[16] Thus, a considerable share of trade transits the Gulf of Aden for contributing states.

One would therefore expect human costs to be far higher for participating than for non-participating states. However, it should be noted – again[17] – that even though a ship is owned and flying the flag of a given country, the nationality of the crew need not be related to that country. In fact, as a cursory glance at Appendix A may show, many vessels chartered by owners from developed countries are manned by crew from developing countries. Even so, Appendix C shows how much more contributing states have incurred in terms of human costs; 542 compared to 36 for non-contributing states, or 15 times as much. No human costs were incurred during 2010 for non-contributing states.

The following Table (4.1) provides an overview of relevant data. The year 2008 is partially excluded because the Operation commenced as of December that year, so it does not make sense to include number of deployments and for that year. Data on human costs was unavailable for 2008 and 2012.

Year	Average number of ships / percentage	Number of piracy	Human costs *	Number of deployments to	Estimated costs total

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[15] With a standard deviation of 40,5.
[16] With a standard deviation of 6,6.
[17] See chapter 3 (Methodology) for a more elaborate discussion.

	transiting GoA	attacks *		Atalanta	
2008	307	16			38 900 000
2009	251	28	275	20	324 800 000
2010	230	13	178	34	280 850 000
2011	215	10	89	21	174 600 000
2012	205	3		18	151 200 000
TOTAL	1208	70	542	93	970 350 000

Table 4.1: trends in trade, piracy attacks and counter-piracy responses.

* only citizens of EU member state(s) or non-EU member states contributing to Operation Atalanta.

Graph 4.1 shows Table 4.1 in visual detail.
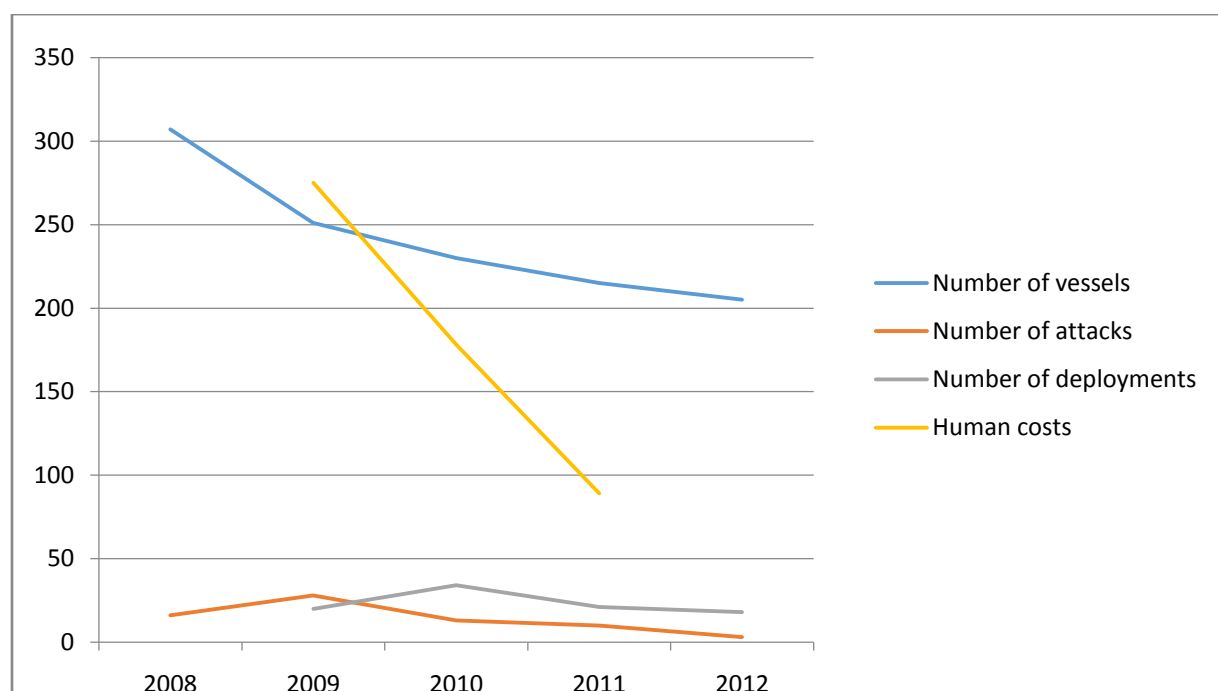
Graph 4.1: trends in trade, piracy attacks and counter-piracy responses.

Relating these trends to one another makes it quite likely that they are, in fact, related to one another in some way. First, there has been a steady decrease of the number of vessels transiting the Gulf of Aden. This decrease is all too likely to signify increasing costs to the maritime industry, such higher insurance premiums, security costs, higher wages for crew including risk premiums, costs for increasing speeds, et cetera. Thus, in order to curb these losses incurred by the maritime industry and inherently by (national) trade as well, states seek a solution to counter these practices of piracy.

By and large, concurrent with the number of attacks, the number of deployments changed the following year. Similarly, estimated total costs decreased as the number of attacks decreased. The only exception was the year 2009. However, since Operation Atalanta had just started, the high costs may be attributed to the fact that during this year it had first to be defined what level of involvement would be effective in curbing attacks. For other years (2010-2012), estimated expenditure for Atalanta divided by the number of pirate attacks was no more than 1.5 times higher across these years. Thus, there is no "golden number" that establishes how much more there should be spent in order to keep the number of pirate attacks within a certain range. This is not surprising, as the operational state of Atalanta must also be maintained in order to prevent potential acts of piracy. In other words, estimated costs do not decrease in exactly the same way as the number of pirate attacks do, because a host of pirates may still launch attacks that need to be prevented. Furthermore, this analysis is based on a comparison of the costs incurred and expenditure for Atalanta the following year. Of course, states may respond far quicker to the risks of piracy and the needs of the operation. In this sense, especially for the year 2009, states have responded in line with the prevalence of piracy, as expenditure and both human and economic costs were highest that year. Although this finding does not comply with strict cost-benefit logic, the degree to which cost estimates and number of deployments relate to the number of pirate attacks does indicate a rational logic of spending more or less on counter-piracy efforts if the incidences of pirate attacks increase or decrease.

Although the graph paints a different image and simple linear regression yields a correlation co-efficient of 0.996 – or a virtually perfect correlation between human costs and expenditure - a closer look at Table 4.1 shows how similar trends are noticeable in terms of human costs. In 2009, with human costs ranking the highest of all years, expenditure for Atalanta was highest. As human costs decreased in 2010 and 2011, so did expenditure, but there are clear differences per year. To provide some indication for this relation by dividing the expenditure of a given year with the human costs yields the following table (4.2):

Sum total of expenditure per year / human costs	
2009	1 181 090 EUR
2010	1 577 808 EUR
2011	1 961 171 EUR

The variability over these years[18] suggest that states are less likely to respond to human costs incurred than economic costs. Furthermore, contrary to economic costs, human costs can clearly be identified by means of strict numbers, whereas the economic costs of piracy can at best be inferred and estimated, and only after careful and comprehensive calculation. One would therefore expect a more congruous relationship between human costs and expenditure, but this is not the case.

In sum, the comparison between contributing and non-contributing states has established that there is a significant difference between both sample groups (having excluded Denmark and Cyprus from the non-contributing group) in terms of the number of vessels transiting the Gulf of Aden, which

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[18]Standard deviation: 390 060 EUR.

provides an indication of how important this route is to a state's trade. Furthermore, human costs were far higher for contributing states than for non-contributing states. Finally, although the relationship is not strictly congruous, the trend of annual expenditure to Atalanta is – by and large – commensurate with the number of attacks, much more so than the relationship between human costs incurred and expenditure to Atalanta. From these findings we may infer that economic considerations trump human costs and that these considerations are most important, perhaps ultimately decisive, in determining (the level of) participation in Atalanta.

II.   State-specific analysis

On a country-by-country basis, this sections first considers the participating states before turning to non-participating states. This allows me, again, to differentiate between incentive structures across these two samples in order to establish the rationale for states to engage in Atalanta. More specifically, it provides a measure of how relevant domestic interests are for (the magnitude of) participation. See Appendix E for the relevant data.

II.a.: Participating states

Portugal

Portugal does not seem to have a significant economic stake in the Gulf of Aden. Just 109 ships are property of Portugese owners or flying the Portugese flag, of which between 12 and 22 (2008-2012) transited the Gulf of Aden. Altogether, 92 'Portugese' vessels transited the Gulf between 2008 and 2012, of which 1 (a cruise ship) was attacked in 2008. However, the attack was not successful. No human costs were incurred in all years. In 2011 Portugal contributed resources with an estimated net worth of 9.300.000 EUR and in 2012 an estimated 8.500.000 EUR. In these years, total expenditure of Atalanta declined. In sum, Portugal contributed 1,8 % of the total estimated costs for Operation Atalanta, even though the economic stakes were low and no human costs were incurred. Thus, Portugal did not seem to act in response of domestic interests harmed, but Portugal's deployments coincided with a decline in expenditure of key contributors (e.g. Spain, Greece, Italy, France, the Netherlands, Belgium) with the possible exception of Germany.

Germany

Germany has been one of the key contributors of Atalanta, with total expenditure estimated at more than 191 million EUR, or about 20% of total expenditure. Between 2008 and 2011, 13 vessels of German origin were attacked: far more than any other state, with the exception of Greece (15 vessels attacked). Expenditure peaked at almost 62 million EUR for 2009 and plummeted to 32 million in 2010, even though 6 vessels were attacked that year. As a result, 54 German seafarers were violated in their security by Somali pirates. However, other states still contributed substantial sums (Spain, for instance, at 63.8 million EUR) whereas some increased their contribution (notably France, whose contribution increased from 40 million in 2009 to 100 million EUR in 2010). This gives rise to a strong suspicion that Germany's contributions were not only directed at protecting domestic interests that were clearly at stake (and were even harmed), but that they were also contingent on other state's contributions.

Sweden

In all years under consideration, Sweden incurred no direct economic costs nor human costs. However, in 2008 91 ships affiliated with Sweden transited the Gulf, and this number dropped considerably the next year (39). In 2009 Sweden contributed an estimated worth of 34.2 million EUR to Atalanta and in 2010 an estimated 12.3 million EUR, amounting to a sum total of 46.5 million EUR. Thus, perhaps in response to the sharp drop in transits through the Gulf, which brings considerable costs to the maritime industry as well, Sweden contributed to Atalanta. The drop in expenditure in 2010 can be explicated by vessel transit frequency remaining at virtually the same level that year (35 vessels transiting the Gulf), as well as by the significant rise in expenditure of France that year. Given that Swedish interests were not manifestly attacked, Swedish contributions could also be contingent on the general number of pirate attacks. The data simply do not provide a clear-cut answer as to whether Swedish contributions were a result of actor-centered or strategic calculus.

Netherlands

Both in 2008 and 2009 a vessel of Dutch origin was attacked by Somali pirates. No human costs were incurred in all these years. The Netherlands has a rather sizeable commercial maritime fleet (at 744 vessels in total), of which 34.4% transited the Gulf in 2008 and 24.2% in 2012. Similar to the Swedish case, therefore, the Dutch government may have felt itself necessitated to contribute to Atalanta as a result of this significant drop. From 2009 onwards, the Netherlands has contributed each year, up to a total of 55.6 million EUR. In 2009, the Netherlands first deployed a naval vessel 8 months after an unsuccessful attack on a Dutch-owned freighter. In 2010, costs reached their zenith at 24.6 million EUR, in a year where no attacks were launched on Dutch vessels or maritime personnel. However, in that year, the number of vessels transiting the Gulf dropped most dramatically, from 38% in 2009 of the total maritime fleet to 21.8% in 2010. The Netherlands may have considered an increase in contribution even more necessary given the substantial operational decrease of key contributors Germany (61.75 to 32 million EUR) and Spain (95.1 to 63.8 million EUR) in 2010 opposed to 2009.

France

In total, 4 vessels affiliated with French were subjected to attacks by Somali pirates; 2 in 2008, 1 in 2009 and 1 in 2011. In 2009 5 French people were harmed by Somali pirates and in 2011 2 more. A very significant number of vessels of French origin transit the Gulf: from a mere total of 363 vessels that belong to French owners or fly the French flag, in between 306 (2008) and 206 (2012) transited the Gulf (Appendix B). As of 2008, a downward trend in this number was noticeable. France is the chief contributor of Atalanta with an estimated sum total of 247.75 million EUR. Undoubtedly, the importance of the Gulf to the French maritime industry is instrumental in French participation in Atalanta. However, the peak contribution of 2010 at 100 million EUR (in 2009, 2011 and 2012 contributions approximated 40 million EUR with little variance) is hard to reconcile with self-centered calculative logic. Rather, it seems very plausible that France responded in this manner as a result of the sharp decline in contributions from such key participants as Germany and Spain.

Spain

Spain has sustained 4 attacks (2008, 2009, 2010, 2012) and a total of 60 people of Spanish nationality were subjected to violations of human security by Somali pirates. Next to France, Spain is the biggest

contributor to Operation Atalanta. However, the importance of the Gulf to the Spanish economy seems to be almost negligible; in between 20 and 42 'Spanish' ships have transited the Gulf between 2008 and 2012. Estimated costs for participation have, however, differed significantly in years when human interests were harmed. In 2009, 36 people were subjected to inhumane treatment of Somali pirates and Spain contributed an estimated 95.1 million EUR. In 2010, 24 people were harmed, and Spain contributed 63.8 million EUR that year. In 2011 and 2012, only one attack (2012) was launched by Somali pirates and the magnitude of contribution decreased substantially to around 30 million EUR. Given the negligible economic costs, human interests seemed to have been most important, but it does not account for the sheer magnitude of Spain's contribution to Atalanta.

Luxembourg

Luxembourg's economic costs are minimal, with 8 to 30 ships transiting the Gulf on an annual basis between 2008 and 2012. Two attacks were launched on Luxembourg vessels in 2012 and 7 citizens from Luxembourg were subjected to the will of Somali pirates. However, Luxembourg did not contribute after these incidents as it had already deployed an aircraft in 2009. This year, shortly after commencement of the operation, saw total expenditure at its peak, as well as the number of pirate attacks. Luxembourg, therefore, could have contributed as a result of the dire situation in general, or felt pressured given the myriad of deployments by other states that year.

Belgium

In April 2009, a Belgian vessel was successfully captured and the 10 (Belgian) crewmembers were kidnapped by Somali pirates. A ransom of 2.8 million was paid to release the crewmembers. In the fall of 2009, Belgium deployed a naval vessel (BNS Louise). The following year, the same vessel was deployed. In 2011 and 2012 Belgium made no contribution. It is not unlikely that Belgium felt necessitated to contribute given the seizure of the Belgian vessel, as deployment of the BSN Louise commenced several months after an attack on a Belgium dredger. Similarly, in line with the general trend of total expenditure and pirate attacks, Belgian efforts have been roughly proportional to the general effort. Thus, the data is not decisive in whether Belgian contributions resulted from the attack in April 2009, or can be attributed to the strategic environment. However, the former explication seems most plausible, given the lack of deployments in 2011 and 2012.

Italy

In both 2009 and 2011 Italy sustained 2 attacks on vessels, of which 3 were successful. In particular, the attacks in 2011 were costly to Italy, with 43 Italians kidnapped by Somali pirates and the last attack resulting in a ransom payment of 5 million EUR. In 2009 costs for participation in Atalanta almost ran up to 40 million EUR, decreasing to almost 20 million EUR the next year and almost 10 million EUR for 2011 and 2012. Italian participation in Atalanta commenced March 2009, one month before both pirate attacks. Five months later, Italy stepped up the pace by deploying another naval vessel, and a bigger one compared to the vessel already deployed. In 2011 Italy deployed another vessel nearly 4 weeks after yet another attack on an Italian vessel. Thus, while Italy has consistently contributed to Atalanta, there is a noticeable trend of responding – or increasing their effort – after national interests have been affected. Furthermore, Italy has an important economic stake in the Gulf: in 2008 389 Italian vessel transited the Gulf, which dropped to 292 in 2012. The percentage of

maritime trade in the Gulf for Italy ranged between 38.8 % and 51.2%. This important economic interest is likely to explain the consistent contribution to Atalanta.

United Kingdom

The United Kingdom seems to have a significant economic interest in the Gulf of Aden, as between 41.4% and 56.2% of UK maritime trade transited the Gulf between 2008 and 2012. Between 857 and 1165 vessels affiliated with the UK transited the Gulf annually in that same period. In 2009 two attacks were incurred, resulting in 28 UK crew members being kidnapped. In 2010 another vessel was successfully hijacked, resulting in 26 UK crew members being kidnapped. Surprisingly, in those two years no operational contributions were made by the UK to Atalanta. Instead, the UK commenced Atalanta by deploying a frigate in December 2008 and deployed another frigate in February 2011, over a year after the 2010 attack. Given the economic interests at stake and the historic record of attacks, it would be expected that the UK contribute more and in a shorter time span after attacks on UK vessels, but with a sum total of 13.8 million EUR on Atalanta expenditure, the UK's record does not seem to support evidence that their naval deployments are approximately proportional responses to adverse impacts on domestic interests. Similarly, there is no indication the United Kingdom acted strategically; i.e. that their contributions were contingent on trends in general expenditure for the operation. Rather, the general Eurosceptic attitude in the United Kingdom could prove most enlightening in explicating the aloof disposition of the United Kingdom in Atalanta. This suspicion is given further credence in view of a House of Commons (2011) report that stressed the economic impact of piracy on the UK (human costs were negligible, according to the report): the maritime services sector accounts for £26.5 billion, or 1.8% of UK GDP, and a sizeable share of the estimated costs of piracy world-wide (between $8 and $12 billion) is a burden to the UK's economy (House of Commons, 2011: 17). The need for recognizing the necessity of a counter-piracy response has been formalized within a NATO context: contrary to the two deployments by the UK in Atalanta, it deployed 8 naval vessels within a NATO setting (ibid.: 40).

Greece

Of all European states, Greece has been affected most adversely by Somali piracy. Between 2008 and 2011, it sustained a total of 15 attacks, and incurred a staggering 255 human costs between 2009 and 2011. As of 2009, it has therefore commenced participation in Atalanta and continued to do so up and until 2012. Between 454 and 699 Greek vessels transited the Gulf between 2008 and 2012, or between 52.8% and 81.3% of all vessels. Economic stakes are therefore high and the historic record is not in favor of the Greeks. It is evident that the Greeks have certainly participated in order to protect their interests and curb their losses. Up and until 2011, an approximate regularity can be noticed between attacks on Greek ships and the magnitude of contributions by Greece. As of 2011, the number of pirate attacks had reached its lowest point, but up until 2012, Greece still contributed. Given the lack of deployments from most other states, it seems that Greece found itself necessitated to maintain an operational effort, but that risk perception – as a result of the myriad attacks on Greek ships – incentivized Greece to maintain an operational presence.

Finland & Romania

Both Finland and Romania have incurred no costs between 2008 and 2012. This is not surprising, as no more than 10 ships have transited the Gulf for each of their countries on an annual basis.

However, Finland has contributed an estimated worth of 6.5 million EUR (2011) and Romania 7.1 million EUR (2012). With minimal interests at stake, it is quite likely that they contribute for the sake of maintaining proper relations with the participating states. Their deployments commenced in a later stage of Atalanta, when the enthusiasm from many key contributors had subsided.

Norway

A large share of the rather sizeable commercial fleet of Norway is reliant on the Gulf as a viable trade route: between 294 and 399 vessels from Norway transited the Gulf between 2008 and 2012, or between 50.2% and 68.2% of the total commercial fleet. In March 2009 a ship was attacked and in 2010 15 crewmembers from a tanker flying the Norwegian flag were captured by Somali pirates. Norway deployed 2 frigates in August, 2009, accounting for an estimated sum total of 32.2 million. Thus, deployment commenced six months after attack on a domestic vessel. Given that Norway is not an EU member state and would therefore not usually participate in a joint EU security operation, the attack on domestic interests has quite likely been decisive in shaping Norwegian engagement in Atalanta.

Malta

Malta's large commercial fleet is largely dependent on the Gulf of Aden as a transit route. Between 882 and 1075 vessels transited the Gulf annually between 2008 and 2012, accounting for in between 53.2% and 65.2% of all national maritime trade. In 2008, 2011 and 2012 it sustained 1 pirate attack, and 2 in 2009. The attack in 2011 was successful for Somali pirates as 23 Maltese people were kidnapped. One may therefore expect a sizeable contribution by Malta, but given the size of the country (and a sheer GDP average of 7800 billion EUR between 2008 and 2012)[19] it is apparent that it is not feasible. Most importantly, however, is the fact that Malta does not have a large naval force; it merely consists of a handful of patrol vessels.[20] Malta has made one contribution to the operation, with costs estimated at 750.000 EUR. In particular, offsetting this estimation to the economic importance of the Gulf to Malta and the costs already incurred, it is apparent that the costs for deployment of an Vessel Protection Detachment (VDP) by Malta in 2010 does not weigh up to the costs of Somali piracy. However, given Malta's significant stake in the Gulf of Aden and reliance on Atalanta for securing these interests, Malta may have felt necessitated to contribute – even if their contribution is relatively insignificant – to avoid being regarded as a free-rider and to effect maintaining a naval presence in the Gulf.

For the remaining contributing states (i.e. Ukraine, Croatia and Montenegro) insufficient data exists to provide a similar analysis, but given that these states ostensibly have minimal interests in Somali

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[19] International Monetary Fund (April 2012). *World Economic Outlook Database.*Retrieved June 2, 2013 from http://www.imf.org/external/pubs/ft/weo/2012/01/weodata/weorept.aspx?pr.x=26&pr.y=12&sy=2007&ey=2 012&scsm=1&ssd=1&sort=country&ds=.&br=1&c=941%2C914%2C946%2C911%2C137%2C962%2C122%2C912 %2C181%2C913%2C124%2C921%2C943%2C963%2C918%2C138%2C142%2C964%2C182%2C960%2C968%2C42 3%2C922%2C935%2C128%2C942%2C936%2C939%2C961%2C172%2C184%2C132%2C915%2C134%2C174%2C1 44%2C146%2C944%2C176%2C186%2C178%2C136%2C926%2C112%2C916%2C967&s=NGDPD&grp=0&a=
[20] Malta Spotting (date unknown). *Armed Forces of Malta*. Retrieved August 10, 2013 from http://www.maltaspotting.com/armedforcesofmalta.htm

piracy, it could be hypothesized that these states contribute some resources as a step-up to future accession to the EU.[21]

II.b. Non-participating states

Many non-participating states share several common features: zero to one incidence(s) of pirate attacks, no human costs incurred, and especially hardly any economic interests at stake. The following states have had no incidence of pirate attacks: Austria, Bulgaria, Czech Republic, Estonia, Hungary, Ireland, Latvia, Lithuania, Poland and Slovakia. Slovenia incurred 1 attack. All these states have a small number of vessels at their disposal, of which a negligible number transits the Gulf. The only exception may be Bulgaria, of which between 10 and 32 vessels transited the Gulf between 2008 and 2012 (see Appendix E). If we assume that these states act rationally and adopt a ((a)albeit crude) cost-benefit logic in deciding whether or not to participate in Atalanta, it is no surprise that they refrain from doing so, as their interests are hardly affected.

The exceptions are Denmark and Cyprus. First of all, all three states have significant economic interests in the Gulf of Aden as a maritime trade route that significantly differ from the rest of the non-participating countries.

Denmark

The number of ships affiliated with Denmark that transited the Gulf on an annual basis was between 468 and 561 in between 2008 and 2012. In both 2008 and 2009 Denmark sustained 4 attacks and in 2011 2 more. Furthermore, after successful attacks on a cargo ship and private yacht a total of 15 people of Danish nationality were physically and/or mentally harmed by Somali pirates. In all these respects, Denmark does not differ much from participating countries. In fact, most participating countries have less economic interests at stake or incurred less (direct) losses and it is therefore surprising that Denmark did not join Operation Atalanta. Instead, Denmark launched its very own counter-piracy operation as of 2011 (Danish Ministry of Foreign Affairs, 2010) and contributed to the NATO Operation Ocean Shield (formerly Allied Protector). Unfortunately, insufficient data exists to estimate the costs of these operations, which would otherwise have contributed to the findings of this research and rational choice theory in particular. The question remains why Denmark refrains from multilateral cooperation in this affair, but given the scope of rational choice theory, suffice it to say that Denmark is acting to protect its interests.

Cyprus

Cyprus also has considerable interest in the Gulf of Aden, as between 222 and 556 vessels have transited the route between 2008 and 2012 (the number dropped considerably after 2008). This amounts to a percentage of in between 26.5% and 66.3% of Cyprus´ total maritime trade. Yet with only 1 (unsuccessful) attack on a cruise ship in 2009, Cyprus may not have been tempted to join the operation. Or could it be that, given that Cyprus is quite comparable to Malta (average GDP between 2008 and 2012 of 18 800 billion EUR)[22], it simply does not have the means at its disposal to

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[21]Croatia, at the time of commencement of Atalanta, was an aspiring EU-member state.

[22] Retrieved June 2, 2013 from
http://www.imf.org/external/pubs/ft/weo/2012/01/weodata/weorept.aspx?pr.x=26&pr.y=12&sy=2007&ey=2012&scsm=1&ssd=1&sort=country&ds=.&br=1&c=941%2C914%2C946%2C911%2C137%2C962%2C122%2C912

effectively contribute to the counter-piracy strategy? This seems to be the case, as several informal sources indirectly point to Cyprus´ naval ´fleet´ being superior to Malta´s only in terms of numbers, not the actual strength of ships. This does not explain why Cyprus did not engage at all in Atalanta, although there may be several reasons for this. First, that the resources were not needed (unlikely, as several other states have deployed VDP´s). Second, that the resources were necessary for national security. Third, Cyprus could not spare the expense (unlikely, but not wholly unreasonable in light of the global economic crisis).

III.   Conclusion

Based on the vast differences witnessed between participating and non-participating states in terms of economic interests historically and potentially affected and human costs historically incurred, it is clear that there has been and is much more at stake for most participating states. Most participating states are affluent, economically well-developed states (most of them West-European, with the exception of Romania). All of them have (a wide range of) naval resources at their disposal, with the exception of Luxembourg. Conversely, most non-participating states are Central- or East-European states, many of them landlocked, which explains no or minimal naval resources and commercial maritime fleet. With the sole exceptions of Denmark and Cyprus, most non-participating states have minimal interests at stake in the Gulf of Aden. Denmark has launched its very own counter-piracy strategy in 2011, which may explain rational behavior, but raises the question of why it did not join Atalanta and why it only started in 2011, several years after the adverse repercussions of Somali piracy had been made painfully clear. It has, however, engaged within a NATO context to counter Somali piracy. Cyprus´ and Malta's strategy is probably best explained by considering the resources at their disposal. Since they do not have effective means and resources to counter (Somali) piracy, they are very much reliant on the more affluent states that do participate in Atalanta.

State-specific analysis yields findings that do not hold any clear-cut empirical regularities and patterns, thus refuting a *strict* cost-benefit logic of economic interests and human costs and the magnitude of operational contributions.Furthermore, the fact that some countries such as Finland and Romania hardly possess a national interest in Somali piracy, complicates the rational choice assumption of utility-seeking actors as proposed by Snidal (2002) and Cooley (2003). However, the lack of strict correlation can be attributed to various factors, such as errors in risk perception (pointing to more complex models of rational choice theory, such as expected utility theory and prospect theory (Tversky&Kahneman, 1986)), an inability to mobilize or deploy resources, budgetary constraints, the interconnectedness of domestic economies and thus of trade interests, or simply because the exigencies of the operation dictate no necessity of certain contributions. While indeed it does seem to be the case that the countries more affected by Somali piracy spend more on Atalanta (e.g. Spain, Germany and France), such findings do not hold for all cases. For instance, the UK´s expenditure seems limited given their interests, although it contributed significantly in a NATO context. Generally, it was found that economic considerations trump considerations of human security. The same goes for a comparison between the historic record of attacks on vessels and the number of vessels potentially subject to pirate attacks (i.e. transiting the Gulf). These findings indicate that decision-making procedures are mainly affected by factoring in the economic interests

%2C181%2C913%2C124%2C921%2C943%2C963%2C918%2C138%2C142%2C964%2C182%2C960%2C968%2C423%2C922%2C935%2C128%2C942%2C936%2C939%2C961%2C172%2C184%2C132%2C915%2C134%2C174%2C144%2C146%2C944%2C176%2C186%2C178%2C136%2C926%2C112%2C916%2C967&s=NGDPD&grp=0&a=

potentially at stake. This finding in particular may be explained by the fact that the maritime industry exerts pressure on governments to utilize their military resources to secure a maritime transit route (obviously, in this case, the Gulf of Aden).

Thus, states do seem to employ a calculative logic (albeit crude) in securing their – chiefly material – interests, hardly compatible with constructivist accounts, such as those proposed by Finnemore (1996a; 1996b) and Wendt (1999). However, even though the lack of strict correlation between domestic interests and magnitude of contributions can be partially attributed to other various factors (as discussed above), the strategic environment must also be taken into account. Therefore, as rational choice theory premised on methodological individualism is inadequate in explicating the results, the institutional dimension must be incorporated for explanation. States engage in cooperation to secure mutual gains (i.e. increased protection of domestic interests) and reduce bargaining costs as it is easier and more fruitful to exert pressure on other states to cooperate. Furthermore, information asymmetry is reduced; within the strategic setting, far more information about other actors' deployments, potential future actions, and so on. Most importantly, this helps shape state actions; not only do they respond to domestic interests, but according to a strategic calculus as well (Pollack, 2006). In this way, contrary to mainstream rational choice theory, I posit that preferences provide a reference point at the outset of the decision-making process, they are altered in the decision-making process through multi-actor strategy and alliance formation. Throughout the bargaining process, preferences are therefore altered, and strategies in particular are shaped according to behavior by the other actors.

V. Conclusion

In this thesis I have sought to provide an answer as to why certain EU member states have contributed to Operation Atalanta and why some states have refrained from doing so. Furthermore, I have sought to establish whether there is a certain equilibrium between the economic and human costs historically incurred and the economic interests at stake and the estimated costs of contributing to Atalanta on a state-by-state basis. Chapter IV has provided a data analysis and a generalization of the findings. On a general level (i.e. participating versus non-participating states) there was abundant evidence of vast disparities in economic interests among the two groups, which – from a rational perspective from which actors are thought to seek optimal-utility strategies – does explain why participating states engage in Atalanta. However, a more specific analysis complicated these findings. For instance, some states that participate in Atalanta have relatively insignificant interests at stake (e.g. Romania and Finland). Economic considerations were more decisive in effecting operational responses than human costs. Furthermore, apparently most importance was attached to economic interests *potentially* at stake, rather than the historic record of attacks strictly determining (the level of) engagement in Atalanta. It seems, therefore, that this defining characteristic of the importance of the Gulf of Aden as a maritime trading route to a country´s economy, is vital to the perception of state actors on the benefits of a Gulf of Aden free of piracy.

Contrary to Snidal's (2002) application of RCT in international relations or Cooley's (2003) use of RCT in explaining global governance, strict calculative logic does not apply to decision-making procedures on Atalanta. Undoubtedly, (most) states participate to protect and secure their interests, whether they be of an economic or security nature. Also, by and large, trends of magnitude of participation have been commensurate with the decline of number of vessels transiting the Gulf of Aden. In other words, states have generally spent more money on Atalanta in order to counter the decrease in number of commercial ships transiting the Gulf. However, the disparities among states cannot be explained by a strict calculative logic. Even if cost and benefits cannot be ascertained precisely (as in this research), these disparities are too large to dismiss due to a large margin of error in estimating costs and benefits. As implied by Boudon (1998) and Bendor and Hammond (1992), the more psychological factors attributed to more complex models of RCT such as perception and framing (Tversky&Kahneman, 1986) only go so far in explaining incongruous behavior among actors, and the differences seem too big to explain them by those means. Constructivist accounts such as proposed by Wendt (1999) and Finnemore (1996) are incompatible with the selective nature of cooperation, which gives rise to the idea that the construction of norms is artificial and instrumental in the legitimation of the protection of interests. Rather, counter-piracy norms can be conceived as the product of the institutionalization of counter-piracy responses as a means to secure actors' interests.

Thus, whereas most cases suggest that domestic interests are instrumental in participation, the multi-actor scenario calls for incorporation of strategic interaction within the theoretical explication. Rational choice institutionalism (RCI) – such as proposed by Pollack (2006), Hall and Taylor (1996) and March and Olsen (1998) - holds most promise in this regard. Contrary to a strictly confined setting of game theory, RCI accounts for the role of institutions in facilitating cooperation. Through the EU, states are incentivized to secure mutual gains (i.e. decreased costs of Somali piracy) far more economically, are provided a more flexible operational setting through the reduction of bargaining and executive costs (i.e. states are not forced to be continuously engaged through burden sharing) and they have more information at their disposal about the intent of other actors.Given the lack of a

clear cost-benefit logic, I posit that preferences provide a reference point at the outset of the decision-making process, they are altered in the decision-making process through multi-actor strategy and alliance formation. Throughout the bargaining process, preferences are therefore altered, and strategies in particular are shaped according to behavior by the other actors. Thus, while national interests – which, contrary to this research's conceptualization of national interests, could include goals other than protection of domestic vessels (e.g. establishing or maintaining close ties with other member states, as in the case of for instance Romania and Croatia – are the primary vehicle for effecting a response, these responses were shaped largely in a strategic environment where states' actions were, to a certain extent, contingent on other actors' behavior. The Operation is therefore very much a product of institutional bargaining after due recognition of a state's own interests.

What does this mean for the EU, and how can it realize the potential benefits of cooperation through institutions? Generally, the EU needs to employ its role as principal to induce a structural equilibrium among participating states. It must employ its mediating role within the bargaining process and information at its disposal to effect a balance within the strategic alliance between interests harmed and operational contributions. This will render disproportionate contributions unnecessary or unacceptable, thereby reducing uncertainty among states about what is expected of them. Further reduction of uncertainty will pave the way to a more efficient operational constellation, as states are more likely to respond to the exigencies of the operation rather than their efforts being a result of complex bargaining. This also means that, although Atalanta provides a very flexible framework for cooperation, 'free' riding strategies are eliminated and no states are forced to bear burdens beyond what their domestic interests dictate. I propose the following the following recommendations to achieve this:

1) Most importantly, decision-making should take place in a clear principal-agent framework. Currently, decisions on Atalanta are adopted by the Council of the EU, which provides possibilities for the High Representative of the Union for Foreign Affairs and Security to act in a manner that utilizes the information as best as possible by reducing information assymetries and cognitive dissosance among agents (member states) and between the principal (EU) and agents. By chairing negotiations and wielding agenda-setting power, the High Representative can focus on meeting the exigencies of the operation, rather than the operation being, to a strong extent, the result of institutional bargaining.

2) An enforcement mechanism could be adopted that obliges states to contribute a minimum based on their GDP and trade interest in the Gulf of Aden. This minimum must reflect the extent necessary to combat free riding, but must not impede state participation. Given the typical duration of a mandate for the period of one year, these minimums should be established for an annual basis. In other words, the benefits states enjoy from joint participation must be relative to their own contributions. This will reduce some uncertainty among other states about the actions of others. Furthermore, minimum standards will reduce bargaining costs as, rather than starting from scratch in negotiations, a 'minimum' agreement is reached already.

3) Incentivize other states to join by means of selective mutual cooperation schemes facilitated within the Council. More specifically, states not participating in Atalanta could be induced to participation through benefits acquired from other states. Both participating and non-participating states could therefore engage in a reciprocal relationship where non-

participating states are offered some form of aid or benefits. Efforts to engage non-participation states must be employed by the High Representative within the Council environment. Thus, if states decline to follow a 'logic of appropriateness' (i.e. combating Somali piracy), a 'logic of consequences' may induce them to change their stance.

In line with the practical relevance and implications for the EU, future research should incorporate the bargaining process to gauge the importance of strategic interaction in affecting the outcome. Within a principal-agent framework, the relevance of agenda-setting, the decision-making procedure, bargaining discourse and shifts in preferences and strategies by actors can help illuminate this. Further research should therefore be motivated by a desire to produce more thorough insight into efficient allocation of resources and, as such, contribute to the quality of the operation. Inasmuchas future joint security operations (within the EU) will be shaped through strategic interaction, this research has provided the stepping stone for inquiry into effective and efficient construction of joint security operations.

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Appendix A: Piracy Attacks

Part I: Comprehensive overview

Not all piracy attacks are registered. Attacks on navy vessels are excluded from this list.[23]Ransoms are paid by the owners of the hijacked vessel; it therefore follows that the ransom payment is detrimental to the economy of the state in which the owner/company resides. [24]

2005

Date of attack	Flag (owner)	Vessel type	No. crewmembers	Captured (yes/no)	Date of release	Ransom paid
2005-10-18	Liberia (Ukraine)		22	Yes	2005-11-25	$700.000

In 2006 no ship owned or flagged by a EU-member state or non-EU member states contributing to Atalanta (i.e. Norway, Ukraine, Croatia, Montenegro) was attacked.

2007

Date of attack	Flag (owner)	Vessel type	No. crewmembers	Captured (yes/no)	Date of release	Ransom paid
2007-06-01	Denmark	Cargo	5	Yes	2007-08-23	$ 1.500.000
2007-09-20	Greece	Fishing boat	4	Yes, but crew was removed from vessel.		

2008

Date of attack	Flag (owner)	Vessel type	No. crewmembers	Captured (yes/no)	Date of release	Ransom paid
2008-02-01	Russia (Denmark)	Tugboat	6	Yes	2008-03-18	$700.000

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2008-04-04	France	Yacht	30; no passengers, all crewmembers (1 Cameronian, 6 Filipinos, 22 French, 1 Ukranian). [25]	Yes	2008-04-12	1.300.000 EUR, but a large share was retrieved by French forces[26]
2008-04-20	Spain	Fishing vessel	26 (13 Spanish, 13 Africans)[27]	Yes	2008-04-26	$ 1.200.000 [28]
2008-05-24	Antigua and Barbuda (Netherlands)	Transport vessel	9 (4 Russians, 5 Filipinos)[29]		2008-06-24	
2008-05-28	Germany	Cargo	15 (1 Russian, 4 Ukrainian, 1 Estonian, 9 Burmese)	Yes	2008-07-08	$750.000
2008-08-21	Antigua and Barbuda (Germany)	Unknown	13 (1 Slovenian, 10 Filipinos, 2 Russians)	Yes	2008-09-11	$ 1.100.000[30]
2008-09-02	France	Yacht	2 (French)	Yes, but rescued by French forces 14 days after capture	2008-09-16	

[25] Author unknown (April 11, 2008). Crew held hostage on French yacht freed. *Info Coordination marée noire.* Retrieved May 6, 2013 from http://coordination-maree-noire.eu/spip.php?article7157&lang=en

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2008-09-18	Denmark	Tanker	Unknown	No[31]		
2008-09-18	Malta (Greece)	Bulk carrier	26 (all Filipino)[32]	Yes	2008-11-27	N.A.
2008-09-21	Bahamas (Greece)	Freighter	19 (17 Filipinos, 1 Chinese, 1 Ukrainian)	Yes	2008-12-08[33]	N.A.
2008-09-25[34]	Belize (Ukraine)	Cargo	21 (3 Russian, 1 Latvian, 17 Ukrainians)	Yes	2009-02-05	$ 3.200.000
2008-09-27	Liberia (Greece)	Tanker (chemicals)	19 (Romanians)[35]	Yes	2008-11-22	Yes; amount unknown.
2008-11-07[36]	Bahamas (Denmark)	Unknown	13 (11 Russians, 1 Georgian, 1 Lithuanian)	Yes	2009-01-15	$ 1.700.000
2008-11-11	Denmark	Cargo	Unknown	No[37]		
2008-11-28	Bahamas (Germany)	Cruise ship	792 (300 crew; 492 passengers)[38]	No		

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Date of attack	Flag (owner)	Vessel type	No. crewmembers	Captured (yes/no)	Date of release	Ransom paid
2008-12-03	Portugal (Cyprus)	Cruise ship	Unknown	No[39]		

2009

Date of attack	Flag (owner)	Vessel type	No. crewmembers	Captured (yes/no)	Date of release	Ransom paid
2009-01-02	Greece	Tanker (oil)		No		
2009-1-14[40]	Liberia (Netherlands)	Freighter	-	no	-	-
2009-02-22[41]	Greece	Cargo (coal)		yes		Unknown
22-03-19[42]	Greece	Cargo	24	2009-04-16		
2009-03-25	Greece	Tanker (chemicals)	19	yes	2009-05-09	unknown
2009-03-26[43]	Bahams (Norway)	Tanker	24	Yes	2009-04-10	
2009-03-30	Germany	Tanker (fuel)	52	No		
2009-04-04[44]	Germany	Cargo ship	25 (11 Tuvalians, 1 Fijian)	Yes	August 2009	$ 2.000.000
2009-04-04[45]	France	Yacht (personal	5	yes	2009-04-10	Released after raid

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[44] Ritchie, K. (June 2, 2009). Tuvalu left helpless by pirate kidnappings. *ABC News*. Retrieved May 8, 2013 from http://www.abc.net.au/news/2009-06-02/tuvalu-left-helpless-by-pirate-kidnappings/1700572?section=justin

		boat)				by French forces. One hostage killed.
2009-04-08	Denmark	Cargo ship (UN food aid)	21 (American)	No (after capture crew was able to regain control)		
2009-04-09	Italy	Tugboat	16 (10 Italians)	No	2009-04-11	N.A.
2009-04-14[46]	Greece	Cargo ship	22	yes	2009-09-14	$ 2.000.000
2009-04-16	Denmark	Cargo ship	12	no		
2009-04-18	Denmark	Tanker (petroleum)	N.A.	no		
2009-04-18[47]	Norway	Tanker	N.A.	no		
2009-04-18[48]	Belgium	Dredger	10	yes	2009-06-27	2.800.000 EUR
2009-04-20	Malta	Cargo		no		

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[45] Author unknown (April 10, 2009). Le skipper de la 'Tanit' ététué. *20 minutes*. Retrieved May 8, 2013 from http://www.20minutes.fr/monde/somalie/319383-skipper-tanit-ete-tue

2009-04-25[49]	Italy	Cruise ship	490 crew; 1000 passengers	no		
2009-05-03	Malta (Greece)	Cargo	24	yes	2009-12-10	3.000.000 EUR
2009-10-12	Spain	Fishing seiner	36	Yes	2009-11-17	EUR 2.300.000
2009-10-23	United Kingdom	Yacht	2	Yes	2010-11-13	$ 750.000
2009-10-31	France	Trawler	N.A.	No		
2009-11-05	Marshall Island (Greece)	Cargo ship (wheat)	21	Yes	2009-12-17	N.A.
2009-11-17	Marshall Islands (Greece)	Bulk carrier	22	Yes	2010-2-1	N.A.
2009-11-18	United States (Denmark)	Cargo ship	21	No		
2009-11-30	Greece	Tanker (oil; worth $140 million)	28	Yes	2010-01-19	$5.500.000 - $7.000.000
2009-12-28	United Kingdom	Tanker (chemicals)	26	Yes	N.A.	N.A.
2009-12-28	Panama (Greece)	Cargo	19	Yes	2010-02-28	Unknown

2010

Date of attack	Flag (owner)	Vessel type	No. crewmembers	Captured (yes/no)	Date of release	Ransom paid
2010-01-	South Korea (United	Cargo (cars)	26 (8 Bulgarians, 10	Yes	2010-07-11	N.A.

02	Kingdom)		Ukranians, 5 Indians, 2 Romanians)[50]			
2010-02-05[51]	Antigua and Barbuda (Slovenia)	Cargo (steel)	25	Yes, but released by Danish Special Forces	2010-02-05	Not applicable.
2010-03-05[52]	Marshall Island (Norway)	Tanker (oil)	Unknown	Yes	2010-7-20	Unknown
2010-04-05[53]	Germany	Container ship	13	No		
2010-05-08[54]	United States (Germany)	Tanker (chemicals)	22 (19 Indians, 2 Bangladeshi, 1 Ukranian)	Yes	2010-12-28	$5.500.000
2010-5-12[55]	Liberia (Greece)	Bulk carrier	23 (19 Filipinos, 2 Greek, 1 Ukranian, 1 Romanian)	Yes	2010-12-11	Unknown
2010-07-04[56]	Marshall Islands (Greece)	Tanker (lubricating oil)	18 (18 Filipinos)	Yes	2011-01-16	N.A.
2010-09-08	Antigua and Barbuda	Container ship	11 (2 Russians)[57]	Yes, but U.S. forces	2010-09-08	None

[50] The Sofia Echo Staff (14 June, 2010). Asian Glory arrives safely in Oman. *The Sofia Echo*. Retrieved May 9, 2013 from http://sofiaecho.com/2010/06/14/916628_asian-glory-arrives-safely-in-oman

[51] Author unknown (February 5, 2010). NATO forces recapture vessel seized by pirates. *CNN News*. Retrieved May 9, 2013 from http://edition.cnn.com/2010/WORLD/africa/02/05/indian.ocean.pirate.rescue/

[52] Author unknown (March 5, 2010). Pirates hijack Norwegian tanker off Madagascar. *BBC News*. Retrieved May 9, 2013 from http://news.bbc.co.uk/2/hi/africa/8552887.stm

[53] Author unkown (April 5, 2010). GNMLS Tromp retakes pirated MV Taipan. *EU NAVFOR*. Retrieved May 9, 2013 from http://eunavfor.eu/pirated-german-ship-rescue-eu-navfor-hnmls-tromp-retakes-pirated-mv-taipan/

[54] Author unknown (December 28, 2010). Somali pirates free German chemical tanker. *BBC News.* Retrieved May 9, 2013 from http://www.bbc.co.uk/news/world-south-asia-12086627

[55] Author unknown (December 11, 2009). Somali pirates free Greek-owned bulk carrier. *Reuters*. Retrieved May 9, 2013 from http://www.reuters.com/article/2010/12/11/somalia-piracy-idAFLDE6BA09D20101211

[56] Author unknown (July 5, 2010). Pirates hijack tanker with Filipino crew in Red Sea. *BBC News.* Retrieved May 9, 2013 from http://www.bbc.co.uk/news/10507680

Date of attack	Flag (owner)	Vessel type	No. crewmembers	Captured (yes/no)	Date of release	Ransom paid
	(Germany)			took control 1 day after the attack[58]		
2010-09-08[59]	Malta (Greece)	Tanker (chemicals)	18 (15 Georgians, 3 Turkish)	Yes	2012-01-08	$ 3.000.000
2010-10-23	Singapora (Germany)	Tanker (liquefied gas)	17	Yes	2011-03-10	Crew released, ship currently used as pirate support ship
2010-10-24[60]	Antigua and Barbuda (Germany)	Cargo	16 (2 Germans)	Yes; but retaken by British navy 15 hrs later	2010-10-25	None
2010-12-26	Antigua and Barbuda (Germany)	Cargo	N.A.	Yes	2011-03-02	N.A.
2010-12-28[61]	Mozambique (Spain)	Fishing vessel	14 (9 missing)	Yes	2011-03-15	N.A.

2011

Date of attack	Flag (owner)	Vessel type	No. crewmembers	Captured (yes/no)	Date of release	Ransom paid

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Footnotes

[57] Author unknown (September 9, 2010). German ship with Russians on board was freed by US ship. *Voice of Russia*. Retrieved May 9, 2013 from http://english.ruvr.ru/2010/09/09/19571386/

[58] Author unknown (September 10, 2010). U.S. forced board pirate-captured vessel, seize control. *CNN News*. Retrieved May 9, 2013 from http://edition.cnn.com/2010/WORLD/africa/09/09/us.somalia.pirates/index.html

[59] Ecoterra International (December 22, 2010). Almost 40 vessels and over 700 hostages held in Somalia. *Ground Report*. Retrieved May 9, 2013 from http://groundreport.com/over-40-vessels-and-almost-700-hostages-held-in-somalia-by-pirates/

[60] Author unknown (October 26, 2010). Pirates seize German freighter, abandon vessel. *Hindustan Times*. Retrieved May 9, 2013 from http://www.hindustantimes.com/world-news/Europe/Pirates-seize-German-freighter-abandon-vessel/Article1-617921.aspx

[61] Author unknown (January 1, 2011). Somali pirates seize Mozambican fishing boat. *Reuters*. Retrieved May 9, 2013 from http://www.reuters.com/article/2011/01/01/ozatp-somalia-piracy-idAFJOE70002O20110101

Date	Flag	Vessel type	Crew	Success	Release date	Ransom
2011-01-12	Denmark	Cargo (arms and ammunition)	6	Yes	2013-04-30	Yes; amount unknown.
2011-01-22	Antigua and Barbuda (Germany)	Cargo	12 (1 Polish, 7 Filipino, 2 Russians, 2 Ukranian)[62]	Yes	2011-04-13	
2011-01-28	Liberia (Germany)	Tanker	Unknown	No; two attacks failed.[63]	2011-01-28	None
2011-02-08[64]	Italy	Tanker (oil)	22	Yes	2011-12-21	Unknown
2011-02-09[65]	Greece	Tanker (oil; worth $ 200 million)	25 (7 Greeks, 1 Georgian, 17 Filipinos)	Yes	2011-04-08	$ 13.500.000
2011-02-12[66]	Malta	Bulk carrier	23 (13 Iranians, 10 Indians)	Yes	2011-08-14	Unknown
2011-02-24[67]	Denmark	Private yacht	7 (7 Danes)	Yes	2011-9-7[68]	
2011-04-21[69]	Italy	Bulk carrier	21 (15 Filipinos, 6 Italians)	Yes	2011-11-25	$ 6.000.000

[62] Author unknown (April 13, 2011). Pirates release MV Beluga Nomination. *Oceanus Live*. Retrieved May 9, 2013 from http://www.oceanuslive.org/main/viewnews.aspx?uid=00000258

[63] Author unknown (January 29, 2011). German tanker New York star was attacked twice, pirates manage to board the vessel. *Maritime Bulletin*. Retrieved May 9, 2013 from http://www.odin.tc/eng/articles/1117-German-tanker-New-York-Star-was-attacked-twice-pirates-managed-to-board-the-vessel.asp

[64] Author unknown (February 9, 2011). MV Irene SL hijacked in North Arabian Sea. *Oceanus Live*. Retrieved May 10, 2013 from http://www.oceanuslive.org/main/viewnews.aspx?uid=00000188

[65] Ibid.

[66] Author unknown (February 11, 2011). Ship believed captured by pirates off coast of Oman. Retrieved May 10, 2013 from http://articles.cnn.com/2011-02-13/world/oman.ship.piracy_1_european-union-naval-somali-coast-oil-tanker?_s=PM:WORLD

[67] Jones, B. (March 1, 2011). Pirates seize Danish family, children. *CNN News*. Retrieved May 10, 2013 from http://edition.cnn.com/2011/WORLD/africa/03/01/somalia.pirates.danish.family/index.html

[68] Olsen, J.M. (July 7, 2011). Pirates release Danish family from 'horrible ordeal'. *NBC News*. Retrieved May 10, 2013 from http://www.nbcnews.com/id/44428741/ns/world_news-africa/t/pirates-release-danish-family-horrible-ordeal/#.UcrWPvlM84c

[69] Author unknown (November 28, 2011). Somali pirates release Italian cargo ship and 21 crew. *The Maritime Executive*. Retrieved May 10, 2013 from http://www.maritime-executive.com/article/somali-pirates-release-italian-cargo-ship-and-21-crew/

| 2011-08-23 | Liberia (Greece) | Container ship | Unknown | No | | |
| 2011-09-10[70] | France | Private yacht | 2 French (1 killed) | Yes, but pirates killed by German forces | Unknown | |

2012

Date of attack	Flag (owner)	Vessel type	No. crewmembers	Captured (yes/no)	Date of release	Ransom paid
2012-01-12	Spain	Replenishment oiler	148	No; attack repulsed by crew		
2012-10-20	Luxembourg	Unknown	7 (6 Russians, 1 Estonian)	Yes	2012-11-01	Unknown
2012-11-26	Malta (United States)	Cruise ship	407	No		

Part II: Actual and attempted attacks (in total; not confined to European states)

		Attempted		Actual	
		Boarded	**Hijacked**	**Fired upon**	**Attempted boarding**
2008[71]	Gulf of Aden	2	32	31	27
	Somalia		10	8	1
2009[72]	Gulf of		20	64	32

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[70] Author unknown (September 11, 2011). Pirate attack update – one French sailor killed, wife rescued. *Sail World*. Retrieved May 10, 2013 from http://www.sail-world.com/Europe/Pirate-attack-update---one-French-sailor-killed,-wife-rescued/88346
[71]ICC International Maritime Bureau (January 2009). Piracy and armed robbery against ships. Annual report. 1 January – 31 December 2008. Retrieved May 14, 2013 from http://ddata.over-blog.com/xxxyyy/0/50/29/09/Docs-Textes/Pirates2008RAP-BMI0901.pdf
[72]Data was retrieved from reports from the period 2010-2012.

	Aden				
	Somalia	1	26	45	8
2010[73]	Gulf of Aden	2	15	22	14
	Somalia	14	33	74	18
2011[74]	Gulf of Aden	1	4	19	13
	Somalia	15	23	78	44
2012[75]	Gulf of Aden		4	4	8
	Somalia	2	10	16	21

Part III: Nationality of vessels attacked

In cases where the vessel's owner does not originate from the flag state, this difference is denoted as (owner). Similarly, in cases where the flag state is not the same as the vessel's owner residency, this difference is denoted as (flag).

	2008		2009		2010		2011		2012	
	Attempts	Actual	Attempts	Actual	Attempts	Actual	Attempts	Actual	Attempts	Actual
Portugal	1									
Germany	3(owner)		1	1	1	5 (owner)	1 (owner)	1 (owner)		
Sweden										
Netherlands		1 (owner)	1							
France		1						1		

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[73]ICC International Maritime Bureau (January 2011). Piracy and armed robbery against ships. Annual report. 1 January – 31 December 2008. Retrieved May 14, 2013 from
http://www.simsl.com/Downloads/Piracy/IMBPiracyReport2010.pdf

[74]ICC International Maritime Bureau (January 2012). Piracy and armed robbery against ships. Report for the period 1 January – 31 December 2011. Retrieved May 14, 2013 from
http://psm.du.edu/media/documents/industry_initiatives/industry_reports/maritime_imb_annual-report-2011.pdf

[75]ICC International Maritime Bureau (January 2013). Piracy and armed robbery against ships. Report for the period 1 January – 31 December 2011. Retrieved May 14, 2013 from
http://www.crimson.eu.com/assets/2012_Annual_IMB_Piracy_Report.pdf

Spain	1			1		1 (owner)			1	
Luxembourg										2
Belgium				1						
Italy			2					2		
United Kingdom				2		1 (owner)				
Greece		3 (owner)		7 (owner)		3 (owner)	1 (owner)	1		
Finland										
Romania										
Non-voluntary										
Austria										
Bulgaria										
Cyprus		1 (owner)								
Czech Republic										
Denmark	2	2 (owner)	3 + 1 (owner)					2		
Estonia										
Hungary										
Ireland										
Latvia										
Lithuania										
Malta		1 (flag)	1	1				1		1
Poland										
Slovakia										
Slovenia						1 (owner)				
Contributing non-EU										
Norway			1			1				

				(owner)		
Ukraine		1 (owner)				
Croatia						
Montenegro						

Appendix B: Number of vessels passing through Gulf of Aden

This table represents the number of merchant vessels passing the Gulf of Aden each year categorized by country. The total number of vessels one country owns provides an indicator for the share of maritime trade that passes the Gulf of Aden per country. The figures on the total number of vessels per country is based on the 2008 CIA World Factbook; for other years, no data has been found. The total number of vessels per nation is the number of vessels that belong to owners residing in that country.

	2008 **(total no. of merchant vessels)***[76]	**2009** **(total no. of merchant vessels)**[77]	**2010** **(total no. of merchant vessels)**[78]	**2011** **(total no. of merchant vessels)**[79]	**2012** **(total no. of merchant vessels)**[80]
Participating states					
Portugal	12 / (109) = 11 %	24 (109) = 22 %	22 (109) = 20 %	14 (109) = 12,8%	20 (109) = 18,3%
Germany	994 / (3768) = 26,4%	689 (3768) = 18,3%	628 (3768) = 16,7%	614 (3768) = 16,3%	517 (3768) = 13,7%
Sweden	91 (135) = 67,4%	39 (135) = 28,9%	35 (135) = 25,9%	32 (135) = 23,7%	33 (135) = 24,4%
Netherlands	256 (744) = 34,4%	283 (744) = 38%	162 (744) = 21,8%	130 (744) 17,5%	180 (744) = 24,2%
France	306 (363) = 84,3%	246 (363) = 67,8%	225 (363) = 62%	229 (363) = 63,1%	206 (363) = 56,7%
Spain	20 (132) = 15,2%	23 (132) = 17,4%	42 (132) = 31,8%	35 (132) = 26,5%	29 (132) = 22%
Luxembourg	13 (49) = 26,5%	17 (49) = 34,7%	30 (49) = 61,2%	18 (49) = 36,7%	8 (49) = 16,3%
Belgium	42 (184) = 22,8%	34 (184) = 18,5%	27 (184) = 14,7%	27 (184) = 14,7%	25 (184) = 13,6%
Italy	389 (753) = 51,7%	342 (753) = 45,4%	315 (753) = 41,8%	302 (753) = 40,1%	292 (753) = 38,8%
United Kingdom	1165 (2072) = 56,2%	1099 (2072) = 53%	1015 (2072) = 49%	929 (2072) = 44,8%	857 (2072) = 41,4%
Greece	699 (860) = 81,3%	454 (860) = 52,8%	486 (860) = 56,5%	458 (860) = 53,3%	497 (860) = 57,8%
Finland	4 (137) = 2,9%	9 (137) = 6,6%	3 (137) = 2,2%	7 (137) = 5,1%	8 (137) = 5,8%
Romania	4 (5) = 80%	4 (5) = 80%	0 (5) = 0%	0 (5) = 0%	2 (5) = 40%
Average / Std. Dev. Of No. Vessels passing Gulf of Aden	307 / 401	251 / 333	230 / 310	215 / 290	205 / 268
Average / Std. Dev.	43,1 / 28,6	37,2 / 21,7	31 / 21,3	27,3 / 19	28,7 / 16,7

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[76] CIA (date unknown). *World Factbook*. Retrieved May 22, 2013 from
https://www.cia.gov/library/publications/the-world-factbook/fields/2108.html
[77] Ibid.
[78] Ibid.
[79] Ibid.
[80] Ibid.

Share of vessels (total no. of vessels / vessels passing Gulf of Aden)					
Non-voluntary					
Austria **	3 (3)	2 (3)	8 (3)	6 (3)	11 (3)
Bulgaria	17 (42) = 40,5%	32 (42) = 76,2%	25 (42) = 60%	14 (42) = 33,3%	10 (42) = 23,8%
Cyprus	556 (838) = 66,3%	363 (838) = 43,3%	324 (838) = 38,7%	236 (838) = 28,2%	222 (838) = 26,5%
Czech Republic	(1)	(1)	(1)	(1)	(1)
Denmark	511 (835) = 61,2%	468 (835) = 56%	522 (835) = 62,5%	561 (835) = 67,2%	500 (835) = 60%
Estonia	(25)	(25)	(25)	(25)	(25)
Hungary					
Ireland	2 (31) = 6,5%	0 (31) = 0%	1 (31) = 3,3%	0 (31) = 0%	1 (31) = 3,3%
Latvia	1 (138) = 0,7%	2 (138) = 1,4%	0 (138) = 0%	1 (138) = 0,7%	0 (138) = 0%
Lithuania	9 (38) = 23,7%	6 (38) = 15,7%	1 (38) = 2,6%	2 (38)5,2%	0 (38) = 0%
Malta	1075 (1650) = 65,2%	1042 (1650) = 63,2%	986 (1650) = 59,8%	882 (1650) = 53,5%	917 (1650) = 55,8%
Poland	2 (9) = 22,2%	4 (9) = 44,4%	2 (9) = 22,2%	0 (9) = 0%	0 (9) = 0%
Slovakia	14 (22) = 63,3%	0 (22) = 0%	0 (22) = 0%	0 (22) = 0%	0 (22) = 0%
Slovenia	0 (24) = 0%	0 (24) = 0%	1 (24) = 4,2%	0 (24) = 0%	0 (24) = 0%
Average / Std. Dev. Of No. Vessels passing Gulf of Aden not including Cyprus, Denmark, Malta***	4,4 / 6,1	4,2 / 9,4	3,5 / 7.5	2,1 / 4,4	2 / 4,2
Contributing non-EU					
Norway	399 (585) = 68,2%	323 (585) = 55,2%	317 (585) = 54,2%	294 (585) 50,2%	318 (585) = 54,4%
Ukraine	14 (134) = 10,5%	31 (134) = 23,1%	23 (134) = 17,2%	4 (134) = 3%	1 (134) = 0,7%
Croatia	40 (110) = 36,6%	21 (110) = 19,1%	10 (110) = 9%	12 (110) = 10,9%	18 (110) = 16,4%

Montenegro					

* By flags of registration.

** No data was available for total number of vessels after 2008. It is likely that the total number of ships of Austria increased after 2008. Austria is not included in averages, therefore.

*** These three countries are extreme outliers in terms of number of ships. They render aggregation on non-participating states unnecessary.

Averages for the percentage of vessels transiting the Gulf of Aden are left out for the non-participating states, as their average numbers of vessels are so insignificant that percentages are irrelevant.

Appendix C: Human Costs

Part I: Incidences of breach of human security categorized per nation

	2008[81]	2009[82]	2010[83]	2011[84]	2012[85]
Portugal					
Germany		25	54	12	
Sweden					
Netherlands					
France		5		2	
Spain		36	24		
Luxembourg				7	
Belgium		10			
Italy				43	
United Kingdom		28	26		
Greece		171	59	25	
Finland					
Romania					
Non-voluntary					
Austria					
Bulgaria					
Cyprus					
Czech Republic					

[81]ICC International Maritime Bureau (January 2009). Piracy and armed robbery against ships. Annual report. 1 January – 31 December 2008. Retrieved May 14, 2013 from http://ddata.over-blog.com/xxxyyy/0/50/29/09/Docs-Textes/Pirates2008RAP-BMI0901.pdf

[82]Data was retrieved from reports from the period 2010-2012.

[83]ICC International Maritime Bureau (January 2011). Piracy and armed robbery against ships. Annual report. 1 January – 31 December 2008. Retrieved May 14, 2013 from http://www.simsl.com/Downloads/Piracy/IMBPiracyReport2010.pdf

[84]ICC International Maritime Bureau (January 2012). Piracy and armed robbery against ships. Report for the period 1 January – 31 December 2011. Retrieved May 14, 2013 from http://psm.du.edu/media/documents/industry_initiatives/industry_reports/maritime_imb_annual-report-2011.pdf

[85]ICC International Maritime Bureau (January 2013). Piracy and armed robbery against ships. Report for the period 1 January – 31 December 2011. Retrieved May 14, 2013 from http://www.crimson.eu.com/assets/2012_Annual_IMB_Piracy_Report.pdf

Denmark				13	
Estonia					
Hungary					
Ireland					
Latvia					
Lithuania					
Malta				23	
Poland					
Slovakia					
Slovenia					
Contributing non-EU					
Norway		15			
Ukraine					
Croatia					
Montenegro					

Part II: Aggregate types of violence

2008[86]

Location	Hostage	Injured	Killed	Missing	Kidnap

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[86]ICC International Maritime Bureau (January 2009). Piracy and armed robbery against ships. Annual report. 1 January – 31 December 2008. Retrieved May 14, 2013 from http://ddata.over-blog.com/xxxyyy/0/50/29/09/Docs-Textes/Pirates2008RAP-BMI0901.pdf

Gulf of Aden	629	2	3	14	
Somalia	186		1		3

2009[87]

Location	Hostage	Injured	Killed	Missing	Kidnap
Gulf of Aden	351	4	3	1	
Somalia	506	6	1		

2010[88]

Location	Hostage	Injured	Killed	Missing	Kidnap
Gulf of Aden	275		7		
Somalia	723	13	1		

2011[89]

Location	Hostage	Injured	Killed	Missing	Kidnap
Gulf of Aden	47		1		
Somalia	402	3	7		10

2012[90]

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[87]Data was retrieved from reports from the period 2010-2012.

[88]ICC International Maritime Bureau (January 2011). Piracy and armed robbery against ships. Annual report. 1 January – 31 December 2008. Retrieved May 14, 2013 from
http://www.simsl.com/Downloads/Piracy/IMBPiracyReport2010.pdf

[89]ICC International Maritime Bureau (January 2012). Piracy and armed robbery against ships. Report for the period 1 January – 31 December 2011. Retrieved May 14, 2013 from
http://psm.du.edu/media/documents/industry_initiatives/industry_reports/maritime_imb_annual-report-2011.pdf

[90]ICC International Maritime Bureau (January 2013). Piracy and armed robbery against ships. Report for the period 1 January – 31 December 2011. Retrieved May 14, 2013 from
http://www.crimson.eu.com/assets/2012_Annual_IMB_Piracy_Report.pdf

Location	Hostage	Injured	Killed	Missing	Kidnap
Gulf of Aden	38				
Somalia	212	1	2		

Appendix D: Costs of Participation in Operation Atalanta

Since no assorted data on former deployment and rotation periods of resources deployed for Operation Atalanta exist, the data in this section is gathered from official EU NAVFOR news statements concerning the deployment and withdrawal of these resources. Usually, a resource is deployed for a period of three to four months, but this is not always the case. Where data on the exact date of withdrawal could be retrieved, this is incorporated into the table.

In case where no exact data is available about the amount of days a vessel or aircraft has been deployed, the mean duration vessels or aircraft have been deployed is used as a base reference. Vessels deployed for mere transitory periods (i.e. vessels filling in during the substitution of two vessels; usually takes one or two weeks) are not taken into account.[91] The mean duration is 98 days, and this concurs with typical involvement of a vessel in Atalanta, which is usually deployed for a period of 3 to 4 months.

Because data on the operating costs of specific aircrafts and naval vessels are scarce, if not wholly unavailable, estimates are used based on daily running costs of similar aircraft and vessel. Most naval vessels deployed in within EU NAVFOR are similar to British naval vessels, of which the British House of Parliament has disclosed information about with regard to their daily running costs.

The operating costs include all costs associated with keeping the resource battle-ready. That is, costs for (day-to-day) maintenance, fuel, personnel and berthing are included, but costs associated with the weapons system are excluded, as this differs substantially between vessels/helicopters. It should be noted that missiles add substantially to the running costs of vessels and helicopters (current projections estimate costs between 1.1 – 1.4 million dollars for each missile).[92] However, it is difficult to judge whether these costs can be attributed to Operation Atalanta. Often, the military will buy missiles in bulk, which means that it is hard to state whether the number of missiles bought bears any relation to current or future operations. Thus, we may therefore regard the costs of missiles as "sunk costs".

Based on cost projections by the British Ministry of Defense (MoD), I differentiate between three types of naval vessels. Daily running costs without fuel and personnel costs are estimated as follows:

Type	Operating costs (EUR)*
Frigate Type 22	61 118 /day
Frigate Type 23	57 544 /day
Destroyer Type 42	44 465 /day
Oil tanker	7000 /day
Merlin Mk1 Helicopter	47 650 /hour
Lynx Helicopter	26100 /hour **

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[91] The mean duration of deployment, based on available information of deployment and withdrawal dates of vessels, is 98 days (N=40; Std. Dev. = 35,7).

[92] These are estimates for the Stormshadow and Tomahawk missile, used aboard both naval vessles and helicopters and in both the Norwegian and British military. See Information Dissemination (March 23, 2011). *The cost of Tomahwak cruise missiles*. Retrieved June 20, 2013 from http://www.informationdissemination.net/2011/03/cost-value-of-tomahawk-cruise-missiles.html and FAS Military Analysis Network (date unknown).*BGM-109 Tomahwak.* Retrieved June 20, 2013 from http://www.fas.org/man/dod-101/sys/smart/bgm-109.htm

| Orion P3 Aircraft | 12 400 /hour [93] |
| Fairchild Merlin IIIA | 1200 / hour [94] |

*Based on British Sterling pound (£). Converted to EUR commensurate currency rate at publication of cost estimates.
** Excludes costs for wear and tear after operations.

In the calculation, I multiply the daily operating costs with the number of days (for vessels) or hours (for aircraft) the resource was deployed. Similarly, I add fuel (at 20 hours/day, as not all vessels are sailing or patrolling the waters round the clock) and personnel costs multiplied by the numbers of days the resource was deployed. This yields an estimation of total costs per resource deployed for each state.

Fuel costs estimates are based on a 2012 Oceans Beyond Piracy report. The report estimates fuel costs for a typical US frigate is 10740 dollars/day (for 24 hours).[95] Although fuel is generally less expensive in the U.S. as it is in Europe, no accurate costs estimates are available for Europe. To average the currency rate between, I convert the fuel costs in dollars based on the EUR-DOLLAR currency rate on December 31, 2010.[96] This yields average daily fuel costs at 6700 EUR (at 20 hours/day).Personnel costs are included based on a calculation of the number of crew members and the average wage costs for the navy. These averages are based on wages and stipends by the Dutch Ministry of Defense.[97] As wages between enlisted men and officers differ (substantially), the typical distribution of officers and enlisted men has been used.[98] If no data is known about the number of personnel operating the vessel, an average of 230 crewmembers is used (commensurate daily running costs of British naval vessels).

Estimates are rounded per 50.000 EU.

Date deployment	Country	Date withdrawal (number of days deployed)	Type of resource (aircraft, vessel, etc)	Estimated costs (EUR) *

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[93] New Zealand Government (date unknown). Aerial Surveillance. Retrieved June 20, 2013 from http://www.dpmc.govt.nz/sites/all/files/publications/annex_iiia_fisheries-aerial_surveillance.pdf. These costs are expected to cover all standard and variable costs and is corrected to current inflation.
[94] To this are added additional service and maintenance costs and personnel costs.
[95] Oceans Beyond Piracy (2013). *The economic cost of Somali piracy 2012*. Retrieved May 20, 2013 from http://oceansbeyondpiracy.org/sites/default/files/ecop2012final_2.pdf
[96] Dolllarkoers (date unknown). *Historie van de USD/EUR dollarkoers in 2010.* Retrieved June 28, 2013 from http://www.dollarkoers.nl/historie/2010/
[97] ACOM (April 1, 2009). *Salarisschalen van militairen van de koninklijke Marine met ingang van maart 2009.* Retrieved June 21, 2013 from http://acom.nl/files/files/Salarisschalen%20Militairen%20KM%2001-03-2009.pdf and Ministerie van Defensie (date unknown). *Arbeidsvoorwaarden*. Retrieved June 21, 2013 from http://werkenbijdefensie.nl/defensie-als-werkgever/arbeidsvoorwaarden.html
[98] Cf. Congressional Budget Office U.S. Congress (April 28, 2010). *No title.* Retrieved June 21, 2013 from http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/114xx/doc11431/04-28-sessionsletter.pdf. These data yield a monthly average wage of 4812,30 EUR for navy personnel.

2008-12-18[99]	Germany	*(98 days)*	Frigate FGS Karlsruhe (F 212). Includes two helicopters SEA LYNX MK 88.	9 900 00
2008-12-14[100]	United Kingdom	2009-3-24 (96 days)[101]	HMS Norththumberland	10 000 000
	Greece[102]	2009-4-7 (98 days)[103]	Frigate PSARA	9 550 000
January 2009[104]	Spain	*(98 days)*	-Frigate ESPS VICTORIA -Supply ship with 200 personnel -Two LAMPS helicopters	27 500 000
	France	*(98 days)*	Frigate Floreal (100 crew; Panther helicopter) Frigate FS NIVOSE (90 crew) FS ALBATROS (patrol boat)	19 000 000
	Germany[105]	*(98 days)*	Frigate FGS	52 200 000

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			Reinland-Pfalz	
			Frigate FGS Emden	
			Frigate FGS MECKLENBURG-VORPOMMERN	
			Supply ship FG BERLIN	
			P-3 ORION aircraft[106]	
2009-03-07[107]	Italy	*(98 days)*	Light Combattant ship ITS COMMANDANTE BETTICA; 70 crew.	5 000 000
	Italy	(98 days)	Frigate ITS "Maestrale" CLASS	9 550 000
August 2009[108]	Norway	*(98 days)*	Frigate NANSEN-Class	9 900 000
	France[109]	*(98 days)*	Frigate NIVOSE MPRA BREGUET ATLANTIC MPRA FALCON 50[110]	11 300 000
2009-4-7[111]	Spain	2009-8-24 (139 days)[112]	Frigate EPS NUMANCIA (includes 2 SH-60	33 350 000

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[107] EU NAVFOR (March 9, 2009). Italian corvette to join EU Naval Force Atalanta. Retrieved May 24, 2013 from http://eunavfor.eu/italian-corvette-to-join-eu-naval-force-atalanta/

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			Seahawk helicopters)[113] ESPS MARGUES DE LA ENSENADA (tanker)[114]	
	Spain	(over 2.000 flight hours)[115]	MPRA Detachment (P-3 ORION and C-325 VIGMA aircrafts)	24 800 000
2009-5-3[116]	Greece	*(98 days)*	Frigate HS NIKIFOROS FOKAS	9 550 000
2009-5-15 [117]	Sweden	2009-9-21 (117 days)[118]	2 corvettes + 1 supply unit (HMS Stockholm, HMS Malmö, HMS Trossö)	34 200 000
2009-6-8[119]	France	*(98 days)*	Frigate ACONIT	9 550 000
2009-8-1[120]	Norway	2010-1-13 (229 days)[121]	HNoMS FRIDTJOF NANSEN	22 300 000
2009-8-2[122]	Netherlands	2009-12-18 (138	HNLMS EVERTSEN	13 450 000

[113] EU NAVFOR (April 9, 2013). Spanish warship NUMANCIA stats her second deployment with the EU Naval Force. Retrieved May 25, 2013 from http://eunavfor.eu/spanish-warship-esps-numancia-starts-her-second-deployment-with-the-eu-naval-force/

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[121] EU NAVFOR (January 13, 2010). EU NAVFOR Norwegian Warship HNOMS FRIDTJOF NANSEN heads home. Retrieved May 26, 2013 from http://eunavfor.eu/eu-navfor-norwegian-warship-hnoms-fridtjof-nansen-heads-home/

		days)[123]		
2009-9-29	Luxembourg	N.A. (over 4000 flight hours)[124]	Two Fairchild SW 3A Merlin aircraft	4 800 000
	Germany[125]	*(98 days)*	Warship BRANDENBURG	9 550 000
	Belgium [126]	*(98 days)*	BNS LOUISE MARIE	9 550 000
	Spain[127]	*(98 days)*	FRIGATE F-86 CANARIAS (202 crew; 2 SH-60B helicopters)	9 450 000
2009-12-15[128]	Italy	2010-4-14 (140 days)[129]	Frigate ITS ETNA	14 150 000
	Spain[130]	*(98 days)*	ESPS NAVARRA	9 550 000
	France	*(98 days)*	FS SURCOUF	9 550 000
2010-2-17[131]	France	2010-6-7 (110 days)	FS NIVOSE	10 700 000
	Netherlands[132]	*(98 days)*	HNLMS TROMP	9 550 000

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	Sweden[133]		MPA	N/A
2010-4-14[134]	Sweden	2010-8-14 (122 days)[135]	HSwMSCarlskrona	12 300 000
2010-4-16[136]	Malta	2010-7-16 (91 days)	Vessel Protection Detachment (12 crew members)	750 000
	Spain[137]	*(98 days)*	ESPS VICTORIA (includes helicopter)	10 800 000
2010-4-21[138]	Portugal	2010-8-23 (124 days)[139]	P3 PAPA AIRCRAFT	N/A (flight hours unknown)
	France[140]	*(98 days)*	Warship FS TONNERE	7 800 000
	France[141]	*(98 days)*	Warship LaFayette	7 800 000
2010-5-10	France[142]	2010-7-26 (77 days)[143]	Warship FS Guepratte (165	6 950 000

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		crew)		
	Greece[144]	2010-8-6 (114 days)[145]	Warship ELLI	9 300 000
2010-4-15	Netherlands[146]	2010-7-1 (77 days)[147]	Warship Johan de Wit	6 250 000
2010-3-29[148]	Spain	2010-5-29 (61 days)	Ocean Patrol Vessel (OPV)	300 000
2010-7-23[149]	France	*(98 days)*	Air Defense Destroyer Jean Bart	7 900 000
2010-8-2[150]	Italy	2010-11-30 (125 days)[151]	Frigate LIBECCIO	12 600 000
2010-8-14[152]	France	2010-12-14 (122 days)[153]	Anti-submarine destroyer de Grasse (330 crew)	17 400 000
2010-8-6[154]	France	2010-8-12 (12	FASM DUPLEIX	1 200 000

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			days)[155]	
	Germany[156]	*(98 days)*	FGS Schleswig-Holstein (includes helicopter)	9 900 000
2010-8-22[157]	Germany	2010-11-30 (102 days)[158]	Oil tanker FGS Röhn	700 000
2010-8-8	Spain	2010-12-8 (122 days)[159]	SPSS INFANTA CHRISTINA (148 crew)	10 700 000
	Spain	*(98 days)*	SPS CANARIAS[160]	9 550 000
2010-8-31[161]	Spain	*(98 days)*	SPS GALICIA (3 helicopters, 2 amphibious landing craft)	9 550 000
	Germany	*(98 days)*	FGS BRANDENBURG (includes helicopter)	9 550 000
2010-9-1[162]	Greece	2010-12-15 (105 days)[163]	Frigate HS ADRIAS (192 crew)	10 350 000

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2010-9-6[164]	France	2010-12-20 (105 days)[165]	Frigate FS FLOREAL	10 250 000
2010-9-10[166]	Netherlands	*(98 days)*	Supply Ship HNLMS AMSTERDAM (crew 175)	8 800 000
2010-9-13	Germany[167]	2010-11-24 (74 days)[168]	Frigate FS KöLN (216 crew)	10 250 000
2010-10-18	Belgium	2011-01-20 (91 days)[169]	BNS Louise-Marie	8 650 000
2010-11-11[170]	France	*(98 days)*	E3-F SDCA Aircraft (60 crew)	N/A (flight hours unknown)
	Germany	2011-3-21 (114 days)[171]	Frigate FGS HAMBURG	11 100 000
2010-12-3[172]	Italy	2011-2-28 (70 days) [173]	Frigate ITS ZEFFIRO (225 crew; 2 helicopters)	7 100 000

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2010-12-10	Spain	2011-01-21 (42 days)[174]	Support ship PATINO	3 450 000
2010-12-13[175]	France	2011-01-20 (38 days)[176]	FS JACOUBET (89 crew)	2 850 000
2010-12-30[177]	Spain	*(98 days)*	F-86 CANARIAS (202 crew; 2 SH-60B helicopters)	9 900 000
2010-12-22[178]	France	*(98 days)*	FS Destroyer MONTCALME (255 crew; 1 helicopter)	9 900 000
2011-01-4	France	2011-02-7 (34 days)[179]	Frigate ACONIT	3 450 000
2011-2-1[180]	Finland	*(98 days)*	Flagship POHJANMAA (90 crew)	6 500 000
2011-2-1[181]	United Kingdom	2011-4-9 (75 days)[182]	Frigate HMS RICHMOND (209 crew)	3 800 000
2011-2-6[183]	France	*(98 days)*	Frigate	9 300 000

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			GUEPRATTE (165 crew)	
2011-2-26[184]	Spain	*(98 days)*	SPS INFANTA ELENA (96 crew)	6 600 000
2011-2-28[185]	Italy	*(98 days)*	Frigate ESPERO (229 crew; two AB-212 helicopters)	9 900 000
2011-3-4[186]	France	*(98 days)*	Frigate NIVOSE (102 crew; Panther helicopter)	7 150 000
2011-3-14[187]	Germany	2011-8-5 (144 days)[188]	FGS NIEDERSACHSEN (215 crew; two Sea Lynx MK-88 helicopters)	20 450 000
	France	2011-7-28 (60 days)[189]	Frigate FS COURBET	5 900 000
	Portugal[190]	*(98 days)*	Frigate Corte-Real (196 crew; 1 helicopter)	9 300 000
2011-5-9	Greece	2011-8-5 (88 days)	Frigate HS NIKOFOROS FOKAS	8 600 000

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2011-5-7[191]	Germany	*(98 days)*	Frigate FGS BREMEN (220 crew)	10 150 000
2011-8-2[192]	Germany	*(98 days)*	Frigate FS BAYERN (243 crew; two Lynx MK-88 helicopters)	10 550 000
2011-8-9[193]	France	2011-11-10 (94 days)[194]	Frigate FS SURCOUF (165 crew; Panther helicopter)	8 500 000
2011-8-29[195]	Spain	2011-11-20 (84 days)[196]	ESPS INFANTA CRISTINA (148 crew)	7 400 000
	Spain	2011-9-5 (131 days)[197]	Frigate SPS SANTA MARIA	12 750 000
2011-9-5[198]	Netherlands	2011-11-28 (84 days)[199]	HNLMS ZUIDERKRUIS (crew 190; Lynx helicopter)	8 000 000
2011-9-12[200]	Germany	2011-11-24 (74	Frigate FGS KöLN	10 500 000

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		days) [201]	(219 crew)	
2011-9-28[202]	Germany		P-3C Maritime Aircraft	N/A (flight hours unknown)
2011-11-9[203]	France	*(98 days)*	FS FLOREAL (crew 100; Panther helicopter)	7 100 000
2011-12-3[204]	Germany	(61 days)	FGS LUBECK (219 crew; two Sea Lynx MK-88 helicopters)	8 700 000
2012-2-4[205]	Greece	*(98 days)*	HS HYDRA (189 crew; SH-70 helicopter)	9 250 000
2012-2-11[206]	France	*(98 days)*	Frigate FS ACONIT	9 550 000
2012-2-17	Germany	2012-5-17 (90 days)[207]	FGS BERLIN (2 Sea King MK 41 helicopters)	9 100 000
2012-2-27[208]	Spain	*(98 days)*	Corvette INFANTA ELENA	8 000 000
2012-3-15[209]	France	2012-4-4 (20	Falcon F-50	N/A (flight hours

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		days)[210]	Maritime Surveillance Aircraft	unknown)
2012-3-23[211]	France	*(98 days)*	Frigate FS GEORGES LEYDES (two Sea Lynx helicopters) Amphibious Assault Ship FS DIXMUDES (up to 16 helicopters)	9 550 000
2012-3-26[212]	Portugal	*(98 days)*	Frigate CORTE REAL (196 crew; two Sea Lynx helicopters)	8 500 000
2012-3-26[213]	France	*(98 days)*	FS MARNE (215 crew)	9 100 000
2012-4-4[214]	France		Maritime Reconnaissance Aircraft *Atlantique2*	N/A (flight hours unknown)
2012-4-4[215]	Netherlands	*(98 days)*	HNLMS AMSTEL	9 550 000
2012-4-4[216]	Spain	*(98 days)*	ESPS REINA SOFIA	9 550 000

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2012-4-12[217]	Italy	*(98 days)*	ITS SCIRROCO (two AB212 helicopters)	9 550 000
2012-4-25[218]	France	*(98 days)*	FS GUEPRATTE	9 550 000
2012-5-7[219]	Germany	2012-8-8 (93 days)[220]	FGS BREMEN	9 050 000
2012-8-8[221]	Germany	*(98 days)*	FGS SACHSEN	9 550 000
2012-9-1[222]	Spain	*(98 days)*	Patrol vessel ESPS RELAMPAGO	14 700 000
2012-10-1[223]	Romania	2012-12-7 (67 days)[224]	Frigate ROS Regele Ferdinand (236 crew; Puma helicopter)	7 100 000
2012-10-19[225]	France	*(98 days)*	Frigate FS FLOREAL	9 550 000

* Estimates are rounded per 50.000 EU.

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Appendix E: Cost-benefit analysis

The following tables provide an overview of the number of ships attacked, sustained economic and human costs (conceived as potential benefits if Operation Atalanta is successful in eliminating Somali piracy) and projected costsfor contributing military resources to Atalanta per state.

Portugal

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008	1 / 12		
2009			

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2010			
2011			9 300 000
2012			8 500 000
TOTAL	**1 / 12**		**17 800 000**

Germany

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008	3 / 994		9 900 000
2009	2 / 689	25	61 750 000
2010	6 / 628	54	31 950 000
2011	2 / 614	12	60 350 000
2012			27 700 000
TOTAL	**13 / 2925**	91	**191 650 000**

Sweden

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			34 200 000
2010			12 300 000
2011			
2012			
TOTAL			**46 500 000**

Netherlands

Year	Number of	Human costs	Estimated costs of

	attacks / No of ships		participation (sum total)
2008	1 / 256		
2009	1 / 283		13 450 000
2010			24 600 000
2011			8 000 000
2012			9 550 000
TOTAL	**2 / 539**		**55 600 000**

France

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008	2 / 306		19 000 000
2009	1 / 246	5	39 850 000
2010			100 200 000
2011	1 / 229	2	41 400 000
2012			47 300 000
TOTAL	**4 / 789**	**7**	**247 750 000**

Spain

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008	1 / 20		
2009	1 / 23	36	95 100 000
2010	1/ 42	24	63 800 000

2011			26 750 000
2012	1 / 29		32 250 000
TOTAL	**4 / 114**	**60**	**217 900 000**

Luxembourg

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			4 800 000
2010			
2011		7	
2012	2 / 8		
TOTAL	**2 / 8**	**7**	**4 800 000**

Belgium

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009	1 / 34	10	9 550 000
2010			8 650 000
2011			
2012			
TOTAL	**1 / 34**	**10**	**26 850 000**

Italy

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009	2 / 342		38 700 000
2010			19 700 000
2011	2 / 302	43	9 900 000
2012			9 550 000
TOTAL	**4 / 644**	**43**	**77 850 000**

United Kingdom

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			10 000 000
2009	2 / 1099	28	
2010	1 / 1015	26	
2011			3 800 000
2012			
TOTAL	**3 / 2144**	**54**	**13 800 000**

Greece

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008	3 / 699		

2009	7 / 454	171	19 100 000
2010	3 / 486	59	19 650 000
2011	2 / 497	25	8 600 000
2012			9 250 000
TOTAL	**15 / 2139**	**255**	**56 600 000**

Finland

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			6 500 000
2012			
TOTAL			**6 500 000**

Romania

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			
2012			7 100 000
TOTAL			**7 100 000**

Malta

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008	1 / 1075		
2009	2 / 1042		
2010			750 000
2011	1 / 882	23	
2012	1 / 917		
TOTAL	**5 / 3915**	**23**	**750 000**

Non-contributing countries

Austria

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			
2012			
TOTAL			

Bulgaria

Year	Number of attacks / No of	Human costs	Estimated costs of participation (sum

Year	ships		total)
2008			
2009			
2010			
2011			
2012			
TOTAL			

Cyprus

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009	1		
2010			
2011			
2012			
TOTAL	1		

Czech Republic

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			
2012			
TOTAL			

Denmark

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008	4 / 511		
2009	4 / 468		
2010			
2011	2 / 561	13	
2012			
TOTAL	**10 / 1540**	**13**	

Estonia

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			
2012			
TOTAL			

Hungary

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			
2012			
TOTAL			

Ireland

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			
2012			
TOTAL			

Latvia

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			
2012			

TOTAL			

Lithuania

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			
2012			
TOTAL			

Poland

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010			
2011			
2012			
TOTAL			

Slovakia

Year	Number of attacks / No of	Human costs	Estimated costs of participation (sum

	ships		total)
2008			
2009			
2010			
2011			
2012			
TOTAL			

Slovenia

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009			
2010	1		
2011			
2012			
TOTAL	**1**		

Contributing Non-EU countries

Norway

Year	Number of attacks / No of ships	Human costs	Estimated costs of participation (sum total)
2008			
2009	1		32 200 000
2010		15	

2011			
2012			
TOTAL	**1**		**32 200 000**

No data was found on what exact resources Ukraine, Croatia and Montenegro provided.