



**Indian Institute of Management, Jammu**

**MBA HA&HM – 03**

**Term I**

**Managerial Economics**

**Title: Impact of Terrorism on Global GDP**

**Group-13**

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**Abstract:**

This report estimates that terrorism had an economic impact of \$US 33 billion in 2018. Terrorism cost the global economy \$855 billion over the 18 years 2000-2018. We have used the data from 2019 Global Terrorism Index to aggregate the costs of four variables resulting from terrorist occurrences. The indicators cover terrorism-related deaths, injuries, property damage, and GDP losses. The findings of this research reveal that worldwide terrorism peaked in 2014, with 33,555 deaths and an economic effect of \$US 111 billion. From 2011 to 2014, terrorism-related deaths climbed by 353%, while terrorist events grew by 190%. The 9/11 attacks in the United States stands as the incident with the highest economic impact accounting for deaths and injuries at \$US 40.6 billion, followed by the Sinjar massacre in Sinjar, Nineveh, Iraq at \$US 4.3 billion.

**Introduction:**

Throughout the annals of history, acts of violence and terror have cast a long shadow over human civilization. From ancient times to the modern era, these malevolent forces have not only claimed lives but also inflicted significant economic damage. The 21st century has witnessed a resurgence of terrorism, evolving into a complex global threat with far-reaching consequences.

While the immediate, tragic impact of terrorist attacks is often measured in human lives lost and physical infrastructure destroyed, the economic repercussions extend far beyond these initial costs. By disrupting economic activity, eroding investor confidence, and diverting resources towards security measures, terrorism can significantly impede a nation's growth trajectory. From the historical context of 9/11 to contemporary challenges posed by extremist groups, this report delves into the intricate relationship between terrorism and global GDP.

Terrorism's effects on the economy can be delayed, manifesting days, weeks, or even months after an attack. The scale and frequency of terrorist incidents within a country significantly impact economic growth, investment, consumption, and tourism, hindering overall economic development. The economy's ability to reallocate resources from affected sectors also plays a crucial role. Terrorism distorts economic behavior by influencing investment and consumption patterns and diverting resources from productive activities towards security measures. It leads to capital destruction and reduces a country's economic capacity.

We have used the Global Terrorism Index (GTI) framework developed by the Institute for Economics and Peace (IEP) to assess the global economic impact of terrorism, relying on data from the Global Terrorism Database (GTD) produced by the University of Maryland. The analysis focuses on terrorist incidents from 2000 to 2018.

### Methodology:

This research estimates the economic toll of terrorism using a bottom-up approach. This method calculates the costs of various terrorism-related factors, such as deaths, injuries, property damage, and indirect GDP losses, for 163 countries and territories.

The costs are calculated using specific methods:

- **Deaths:** The value of a life lost due to terrorism is estimated based on the cost of homicide.
- **Injuries:** The cost of injuries from terrorism is estimated using the cost of assault.
- **Property Damage:** The extent of property damage is assessed based on reported data and estimated for missing values.
- **Indirect GDP Losses:** Countries experiencing over 1000 terrorism-related deaths in a year are assumed to suffer a 2% GDP loss.

By combining these cost estimates, the study provides a comprehensive assessment of the economic impact of terrorism on a global scale.

### Model Used:

The economic impact of terrorism includes three components:

1. Direct costs – These are the cost of violence to the victim, the perpetrator, and the government. These include direct expenditure, such as the cost of hospitalisation.
2. Indirect costs – The costs accrue after the violent event and include indirect economic losses, physical and physiological trauma to the victim.
3. The multiplier – The multiplier represents the flow-on effects of direct costs, such as additional economic benefits that would come from alternate investment rather than from containing or dealing with violence.

## Data Collection:

The Global Terrorism Database (GTD), a comprehensive dataset on global terrorist activity maintained by the University of Maryland's National Consortium for the Study of Terrorism and Responses to Terrorism (START), serves as the primary source of terrorism data. The GTD contains information on over 170,000 terrorist incidents, including fatalities, injuries, and property damage.

To quantify the economic impact of property damage, the GTD's estimates are adjusted based on a country's income level to account for varying property values across different economic development stages.

To capture the indirect economic consequences of terrorism, GDP losses are incorporated for countries experiencing significant terrorist activity, defined as over 1,000 deaths annually. Various studies, including those by Collier, Polachek and Sevastianova, De Groot, Bozzoli, and Brück, and Costalli, Moretti, and Pischedda, have explored the economic impact of terrorism using different methodologies and assumptions. These studies estimate GDP losses ranging from 1% to 3%.

Additional research by Abadie and Gardeazabal, Bilgel and Kharasan, Ali, Enders and Olson, and Gaibulloev and Sandler further supports the significant economic impact of terrorism, highlighting both direct and indirect costs, including GDP losses.

Given the blurred lines between civil war, transnational organized crime, and terrorism, particularly when the death toll exceeds 1,000 in a year, a 2% GDP loss is assumed to account for the economic disruptions associated with such large-scale violence.

## Results:

Global terrorism reached its zenith in 2014, with over 13,500 attacks resulting in a staggering 33,555 fatalities. Between 2011 and 2014, terrorism-related deaths surged by a staggering 353%, while terrorist incidents increased by a substantial 190%. This escalating trend was ignited in 2011 by the emergence of post-Arab uprising conflicts in nations like Syria, Libya, Yemen, and Egypt. Simultaneously, the Iraqi conflict intensified dramatically, coinciding with the rise of the Islamic State terrorist group. Additionally, Afghanistan and Pakistan witnessed a significant uptick in terrorist activities during this period.

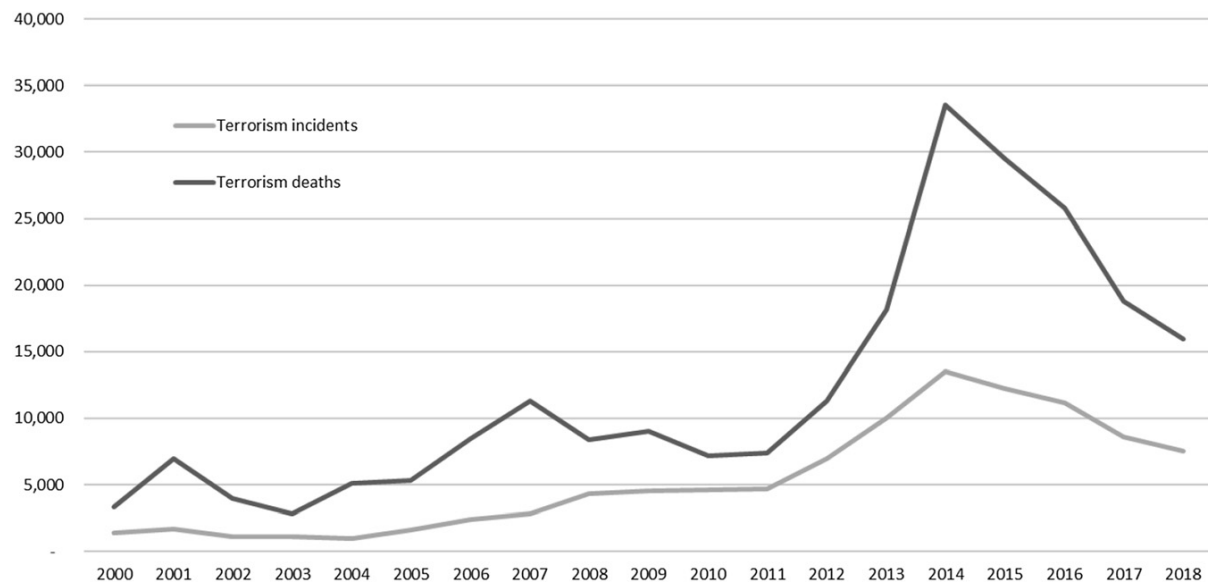
Iraq bore the brunt of this escalation, experiencing over 3,300 terrorist incidents in 2014, a peak that aligned with the peak impact of global terrorism on the economy.

The years following 2014 marked a significant decline in global terrorist incidents and casualties. Both terrorist incidents and fatalities decreased by 44% and 52%, respectively, in the four years since 2014. This reduction can be attributed to several factors, including the localization of the Syrian conflict, the defeat of the Islamic State by a coalition of Iraqi and international forces, and the decline in terrorist activities in Pakistan and Nigeria. However, Afghanistan emerged as a stark exception, witnessing a significant rise in terrorism and becoming the most affected country in 2018.

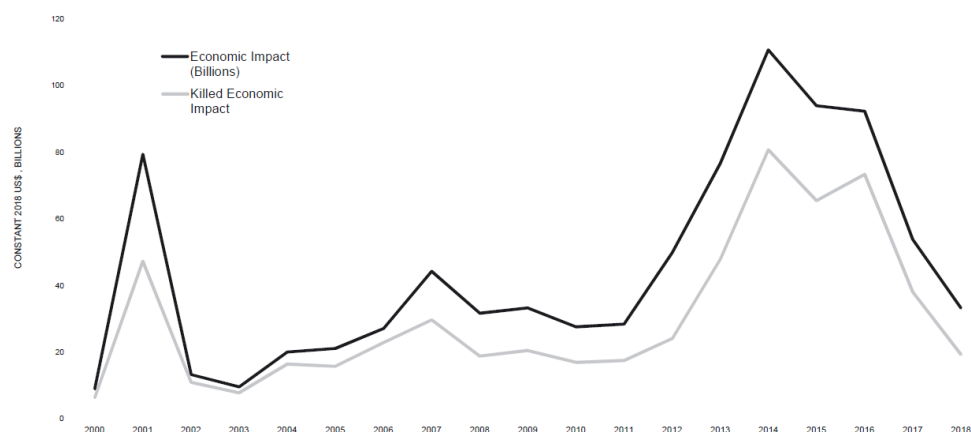
A noteworthy trend since 2010 is the increasing number of countries affected by terrorism, including traditionally peaceful nations and regions. Europe, for instance, has endured over

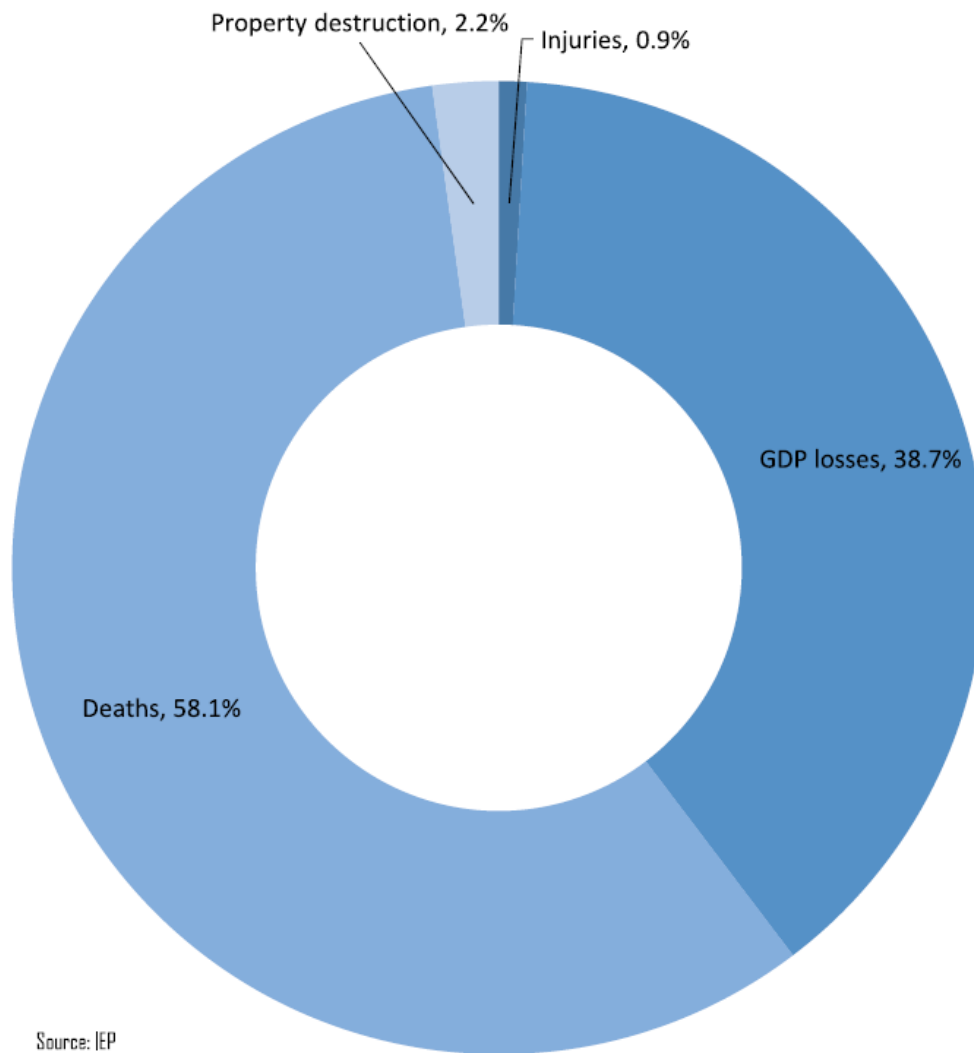
5,000 terrorist incidents since 2010, resulting in 1,953 deaths. North America has also suffered, with over 500 incidents leading to 294 fatalities.

Prior to 2014, two other smaller peaks in global terrorism were observed in 2003 and 2007. These spikes coincided with the initiation of the Iraq War in 2003 and the US troop surge in 2007. During this period, Al-Qaeda in Iraq, led by Al-Zarqawi, unleashed a wave of sectarian violence and attacks targeting both Iraqi and international forces. The earliest peak in global terrorism is linked to the devastating September 11, 2001 terrorist attacks in the United States, orchestrated by Al-Qaeda. Figure 1 provides a visual representation of the trends in global terrorist attacks and the resulting fatalities.



The trend in the global economic impact of terrorism 2000–2018, 2018 constant \$US, billions.





The composition of the economic impact of terrorism, 2018

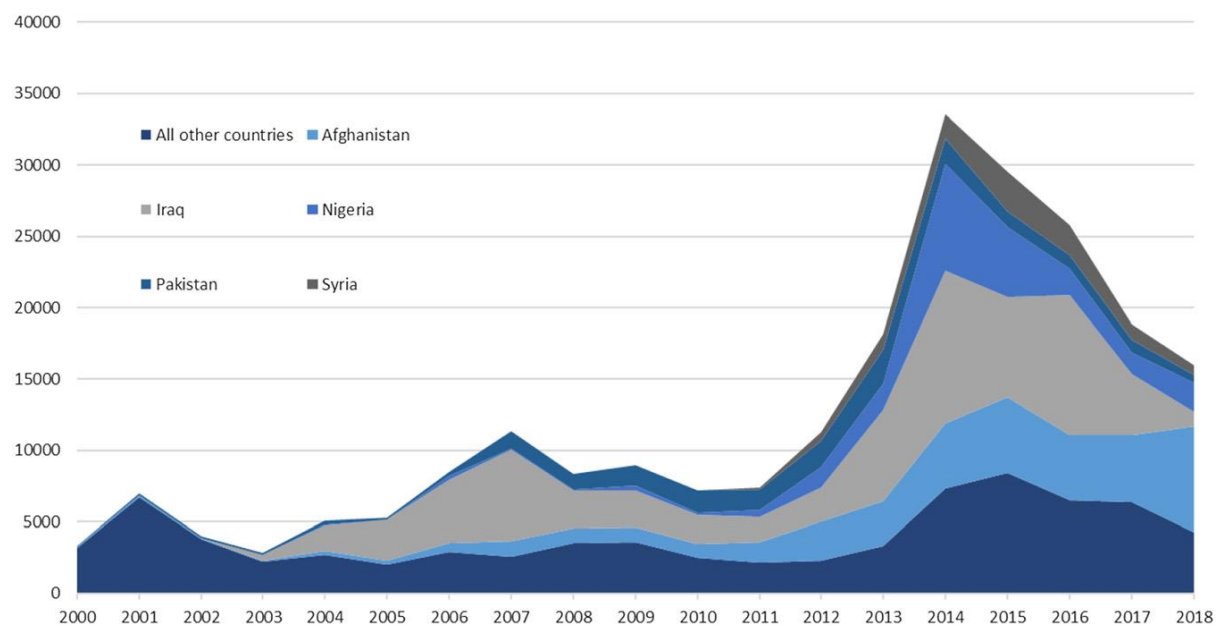


### The Most Affected Countries:

Countries experiencing armed conflict, primarily located in the Middle East and North Africa (MENA), sub-Saharan Africa, and South Asia, witnessed the highest levels of terrorism between 2000 and 2018. A staggering 74% of global terrorism-related deaths, totaling over 124,000, occurred in Iraq, Afghanistan, Nigeria, Pakistan, and Syria since 2010. Figure 4 visually represents the severe toll of terrorism on these nations.

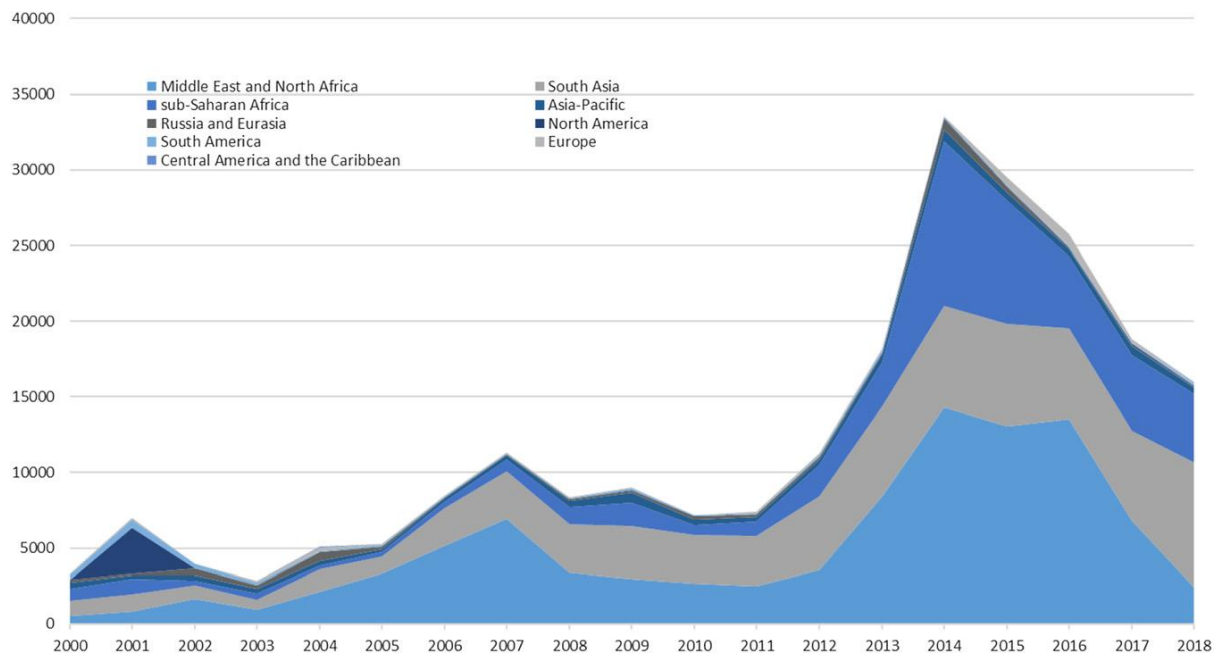
Afghanistan bore the heaviest economic burden, with terrorism's impact reaching a staggering 22% of its GDP in 2018. This substantial drain on the economy underscores the significant challenges posed by rising levels of terrorism-related violence in the country, which contrasts with the overall global decline in terrorist activities. In 2018, no other country experienced an economic impact exceeding 5% of its GDP due to terrorism.

The year 2014 marked a particularly devastating period for Iraq, with terrorism claiming the lives of over 10,000 people and triggering 3,373 incidents. The economic impact of terrorism in that year amounted to a staggering 27% of Iraq's GDP. Two horrific events, the Sinjar massacre and the Badush prison siege, further exacerbated the country's suffering. The Sinjar massacre resulted in the tragic loss of at least 953 lives, and over 5,000 individuals were abducted.



Number of deaths globally and by the five most affected countries, 2010–2018.





Number of deaths globally by region, 2010–2018.

## Conclusion:

Terrorism has had a severe economic toll globally. We have estimated that terrorism cost the world economy \$855 billion from 2000 to 2018, with \$33 billion in losses occurring in 2018 alone.

The frequency of terrorist attacks increased significantly after the September 11, 2001, attacks in the United States. However, the most significant surge occurred between 2011 and 2014, coinciding with the Arab Spring uprisings in Syria, Libya, Yemen, and Egypt, as well as intensified conflicts in Iraq, Afghanistan, and Pakistan fuelled by the rise of the Islamic State. This period saw a peak in the economic impact of terrorism, reaching \$111 billion in 2014.

To measure the global economic cost of terrorism from 2000 to 2018, this paper employs a bottom-up cost accounting method. This approach quantifies the costs associated with deaths, injuries, property damage, and GDP losses resulting from terrorist activities.

Iraq emerged as the country most severely impacted by terrorism between 2003 and 2018. The U.S. invasion of Iraq triggered waves of intense conflict, making Iraq the most affected country for 14 out of 15 years during this period. While the level of terrorism in Iraq has decreased since the defeat of ISIL in 2014, it remains one of the world's most terrorism-affected countries.

In 2018, Afghanistan surpassed Syria and Iraq as the country most affected by terrorism. This was a consequence of ongoing conflicts between the Taliban, ISIS, and government forces,

coupled with a reduction in international troops. The economic impact of terrorism in Afghanistan reached a staggering 22% of its GDP in 2018.

The Middle East and North Africa region has borne the brunt of terrorism, incurring \$434 billion in economic losses since 2000. Sub-Saharan Africa follows as the second most affected region with \$133 billion in losses, and South Asia as the third with \$125 billion.

Across the Middle East and North Africa, South Asia, and sub-Saharan Africa, armed assaults, bombings, and explosions account for most terrorism-related deaths, injuries, and property damage. Implementing policies targeting these types of attacks, such as disarmament or bomb detection measures, could significantly reduce terrorism-related violence and its associated costs in these regions.