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Terrorism as Economic Warfare: America's Risky Business

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Introduction

Terrorists and terrorism has been diverse, though consistently violent, historical footnote since the earliest days of civilization. It is a complex phenomenon that has been investigated from a variety of perspectives. As a complex phenomenon there have been numerous attempts to identify terrorism based upon the kinds of goals or outcomes pursued, the types of acts manifested and the motivations for these acts, and the types of people who engage in terrorist behaviors and their social profiles (Bates, 2011). However, in all instances of terrorism, a structural environment characterized by a significant imbalance of power between different groups must exist. Black (2004) noted that terrorism develops when a group with inferior power mobilizes against a superior power group in a non-normative, violent manner. In addition, these groups have a strong ideological component: a set of beliefs, values and norms that justify the existence of the group and can be used to manipulate and influence the behavior of its members (Rapoport, 1988).

Engaging in terrorism has been suggested as a rational choice response to a government or dominant organization by its less powerful opponents. Most rational choice models look at this calculus of conflict in terms of personal, psychological, and political costs and benefits (Crenshaw, 1998). Because of the immediacy of violence, or at least its threat, terrorism has been studied largely as a tactical tool. However, in today's threat environment, terrorism has increasingly become a strategic instrument, and a form of economic warfare and a vital component in risk assessment.

Terrorists chose their targets for a variety of reasons. Whereas some attacks appear to be random or illogical, as in the case of many of today's lone wolf attacks on public places or individuals, terrorist organizations know that all such events have multiple consequences (Lutz, 2007). Hence, terrorism has both tactical and strategic consequences.

At the tactical-level, terrorism seeks to disrupt or destroy the existing organization of a given population. Through fear and intimidation individual behavior is influenced and modified. For example, the assassination of village officials or other governmental representatives, as was the case of the Viet Cong (Vietnam), the FLN (Algeria), or the Taliban (Afghanistan), the day to day lives of members of a community became threatened and their confidence in the power of the dominant group was subverted. More recently, the tactic of ISIS claiming the actions of lone wolf terrorists as soldiers of the Caliphate, has raised their visibility and influenced the perceptions of the general population as to the power and threat of terrorism, in almost any environment. In related instances, targets are seen as being chosen for their symbolic importance to the audience the terrorists are seeking to reach, or to indicate that no area or region of a country is safe. Tactical terrorism, thus, is a form of psychological warfare as it targets behaviors and perceptions.

Tactical terrorism may also have manifest or latent consequences in a community. The targeting of shops, markets, public transportation, and places of entertainment have been common forms of tactical terrorism. The economic impact of these acts threatens a local population as it limits their access to these functions, but also disrupts the flow of resources to the larger society. Terror groups over the past 80 years, such as the Mau Mau, Huks, Viet Cong, PLO, Hamas, Hezbollah, Tupamaros, and Taliban have used terrorism to: 1) raise money for their causes (extortion), 2) punish a specific group or members of the commercial class, or 3) isolate local communities from government control (Goldstone, 2008)). These instances are a form of tactical terrorism that also have larger economic consequences.

Strategic economic terrorism targets a larger society, group or nation in seeking to disrupt their ability to continue to confront a terrorist group. As societies have grown more interdependent this type of terrorism has become a force multiplier for terrorists. Force multipliers, including transnational support, technology, religion and media coverage, enhance the power and influence of terrorists as they engage economic targets (White, 2014). Terrorists are increasingly targeting cyber communications, energy, tourism, and transportation systems which have world-wide consequences. Trade activities and foreign aid projects also have become targets. In an increasingly global economy, such attacks have an even greater potential for destabilization effects. These and related areas of social and economic life are key components of the risk analysis of terrorism.

Terrorism has always had an economic component. The late leader of Al Qaeda, Osama bin Laden, originally served as a financier for the mujahidin in the Afghan-Soviet war. Seeing the Soviet Union withdraw from Afghanistan in defeat, bin Laden frequently stated that the mujahidin were responsible for the eventual collapse of the Soviet Union in 1991 because the economic and social costs of the war were beyond the ability of the Soviet Union to continue as a super power (Gartenstein-Ross, 2011). This was a lesson that has not been lost on the reconstituted Al Qaeda, the Taliban, and ISIS, who now see their actions as both tactical and strategic economic terrorism.

The September 11, 2001, attacks, in which the World Trade Center was destroyed and the Pentagon damaged, was both a symbolic and economic strike against the United States. Bin Laden stated, "According to [the Americans'] own admissions the share of the losses on the Wall Street market reached 16% and that this was a record." He also stated that "The gross amount that is traded in that market reaches \$4 trillion so if we multiply 16% with \$4 trillion to find out the loss that affected the stocks, it reaches \$640 billions of losses." In addition, including building and construction losses he concluded that the cost to the United States was "no less than \$1 trillion" (Gartenstein-Ross, 2011).

The top ten most economically significant terrorist attacks reflect a variety of targets and a diversity of protagonists. These include:

Rank	Target	Date	Estimated Cost	Protagonist
10	Taj Palace Hotel – Mumbai	11/26/2008	\$149 Million	Lashkar
9	Dawson’s Field –Jordan	9/12/1970	\$165 Million	PLO
8	Docklands Bombing- London	2/9/1996	\$336 Million	IRA
7	Bandaranaike Bombing – Sri Lanka	7/24/2001	\$517 Million	LTTE
6	Manchester Bombings	6/15/1996	\$966 Million	IRA
5	World Trade Center – New York	2/26/1993	\$810 Million	al Qaeda
4	London Public Transport Bombing	7/7/2005	\$1.2 Billion	al Qaeda
3	Bishopsgate – London	4/24/1993	\$1.2 Billion	IRA
2	Baltic Exchange Bldg - London	4/10/1992	\$2.2 Billion	IRA
1	World Trade Center/Pentagon	9/11/2001	\$3 Trillion	al Qaeda

(Dingman, 2013)

These attacks were both political and economic events which were initially designed to be tactical events, but which also had significant strategic consequences with world-wide impact.

A second phase of bin Laden’s economic warfare strategy has been called a “bleed until bankruptcy” approach. He made it public in October, 2004 that al-Qaeda was committed to entangle the U.S. and its allies with multiple wars in the Middle East. In addition to the previous large-scale attacks, bin Laden also directed followers of al Qaeda to direct their effort at infra-structure targets, especially those related to oil production and distribution, believing that this would have significant impact in the West and in Saudi Arabia (Gartenstein-Ross, 2011).

With the major economic down turn in the West in 2008 and the increasing pressure on al Qaeda from world-wide security services, bin Laden encouraged his followers to transition towards conducting smaller, but more frequent attacks. In the 2010 article in “Inspire” magazine, bin Laden is quoted saying:

"To bring down America we do not need to strike big. In such an environment of security phobia that is sweeping America, it is more feasible to stage smaller attacks that involve less players and less time to

launch and thus we may circumvent the security barriers America worked so hard to erect." (Inspire, Nov. 21, 2010)

This vision of economic warfare was what he described as "death by a thousand cuts." and has been supported by other jihadi groups, such as ISIS. (Brook, 2008). This strategy, which has become the new norm for today's jihadi groups, is designed to force America and its allies to continually have to raise their security costs until they become an unbearable burden.

In this new phase of economic warfare, the key to success is not measured in actual costs of terrorism, but in the cost of counterterrorism measures. For example, the efforts of Umar Farouk Abdulmutallab, the underwear bomber, and the bombs hidden in printer cartridges were considered successful attacks even though they did not destroy the targeted planes. The radical Yemeni-American cleric Anwar al Awlaki noted that the ink cartridge plot was successful in that their objective was to create a threat which would require the aviation industry to bear the cost of more detailed security efforts (Gartenstein-Ross, 2011).

Infrastructure vulnerabilities are an intrinsic element in the relationship between terrorism and economic warfare. With complex and interdependent infrastructures, protecting them from terrorism presents an enormous challenge. Recognizing that society cannot afford the costs associated with absolute protection, it is necessary to identify and prioritize the vulnerabilities in these infrastructures (Apostolakis, 2005). Transportation systems, such as maritime, air, and rail are infrastructure elements that are potential economic targets. In addition, tourism is another aspect of modern society that is vulnerable to the threat of terrorism. These forms of terrorism have both tactical and strategic economic consequences from both the acts themselves, and the costs of the related counterterrorism measures.

Risk analysis focuses on the likelihood of an event and its consequences (Coppola, 2015). In the case of terrorism, the motivation of a group, its available resources and the vulnerability of the target shape the potential risk a community or nation may experience. In a modern society, like America, which is threatened by domestic and international terrorism, the consequences of planned violent acts for ideological purposes can be significant.

Terrorism and Transportation Security

Maritime Security:

Security involving maritime commerce has been a significant area of concern for thousands of years. From the early Phoenicians, Greeks and Romans in the Mediterranean, to the colonial days of European expansion westward into the Atlantic and Caribbean, to current day global containerized trade, assuring the safety and security of assets and personnel on the high seas has been a top priority. Until recently however, the preponderance of security effort focused on eliminating the effects of piracy, which generally include cargo theft, stowaways, conscription, and smuggling.

Early efforts to curtail piracy revolved around both actions at sea and at ports-of-call. Military fleets of the British, American and other navies were used to reduce the pirating community to broken and uncoordinated strikes. Ports were secured by erecting immense walls and forts, strategically located to defend them from both sea and land attack. Eventually piracy, at least the form that struck fear in the hearts of those living and working among maritime commerce, became a secondary thought.

That is until the recent upsurge in maritime attacks, when pirate raids began in earnest in the mid to late 2000s. Unlike the swashbuckling lore of old, these pirates were land based, residing in seaside villages along the Somalia coast. They would utilize whatever floating “vessel” they could find to hijack ships that crossed past their coastline and then return to their villages and wait for shipping companies to pay ransom for their crews and cargo. Similar scenarios have been played out off the coast of Nigeria, Philippines, and Southeast Asia.

While such piracy has been on the rise, the maritime community has taken effective countermeasures to reduce its success. The resulting economic impact has been limited (Bragdon, 2008). A new threat has arisen on the high seas in recent years that is more closely aligned with political motives than it is with “booty”. In 1985 the *Achille Lauro* was attacked and hijacked off of the coast of Egypt, by terrorists, identifying themselves as members of the Palestine Liberation Front. The terrorists demanded that 50 Palestinian militants imprisoned in Israel, be released. Several years later and throughout the mid 1990’s the Tamil Tigers – a Sri Lankan based terrorist organization - attacked and harassed merchant shipping in the Indian Ocean as a form of protest against the Sri Lankan regime. These actions signaled a new era of merchant threat and exemplified the vulnerability of shipping to terrorist activities.

Terror on the high seas generally follows similar motives as air or land-based terror, with an emerging economic component. To emphasize the size and scope of the economic impact of maritime trade, the U.S. Bureau of Transportation Research and Innovative Technology Administration reports that 14% of the entire United States GDP results from commercial exports, more than a third of which are carried by sea-going vessels (Chambers and Liu, 2012). Disrupting shipping can have a significant impact on United States and world trade. The U.S. is widely considered the world’s biggest trading nation, with maritime shipping and transportation accounting for 53% of all goods imported to the United States, and 38% exported from the United States, in 2011 (Chambers and Liu, 2016).

Container shipping has become a backbone component of maritime trade and has become a highly concentrated operation in the United States, with 10 U.S. ports accounting for 83% of all container imports and exports (U.S. Bureau of Transportation Statistics, 2002). The evolution of supply chain and just-in-time inventory has created a system of trade nodes, resulting in a tremendous number of container “hand-offs”. These “hand-offs” provide numerous opportunities for terrorists to gain access to the containers in order to stow terrorists, weapons of mass destruction (WMDs), and large quantities of small arms and explosives. According to the Government Accountability Office (GAO), between 2009 and 2013, U.S. Customs and Border Patrol (CBP) physically inspected less than 1% of the 11.6 million maritime containers which entered

the United States during that period (GAO, 2016). This number has increased in recent years but still only represents a small percentage of opportunities. This situation of hand off nodes and low inspection rates represents a “double edged sword”. It helps to focus those security measures at targeted ports but also increases the potential impact should those measures be unsuccessful.

The RAND Corporation cites several reasons why shipping is an attractive target for terrorists. First, they note that security has not kept pace with the ever-evolving terror tactics, particularly as it pertains to coastal surveillance and port security. Second, they note the sheer number of available targets and the dependence of the shipping industry on several key geographic “choke points”, manned by skeleton crews. Third, they note the opportunity for “mass coercive punishment”, available by attacking cruise ships and ferries, both of which move large numbers of people in a confined space and do so under set schedules and itineraries. And unlike aircraft, these ships can be readily intercepted post-departure. Finally, the RAND Corporation recognizes the potential for economic destabilization resulting from terrorism in the maritime industry. The shipping container model is particularly attractive since it is a complex logistical channel that offers terrorists a prime opportunity for covert movement of weapons and personnel, in a system specifically designed to be open and accessible (Chalk, 2008).

One particular scenario is of considerable concern. Strategic use of a dirty bomb located in a shipping container could cause both short term and long-term effects on ports and their surrounding communities. It has been estimated that such an explosion at one of the high activity ports in America, such as Los Angeles, could result in a loss of over \$300 million per day, and should the port close for an extended period, the global economic impact could be in the billions of dollars (Rosoff and von Winterfeldt, 2007).

Finally, outside the realm of the psychological and economic impact of terrorism on the high seas, consideration must be given to the importance of the maritime transportation system as it pertains to U.S. national security. Among the nearly 100 main ports in the United States, seventeen are used for expansive military deployments, thirteen of which also act as commercial ports. As a result, protecting these ports has become vital to national security.

In order to address these various concerns, the United States and several other key trading partners have undertaken a number of initiatives to reduce the threat. The majority these steps are relatively inexpensive and require little or no infrastructure or facility/equipment modification. Among these include: 1) the requirement for 4-day advance notice of arrival which limits hijacked vessels from entering a port of their choosing, 2) bilateral accords allowing USCG and Customs and Border Protection access to prescreen container ships, 3) setting international minimum security procedures for vessels over 500 tons, and 4) sanctioning the right of a nations’ agents to stop, board, and seize a ship on the high seas if it is suspected of smuggling a WMD. There is also a process that offers international importers expedited processing of cargo if they comply with U.S. Customs and Border Patrol guidelines for securing the entire container supply chain (Chalk, 2008).

These steps, though inexpensive, have been met with mixed responses. Many port officials, who are primarily charged with continuing operations of each port, are concerned that business continuity and port recovery have not been addressed sufficiently, should there be a successful attack. The Rand Corporation also cites its skepticism by noting that the bilateral accords include a fairly narrow scope of allies, leaving the multitudes of trading companies unencumbered. It also notes that the accords focus solely on container ships, and that audit, compliance, and verification are not easily accomplished (Chalk, 2008).

Aviation Security:

Aviation has had a fairly long and storied history with terrorism. Most experts point to the first recorded air hijacking in Arequipa, Peru in 1931, as the beginnings of terrorism in aviation. For nearly 100 years, as commercial aviation has become an intrinsic element of transportation in America, the potential threat to and from aviation has increased. Ever since the mid-1900s, commercial aviation has been the principle focus of terrorism in transportation (LaBrecque and Bates, 2017).

Prior to 2001, aviation terrorism focused primarily on hijackings and bombings. The motives then were fairly simple, either to trade aircraft/passengers for terror comrades or to employ psychological warfare on the traveling public. Aviation security practices were thus, focused on limiting those opportunities – reducing the chance of terrorists bringing aboard weapons or explosives – and should those efforts fail, using diplomacy to negotiate the safe return of the passengers. The events of September 11, 2001, dramatically changed the environment. After commandeering four separate commercial airliners, the hijackers, instead of making demands, took control of the aircraft from the cockpit crews and flew two aircraft directly into the World Trade Center in New York and one aircraft into the Pentagon building in Washington, DC. The fourth aircraft, apparently also heading for Washington DC, crashed in a field in rural Pennsylvania. A total of 2,977 people were killed that day, with over 90% of them not airborne. Suddenly, the lives of the hostages onboard were no longer the focus of security. Control of the aircraft became the main concern and the symbolic and economic costs escalated.

The terrorist attacks of 9/11 were designed not only to inflict massive casualties and damage to the targets selected, but also to symbolically challenge America and its sense of international superiority (Matusitz, 2014). In addition, this attack was designed to damage both global security and the U.S. economy (Price and Forrest, 2009). The Institute for Analysis for Global Security estimates the cost of this one coordinated attack to be approaching \$2 trillion (Institute for the Analysis of Global Security, 2016). This estimate only includes the direct costs of prevention. Annual expenses incurred by both the airline industry and the U.S. government are estimated at \$36 billion, just to support Federal Air Marshalls (FAM), Federal Flight Deck Officers (FFDO), and the installation of hardened cockpits (ISPB) (Stewart and Mueller 2013). This estimate does not take into account the massive cost of re-designing and re-equipping airports, nor does it include the annual cost of the Transportation Security Agency (TSA), which itself approaches a price tag of \$7.6 billion (TSA, 2016).

As with maritime transportation, it is clear that there is a tremendous financial and economic impact of terrorism in air transportation. Unlike maritime shipping, however, flying aircraft can target nearly any location in the world and are not limited to the sea or coastline. Aside from the financial and economic impact, the increased availability of strategic targets such as nuclear facilities or large dams, could result in enormous property damage and loss of life. Additionally, while America has spent a great deal of money and effort attempting to secure the larger commercial airports, nearly 5,300 other General Aviation airports exist in the United States alone. The vast majority of these airports are capable of launching long range corporate jets which themselves are capable of inflicting nearly the same damage as a commercial airliner (LaBrecque and Bates, 2017). Extending the FAM, FFDO, and ISPB programs, along with more mature screening processes to the General Aviation world would multiply costs to an extent that would be difficult for the industry to incorporate without severe financial distress.

Rail and Highway Security:

Railroads have a long and storied history in the United States. Since Colonel John Stevens first conceived a railroad system as a means of transportation and trade in the early 1800s, they have been an object of folklore, fascination and controversy. The growth and expansion of the railroad system in America became synonymous with the growth and expansion of the country itself. As a means of transportation, the rail system provided safer and faster passage to places that until then, were remote and difficult to supply.

Like its much older cousin, maritime shipping, the railroads of the world were soon beset by significant security issues ranging from robbery and sabotage, to employee conflict. By the mid 1800s in America, railroad owners were using federal, state, and private agencies to protect their passengers and freight. While privately owned, the U.S. government understood the importance of the rail system and its impact on commerce, and as a result often intervened, sometimes with deadly results.

Then, as now, the rail system supported two main areas of focus: passenger travel and commerce. Freight railway has significant positive impact on the United States economy while reducing overall energy costs, lowering greenhouse emissions, and mitigating highway gridlock. According to the Association of American Railroads, the major railroads in America accounted for 1.5 million jobs and contributed \$274 billion directly to GDP, not to mention the indirect benefit to non-rail industries resulting from “the affordability and productivity of America’s freight railroads” (McCullough, 2017). Similar to the shipping industry, intermodal service (shipping containers filled with imports and exports) has become the foundation of freight forwarding and now represents nearly half of the freight carried by rail.

Passenger service, while diminished as a percent of population from earlier years, has held relatively steady for the past decade and still represents a significant sector of rail service. Over the past ten years, passenger rail traffic in the U.S. has been around 750 million passengers per year. This number still compares favorably with the past ten years of airline travel which has averaged around 825 million passengers per year (Bureau of Transportation Statistics, 2016).

Given the size and scope of the economic benefit of rail service combined with the number of human lives at risk, it is no wonder that safety and security of the rail system is at the forefront of industry leaders' concerns. America's vast rail system appears vulnerable for fairly obvious reasons, with derailment the easiest access to terror. Additionally, the raid on Osama bin Laden's house in Pakistan revealed some cryptic notes regarding the targeting of the American rail system, which further strengthens the argument for increased security (Moore, 2011).

From a passenger safety and security perspective it should be noted that Americans make more than 3.5 billion trips on intercity trains, commuter rails, and subways. Rail companies (like airlines) are in a continual internal struggle trying to balance security and accessibility but have taken less draconian measures and precautions to help prevent attacks. Some of the precautions include random searches of passengers and baggage (in lieu of 100 percent screening), increased surveillance, removal or hardening of trash cans to limit potential explosives locations, and encouraging passengers to report suspicious activity. From an external perspective, it is doubtful that these steps would deter or foil many potential terrorist acts (Kaplan, 2007).

Aside from the potential loss of life from bombing rail cars, the possibility of derailment of cars carrying hazardous materials poses the biggest risk to the economy. Many trains carrying freight shipments run parallel to tracks that carry passengers throughout the United States and therefore travel along heavily populated corridors (Kaplan, 2007). Toxic chemicals released in a densely populated area that also contain a significant amount of industry, could result in evacuation and clean-up costs that have substantial economic impact. As a general rule, tank capacity can reach 20,000 gallons of chemicals, or up to 30,000 gallons of oil, in each railcar.

However, compared to shipping and air, the economic impact of derailments is substantially lower because the sheer immenseness and complexity of the United States rail system affords the industry numerous and readily accessible alternate routes, thereby stabilizing the affected economy. In addition, the ability of terrorists to successfully de-rail trains have come under recent scrutiny. Blowing up tracks or exploding devices at switching stations could create derailments, but the success rate of these explosions has been minimal. While the low success rate of previous derailment attempts should not deter future security precautions (as lives are of the utmost priority), it does tend to lessen the potential economic impact of freight and cargo terrorism.

With nearly 4 million miles of roads, America's road transportation system is among the most comprehensive and complex in the world (BTS, 2007). In addition to the roads themselves, the U.S. road transportation system also includes 582,000 bridges (spanning more than 20 feet) and 54 tunnels (over 500 meters in length), all prime targets to potentially disrupt the flow of vehicles (U.S. Department of Transportation, 2017). Nearly 8 million trucks, 750,000 buses and 137 million cars travel the U.S. roads and highways daily (TSA 2006).

Certainly, a terrorist attack on the United States road system could have tragic results. The road system plays a central role in the continued growth of the nation's economy and is critical in the event of evacuation, response, and recovery (Bragdon, 2008). Securing the massive U.S. road system is a monumental undertaking and would

represent an almost insurmountable challenge. Much like other strategic initiatives, the goal should be to deter and discourage would-be terrorists from attacking, by incorporating best practices such as highly visible security, and by reducing both primary and secondary damage potential (Bragdon, 2008). Unlike the maritime, aviation and rail transportation systems however, it is much more difficult for terrorists to create a road system shutdown which, if successful, would have similar disastrous economic effects. A massive, coordinated, targeted and nationwide attack - the likes that have not been experienced - would be necessary to severely cripple the United States road transportation system simply due to the expansiveness, and nationwide coverage, of our system.

Terrorism and Tourism

As has been the case with transportation terrorism, transnational economic terrorism often has targeted tourism for both its symbolic value as well as its strategic economic consequences. The impact of terrorism on the travel and tourism industry has been significant. Along with the direct costs, this type of terrorism also can lead to unemployment, homelessness, deflation, and other social and economic problems. In some countries, tourism is a significant component of the national or local economy and for many countries a terrorist event or the threat of such events is a major economic concern. The interdependence of many industries associated with tourism such as airlines, hotels, restaurants and shops may be a force multiplier for those targeting a country and its economy. "Terrorism is an enigmatic and compelling phenomenon, and its relationship with tourism is complex and multifaceted" (Baker, 2014).

Terror attacks against tourists and tourist destinations reflect multiple motives. International coverage of attacks which may include famous locations and potential international victims guarantee visibility and transnational impact. In most instances, these are soft targets with few or no significant security measures in place. In some instances, such as the 2002 hotel resort attack in Bali, Indonesia by the Islamist group Jemaat Islamiyah, the terrorists targeted a large number of Western tourists (mostly Australians) with multiple firebombs that caused significant loss of lives and property. The group justified this attack because of the presence of large numbers of outsiders in a Muslim land engaging in behaviors inconsistent with traditional Muslim beliefs. These terrorists announced that they would continue to target Westerners as long as Western troops were in Afghanistan and Iraq and that they would economically punish those who catered to Westerners and who supported the flouting of traditional Islamic beliefs (White, 2014).

In the 2008 terrorist attacks at hotels, restaurants and a train station in Mumbai, India which resulted in 166 deaths and extensive damage to the target locations a similar Islamic terror group paralyzed one of the world's largest cities for four days (Henderson, 2013). However, the effects of the Mumbai attacks, though devastating for many individuals and their families at the personal level, were significantly less than those of 9/11 attack in the United States. The 9/11 attacks were the first successful major jihadi attacks, with the exception of the previous attempt at the Twin Towers. Thus, their economic impact influenced not only the areas of the attacks, but also, because of the extensive live media coverage, impacted the entire nation and the

Western World. In addition, the loss of life was significantly larger, and the targets were located at one of the world's major financial centers (Wall St.) and at the symbolic center of the American military (the Pentagon). The Mumbai attacks, though equally heinous, did not have the same relative economic impact because India had more previous experience with terrorist activities (Panagariya, 2008). Nevertheless, the estimated direct economic cost of this attack was over 149 million dollars, ranking it in the top ten most-costly acts of economic terrorism in history, and the costliest attack on a tourist destination (Dingman, 2013). Actually, as in most terrorist attacks, it is difficult to estimate the total economic cost of such an event. The attacks by the Lashkar-e-Taiba terrorist group involved a number of targets, including the Taj Palace Hotel. The costs of restoring the hotel alone were approximately \$40 million dollars and the relevant insurance costs were estimated around \$109 million. As a result, the estimated costs for business interruptions and future impact on tourism have been difficult to establish (Dingman, 2013).

More recent examples of tourism terrorism have occurred in France. The attacks in Paris and Nice by ISIS affiliated individuals were not only political drama played out on the world stage, but also had cumulative economic consequences for France's economy. Building on the "Death by a Thousand Cuts" strategy of bin Laden and al Qaeda, ISIS has increasingly championed multiple small-scale attacks throughout Europe, in particular, to maintain their visibility during a period in which their combat forces in Iraq and Syria are being neutralized. These attacks have targeted transportation and tourist related targets. Though their immediate economic impact has not been as dramatic as some previous events, they, nevertheless, have had serious economic consequences for the communities in which they have occurred.

The November 15, 2015 attacks in Paris resulted in the loss of 115 lives and it is estimated to have cost the French economy \$2.1 billion dollars (Karaian, 2015). This estimate largely reflects the impact of the events on depressed tourism and consumer spending. Given that the overall French economy is more than \$2.1 trillion dollars a year, this attack reflects a loss of about 1% of their economy, thus a manageable economic loss, except for the fact that this loss is significant in the tourism sector of the economy. Previous analysis of the impact of terrorist attacks on a modern economy suggests that for every airline, hotel or related tourist element that is damaged by a terrorist attack, a similar economic gain is made in the security and counterterrorism sector of an economy. Though this seems to minimize the short-term overall economic impact of a tourist-related terrorist-related incident, the long-term impact is that the increased cost of security and related measures is a continuing burden to an economy and lowers the rate of meaningful economic growth (Karaian, 2015). This is further compounded if subsequent attacks occur.

The July 14, 2016 attack in Nice on Bastille Day, a national holiday, killed more than 80 people and shocked the French tourist city. In the days following the attack, cruise lines canceled trips and ports of call to the city. Rihanna canceled a concert scheduled for the day after the attack, and the prestigious annual Nice Jazz Festival canceled its four-day event. The ISIS inspired terrorist spent approximately €2000 to buy a gun and rent a truck. His actions shocked the world and dealt another costly blow to the French economy. Though, as in other cases of terrorist related activities, the

economy tends to bounce back rather quickly, the long-term impact is more considerable. For example, the travel and lodging industries have been forced to make steep discounts in an attempt to coax back customers. Also, the ripple effect of the growing threat of terrorism has influenced many potential travelers to change their destinations to other safer environments (Popken, 2016).

In America, the Pulse Night Club and the Mandalay Bay lone wolf attacks have been dramatic examples of domestic terrorism. The immediate impact of these events on local tourism were significant. However, it is the long-term costs, especially in medical costs, that will burden individuals and their insurance companies. It has been estimated that the medical costs for the victims of the Mandalay shootings in Las Vegas will be in the area of \$600 million dollars (Galvin, 2017).

The direct and indirect impact of terrorism on the travel and tourism industry has been significant. It has contributed to local unemployment, homelessness, deflation, and many other social and economic consequences. For some communities and countries, the economic contribution of tourism is so great that any interruptions or downturns cause major concerns for many governments. The repercussions in related industries associated with tourism like airlines, hotels, restaurants and shops that cater to the tourists and allied service are also significant. Terrorism is a highly visible act, and its relationship with tourism is complex and has many direct and indirect economic consequences (Baker, 2014).

Economic Overview:

Terrorism is increasingly a major component in the world today. A recent Gallup poll noted that almost 80% of respondents believe that global terrorism is critical threat to the United States, the highest of any other potential threat ((Holmes, 2016). Likewise, the economic impact of global terrorism has been rising in the past decade. In 2014, the Institute of Economics and Peace (IEP) calculated that the cost for that year was \$52 billion. That only considers the direct short-term costs (Holmes, 2016). This, however, pales in comparison with the overall economic impact that terrorism has on an economy.

As previously noted, major terrorism attacks can threaten the economic viability of major elements in an economy. Though a single attack often may just be a blip on the economic profile of a country, an on-going series of events, big and small has a cumulative impact. While stock markets may quickly rebound, as in the case of the 9/11 attacks in the United States, the long-term consequences may shape and influence an economy for a long time. For example, an analysis of the 9/11 attacks estimated that the physical damage of the attacks was approximately \$55 billion and the overall economic damage another \$123 billion. Those figures do not include other significant costs. The development of the Department of Homeland Security (\$89 billion), war funding for Afghanistan and Iraq (\$1.6 trillion) and the continuing costs of those wars and taking care of veterans has been estimated at \$867 billion. While some economists suggest that this level of spending actually increases economic growth, others note that this is an unproductive form of spending (Sorkin, 2015).

Over the past 20 years, financial markets have been very resilient to acts of terrorism. The direct costs of terrorism include the loss of life, emergency responses, restoration of services, infrastructure cost, and the related expenditures for temporary living assistance. The indirect costs are significantly larger in the medium term by undermining consumer and investor confidence (Picardo, 2016). It has even been suggested by some financial and government sources that the 2008 economic downturn was significantly influenced by the growing cost of terrorism (Gertz, 2008).

The economic impact of terrorism varies not only by the act, but by the economic condition of the country or community experiencing the event. More developed and diverse economies have been relatively successful in absorbing the cost of a major terrorist event. However, less robust economies are less able to cope with large-scale man-made disasters (Coppola, 2015). Smaller countries with relatively high rates of terrorism receive less foreign investments and other forms of transnational support, which are crucial for developing economies (Bandyopadhyay, Sandler and Younas, 2015).

Conclusions:

In today's environment of terrorism as both a tactical and strategic economic weapon, America faces many threats. The likelihood of domestic and international terrorism has increased and the social and economic consequences are potentially catastrophic. Though America with its robust and diverse economy has been able to respond and recover from terrorist attacks, the continued cost of mitigation and preparation efforts are an ever increasing economic burden. Counterterrorism is increasingly more expensive than the actual cost of a terrorist event.

The direct and indirect costs of tactical and strategic economic terrorism, influences target countries, as well as other nations. Economies today are interdependent and linked by trade, markets, and logistical systems. The cost of terrorism is increasingly a significant economic surcharge or tax that has both short and long-term consequences. Economic intimidation is an increasingly significant force multiplier being used by today's terrorists.

America may well have to prioritize its mitigation efforts in areas such as transportation and tourism. It may have to balance the social, economic and symbolic costs of the threat of a terrorist event with the possibility of an event. It is a difficult equation to resolve and the risk and responses to terrorism will continue to be a significant component of terrorism and economic warfare facing America.

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