

Seaborne trade effects of international terrorism and effectiveness of the anti-terrorist policy

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Abstract

The paper investigates effects of international terrorism on seaborne trade and effectiveness of the different anti-terrorist policies. First, in order to evaluate the level and severity in which terrorism and threat of terrorism can disrupt international seaborne trade flows, it gives some estimates about the effects on trade flows and transportation costs. They prove the necessity of implementation of new effective and global anti-terrorist policy. After that two possible kinds of policies are analysed – supply-side policy which raises the cost of terrorism, and demand-side policy which is based on reducing its expected benefits. Analysis reveals that the second type of anti-terrorist policy is much more effective. It discourages terrorism by further political democratization, support for market competition and economic decentralization, and international coordination and cooperation in reducing the risk of terrorism.

Keywords: economics of terrorism, cost-benefit analysis, anti-terrorist policy

1 Introduction

Terrorism, or the forceful pursuit of political goals by individuals, not affiliated with any formal national institution, is not a new phenomenon and has always served those, who believe violence against innocent civilians presents the most expedient path towards power. In many modern societies terrorism has set deep roots and its manifestations in Spain, Northern Ireland, Israel, India and many other states have been in the centre of public interest for decades. Nevertheless until several years ago no one in the world has considered the possibility of waging a worldwide war on terrorism. Quite the contrary – terrorism was viewed as an isolated problem, which does not greatly harm the international community

and therefore should be dealt with at the local level. In consonance with this the economic theory has not paid great attention to the problem. The pioneering researches of Garry Becker concerning crime [1] and William Landes regarding high-jacking of airplanes in the 60s and the 70s [2] are among the small number of examples of the opposite.

September 11th 2001 changed fundamentally the way we treat terrorism and placed it as one of the top issues on the social agenda. The terrorist threat to the marine sector was also quickly spotted and today an increasing number of governments, international institutions, business organizations and authors take account of both how terrorism in other spheres affects international sea trade and the increasing interest of terrorists towards the marine sector as an ultimate goal as well as an important part of the logistics chain of their attacks. Many arguments support this observation.

Shipping already became a subject of attacks in the 80s when the two cruise ships *Achille Lauro* and *City of Poros* were attacked in the Mediterranean. Over the last five years there have been other symptomatic examples that demonstrated terrorists' maritime attack capability and the direct threat that terrorism poses to seagoing vessels - the attacks on the USS Cole in 2000 and the French oil tanker Limburg in 2002. Today the threat to the marine industry is so realistic that England's First Sea Lord and Chief of the Naval Staff, Admiral Sir Alan West, has officially warned that Al Qaeda and other terrorist groups are plotting to launch further attacks on merchant shipping. [3]

There is also a risk that terrorists can use seagoing vessels as weapons in their attacks. To illustrate this danger, in 1998 an Al-Qaeda cargo vessel carried explosives to Mombasa in Kenya that later were used in the bomb attacks on the US embassies in Kenya and Tanzania that killed over 220 people and injured more than 5,000. The terrorists' potential for such operations is sufficient and U.S. intelligence has reported that Al Qaeda owns and operates at least 15 cargo freighters worldwide. [4] These vessels, carrying a flammable cargo, such as liquid natural gas, could be exploded or sunk in a port, damaging the facility and blocking commercial traffic. [5] For example, the destruction that can be caused by such floating bombs is severe, as the detonation of a tanker carrying 600 tonnes of liquefied petroleum gas would cause a fireball of 1,200 metres in diameter destroying almost everything within this range. Beyond this range, a large number of fatalities and casualties would occur. [6]

The use of marine transport as a conduit for weapons of mass destruction would have even more dangerous consequences. Examining this danger the consulting firm Booz Allen Hamilton ran a strategic simulation in which "dirty bombs" - devices that use conventional explosives to disperse radioactive material - were discovered in cargo containers at three U.S. ports. The cost to the economy from the resulting disruption of trade was estimated \$58 billion. [7] Of course, in the worst scenario these ships could be used for importing a weapon of mass

destruction into the country. Even a relatively small nuclear weapon detonated in a major seaport would kill between 500,000 and 1 million people, directly destroy up to \$500 billion worth of property, cause losses due to trade disruption of \$100 to \$200 billion, and impose further indirect costs of up to \$1.2 trillion. [8]

The possibility for using the marine industry as a back door through border and immigration controls should also not be overlooked. Terrorists can enter as illegal passengers or crew members. There are around 1.2 million officers and crewmen manning the world's merchant fleets, ships can be abducted, crew certificates falsified, and control of professional access cannot be guaranteed at reasonable costs. Another channel for infiltrating terrorists is through hiding them inside cargo containers and shipping them. A real attempt for such a channel was discovered in October, 2001 when Italian authorities found a suspected Al Qaeda terrorist inside a shipping container bound for Canada. The container originated in Port Said, Egypt, and inside the container were airport maps and a phony airplane mechanic's certificate. Much more recently, two suicide bombers entered the port of Ashdod, Israel, by hiding inside a cargo container. They ended up killing dozens of people. [9]

The conclusion from all these facts is that today, terrorism poses a real threat to the global marine sector and takes advantage of the capabilities that shipping offers for achieving the terrorists' goals. The perils that follow make it imperative for us to look at this problem seriously from a scientific point of view. This is the main goal of the present paper. In it the point of view would be that of the economic approach through which we will first analyze the genesis of terrorism, the behavior of terrorists and why they would use shipping for fulfilling their goals, and second we will assess the efficacy of the alternative mechanisms for neutralizing terrorism. Doing this we will demonstrate the capabilities of the economic approach in the fight against terrorism. With a similar approach we will be seeking two more results: to increase the attention of the economic community to this problem, and to stimulate decision makers to take into account economic arguments.

2 The terrorist threat from the economic point of view

The fundamental characteristic of the economic approach is the assumption of rational behavior and the search for effective alternatives of people's actions. This distinctive point stays also in the basis of the economic approach towards terrorism. It means that economics considers the latter not as a pathological deviation, but as behavior of rational individuals, who have no better means for achieving their political goals.

The rationality assumption allows us to consider terrorism as a specific form for participation in the political process and to find in terrorist attacks both clearly defined political goals – redistribution of political and economic power, and

effective methods for their achievement – imposing additional economical and political costs on those who are in power under the condition that they follow the policy that does not correspond with the goals of the terrorists. Although their actions take innocent victims, these victims are just an instrument for achieving the political goals and cannot be considered a direct measurement of the created effect. [10] Quite the contrary, in most cases terrorists are not concerned with the number of victims and the size of destruction, but are more interested in the political consequences on the state policy. The rationality of terrorists is confirmed not only by their organized and well aimed actions but also by the way in which they react to the counteractions to terrorism. Thus for example the placement of metal detectors at airports in 1973 redirected the terrorist activities from high-jacking to kidnapping people; the tightened security around politicians leads to an increase in attacks against other famous representatives of the attacked nation; to the increased security measures on airports and the national boundaries after September 11th terrorism replied with attacks against underground and railway transport, maritime industry and seaports.

The behavioral assumption of rationality allows for the explanation of terrorists' decisions on the number and size of terrorist acts as dependent on marginal benefits and costs of terrorism.

Marginal benefits from terrorism are a function of the degree to which terrorists are able to achieve their goals. They depend on a number of factors: (1) the media and public interest; (2) the extent to which terrorist attacks can increase the number of supporters of terrorists' causes and destabilize the political system; and (3) the level of negative economic consequences following from the direct material and human losses, formation of negative economic expectations, decrease in the trade flows, losses on stock exchanges, limitations of immigration and educational exchange, diminishing tourism and investments. Although the potential of attacks on maritime trade to cause political instability is lower in comparison to attacks on land, this is not the same if terrorists decide to attack large and important national and international seaports. That is why at a recent conference in London, maritime security experts predicted a "spectacular" attack of this sort sometime in the near future. [11]

In order to determine the level of terrorism we should also consider the terrorists' costs for human and material resources, information and training of participants. The first determinant of costs and therefore of terrorists' decisions whether to attack or not, is the amount of resources available and the difficulties associated with conducting the attacks. In this connection in comparison to attacks on most land-based facilities maritime targets are difficult, requiring a very sophisticated planning, training, and coordination. This is another reason why maritime terrorism is still rather rare, and why terrorists are less likely to attack more secure major ports. At the same time it is inevitable that all current measures that emphasise on land security will make attacks on maritime transport and ports cost effective and more attractive in the future.

This analysis can be furthered in order to define the optimal ways for limiting terrorism. There are two alternatives here – to decrease the number and intensity of terrorist attacks by increasing costs, or by decreasing the benefits from terror. Costs can be increased through negative or positive stimuli.

Among negative stimulus there are many active measures, limiting the threat against all potential goals through capturing the leaders and destroying the infrastructure, logistics chains, training centers and other material resources of terrorists. Recent examples of such measures are the economic sanctions and military operations against the Taliban regime in Afghanistan and Saddam Hussein in Iraq. Another kind of negative stimulus follows from tightening up global security measures and investments in infrastructure that prevent terrorist acts by making them more difficult to undertake. Examples of this are installation of metal detectors on airports, increasing the level of security at international embassies, tightening visa controls and security in public buildings, and increasing punishment for captured terrorists. In the area of international maritime transportation, examples of reactions with the same goals are the measures of the International Maritime Organization (IMO) set out in a new chapter XI-2 of the amendments to the Convention on the Safety of Life at Sea 1974 (SOLAS) and a new International Ship and Port Facility Security Code (ISPS Code). Among the national efforts complementing these international measures are the US Container Security Initiative (CSI) and Radiation Detection Initiative (RDI), as well as Regulation (EC) No 725/2004 of the EU that extends the scope of the IMO requirements to domestic ships and associated port facilities.

Positive stimuli have the goal to increase the alternative cost for participation in terrorist operations by creating incentives for giving up terrorist activities. [12] Some examples for such positive stimuli come from the Republic of South Africa, Spain, Northern Ireland, Israel, India and recently Iraq. They include payments for voluntarily returned weapons, amnesty for previous terrorist actions, witness defense programs, including the political wings of terrorist organizations in the socio-political life of the country, granting limited autonomy to certain territories and allowing the former terrorist organizations to govern them. Such measures and policies are able to limit terrorism because they deprive terrorist organizations of valuable human resources, decrease their level of internal organization and destroy their social capital as well as the trust among their members and supporters.

Although all these supply side measures for limiting terrorism are wide spread, their efficiency is low. One reason is the weak reaction of marginal costs. First, this is due to the lack of methods for influencing the intrinsically motivated terrorists, who do not react to external stimuli, created by punishments and rewards. In their cases the attempts to influence them are absolutely inefficient or can even create negative effects – persecuting terrorism can further strengthen

the motivation of terrorists, to turn them into martyrs and to be interpreted as a signal that terrorism is considered as a serious threat by the enemy and that the sacrifices it requires are worth it. [13]

Second, the reaction of marginal costs is weak because of the terrorists' reaction to measures for obstructing their acts. When certain actions are undertaken for increasing security in one direction, terrorist attacks there decrease, but at the same time attacks in other directions increase; non-efficient forms and technologies of attack are interchanged with others; attacks are postponed in time; the number of attacks decrease but their cruelty increases; attacks are aimed against targets and countries that are not as well-protected. [14] In the specific conditions of maritime transport, for example, the efficiency of the ISPS Code measures that cover ships of 500 tons or more and port facilities that serve large international-bound vessels can easily be neutralized by terrorist attacks on smaller vessels. Other examples are the US CSI and RDI. Their specific focus on the security of major transshipment ports leaves significant space for terrorist attacks. In her article "Ships and Terrorists – Thinking Beyond Port Security" Tamara Renee Shie gives three arguments for that: First, the emphasis on upgrading the security of major ports neglects the fact that these represent only a single link in the transportation chain, in which other branches cannot be secured within reasonable expenses. Second, the CSI conducts security checks only on *U.S.- bound* containers. Therefore even if a tampered container arrives at a major port, if it is destined for a port other than the U.S., it is more likely to escape notice. Third, as major ports increase security, terrorists will look for other maritime targets or other means to target those ports. [15]

Even if the measures for increasing the costs of terrorists were efficient, there is another reason that makes this policy inefficient in the long run: supply-side measures influence not only marginal costs but also marginal benefits from terrorism. When one country spends billions for "war on terror" this not only harms the terrorists but can also give them additional benefits that exceed their losses. Thus reaction against terrorism increases the benefits from it, makes terrorism even more attractive and returns as a boomerang to those who have initiated it. The reasons for such a development are several.

First, limiting terrorism through a policy of deterrence has a negative effect on the economy. On the one hand it centralizes the economic relations, concentrates economic power in the hands of a small number of economic actors and decreases the competitive character of economies. The latter makes the economic basis of a society more vulnerable to terrorist attacks. It can be easily destabilized by terrorists and thus, the attacks are able to achieve their goals in an easier manner. [16]

On the other hand, if supply-side measures are to be efficient they have to be exceptionally expensive and would cause a considerable burden on the society. For example in the case of maritime business the global ocean-liner shipping

industry owns approximately \$155 billion in vessels, containers, marine terminals and other direct operating assets. [17] There are hired 1.2 million people employed and only in the US almost 16 million people work in port-related jobs, producing \$210 billion in federal, state and local taxes annually. [18] Each year 15 million containers make over 230 million journeys through the world's ports. They account for about 90% of the world's traded cargo by value and the economic effect of the latter is significant. As the Economist points out "all that would change if as a reaction of the increasing terrorist threat containers were screened, as airline passengers are. At the moment (2002), inspectors examine only 2% of containers, and often only after the containers have already travelled hundreds of miles from a port to a big city like Chicago or Detroit. The potential damage that routine screening might cause was clear from the two-day wait at the American-Canadian border after September 11th: it nearly caused chaos at Detroit's car factories, which rely on flows of parts from Canada. The burden and disruption of extra security would weigh heavily on a shipping industry that is already suffering from the economic slowdown." [19] It is not a coincidence that among the main obstacles to the previously mentioned programmes CSI and RDI are their expenses and the danger for disruption of operations and trade. That is why the predominant evaluations are that they are a useful start in addressing cargo security, but it is simply not feasible to scan every single container that goes through a port, as this would have grave ramifications on the efficiency of the global trading system. [15]

Second, when additional measures are undertaken on the supply side, they cause media interest and create more terrorists than they deter. One of the reasons is that the deterrence policies are an asymmetric answer, which limits the democratic rights not only of terrorists but also of the greater part of society. This increases frustration and spreads it among broader social groups, changes their preferences and beliefs, radicalizes the atmosphere, proves the basis for extremist behavior and attracts more supporters, financial, material and human resources for the terrorists' cause. [20] Another reason is that a strong reaction against terrorism weakens the political system of democratic societies and leads to political centralization, under the conditions of which terrorist attacks can more easily destabilize the system. The measures for limiting terrorism through encouraging giving up terrorist actions lead in the same direction – by offering a free exit from terrorist activities they reduce the barriers for entering it and thus increase the numbers of individuals willing to undertake it.

All these problems lead to the conclusion that supply-side measures are an inefficient reaction against terrorism. To a large degree this gives a reason to agree with David Lake's opinion that, in fact, these measures work in favor of terrorists and are a part of their provocative strategy. [21] The marginal groups with high political ambitions and little influence in society can realize their goals only if they force their opponents to behave in an extremist manner. When terrorists attack their objective is not to cause immediate material and human losses, as they cannot destabilize the societies under attack and thus achieve their

political ambitions. The reaction of these societies can lead to the achievement of these ambitions, as September 11 proved. The terrorist attacks on the Twin Towers caused an unproportionally strong and massive emotional reaction. It took enormous social resources – much more than the terrorists from Al Qaeda could destroy, many innocent people were killed wounded or humiliated, historical and religious monuments were destroyed. Although the actions against Afghanistan and Iraq led to the capturing of many terrorists, today it is absolutely clear that supporters of terror and terrorism as a method are more numerous and stronger and the world has become a less secure place than before.

All this dictated that influencing the marginal costs of terrorism should be moderate and should not be used as a main method of fighting against terror. The economic reasoning then offers only one alternative – to decrease the marginal benefits from terrorism. Taking under consideration the already mentioned four factors that determine the size of marginal benefits from terrorism – influence upon the media, the economy, the political stability and the number of supporters we can point out measures that work in that direction. They are political, economic, media and propaganda.

The political reaction includes as a first step political decentralization and forming a network of multiple decision-making centers. [16] Unlike the hierarchic structure, the network structure cannot be destabilized easily and if one of its elements is attacked, the rest easily take its functions. A number of political principles allow applying this – separation of powers, political pluralism and forming a multiple-level governance with a high degree of autonomy. Another political reaction to terrorism is democratization. On the one hand it offers non-violent methods of representation and defense of individual political positions. On the other hand it increases political activity of the population and gives an impetus for political competition. Under conditions of democracy there is no need to attract public attention through inhumane acts of violence and there is no need for marginal groups to turn to terrorism, as a form for expressing their political positions and gaining more support. Quite the opposite, in the democratic conditions those who resort to terror have a lot more to lose and the extremist strategy is inefficient.

Economic measures for limiting the benefits from terrorism are also related to decentralization. When a business is characterized by a strong level of concentration the attack against it will paralyze the entire society, because its functions can hardly be taken up by other economic subjects. If the economy has a highly competitive structure, taking out a particular economic player will not be a problem, because competitors will quickly substitute for this particular player. The economic effects of the September 11 attack confirmed the relationship between the level of competition and the resilience against terrorist actions. Despite the enormous material and human losses, the attacks against the WTC had only temporary influence and the aftereffects were quickly neutralized. The conclusion is that developing competition and market mechanisms are one

of the strongest means of fighting against terrorism. It makes its successes only temporary and deprives it of strategic advantages in the costs-benefits ratio.

More measures that limit the benefits derived from terrorism and thus decrease its level can be introduced into this analysis. In order to prevent from turning the media into a propagandist of terrorists' ideas, the government should have an active media policy. In the world of Internet and many information sources the attempts for control over the media and information are absolutely inefficient and can have a negative result. In this area, democracy and informational pluralism have no alternative and the information war on terrorism demands that governments are present and dominate with the persuasiveness of their position.

Last but not least, an important way of limiting the benefits of terrorism is not to allow the deterrence policy to use exaggerated force and thus to create more terrorism. Terrorism is a provocative strategy and wins, not through causing direct damage with its strikes, but with the costs of the reaction caused by it in the attacked societies. Therefore this reaction should be moderate and controlled not by emotions and desire for revenge but by sound judgment and strategic vision of the future. Of course, it is hard to respond in a rational manner to terrorist acts, which in their cruelty go beyond the scope of the human mind, but this is where the great challenge of the war on terror lies. The way to achieve this is through forming broad coalitions, in which participants are necessary, not for their resources or with formally approving declarations, but for the sound reason of nations not affected emotionally. Thus, the allies can signal through their willingness to participate or not in the coalition when power used to combat terrorism goes out of control and actually starts serving the purposes of terror.

As a conclusion of this paper we have to note that all its ideas should be taken cautiously and after thorough national and international discussions. We did not have as a goal to answer and even less to solve all the questions and problems, posed by terrorism on modern societies and in particular on the maritime sector. If we were able, though, to initiate a discussion on these topics we will be very glad. The questions raised require quick and adequate answers. In answering them the economic approach has numerous advantages and our civil and professional duty is to offer it to the decision makers.

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