

THE ECONOMIC VALUE OF PEACE 2018

MEASURING THE
GLOBAL ECONOMIC
IMPACT OF VIOLENCE
AND CONFLICT



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Quantifying Peace and its Benefits

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Executive summary

This report is the latest release by the Institute for Economics and Peace (IEP) on the economic impact of violence and conflict to the global economy. It provides an empirical basis for understanding the economic benefits resulting from improvements in peace. Estimates of the economic impact of violence are provided for 163 countries and independent territories, covering over 99.5 per cent of the global population.

The economic impact of violence to the global economy was \$14.76 trillion in 2017, in constant purchasing power parity (PPP) terms. This figure is equivalent to 12.4 per cent of global gross domestic product (GDP) or \$1,988 per person. Given there are categories of violence that impose costs but where no reliable prevalence data is available, the estimates presented in this report are considered to be conservative.

The global economic impact of violence rose by two per cent during 2017, due to increases in cost of conflict and internal security spending. The rise in the economic impact of violence coincides with a 0.27 per cent deterioration in peace, as measured by Global Peace Index (GPI) 2018.

Since 2012, the economic impact of violence has increased by 16 per cent, corresponding with the start of the Syrian war and the rise of Islamic State. The intensification of conflicts in Afghanistan and Iraq have also added to the economic impact.

Violence has adverse implications for the broader economy, both in the short and long term, and imposes substantial economic costs on society. The economic impact of violence in the ten most affected countries was equivalent to 45 per cent of their GDP. This is approximately 19 times higher than the ten countries least affected by violence in which the average economic cost of violence is just over two per cent of GDP. This is also significantly smaller than the global average economic cost of violence, which amounts to 11 per cent of GDP.

The composition of the economic impact of violence varies across countries and regions. For instance, the cost of homicide and violent crime represents the highest proportion in South America and Central America and the Caribbean at 67 and 60 per cent respectively. Conversely, the cost of conflict as a proportion of the economic cost of violence is highest in the Middle East and North Africa at 28 per cent and South Asia at 24 per cent. Both forms of violence affect sub-Saharan Africa with homicide and violent crime constituting 57 per cent of the regional cost and violent conflict accounting for another 16 per cent. The countries with the highest economic impact of violence include conflict-affected countries — Syria, Iraq, Afghanistan, Colombia, South Sudan, Somalia, and the Central African Republic — and countries with high interpersonal violence such as El Salvador and Lesotho.

The single largest contributor to the global economic impact of violence, at over 37 per cent of the total, was military expenditure at \$5.5 trillion PPP. Internal security spending was

the second largest component, comprising over 27 per cent of the global economic impact of violence, totalling \$3.8 trillion. Internal security expenditure encompasses spending on police, judicial and prison system outlays.

Violence not only has a direct impact on the economy, it also reduces the positive benefits that peacefulness has on the macroeconomic performance of countries. In the last 60 years, per capita growth has been three times higher in highly peaceful countries when compared to countries with low levels of peace. The difference is more pronounced over the last decade, where GDP growth has been seven times higher among countries that improved in peace when compared to countries that deteriorated in peace.

IEP's methodology for accounting the economic impact of violence and conflict aggregates 17 indicators that relate to public and private expenditure required to "contain, prevent and deal with the consequences of violence". Using the underlying measurements in the GPI costs are calculated by totalling the scaled unit costs for different types of violence.

The model includes both direct and indirect costs of violence and divides them into three domains; (1) security services and prevention oriented costs, (2) armed conflict related costs and (3) consequential costs of interpersonal violence. Examples of direct costs include medical costs for victims of violent crime, capital destruction from violence and costs associated with security and judicial systems. Indirect costs are economic losses that result from violence. For example, this may include the decreased productivity resulting from an injury, lost life-time economic output of the victim of a murder, pain and trauma stemming from being a victim of violence and the yearly reduced economic growth resulting from a prolonged war or conflict. A 'multiplier effect' is also included to represent the lost opportunity cost of violence. When peacefulness improves, money saved from containing violence can be redirected to more productive activities, yielding higher returns and increasing GDP.

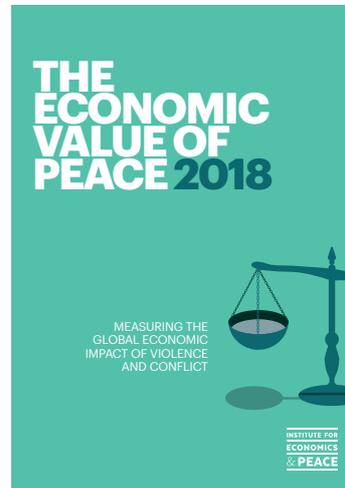
Analysis of the economic impact of violence for 2017 provides two important results. Firstly, it highlights the extent that armed conflict negatively affects the economy. The economic cost of violence in Syria, Afghanistan, and South Sudan, was equivalent to 68, 63 and 49 per cent of GDP respectively. Citizens of these countries are now among the most vulnerable and constitute a large percentage of the global refugee population.

The second major finding is that there has been a reduction in military and internal security expenditure, especially among the advanced economies. Global military expenditure has stayed constant since 2010 following a significant increase of 46 per cent between 2000 and 2009. The reduction coincides with austerity related policies implemented by countries affected by the global financial crisis in 2008. However, this trend may reverse in the coming years given commitments to increase military budgets in the US and Europe. At the same time, China is increasing spending on both its military and internal security. Due to their large military and internal security budgets, Asia-Pacific, North America and Europe are the regions with the largest expenditures at \$2.86, \$2.72 and \$2.31 trillion respectively in purchasing power parity terms.

The report compares losses from violence to the cost of containing and preventing it with the aim to assess the optimal level of spending on violence containment. The research shows a distinct link between the broader environment for Positive Peace and the level of spending required to contain violence. The Positive Peace framework captures the attitudes, institutions, and structures which create and sustain peaceful societies. The analysis finds that countries with the highest levels of Positive Peace spend one to two per cent of GDP on internal security, whereas countries with median levels of Positive Peace tend to spend more. Switzerland, Iceland and Canada for example rank among the 15 most peaceful countries in the Positive Peace Index as well as having some of the lowest economic cost of violence.

Meanwhile, those countries with the lowest levels of Positive Peace and resilience generally spend less than one per cent of GDP on internal security, highlighting an underinvestment in violence containment. This is common among low income, fragile and conflict-affected countries which tend to spend only a fraction of the per capita costs relative to that of higher income countries.

In the absence of Positive Peace, reduced spending on violence prevention will likely result in higher costs from violence. However, excessive spending on violence containment can lead to deteriorations in peacefulness. For instance, a larger than required military might lead a country to pursue larger geopolitical goals, creating violence elsewhere. Similarly, large investments in police forces might lead to repression in a society and limit the basic rights of the citizen. Evaluating the trade-off between prevention and costs from violence sheds light on optimal levels of spending to address violence effectively. The systemic interaction between violence containment, violence and Positive Peace is the subject of ongoing research.



This report is broken into four main sections:

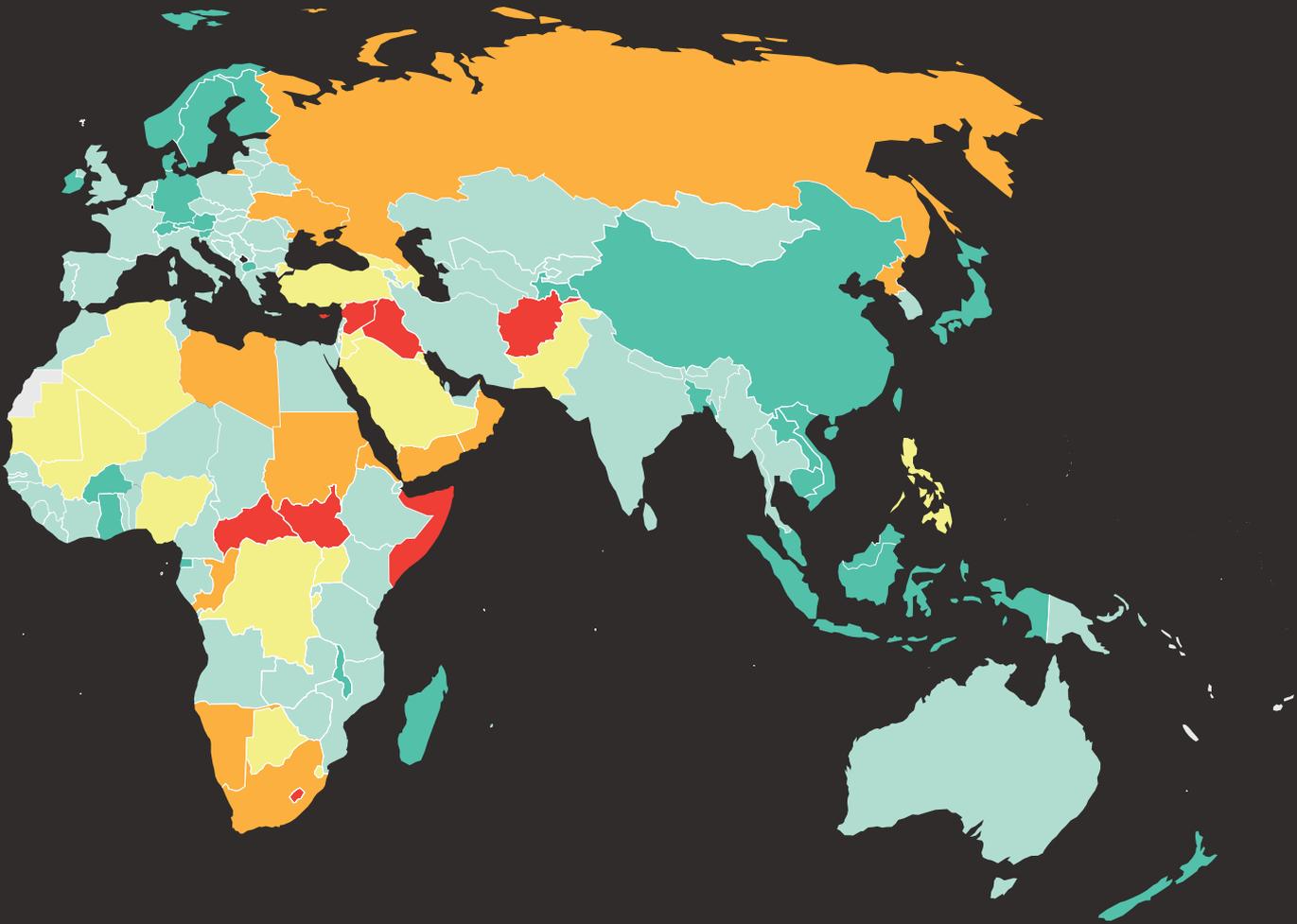
- **Section 1. Conceptual background:** provides an explanation of the methodology and associated literature.
- **Section 2. Results and trends:** a breakdown of the results and trends at the global, regional and national level, including trends across indicators of the model.
- **Section 3. Comparison of containment and prevention costs:** an overview of the variance in the economic impact of violence between countries with differing levels of Positive Peace.
- **Section 4. The impact of conflict on long-term economic growth:** an exploration of the long-term trend in economic growth by levels of peace.

2018 ECONOMIC COST OF VIOLENCE



Key Findings

- The global economic impact of violence was \$14.76 trillion PPP in 2017, equivalent to 12.4 per cent of global GDP, or \$1,988 per person.
- The economic impact of violence increased by two per cent during 2017 due to increases in internal security spending and a rise in the cost of conflict.
- The economic impact of violence has increased by 16 per cent since 2012, corresponding with the start of the civil war in Syria and rising violence in the aftermath of the Arab Spring across the Middle East and North Africa.
- Syria, Afghanistan and Iraq incurred the largest economic cost of violence as a percentage of GDP at 68, 63 and 51 per cent respectively.
- The economic cost of violence, as a percentage of GDP is 19 times higher in the ten most affected countries compared to the ten least affected ones. The average economic cost of violence was 45 per cent of GDP for the ten most affected countries.
- The 20 most peaceful countries also incurred a significantly smaller cost of violence at four per cent of their GDP compared global average of 11 per cent.
- Cost of armed conflict amounted to \$1.02 trillion in 2017, which has increased by 106 per cent over the last 11 years driven by conflicts in the Middle East and North Africa and South Asia. The cost of conflict consists 28 and 24 per cent of the regional cost for MENA and South Asia respectively.



- Interpersonal violence, homicide and violent crime constitutes 67, 60 and 57 per cent of the regional cost for South America, Central America and the Caribbean and sub-Saharan Africa regions.
- Military expenditure comprises 37 per cent of the global economic impact of violence at \$5.5 trillion in 2017. Military expenditure has stayed constant since 2010.
- Internal security spending, which includes police, judicial and prison system spending, is the second largest category at 27 per cent of the total.
- Low income countries spend less than five per cent of the per capita OECD allocation to internal security.
- In developed economies, internal security spending has fallen or remained stable, with the OECD average spending on internal security dropping from 1.65 to 1.61 per cent of GDP from 2000 to 2016.
- In the last 60 years, per capita GDP growth has been three times higher in highly peaceful countries compared to the ones with low levels of peace.
- If the 20 least peaceful countries were to grow at a rate equivalent to that of the most peaceful countries, per capita GDP could be up to US\$527 higher by 2030.



Conceptual Background

In addition to its social and political impact, violence imposes substantial economic costs on individuals, communities and nations. Interpersonal violence results in medical, policing and judicial costs immediately after the violent incident occurs and it has longer term implications for productivity and economic activity. Social unrest and collective violence destabilise governments and social institutions, as well as reducing business confidence. The combined effect of unstable government, social disruption and economic weakness paves the way for further strife, creating a vicious cycle.

Warfare destroys both private and public infrastructure. Not only are private property and businesses destroyed in war, but electricity, water supply, telecommunications, schools and health facilities are affected as well. For instance, the conflict in Syria has inflicted significant damage on the country's physical capital stock. Since the start of the civil war, seven per cent of the housing stock has been destroyed and 20 per cent have been partially damaged. From 2011 until the end of 2016, the cumulative losses in GDP have been estimated at \$226 billion, about four times the 2010 Syrian GDP.¹

Moreover, the mere anticipation or expectation of future violence has deleterious economic impacts. Fear of falling victim to violence changes consumption and work-related decisions. It leads to increased transportation costs, reduced productivity and dampened consumption. Fear of victimisation could also lead to adverse mental health effects such as anxiety, anger and reduced mental wellbeing, all of which have productivity related implications. In addition, the social cost of the fear of violence manifests itself in reduced trust in society and the erosion of social cohesion.

As public finances are necessarily limited, increased public spending on violence needs to be funded by either increases in revenue through debt and higher taxes, or the reallocation of resources from other sectors. Given the political challenges associated with tax increases, financing through debt and the reallocation of resources is often more likely. The financing of violence containment through debt increases the economic impact of violence, both in the short-term and long-term, due to the interest on this debt. For instance, Stiglitz and Blimes calculated that the cost of interest payments on borrowings to fund the war in Iraq will amount to US\$ 400 billion over a period of 13 years for US tax payers.² Such high levels of

spending on violence containment may also lead to reductions in spending on high return activities such as education, health and public infrastructure.

Violence produces spillover effects both within countries and across national borders. For example, population displacement has adverse impacts on the income, consumption, health and well-being of displaced people. Mass displacement also presents costs to the governments of origin, transition and destination countries and creates political ramifications for the refugee recipient countries. Forced migrations have the largest effects on neighbouring countries but can also result in mass movements of migrants across continents.

Terrorism also imposes substantial costs through loss of life, destruction of property and a decrease in business activity. The number of deaths from terrorism worldwide has increased over 800 per cent since 2000, although the number of deaths has been dropping for the last three years. The majority of these deaths occurred in conflict-affected countries; however, terrorism incidents and casualties are also impacting the three most peaceful regions – Europe, North America and the Asia-Pacific. Terrorism also exacts costs on the larger economy by decreasing production, tourism, trade and investment. It also leads to an increase in security spending, both domestically and internationally.

Methodology at a glance

The global economic impact of violence is defined as the expenditure and economic effect related to “*containing, preventing and dealing with the consequences of violence.*” The estimates include the direct and indirect cost of violence as well as an economic “multiplier”. The multiplier effect calculates the

TABLE 1.1

Variables included in the economic impact of violence, 2017

Seventeen variables across three categories are included in the model.

Security services and prevention oriented costs	Armed conflict related costs	Interpersonal violence
1. Military expenditure	1. Direct costs of deaths from internal violent conflict	1. Homicide
2. Internal security expenditure	2. Direct costs of deaths from external violent conflict	2. Violent assault
3. Security agencies	3. Indirect costs of violent conflict (GDP losses due to conflict)	3. Sexual assault
4. Private security	4. Losses from status as refugees and IDPs	4. Fear of crime
5. UN peacekeeping	5. Small arms imports	5. Indirect costs of incarceration
6. ODA peacebuilding expenditure	6. Terrorism	

Source: IEP

additional economic activity that would have accrued if the direct costs of violence had been avoided.

Expenditure on containing violence is economically efficient when it effectively prevents violence for the least amount of spending. However, spending beyond an optimal level has the potential to constrain a nation's economic growth. Therefore, achieving the right levels of expenditure on the military, judicial and security services is important for the most productive use of capital.

This study includes two types of costs: direct and indirect costs. Examples of direct costs include medical costs for victims of violent crime, capital destruction from violence and costs associated with security and judicial systems. Indirect costs include lost wages or productivity from crime due to physical and emotional trauma. There is also a measure of the impact of fear on the economy to account for how fear of violence alters the behaviour of individuals and society.

An important aspect of IEP's estimation is the international comparability of the country estimates, thereby allowing for cost/benefit analysis of country interventions. The methodology uses constant PPP international dollars.

IEP estimates the economic impact of violence using a comprehensive aggregation of costs related to violence, armed conflict and spending on military and internal security services. The GPI is the initial point of reference for developing the estimates. The 2018 version of the economic impact of violence includes 17 variables in three groups, as shown in Table 1.1.

The analysis presents conservative estimates of the global economic impact of violence. The estimation only includes variables of violence for which reliable data could be obtained. The following elements are examples of some of the items not counted in the economic impact of violence:

- **Domestic violence**
- **Violence against children and the elderly**
- **Household out-of-pocket spending on safety and security**
- **The cost of crime to business**
- **Spillover effects from conflict and violence**
- **Self-directed violence.**

The total economic impact of violence includes the following components:

1. Direct costs are the cost of violence to the victim, the perpetrator, and the government. These include direct expenditures, such as the cost of policing.
2. Indirect costs accrue after the violent event and include indirect economic losses, physical and physiological trauma to the victim and lost productivity.
3. The multiplier effect represents the flow-on effects of direct costs, such as additional economic benefits that would come from investment in business development or education instead of containing or dealing with violence. Appendix B provides a detailed explanation of the peace multiplier used.

The term economic impact of violence is used to explain the combined effect of direct and indirect costs and the multiplier effect, while the economic cost of violence represents the direct and indirect cost of violence. When a country avoids the economic impact of violence, it realizes a peace dividend.

“Expenditure on containing violence is economically efficient when it effectively prevents violence for the least amount of spending.”

2

Results & Trends

Global trends in the economic impact of violence

The economic impact of violence on the global economy was \$14.76 trillion in 2017, in constant purchasing power parity (PPP) terms. This is equivalent to 12.4 per cent of world gross domestic product or \$1,988 per person. The global economic impact of violence increased by 2.1 per cent from 2016 to 2017 as the level of global peace, measured by Global Peace Index (GPI) 2018, also deteriorated by 0.27 per cent. The increase in the 2017 economic impact was mainly due to a rise in internal security expenditure.

The global economic impact of violence increased by 16 per cent since 2012, reflecting the deterioration in peace. Results from the Global Peace Index Report 2018 show that global peace has declined for the last four years with 92 countries deteriorating and 71 improving their level of peacefulness. This period corresponds with the start of the Syrian war and rising violence

in the aftermath of the Arab uprising in Libya, Yemen and other parts of the Middle East and North Africa. The economic impact of the conflicts in Afghanistan and Iraq have also increased between 2012 and 2017 due to the rise of ISIL and its global affiliates. Figure 2.1 shows trends in the global economic impact of violence from 2007 to 2017.

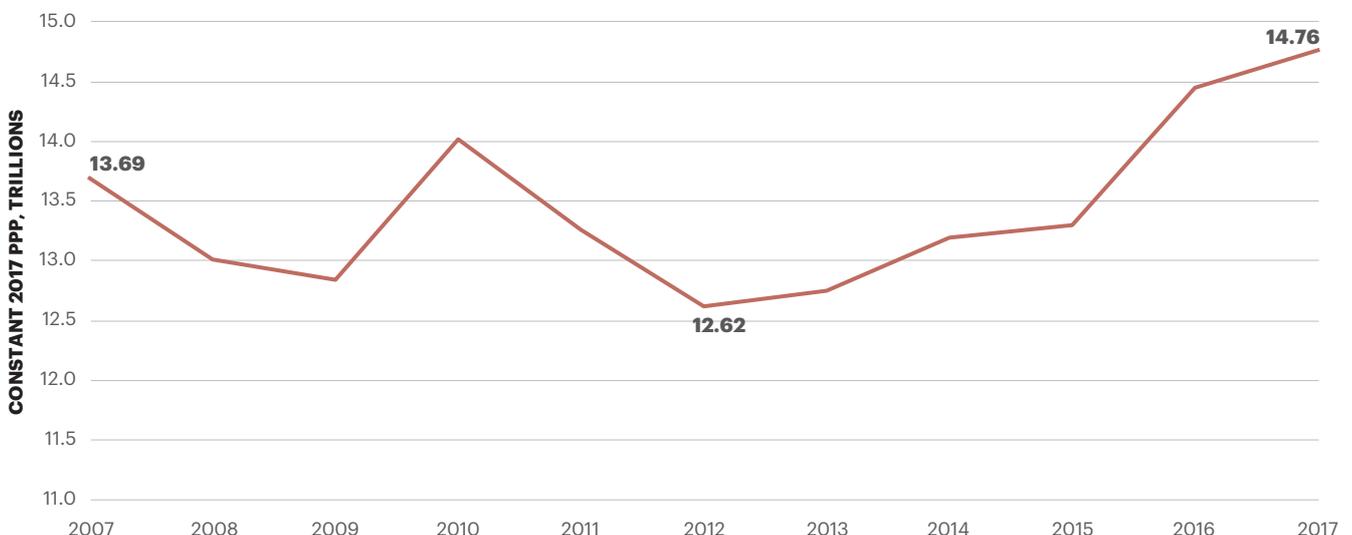
The single largest component of the global economic impact of violence in 2017 was *military expenditure*. Spending in this category totalled \$5.5 trillion PPP, or over 37 per cent of the global economic impact of violence in 2017. IEP's measure of *military expenditure* also includes the cost of veteran affairs and interest payments on military related debt in the United States, which was US\$ 231 billion in 2017.

Internal security spending was the second largest component, comprising over 27 per cent of the global economic impact of violence at \$3.8 trillion. Internal security expenditure includes spending on the police and judicial systems as well as the

FIGURE 2.1

Trend in the global economic impact of violence, trillions PPP, 2007 – 2017

The total economic impact of violence was higher in 2017 than at any point in the last decade.

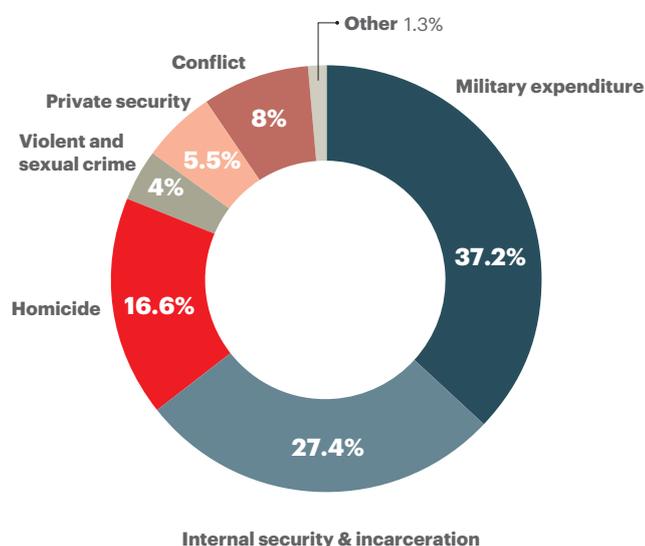


Source: IEP

FIGURE 2.2

Breakdown of the global economic impact of violence, 2017

Government spending on military and internal security comprises two thirds of the global economic impact of violence.



Source: IEP

indirect costs associated with incarceration. The data for internal security spending is obtained from the IMF government finance statistics (GFS) database. Figure 2.2 shows the breakdown of the total economic impact of violence by category.

Homicide, at 17 per cent, is the third largest component of the model. The economic impact associated with intentional homicide is greater than the combined totals for all violent crimes and conflict. Two other categories of interpersonal violence included in the model are violent and sexual assault, which make up four per cent of the global economic impact of violence. The economic impact associated with armed conflict is eight per cent of the total, which includes deaths from conflict, population displacement, terrorism and losses in economic activity due to conflict.

Table 2.1 provides details of the changes in the categories for the last year. The increase has largely been driven by the increase in internal security expenditure, as well as the rise in the economic impact of homicide. While the *homicide rate* has not had any significant changes at the global level, the rise in its economic impact mirrors changes in its indirect effect on the economy. For instance, as countries grow and reach a new level of GDP per capita, the economic effects from violence, such as homicide, on its economy also become costlier.

Refugees and IDPs accounted for the largest percentage decline in costs in 2017, falling by eight per cent globally. The decline in the impact of refugees is driven by decreasing per capita GDP in the countries of origin, which is used as unit cost for estimating losses due to population displacement. Small arms and peacebuilding both declined by one per cent. Military expenditure also decreased by one per cent.

TABLE 2.1

Change in the economic impact of violence from 2016 to 2017, constant 2017 PPP

The economic impact of deaths from conflict increased by five per cent.

Indicator	2016 (billions)	2017 (billions)	Change (billions) 2016-2017	Change (%) 2016-2017
Conflict deaths	249.9	263.5	13.6	5%
Refugees and IDPs	386.1	356.5	-29.7	-8%
GDP losses	368.3	390.1	21.8	6%
Private security	800.6	810.7	10.1	1%
Incarceration	222.7	233.2	10.5	5%
Violent crime	562.3	594.3	32.0	6%
Internal security	3,643.4	3,809.7	166.3	5%
Small arms	9.5	9.4	-0.2	-2%
Homicide	2,332.5	2,452.3	119.8	5%
Fear	129.4	137.6	8.2	6%
Military expenditure	5,563.2	5,487.3	-75.9	-1%
Peacebuilding	28.3	27.8	-0.5	-2%
Terrorism	142.6	160.9	18.3	13%
Peacekeeping	16.9	25.1	8.2	48%
Total	14,455.9	14,758.4	302.4	2%

Source: IEP

The two largest increases, terrorism and peacekeeping, are the result of intensified armed conflicts in the Middle East. These conflicts resulted in deaths from conflict and the impact of terrorism increasing by five and 13 per cent respectively. A major proportion of these increases are due to the conflicts in Syria, Iraq and Afghanistan. However, the economic impact of terrorism declined by 22 per cent at the global level when the increase in Iraq is excluded from the data.

Ten countries most and least impacted by violence and conflict

The economic cost of violence for the ten most affected countries ranges between 30 and 68 per cent of GDP. These countries have either high levels of armed conflict, high levels of interpersonal violence or both. The conflict-affected countries — Syria, Iraq, Afghanistan, Colombia, South Sudan, Somalia, and the Central African Republic — suffer from higher costs in the form of deaths and injuries from conflict or terrorism, population displacement and GDP losses. On the other hand, countries with high levels of interpersonal violence, such as El Salvador and Lesotho, are in the ten most affected countries because of costs associated with higher levels of homicide and violent crime. Cyprus is an exception in that the majority of its economic cost is related to the internal displacement of its population. Table 2.2 lists the ten most and least affected countries.

The 20 most peaceful countries incur significantly lower cost from violence compared to the global average. The economic cost of violence for the 20 most peaceful countries amounts to four per cent of their GDP. This is significantly smaller than the global average of nearly 11 per cent of GDP. Table 2.3 shows the economic cost of violence for the 20 most peaceful countries.

Containment costs, military and internal security expenditure are significantly smaller in the ten countries with the lowest impact of violence. Average *military expenditure* for the ten countries with the lowest impact was 1.2 per cent of GDP compared to the global average of 2.1 per cent. The lowest spenders on military were Madagascar, Switzerland and Indonesia with 0.6, 0.7, 0.8 per cent of GDP respectively. Similar trends emerge for internal security expenditure in this group of countries. As a percentage of GDP, the lowest spending on

internal security are in Switzerland (0.2), Equatorial Guinea (0.36) and Indonesia (0.4).

Countries with a lower impact of violence also have lower levels of interpersonal violence than the global average. The *homicide rate* for this group of countries is 1.6 per 100,000 people compared to the global average of 6.2 as reported by the UNODC Global study on Homicide.³ The ability of these countries to maintain a high or medium level of peace while spending significantly smaller amounts on containment is the underlying condition that creates peaceful societies. This has been explored in IEP's work on Positive Peace, which captures the *attitudes, institutions and structures* that create and sustain peaceful societies. Switzerland, Iceland and Canada rank among the top 15 countries in the Positive Peace Index as well as countries that are least affected by the economic cost of violence.

TABLE 2.2

Ten most and least affected countries by economic cost of violence as a % of GDP

In Syria, Afghanistan and Iraq, the economic impact of violence was equivalent to over 50 per cent of GDP. The average economic cost of violence in the ten least affected countries is equivalent to 2.4 per cent of GDP, compared to the most affected countries, the economic burden of violence is 19 times smaller in the least affected countries.

Most affected countries	Economic cost of violence as % of GDP	GPI 2017 rank
Syria	68%	163
Afghanistan	63%	162
Iraq	51%	160
El Salvador	49%	116
South Sudan	49%	161
Central African Republic	38%	155
Cyprus	37%	62
Colombia	34%	145
Lesotho	30%	104
Somalia	30%	159

Least affected countries	Economic cost of violence as % of GDP	GPI 2017 rank
Switzerland	1.4%	12
Indonesia	2.2%	55
Burkina Faso	2.2%	88
Canada	2.2%	6
Taiwan	2.4%	34
Ghana	2.4%	41
Malawi	2.6%	44
Iceland	2.7%	1
Madagascar	2.7%	38
Equatorial Guinea	2.7%	65

Source: IEP

TABLE 2.3

The economic cost of violence as % of GDP for the 20 most peaceful countries

The economic cost of violence for the 20 most peaceful countries amounts to the equivalent of four per cent of their GDP on average. This is significantly smaller than global average of nearly 11 per cent of GDP.

Country	GPI score (1 = most peaceful)	Cost of violence (% GDP)
Iceland	1.096	2.7%
New Zealand	1.192	4.2%
Austria	1.274	2.9%
Portugal	1.318	5.6%
Denmark	1.353	2.8%
Canada	1.372	2.2%
Czech Republic	1.381	5.0%
Singapore	1.382	4.9%
Japan	1.391	2.8%
Ireland	1.393	3.3%
Slovenia	1.396	4.0%
Switzerland	1.407	1.4%
Australia	1.435	5.5%
Sweden	1.502	3.7%
Finland	1.506	3.7%
Norway	1.519	3.4%
Germany	1.531	4.1%
Hungary	1.531	5.6%
Bhutan	1.545	7.6%
Mauritius	1.548	4.6%

Source: IEP

TABLE 2.4

Composition of the global economic impact of violence, constant 2017 PPP, billions

Indicator	Direct costs	Indirect costs	The Multiplier Effect	Total
Conflict deaths	131.8		131.8	263.5
Refugees and IDPs	0.6	355.2	0.6	356.5
GDP losses		390.1	0.0	390.1
Private security	405.4		405.4	810.7
Violent crime	89.0	416.2	89.0	594.3
Internal security	2,021.4		2,021.4	4,042.9
Small arms	4.7		4.7	9.4
Homicide	285.0	1,882.3	285.0	2,452.3
Fear		137.6	0.0	137.6
Military expenditure	2,743.6		2,743.6	5,487.3
Peacebuilding	13.9		13.9	27.8
Terrorism	18.8	123.3	18.8	160.9
Peacekeeping	12.6		12.6	25.1
Total	5,726.8	3,304.7	5,726.8	14,758.4

Source: IEP

Composition of violence containment spending

Violence has both direct and indirect impacts on individuals and societies. The direct costs associated with violence are the immediate consequences of violence on the victims, perpetrators and public systems including health, judicial and public safety. The indirect costs of violence refer to the discounted long-term costs such as lost productivity, psychological effects and the impact of violence on the perception of safety and security in a society. In addition, IEP also includes the flow on effects from the direct costs as a peace multiplier. For more details on the peace multiplier, refer to Box B.1 on page 35 in Appendix B. Table 2.4 provides details of the economic impact of violence broken down by direct and indirect costs.

Homicide

Homicide, at 17 per cent, is the third largest component of the global economic impact of violence. The economic impact associated with intentional homicide is greater than the combined totals for both violent crime and armed conflict. Regionally, South America, Central America and the Caribbean and sub-Saharan Africa are most affected by economic impact of homicide. Eight out of the ten countries suffering the highest economic impact from homicide are located in South America and Central America and the Caribbean, and the two other are in sub-Saharan Africa. Table 2.5 shows the ten countries with the highest economic cost of violence.

Nine out of the ten countries in table 2.5 have an economic cost of homicide greater than 12 per cent of GDP. This highlights the significant burden that high levels of interpersonal violence and organised crime have on the economic wellbeing of the people

of these countries. Globally, the economic impact of homicide increased by five per cent last year. While the *homicide rate* has not had any significant changes at the global level, the rise in its economic impact is driven by changes in the underlying GDP growth rates in the affected countries. For instance, as countries grow and reach higher levels of GDP, the economic effects from violence, such as homicide, become costlier.

Despite a considerable increase in the *homicide rate* of some Central American countries, 71 per cent of countries reduced homicide. According to the latest available UNODC homicide data there are now 30 countries which have a *homicide rate* of less than one per 100,000 people.

Violent crime

Violent crime in the economic impact model includes violent and sexual crimes. The global economic impact of violent and sexual assault amounted to \$594 billion PPP in 2017, four per cent of the total. Violent crimes have short and long-term consequences on the victim and the broader society. Violence imposes several direct costs, such as the cost of medical and mental health services, police investigation and the justice system. In addition, the psychological trauma and fear of victimisation in society impose intangible costs. For example, individuals who have been the victim of rape or sexual assault are six times more likely to report having attempted suicide.⁴

IEP uses data from the United Nations Office on Drugs and Crime (UNODC), which reports police recorded incidents of violent crime at the national level. Given that victims of violent crime are less likely to report the crime to police, IEP estimates of the cost of violent crime are conservative and are likely to underestimate the true implications of these crimes

Certain aspects of domestic violence are captured in this study including homicide and violent assault when reported to police. However, except for few advanced economies, data for domestic

TABLE 2.5

Ten countries with the highest economic cost from homicide as a percentage of GDP, 2017

The economic impact of homicide is greater than ten per cent of GDP for nine of the ten most affected countries, representing the enormous burden of interpersonal violence.

Country	Economic cost of homicide as % of GDP
El Salvador	43%
Honduras	25%
Lesotho	21%
South Africa	17%
Jamaica	15%
Venezuela	13%
Colombia	13%
Trinidad and Tobago	12%
Guatemala	12%
Brazil	9%

Source: IEP

violence is scarce. Additionally, laws governing domestic violence vary considerably between countries. This prohibits the explicit inclusion of domestic violence as a standalone category.

Studies in the United States and Australia have focused on the impacts of domestic violence or exposure to domestic violence on children. In the US, life time losses from domestic violence per child were estimated at US\$50,000, which included three important components, healthcare spending (US\$10,000), law enforcement (US\$14,000) and losses to labour productivity of (US\$26,000).⁵

Conflict

The economic impact of conflict, mainly due to a surge in internal conflicts, has increased over the past eleven years by 106 per cent and now stands at \$1.02 trillion. This amounts to

eight per cent of the total global economic impact of violence. This period corresponds with the start of the Syrian war and rising violence in the aftermath of the Arab uprising in Libya, Yemen and other parts of the Middle East and North Africa. The economic impact of the conflicts in Afghanistan and Iraq have also increased between 2012 and 2017, due to the rise of ISIL and its global affiliates.

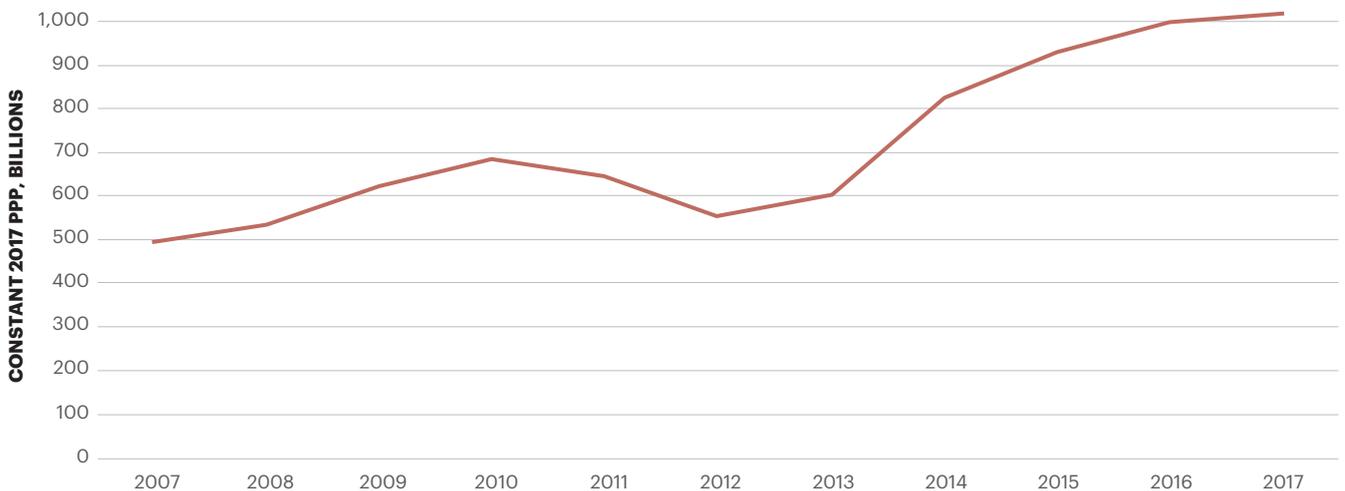
The conflict indicator in this report includes deaths from external and internal conflict, deaths and injuries from terrorism, indirect impact of conflict on the economy and the cost of population displacement.

Armed conflict has substantial adverse economic impacts through the loss of life, the displacement of civilian population, associated types of violence such as terrorism, and disruption in economic activity. Mass violence and war also destroys physical

FIGURE 2.3

Trend in the economic impact of conflict, 2007–2017

The cost of conflict has recorded a steep rise since 2012 which coincides with the start of conflicts in Syria, Libya and Yemen.

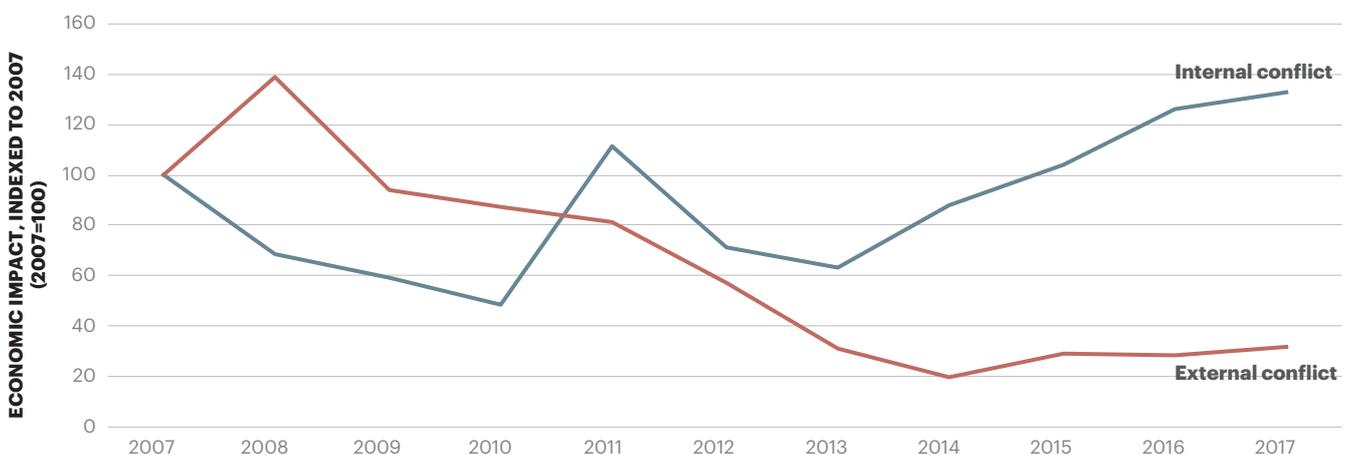


Source: IEP

FIGURE 2.4

Diverging trend in the costs associated with internal and external conflict, 2007–2017

The rise in the cost of the conflict is driven by internal conflicts, which have increased since 2013. By contrast external conflicts have declined since 2008.

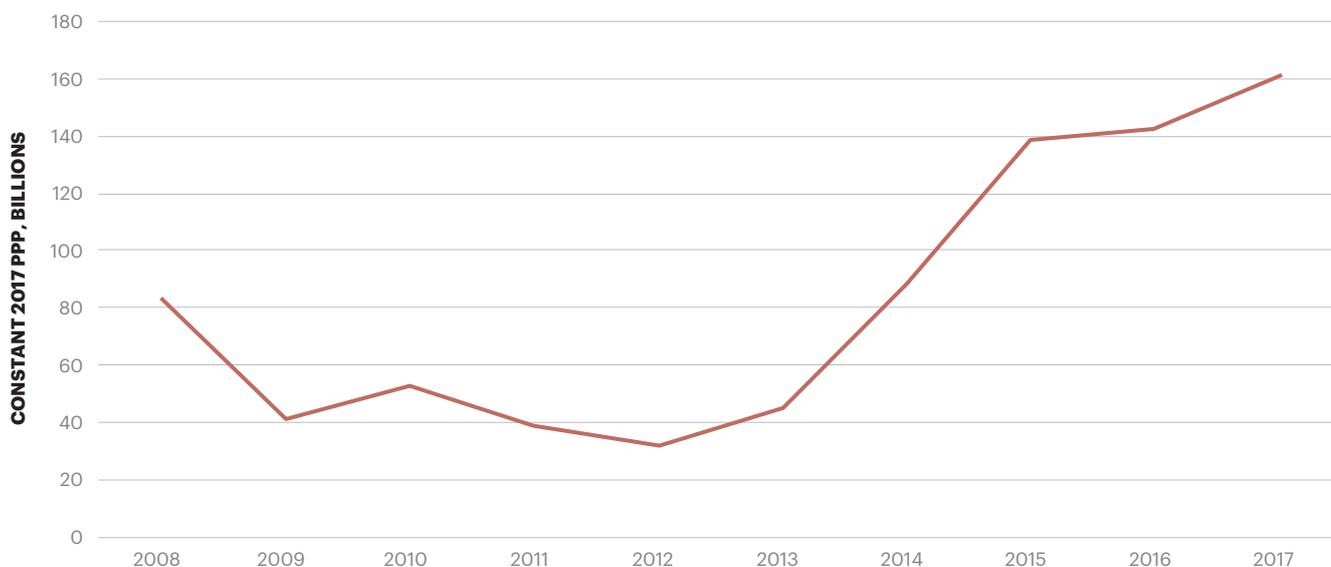


Source: IEP

FIGURE 2.5

Trend in the economic impact of terrorism, 2008–2017

The economic impact of terrorism has increased by 144 per cent since 2008.



Source: IEP

capital and infrastructure, representing a loss of both national assets and time invested. Wars tear down societies, economies and government institutions, leaving these countries fragmented and devastated, with Syria, Libya and Iraq being recent examples. Syrian people, who once enjoyed the benefits of a middle-income economy, are amongst the most vulnerable people globally, both inside Syria and in other countries.

While the total cost of conflict has been rising, the costs from purely external conflicts have fallen. The cost of deaths from external conflict has decreased by 64 per cent since 2007, largely driven by the withdrawal of international coalition forces from Iraq and Afghanistan. However, the economic impact from internal conflict deaths has risen by 102 per cent between 2007 and 2017. The biggest increase in the cost of internal conflict deaths occurred in 2012 rising by 128 per cent. This period coincides with the start of political upheaval in Arab countries that led to wars in Syria, Yemen and Libya and political instability and social tension in Egypt, Tunisia and Ethiopia.

Terrorism

The economic impact of terrorism increased by 13 per cent in 2017, reaching \$161 billion. However, excluding Iraq, the global economic impact of terrorism declined by 22 per cent from its 2016 level. While the bulk of global terrorist activities happen in a smaller number of conflict-affected countries, it has also spread to more peaceful regions over the last decade. Terrorism affected 77 countries in 2016 increasing from 65 in 2015 as illustrated in results of the 2017 Global Terrorism Index.

The vast majority of terrorism occurs in the Middle East and North Africa (MENA), South Asia and sub-Saharan Africa regions. Collectively these regions account for 84 per cent of all attacks and 94 per cent of deaths. The four most affected countries – Iraq, Afghanistan, Syria and Nigeria – account

for more than 70 per cent deaths from terrorism.⁶

The cost of terrorism includes the cost of deaths and injuries due to terrorism incidents. IEP's economic impact of violence model excludes property destruction and the larger macroeconomic impacts of terrorism. Such costs are accounted for in the GDP losses indicator. As a result, estimates of terrorism as calculated by this report are likely to be conservative. Figure 2.5 shows trends in the economic impact of terrorism.

The greatest year-on-year increase in the economic impact of terrorism occurred in Europe, with the total cost increasing by 76 per cent in 2017, after an increase of over 1,900 per cent from 2015 to 2016. North America also experienced a significant increase in the economic impact of terrorism from 2016 to 2017, as costs rose by 64 per cent.

Refugees and IDPs

Conflicts and political instability, especially in the Middle East and North Africa, sub-Saharan Africa and South Asia, have created a refugee crisis unprecedented since World War II. The number of people forcefully displaced reaching a historic high of 68.5 million in 2017.⁷ The economic impact of the *refugees and IDPs* reached \$355 billion in 2017.

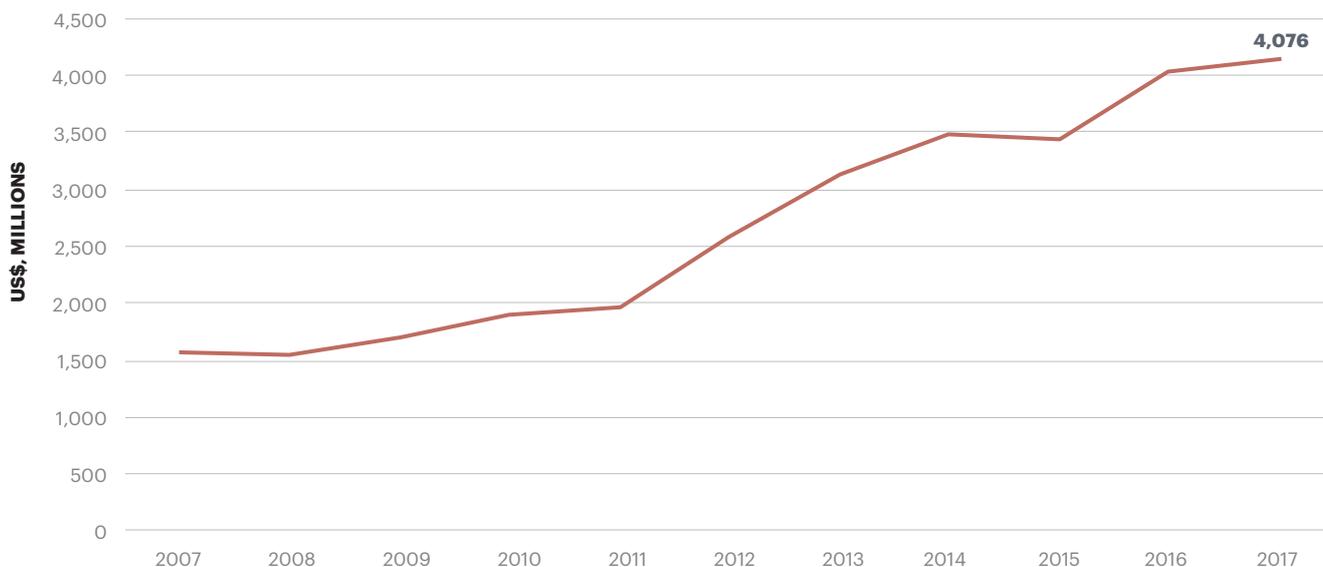
The Syrian war, tensions in Democratic Republic of the Congo and conflicts in South Sudan and Myanmar have been the primary drivers for the increased numbers of refugees in 2017. The economic impact of *refugees and IDPs* increased by 78 per cent from 2007 to 2017.

Syria, Afghanistan and South Sudan account for 57 per cent of all refugees and displaced people in the world.⁸ All three of these countries are amongst the ten most impacted by the economic cost of violence overall. Invariably, the largest burden of population displacement falls on neighbouring countries, which host the

FIGURE 2.6

Trend in UNHCR annual expenditure, 2007–2017

Forced displacement and refugee crisis from conflicts have led to a 235 per cent increase in UNHCR annual expenditure.



Source: UNHCR

largest proportion of refugees. For instance, Turkey, Pakistan and Lebanon are hosting 3.5, 1.4 and one million Syrian, Iraqi and Afghan refugees.⁹ In Lebanon, one in six people is a refugee.

IEP’s model accounts for lost production, consumption and investment for the country of origin for displaced persons or refugees and includes spending by UNHCR. The UNHCR annual expenditure has increased by over three-fold since 2008, from less than US\$1.2 billion in 2008 to US\$4 billion in 2017. Figure 2.6 shows UNHCR spending since 2008.

Fear of insecurity & crime

Fear of victimisation due to high levels of violent crime or conflict has social and economic implications. The economic impact associated with the indirect costs of fear of crime and insecurity was \$138 billion PPP in 2017. Fear affects the consumption and investment behaviour of the residents in the countries. In addition, lower levels of economic activity and property value are observed in neighbourhoods with high fear of crime. Fear of victimisation also decreases social cohesion by reducing the level of trust in a society.

Table 2.6 shows the ten countries with the highest fear of victimisation. Except for Afghanistan, which suffers from an armed conflict, the other nine countries are either located in Latin America or sub-Saharan Africa, the two regions with the highest violent crimes and homicide.

According to Gallup law and order index scores, a higher proportion of people report fear of victimisation in South America (50 per cent) and Central America and the Caribbean (49 per cent), followed by sub-Saharan Africa (40 per cent).¹¹ These regions also suffer from high levels of homicide and violent crimes. Among other things, previous victimisation, the level of crime in the area and exposure to crime news via the media are significant correlates of the level of fear.¹²

TABLE 2.6

Ten countries with the highest level of fear of crime and insecurity, 2016

Among the ten countries in which residents are least likely to say they feel safe walking alone at night, four are in Latin America and five in sub-Saharan Africa.¹⁰

Country	% of people who do not feel safe walking alone at night where they live
Venezuela	88%
El Salvador	72%
Dominican Republic	67%
Gabon	67%
Liberia	65%
Brazil	64%
Afghanistan	64%
South Africa	63%
Botswana	62%
Mauritania	61%

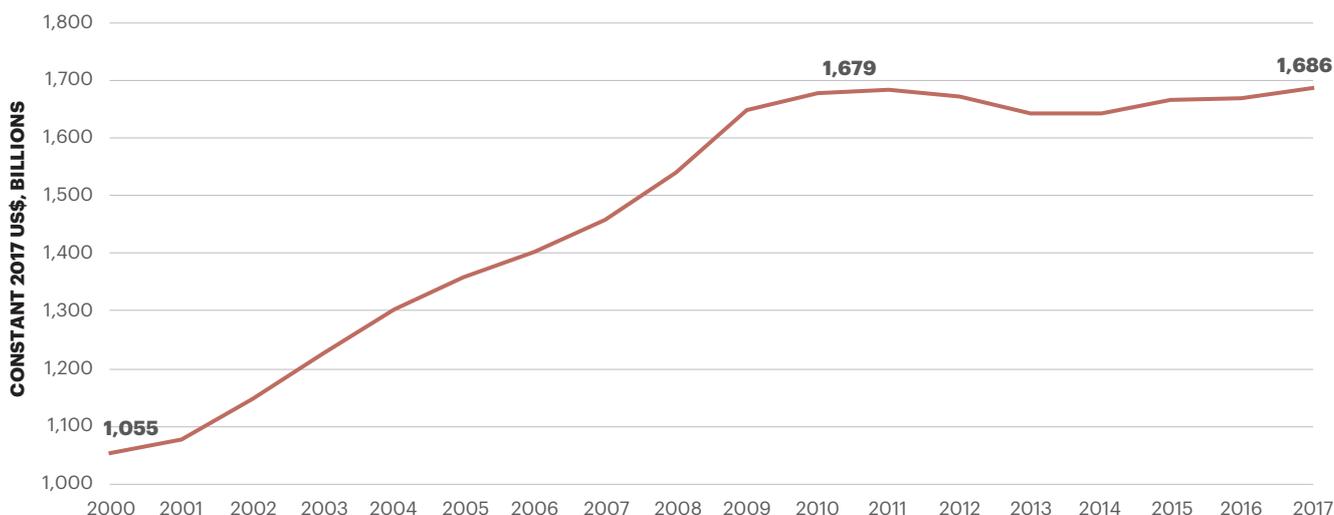
Source: Gallup world Poll, 2016

Fear of victimisation produces direct and indirect costs. Direct costs include additional personal security measures, productivity and health losses. The indirect costs include a changed view of society (loss of trust) and behaviour changed.

FIGURE 2.7

Trend in global military expenditure in constant 2016 US\$, 2000–2017

Global military expenditure has stayed constant since 2009, after increasing 46 per cent from 2000 to 2008.



Source: SIPRI

Military expenditure

Military expenditure is the largest category and accounts for 37 per cent of the global economic impact of violence, at \$5.5 trillion PPP in 2017. Estimates from the Stockholm International Peace Research Institute (SIPRI) show that *military expenditure* recorded a small increase of only one per cent in 2017. Figure 2.7 shows trends in *military expenditure* since 2000.

The United States accounts for 40 per cent of global *military expenditure* despite decreasing its military spending by 11 per cent since 2011.¹³ However, the US military budget is set to increase in coming years representing a reversal of this trend. For the United States, in addition to *military expenditure* recorded by the Department of Defence, IEP also includes veteran’s affairs spending and interest on military related debt which amounts to US\$231 billion in 2017.

China has the second largest *military expenditure* globally, which has increased by a 5.6 per cent from 2016. Chinese *military expenditure* has grown in line with the country’s strong economic growth. This increase has impacted the *military expenditure* of the Asia-Pacific region resulting in an increase of 3.6 per cent in 2017.

Regionally, *military expenditure* increased in the Asia-Pacific, Middle East and North Africa, South Asia and South America. It has either decreased or stayed constant in other regions. North Korea and Saudi Arabia have the highest *military expenditure* as a share of their GDP at 24 and ten per cent, respectively; while Japan at 0.9 per cent of GDP has one of the lowest levels of spending.¹⁴ India has increased its military spending by six per cent since 2016, accounting for 80 per cent of the regional *military expenditure* in South Asia.

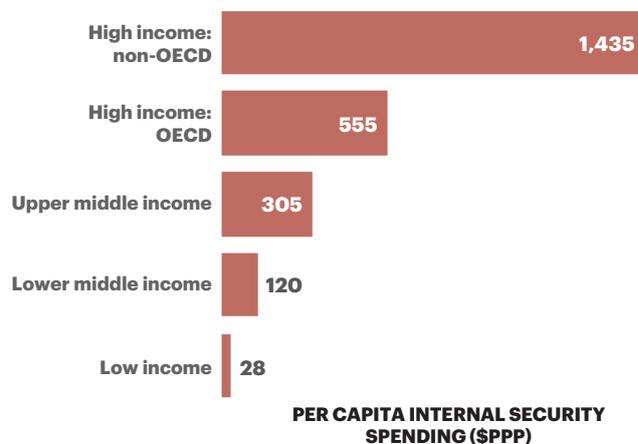
Internal security and expenditure

Internal security includes cost of police, prison services and judicial system as well as the indirect cost of incarceration. The

FIGURE 2.8

Average per capita spending on internal security (PPP) by national income, 2017

Low income countries spend five per cent of what OECD countries spend on internal security, on a per capita basis.



Source: IEP

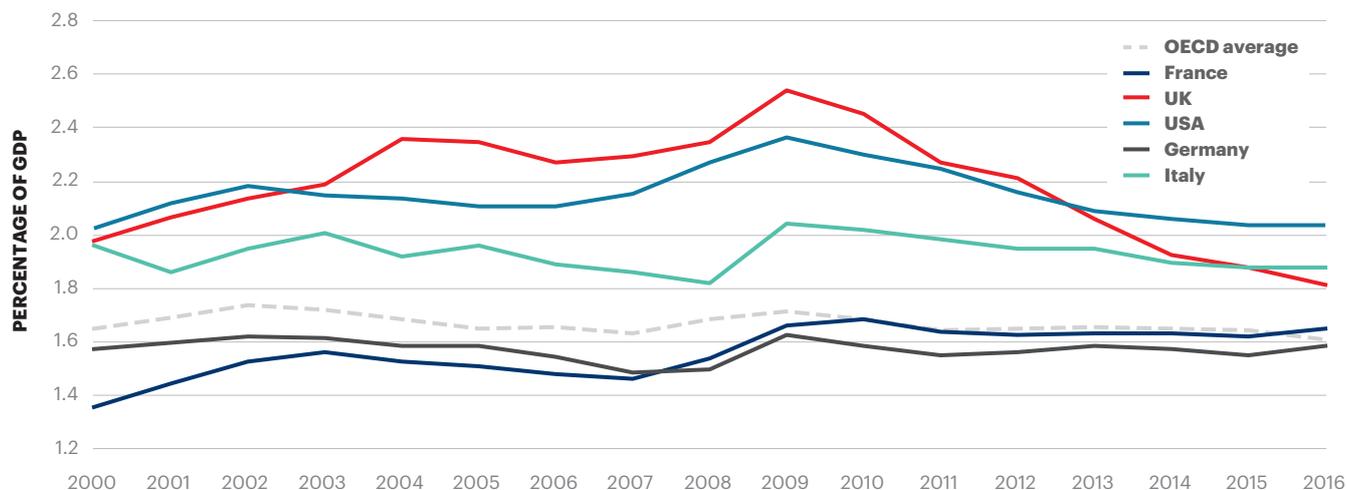
economic impact of internal security spending accounted for over 28 per cent of the global total in 2017, at \$3.8 trillion PPP. It was the second largest component of the model and increased by five per cent in 2017. This increase is primarily responsible for the overall increase of two per cent in the global economic of violence in 2017.

Internal security spending has a great degree of variation across countries. Per capita spending is greatest in high income non-OECD countries followed by OECD countries. On the other hand, on per person basis, low income countries spend only five per cent of developed economy expenditure on internal security. North America, Middle East and North Africa and Europe are the highest spending region per capita on internal security. However, overall per capita income is higher in these countries. Figure 2.8 shows per capita internal security spending.

FIGURE 2.9

Internal security expenditure as a percentage of GDP, 2000–2016

Internal security spending has fallen or remained stable in most developed economies. OECD average spending on internal security as a percentage of GDP has dropped from 1.65 to 1.61 per cent.



Source: OECD

Internal security spending as a percentage of GDP has experienced a large decline in the past few years in OECD countries. For example, as a percentage of GDP, internal security expenditure in the United Kingdom has declined by 33 per cent. Figure 2.9 shows internal security spending for selected OECD countries.

Peacebuilding & peacekeeping expenditure

Peacekeeping operations and peacebuilding are extremely important in preventing and dealing with violent conflict. Peacekeeping expenditure includes member country contribution to UN peacekeeping missions, which has more than doubled since 2007. Peacekeeping expenditure also include spending on military and civilian personnel and the operational cost of the UN peacekeeping missions.

Peacebuilding activities aim to reduce the risk of relapsing into violent conflict by strengthening national capacities and institutions for conflict management and facilitating the conditions for a sustainable peace. The expenditures include supporting the provision of basic safety and security and post-conflict institutional building for peace. This may involve disarmament, demobilisation and reintegration (DDR) programs, removal of land mines and civilian peacebuilding and mediation activities. Categories of peacebuilding are taken from the OECD Development Assistance Committee Creditor Reporting System, and are listed in table 2.7. Peacebuilding expenditure in the ODA categories declined by two per cent in 2017.

Peacekeeping expenditure includes all the costs to maintain the 14 UN peacekeeping missions that are currently active. It includes all payments to military and civilian personnel, operational costs to maintain peace and security, facilitate political processes, protect civilians, assist in the disarmament, demobilization and reintegration of former combatants, support the organization of elections, protect and promote human rights and assist in restoring the rule of law. These expenditures are borne by the international community and recorded each year by the UN Department of Peacekeeping Operations.

TABLE 2.7

Categories of peacebuilding expenditure

The following 17 categories are based on three peacebuilding priority areas identified as peacebuilding expenditure by the 2009 report of the Secretary-General on ‘Peacebuilding in the immediate aftermath of conflict’.

PRIORITY AREA 1: BASIC SAFETY AND SECURITY
<ul style="list-style-type: none"> • Security system management and reform • Reintegration and small arms and light weapons (SALW) control • Removal of land mines and explosive remnants of war • Child soldiers (prevention and demobilisation) • Participation in international peacekeeping operations
PRIORITY AREA 2: INCLUSIVE POLITICAL PROCESSES
<ul style="list-style-type: none"> • Legal and judicial development • Legislatures and political parties • Anti-corruption organisations and institutions • Democratic participation and civil society • Media and free flow of information • Human rights • Women’s equality organisations and institutions • Civilian peacebuilding, conflict prevention and resolution
PRIORITY AREA 3: CORE GOVERNMENT FUNCTIONS
<ul style="list-style-type: none"> • Public sector policy and administrative management • Public finance management • Decentralisation and support to subnational government
OTHER
<ul style="list-style-type: none"> • Specific peace-related expenditures

Source: IEP, World Bank World Development Indicators

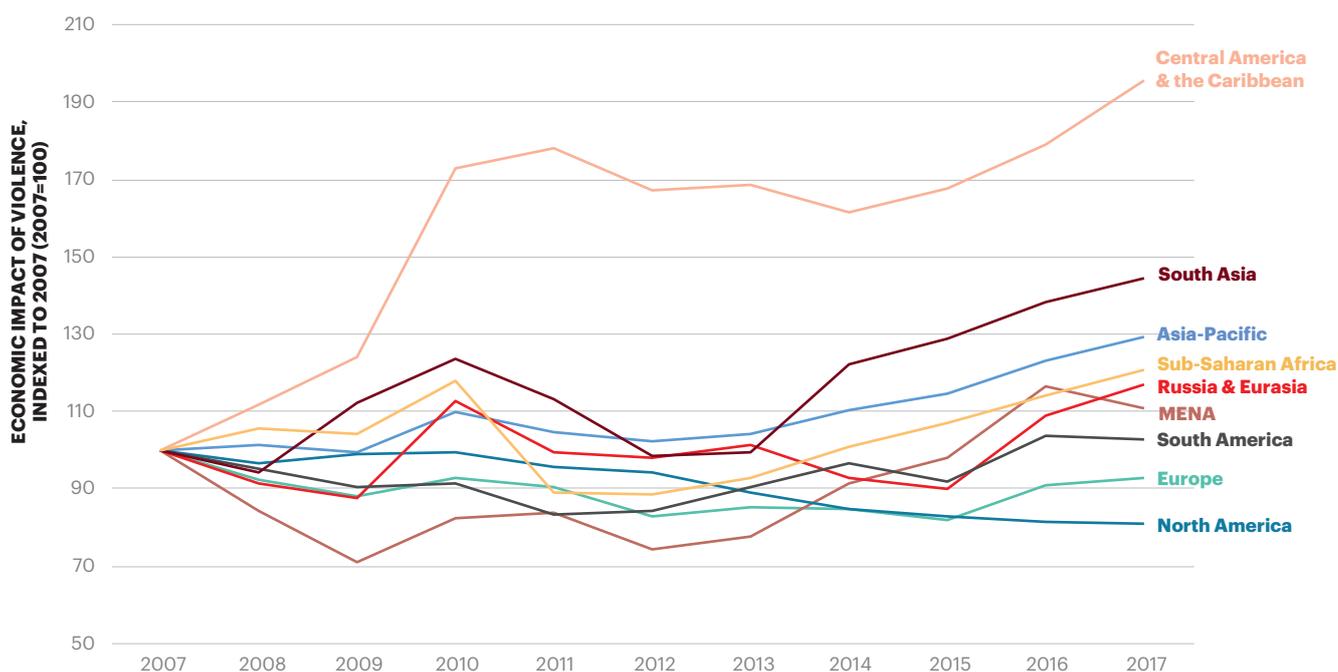
REGIONAL TRENDS IN THE ECONOMIC IMPACT OF VIOLENCE

The economic impact of violence varies in scale and composition among different regions. Asia-Pacific, North America and Europe are regions with the largest impact at \$2.86, \$2.72 and \$2.31 trillion in purchasing power parity terms respectively. The significant costs in these regions represent the significantly large military and internal security budgets.

FIGURE 2.10

Trend in the regional economic impact of violence, 2007-2017

Between 2007 and 2017, the economic impact of violence increased the most in Central America and the Caribbean, at 96 per cent, followed by 44.4 per cent in South Asia.



Source: IEP

The economic impact of violence had the greatest increase in Central America and the Caribbean in the last decade, rising by 96 per cent from 2007 to 2017. However, the region has the smallest economic impact. South Asia experienced the second largest increase in the cost of violence since 2007, increasing by 44 per cent. The main reason for such increase in the cost was the rising violence from conflict and terrorism in Afghanistan and Pakistan. Figure 2.10 shows trend for the economic impact of violence compared to the base year 2007.

Violence affects regions differently, resulting in different impact of violence profiles. While some regions are affected by ongoing armed conflict, others suffer from the burden due to higher levels of interpersonal violence. The greatest difference between regions is the cost of violent crime and homicide. This represents over 60 per cent of the economic impact for South America and Central America and the Caribbean regions, and only 13 per cent in the Asia-Pacific region. This is followed by *military expenditure* which varied from 42 per cent in North America and Asia-Pacific to four per cent in Central America and the Caribbean. Internal security spending proportions also vary significantly between the highest spending region (Europe),

and the lowest spending region (South America). Figure 2.11 shows the variations in the economic impact of violence by region.

Violence containment spending, which includes both military spending and internal security spending, is highest in MENA and North America¹⁵ while Central America and the Caribbean, South Asia, and sub-Saharan Africa spend the least on violence containment. On average, countries in sub-Saharan Africa spend seven times less on violence containment than Europe and five times less when compared to the Asia-Pacific region. Figure 2.11 shows per capita violence containment spending by region.

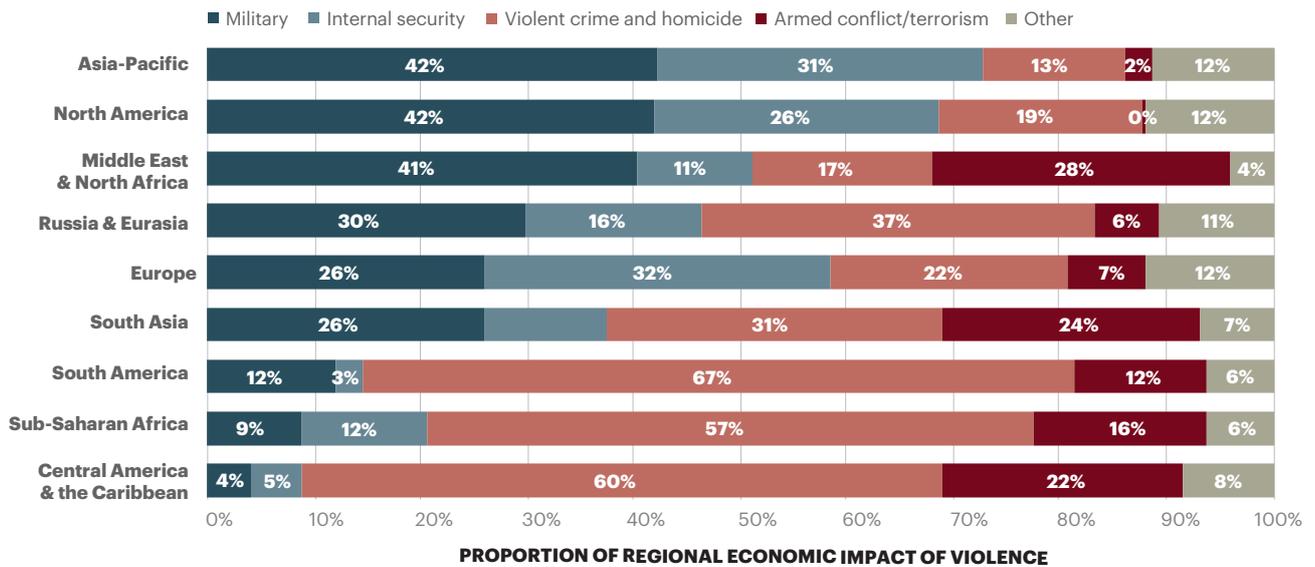
Latin America and the Caribbean

South America and Central America and the Caribbean illustrate similar trends and composition of the cost of violence. As such they are discussed together in this section. The 2018 results of the GPI find that South America is the fourth most peaceful region, while Central America and the Caribbean is the fifth most peaceful region out of nine.

FIGURE 2.11

Composition of the economic cost of violence by region, 2017

At the regional level, military expenditure accounts for between 4 and 42 per cent of the economic cost of violence.

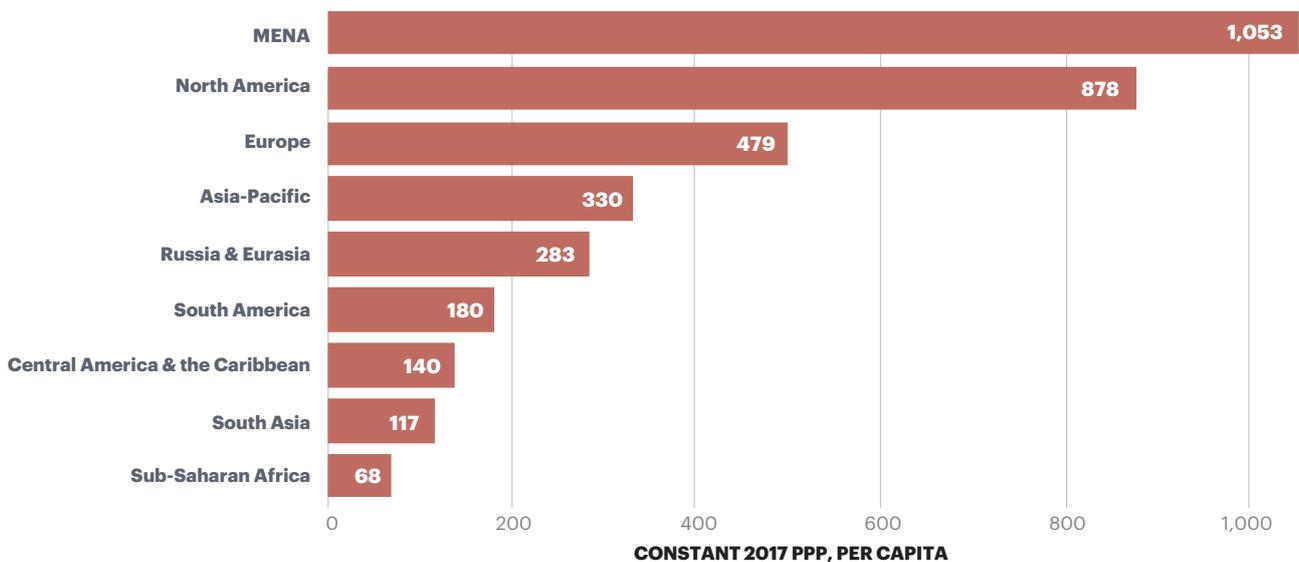


Source: IEP

FIGURE 2.12

Per capita violence containment spending (military and internal security) by region, 2017

Per capita violence containment spending is 15 times higher in MENA than sub-Saharan Africa.



Source: IEP

The combined economic impact of violence in the two regions amounted to \$1.67 trillion or 11 per cent of the global total. The combined economic impact of the two regions increased by ten per cent from 2016 to 2017 mainly driven by rising violence in Mexico and Venezuela.

In terms of violence, Latin America and the Caribbean suffers from a higher level of interpersonal violence in the form of violent crime and staggering *homicide rates*. Half of the economic impact of violence in Latin America is due to homicide, the highest among all regions globally. Figure 2.13 shows the composition of the cost of violence in Latin America and the Caribbean.

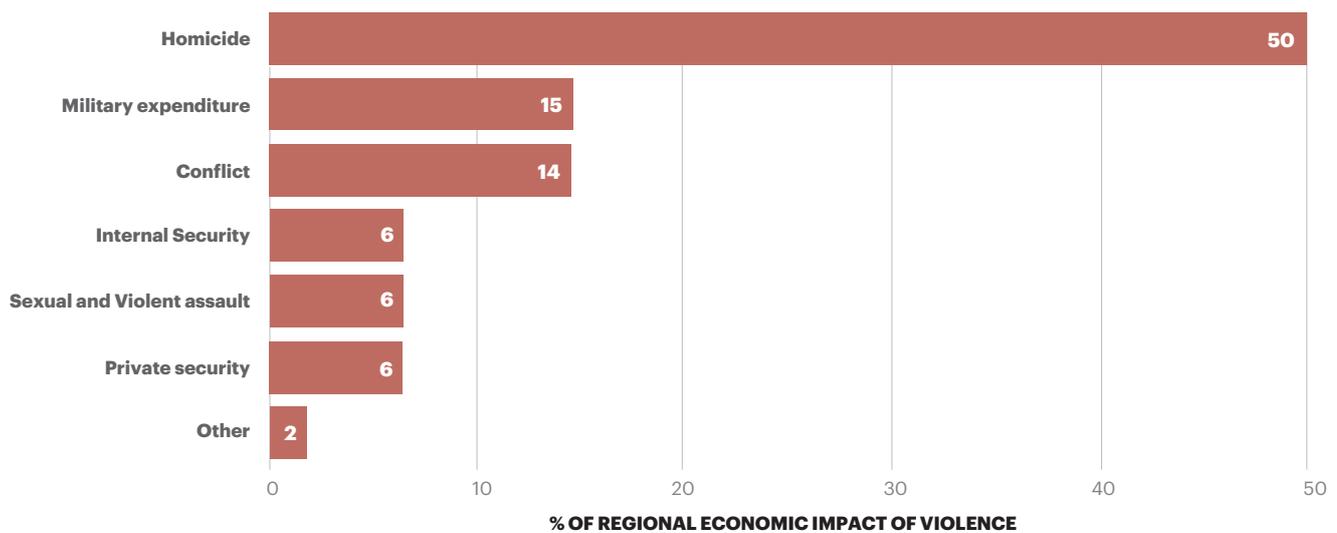
Latin America is home to eight of the ten worst affected countries when ranked by the economic cost of homicide as a percentage of GDP as shown in figure 2.13. The per capita cost of homicide is equivalent to \$1,284 PPP in Central America and the Caribbean. El Salvador and Honduras have the largest *homicide rates* in the world. The economic cost of homicide is equivalent to 43 and 21 per cent of these countries' GDP. This high level of violence in Latin America is largely due to organized crime activities, including drug trafficking organisations.

The high homicide and violent crime rates also create fear of victimisation and lack of trust in the police among ordinary citizens. Latin America and the Caribbean ranked at the bottom

FIGURE 2.13

The composition of economic impact of violence in Latin America and the Caribbean, 2017

The economic impact of homicide in Latin America is greater than military and Internal security expenditure combined.



Source: IEP

of the Law and Order Index. People in the region are among those who are least likely to feel safe in their neighbourhoods globally.¹⁶ On average, more than half of the people in South America (55 per cent) and approximately half in Central America and the Caribbean (49 per cent) report fearing violence, the highest rate in the world.

This is significant in terms of economic impact because increased fear affects both the economic and social environment: high levels of fear impact consumption behaviour, lead to lower levels of economic activity, decreased property values, and an erosion of social trust. Additional costs also arise from the higher levels of personal security required, losses to productivity and health, and changed social behaviour and trust in the government.

Individually, the economic impact among countries in Latin America has changed substantially over the last decade. Mexico's economic impact in the region has increased significantly, up 158 per cent since 2007, followed by an increased impact of 71 and 42 per cent in El Salvador and Honduras respectively.

Middle East and North Africa

Middle East and North Africa is the least peaceful region according to the Global Peace Index Report 2018. The economic impact of violence in the region amounted to \$1.79 trillion, the fourth highest globally. The economic impact of violence increased by 55 per cent between 2011 and 2016 due to increasing violence from the war in Iraq and the start of conflicts in Syria, Yemen and Libya. Overall, since 2008, the economic impact of violence increased by 18 per cent.

Ongoing conflicts, geopolitical tensions and terrorism are the main drivers of the cost of violence in MENA. Military expenditure consisted of 50 per cent of the economic impact followed by armed conflict at 21 per cent. In 2017, eight countries in the region were involved in active conflict either internally or with other countries. In addition, the rise of ISIL and affiliated groups in Iraq have turned the region to one of the most affected

by terrorism. Since 2008, the cost of terrorism has increased 74 per cent, mainly due to the rise of ISIL and the international community's war against the group.

The region also has significant internal security spending accounting for 13 per cent of the regional economic impact. Some countries in the region spend significantly higher amounts on internal security as a proportion of their economy, as shown in Figure 2.12.

However, in 2017, the economic impact of violence decreased by five per cent from its level in 2016. This is primarily due to declining costs in Iraq after security forces declared victory over ISIL. In addition, the localisation of the conflicts in Syria and Libya, combined with mass movements away from war zones, has led to a decrease in the impact of conflict on civilian population. However, the siege of a number of cities in Syria is still causing large civilian casualties—according to a UN estimate, total civilian deaths reached 540,000 people in 2017.¹⁷ The cost of *refugees and IDPs* in MENA dropped by 27 per cent in 2017 mainly due to a decrease in displaced populations in Libya and Iraq.

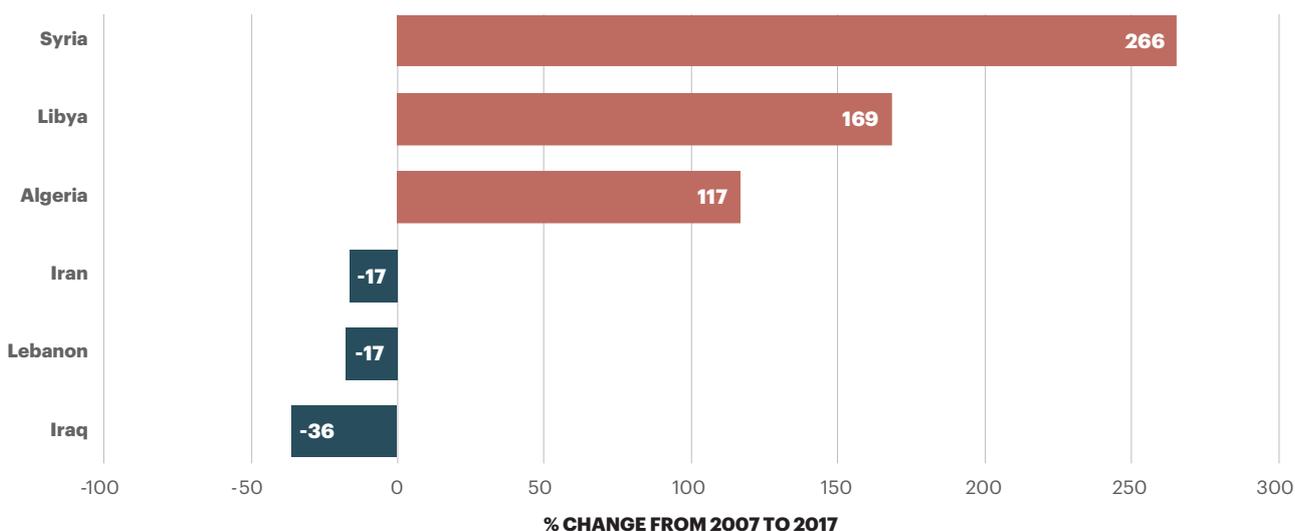
Figure 2.14 shows the six countries that recorded the largest increase or decrease in in the economic impact of violence between 2007 and 2017. Syria had the largest increase in the region due to the start of the civil war in 2011, resulting in 400,000 deaths and displacing 11 million people. Libya also experienced a sharp increase in violence following the fall of the Gaddafi regime, leading to the fragmentation of state institutions and the rise of local militias.

On the other hand, Iraq experienced a reduction in its economic impact of violence as the intensity of conflict declined and the war against ISIL led to the defeat of the terrorist group. Violence in Iraq experienced two different peaks. First, it increased in 2007 when al-Qaeda militants carried out violent attacks against civilian and military targets. The second peak in violence came during the rise of ISIL when they started advancing on cities and established their self-proclaimed caliphate. The decreases in Iran

FIGURE 2.14

Changes in the economic impact of violence in MENA, 2007–2017

The Syrian conflict has killed 400,000 and displaced 11 millions, reflected in the increase in the economic impact of conflict.

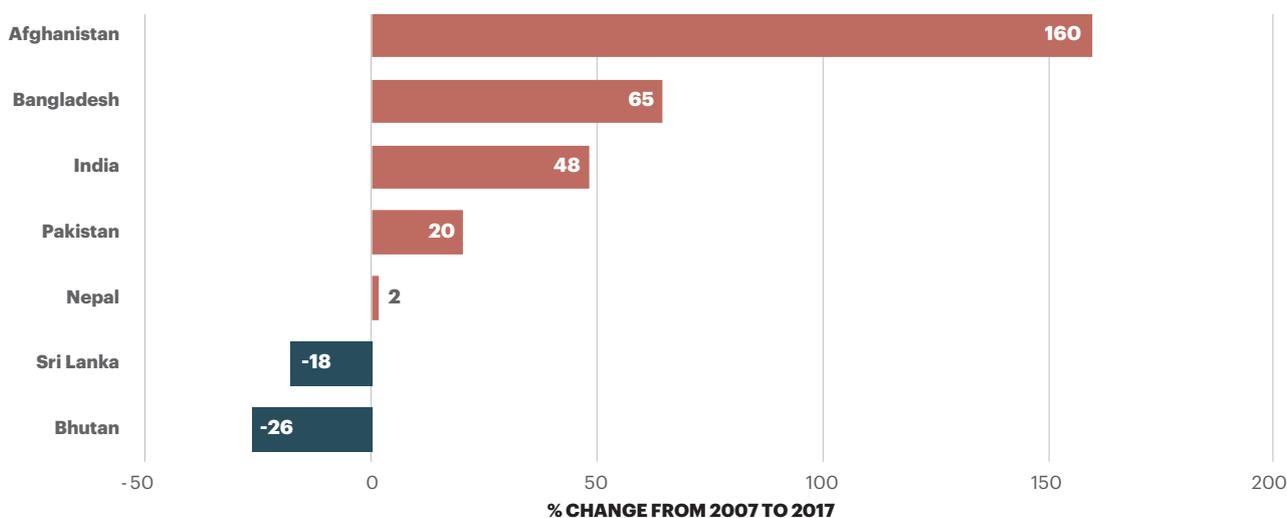


Source: IEP

FIGURE 2.15

Changes in the economic impact of violence in South Asia, 2007–2017

Afghanistan and Sri Lanka present contrasting examples in South Asia, the economic impact of violence increased by 160 per cent in Afghanistan and declined by 18 per cent in the post conflict Sri Lanka.



Source: IEP

and Lebanon are due to a reduction of the impact of the spillover effects from neighbouring conflicts. Containment spending in Iran also reduced as a result of a severe economic contraction due to international community sanctions.

South Asia

South Asia is the second least peaceful region after MENA and the economic impact of violence in the region amounted to \$1.52 trillion in 2017. The economic impact of violence in South Asia increased five per cent in 2017 due to the increasing intensity of conflict in Afghanistan.

The economic impact of violence in South Asia is largely due to military and internal security expenditure and costs arising from

armed conflict and terrorism. Containment costs, which include military at 35 per cent and internal security expenditure at 16 per cent, comprise more than half of the regional economic impact. Costs arising from conflict, such as deaths from conflict and terrorism, population displacement and GDP losses, consist of 17 per cent of the regional impact of violence.

Since 2007, Afghanistan has had the largest increase in its cost of violence at 160 per cent, followed by Bangladesh at 65 per cent. The increase in Afghanistan is from increasing spending on both police and military as the country builds its security forces with support from the international community. The country has also experienced increases in battle deaths and civilian casualties. Bangladesh also experienced some increase in terrorist activities resulting in a three-fold rise in the

economic impact of terrorism between 2008 and 2017. The country has also increased its military and internal security expenditure since 2007.

In contrast, Bhutan and Sri Lanka had their economic impact of violence decline by 26 and 18 per cent, respectively. Since the end of conflict in 2009 Sri Lanka has seen a decrease of the economic impact of violence. Figure 2.15 shows the changes in the economic impact of violence for South Asian countries since 2007.

Sub-Saharan Africa

Sub-Saharan Africa is ranked as the sixth most peaceful out of nine regions globally. The economic impact of violence in the region amounted to \$616 billion in 2017. The economic impact of violence in sub-Saharan Africa increased by six per cent in 2017, and since 2007 has increased 21 per cent. The diverse nature of the region is reflected in a varying pattern in the cost of violence. Some countries are affected by higher levels of interpersonal violence, such as violent crime and homicide, while others suffer from the impact of armed conflict. As such, changes in the regional impact tend to mask individual country trends. Figure 2.16 shows changes in the economic impact from 2007 to 2017 for the ten countries that recorded the largest change.

Increases in the economic impact of violence are driven by rising military and internal security expenditure to boost the capability of the state in dealing with instability and crime. Military expenditure increased in Republic of the Congo, Niger, Namibia, Mozambique and Cameroon. Some countries in the

region have increased their military and internal security budgets due to increased economic growth.

By contrast, countries where the economic impact of violence declined the most actually experienced reductions in military and internal security expenditure. Zimbabwe is the only exception where despite an increase in the military and internal security outlays, the economic impact of violence decreased due to a decline in the level of interpersonal violence. The economic impact in Sierra Leone and Madagascar declined along with improvements in peace.

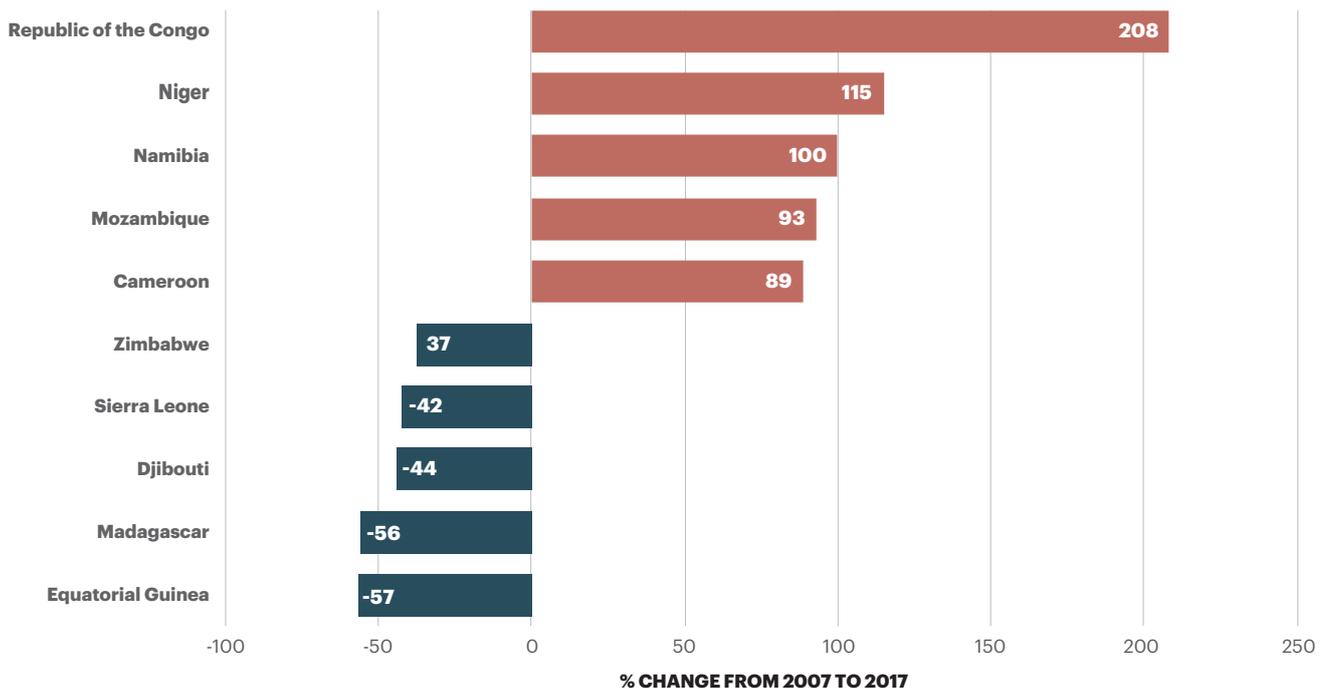
Asia-Pacific

The Asia-Pacific region is the third most peaceful region out of nine regions, behind Europe and North America. The economic impact of violence for the region amounted to \$2.86 trillion, the largest of all the nine regions. The economic impact in the region has increased by five per cent from its 2016 level and by 28 per cent since 2008. The rise in regional costs is overshadowed by trends in China. Through its increased security budget, China's economic impact amounted to \$1.7 trillion in 2017, accounting for 60 per cent of regional total. Military, internal security and incarceration accounted for 83 per cent of the economic impact in China with homicide at four per cent.

As in Europe and North America, a large proportion of the economic impact in Asia-Pacific is from military and internal security spending. The two make 80 per cent of the economic impact of violence with *military expenditure* at 46 per cent and internal security spending at 33 per cent of the regional total.

FIGURE 2.16
The ten countries with largest percentage change in sub-Saharan Africa region, 2007-2017

The rise in the economic impact of violence is driven by increased military and internal security expenditure.

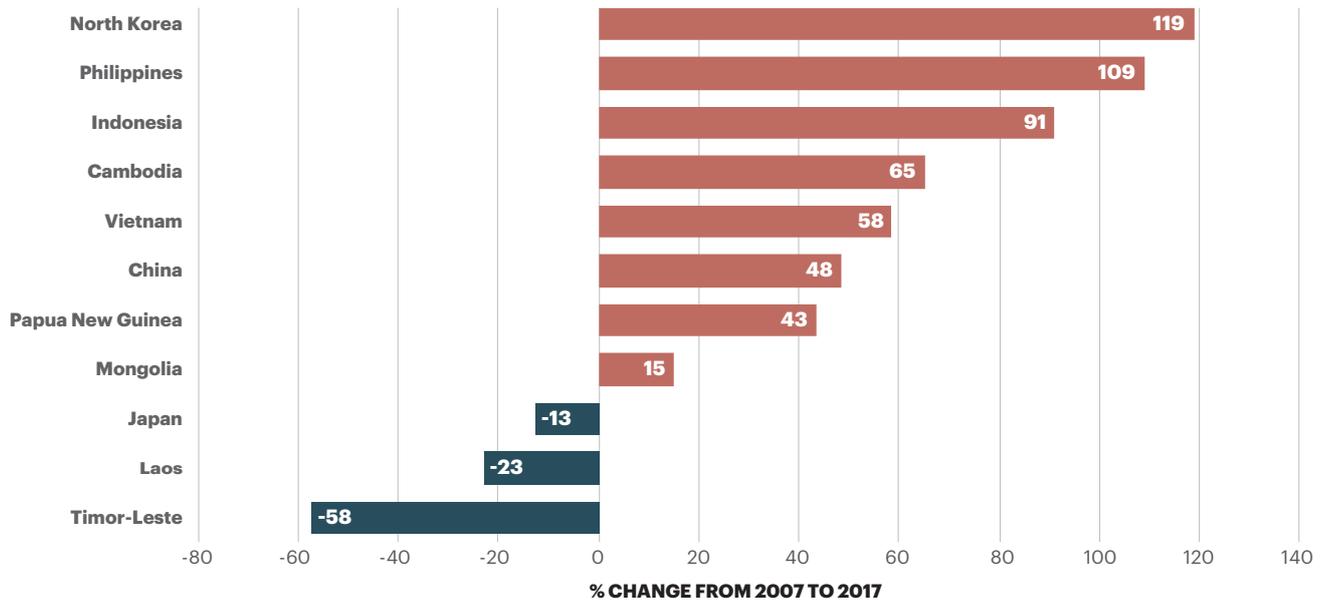


Source: IEP

FIGURE 2.17

Changes in the economic impact of violence in Asia-Pacific, 2007–2017

Both North Korea and the Philippines have increased their military expenditure. The Philippines experienced rising levels of violence due to its drug war and military operation against ISIL in the Mindanao region.



Source: IEP

North Korea and the Philippines more than doubled their economic impact of violence in the last 11 years since 2007. North Korea has increasingly invested in its military and weapon development programs, increasing its military budget by 145 per cent between 2007 and 2017. In the Philippines, the level of violence has increased following the hard-line approach to the country’s drug problem that has so far killed 12,000 people. The country also experienced a rise in terrorism related activities as ISIL appeared in the Mindanao region, and military operations were undertaken to counter the problem. The Philippines has also significantly increased its *military expenditure* in the last decade. Figure 2.17 shows changes in the economic impact of violence for the Asia-Pacific region since 2007.

Conversely, Timor-Leste has reduced its economic burden from violence by 58 per cent since 2007. The country has reduced its military and internal security budgets as political and social stability returns in the aftermath of violence during the struggle for independence and post-independence chaos. Laos and Japan were the two other countries that recorded declines in the economic impact of violence between 2007 and 2017.

North America

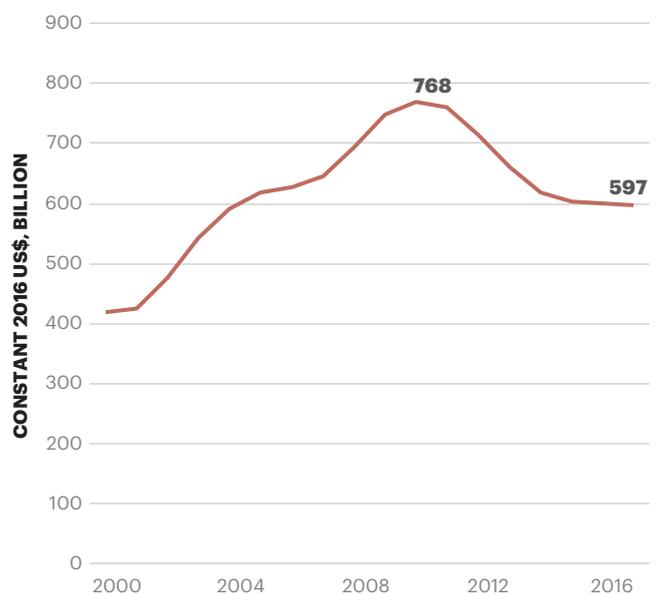
The North America region includes only two countries: Canada and the United States. The United States accounts for 99 per cent of the regional economic impact of violence amounting to \$2.73 trillion in 2017. North America is the second most peaceful region globally despite registering a slight deterioration in its GPI score in 2017. In the Global Peace Index 2018, Canada is ranked sixth and United States 121st.

With a 0.4 per cent decline in 2017, the economic impact of violence in the region did not register a significant change from

FIGURE 2.18

Trend in US military expenditure, 2000–2017

US military expenditure rose by 60 per cent between 2001 and 2009; however, it declined by 24 per cent since. This trend will reverse as the military budget is set to rise in 2018 and 2019.



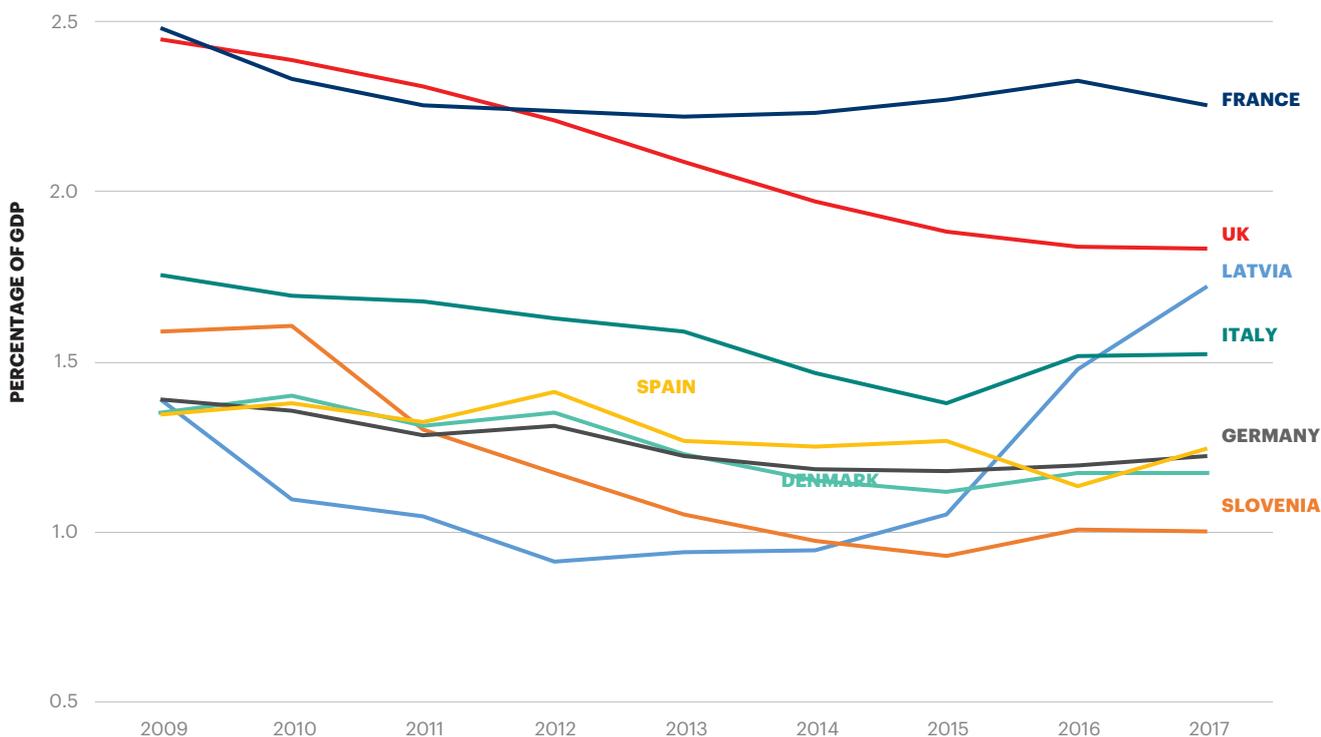
Source: SIPRI

its 2016 level. The largest element of the economic cost of violence in the region is US *military expenditure* at US\$610 billion, the highest in the world. US *military expenditure* has experienced a 35 per cent decline since 2008. However, this trend may reverse considering the significantly higher fiscal allocation in 2018 and 2019 budgets to the military. Figure 2.18 shows US *military expenditure* since 2000.

FIGURE 2.19

Trend in military expenditure as a percentage of GDP, 2009–2017

Military expenditure has stabilised or started to increase for many European countries after an austerity driven decline.



Source: OECD

In addition to recurrent yearly *military expenditure*, the United States also incurs sizable costs from the legacy of past conflicts. The primary example of these are the large costs associated with the Department of Veterans Affairs and interest payments on military related debt. When these later expenditure categories are added to US *military expenditure*, military related expenditure in the country reaches US\$828 billion in 2017.

Despite a small increase in troop level in Afghanistan in 2017, the scale of military involvement for the US has decreased from its peaks during the Iraq and Afghanistan wars, with deaths from external conflict decreasing by 97 per cent. The economic impact of violence in Canada, the only other country in the region, reached \$56 billion in 2017, which shows a decrease of 11 per cent since 2007. However, the costs of violent crime increased by two per cent from 2016 to 2017.

Europe

The economic impact of violence in Europe, the world’s most peaceful region, amounted to \$2.3 trillion, the third highest after Asia-Pacific and North America regions. The largest proportion of the economic cost is related to spending on military, internal security and private security which consists of 77 per cent of the impact in the region. This is a feature common to the three most peaceful regions – Europe, North America and Asia-Pacific.

The European economic impact of violence increased by two per cent during 2017. The economic impact of terrorism in

Europe has increased eight-fold since 2013. European countries have also started increasing their *military expenditure* because of rising security threats from Russia and international terrorism. Latvia and Spain recorded the largest increase with 16 and ten per cent rise respectively in 2017, suggesting that the austerity-enforced expenditure reductions induced by the global financial crisis might be coming to an end. Figure 2.19 shows *military expenditure* as a percentage of GDP for some European countries.

Europe has maintained its position as the most peaceful region in the GPI for the tenth successive year. In 2018, Europe claimed 20 of the top 30 rankings in the GPI, and 25 of the 36 European nations ranked in the top 50. Turkey has suffered from the spillover effect of conflicts in the neighbouring countries of Syria and Iraq over the last ten years. The economic impact of violence in Turkey has doubled between 2007 and 2017. The increase in the burden of violence is driven by Turkish involvement in the Syrian conflict, its campaign against Kurdish separatists at home and the terrorist attacks in the country.

Russia and Eurasia

Russia and Eurasia ranked seventh out of the nine regions included in GPI 2018 putting the region among the three least peaceful globally. The regional economic impact amounted to \$1.26 trillion and rose by seven per cent in 2017.

Russia accounts for 80 per cent of the regional economic impact of violence, reflecting its size and role as a major power in the region. Therefore, regional changes in the economic impact of

violence are generally dominated by Russia. The economic impact in Russia amounted to one trillion in 2017, of which more than 50 per cent is military and internal security expenditure.

The largest increase in the economic impact of violence occurred in countries where security expenditure increased the most over the last 11 years since 2007. Military expenditure increased more than six-fold from 2007 to 2017, with Uzbekistan having the largest increase in economic impact regionally. Military expenditure also increased in Turkmenistan by 11 per cent and in Azerbaijan by 45 per cent during the same period.

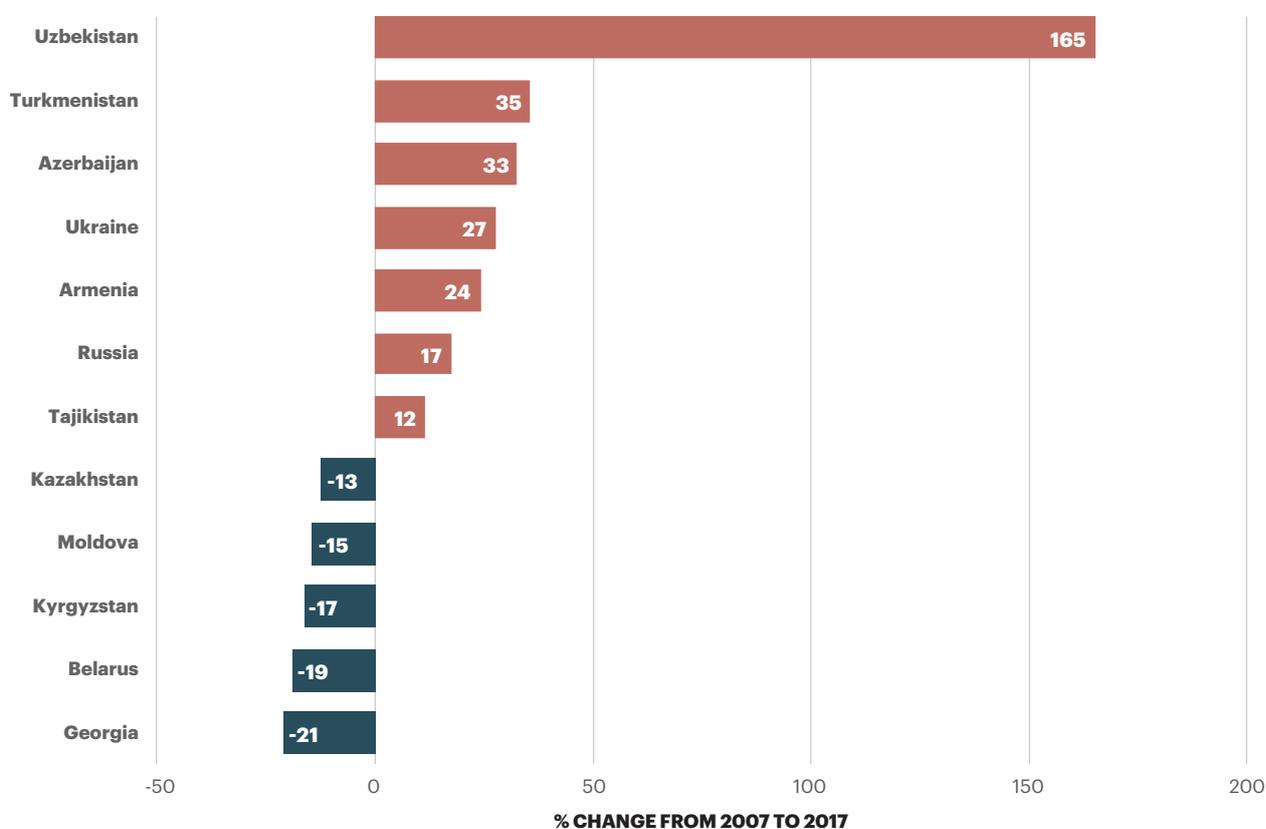
Despite a decrease in *military expenditure* in Ukraine, the economic impact in the country increased due to *ongoing conflict* in the country's east after the Russian annexation of Crimea. Figure 2.20 shows the change in the economic impact of violence in the region since 2007.

Countries that managed to reduce their cost of violence witnessed improvements in more indicators. Georgia managed to reduce its economic impact from homicide by 50 per cent and its *military expenditure* by 49 per cent since 2007, leading to a 22 per cent decline in the overall impact. Belarus also reduced its *military expenditure* by 22 per cent.

FIGURE 2.20

Changes in the economic impact of violence in Russia and Euroasia, 2007–2017

Military expenditure increases were the main reason behind increasing economic impact of violence in the region.



Source: IEP

3

The cost of containment and prevention versus the cost of violence

In a perfectly peaceful world, there would be no costs from violence and no need for prevention and military spending. In other words, societies that have strong societal, political and economic conditions that maintain peace will need minimum spending on containing violence. These conditions are outlined in IEP's Positive Peace framework, which captures the attitudes, institutions and structures that create and sustain peaceful societies.

However, in the absence of Positive Peace, reducing spending beyond a certain point on violence prevention will likely result in higher costs from violence and vice versa. Evaluating the trade-off between prevention and costs from violence sheds light on questions related to the optimal level of prevention and military spending. In this regard, optimal levels refer to the level of spending that can minimise violence in a cost effective way. Spending beyond that might not only be inefficient, but could also be a factor that causes a deterioration in peacefulness. For instance, building a larger than required military might lead the country to pursue larger geopolitical goals, creating violence elsewhere. Similarly, spending too much on police might lead to repression in a society and limit the basic rights of the citizen.

The economic impact of violence can be broadly divided into two categories: expenditure on services that aim to contain and prevent violence, and costs that arise as the consequence of violence. Prevention costs include spending on police and the criminal justice system as well as peacebuilding and peacekeeping, and are primarily intended to prevent, contain and reduce violence in a society. Military spending has been excluded from this analysis as it is generally associated with external actions by countries.

By contrast, costs that result from incidents of violence, such as homicide or violent crimes, or as a consequence of armed conflict are categorised as costs from violence as these occur within the country. This could include the direct costs to the victim, perpetrator and the extra burden placed on different government services such as police, health, and judicial systems. It also includes indirect costs from lost productivity and wages,

“Military spending beyond its optimal level are not only inefficient, but could be a factor that causes deterioration in peacefulness.”

disruption in the larger economy and psychological trauma.

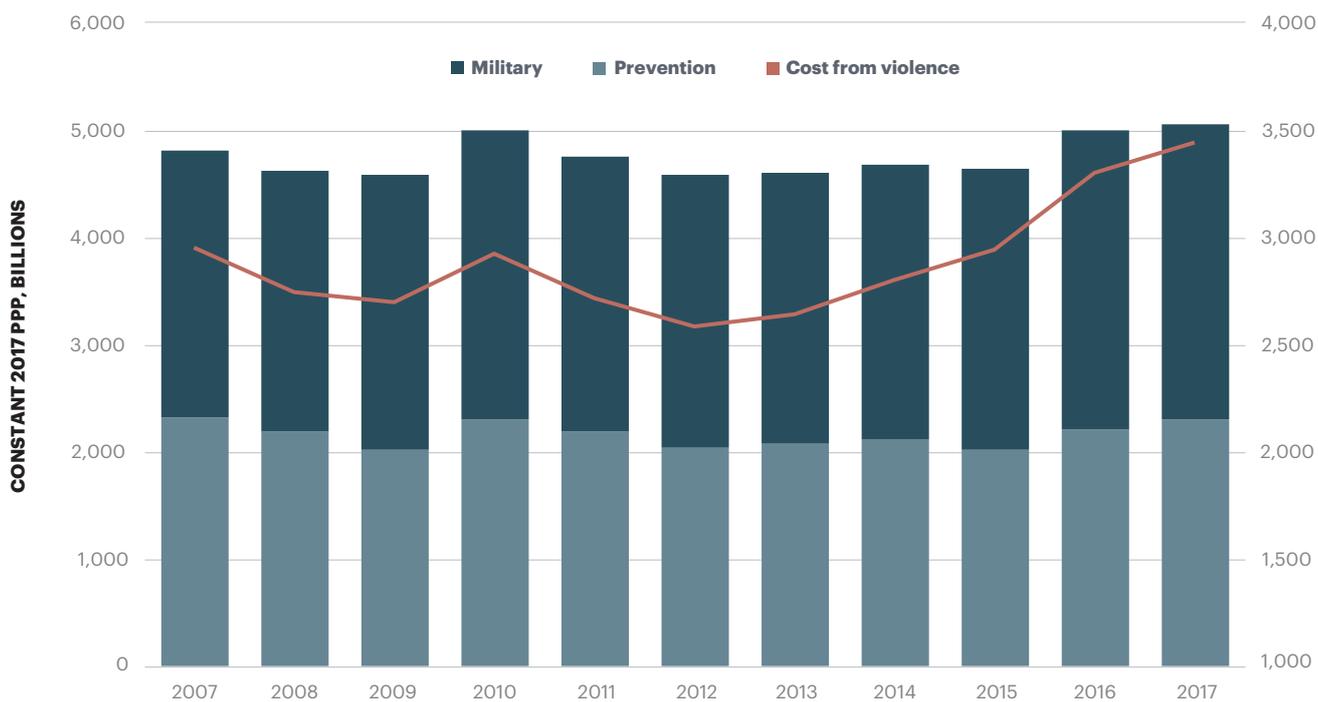
In 2017, prevention costs, not including military spending, were 67 per cent of the costs arising from violence. However, when *military expenditure* is aggregated to prevention costs, combined they are higher than the costs resulting from violence, as shown in Figure 3.1.

Although it may seem logical to increase the spending on violence containment to the point where the cost of violence and violence containment even out, what is more important is understanding which programs are cost effective. This exercise will vary from country to country and is beyond the scope of this document.

Costs arising from violence have increased by 17 per cent since 2007. The increase in the cost from violence has been driven primarily by ongoing conflicts in the MENA region but also by high levels of interpersonal violence in Latin America and sub-Saharan Africa. Conversely, containment costs, which include military and prevention-spending, have increased two per cent since 2007, with reductions in *military expenditure* in North America and Europe as the main factors driving the decrease. The containment costs are destined to rise considering the rising defence budget in the US, China and Europe.

FIGURE 3.1
Trend in violence prevention, military and costs from violence, 2007–2017

Globally, prevention costs are two-thirds of the costs arising from violence in 2017.



Source: IEP

4

Economic progress, prosperity and peace

This section examines the long-term economic trends and finds that the ‘prosperity gap’ between less and more peaceful countries is widening. Since 1960, the most peaceful countries have, on average, seen their per capita GDP grow by an annual rate of 2.8 per cent. Per person GDP was nearly three times larger in highly peaceful countries in 2016 than it was in 1960.

However, less peaceful countries have experienced economic stagnation. Their annual per capita GDP has, on average, grown by just one per cent over the last six decades. Economic factors such as high levels of poverty, unemployment and inflation have been shown to be risk factors for political unrest.¹⁸ As a result, poor economic performance has effectively made low peace countries more vulnerable to political instability.

There has been sustained global economic growth over the past seven decades since 1960. Expanded access to goods and services has contributed to a higher life expectancy and better quality of life. However, growth has been unbalanced between developed and lesser developed countries. This can be thought of as a ‘prosperity gap’ and can be explained by many factors that are included in IEP’s Positive Peace framework. *High levels of Human Capital, Low Levels of Corruption, Well-Functioning Government* and *Equitable Distribution of Resources* are some of the Pillars of Positive Peace that promote widespread prosperity and economic growth. In addition, the need to promote broad-based economic development in tandem with peacebuilding initiatives is critical for conflict prevention, particularly in fragile countries, where the risk of conflict relapse is high.

“Poor economic performance has effectively made low peace countries more vulnerable to political instability.”

A common feature of low peace countries is a higher degree of economic volatility. Short periods of growth are often followed by periods of stagnation and, in extreme cases, prolonged economic contractions. Poor governing mechanisms and prevailing manifestations of political polarization can exacerbate economic shockwaves, thereby prompting a spiral of instability.¹⁹ Prolonged macroeconomic volatility is often a precursor to hyperinflation, currency devaluation and indebtedness – all of which can create further instability.

This section presents a descriptive analysis of the long-term economic performance for different variations of peacefulness between countries. The World Bank’s World Development Indicators (WDI) are used for estimates of macroeconomic performance. Peacefulness is measured by the GPI Overall, this section aims to illustrate the association between peace and long-term economic performance.

Per capita GDP growth

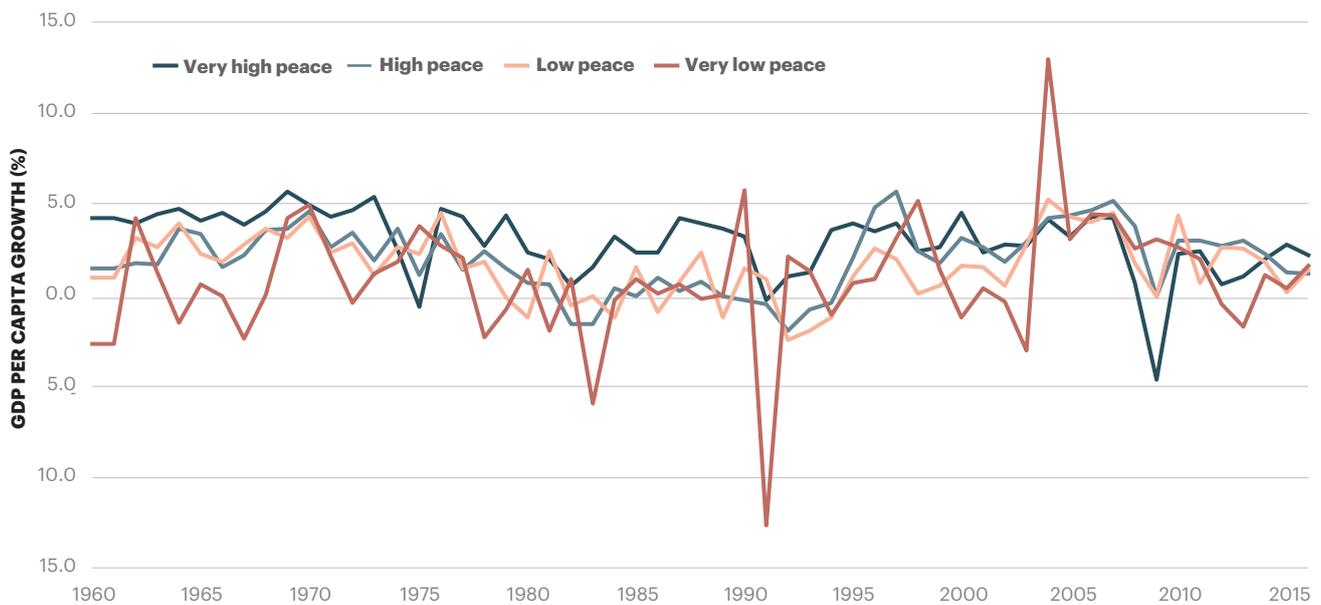
Economic data since 1960 shows a sustained and increasing trend in per capita GDP at the global level. However, when broken down at the country level, this trend is characterised by a large degree of variation across nations. While a great number of countries have significantly increased their per capita income, others have stagnated. When the level of peacefulness is considered, long-term growth in per capita income was nearly three times higher in high peace countries when compared to the least peaceful countries.

Countries that have sustained higher levels of prosperity have also achieved improvements in Positive Peace, which is defined as the *attitudes, institutions and structures* that create and sustain peaceful societies. Countries that rank highly in the Positive Peace Index (PPI) are those that tend to register the lowest levels of violence, which shows an association

FIGURE 4.1

Long term economic growth trend by level of peace, 1960–2016

Very high peace countries have sustained higher growth with fewer and smaller fluctuations over the long term.



Source: WDI, IEP

between good economic performance and systemic and societal peace.

The trend analysis does not suggest causality between peace and economic progress, and any such analysis would have to include the impact of Positive Peace on economic growth as this creates the optimal conditions for societies to progress. Nevertheless, peace and economic progress are interlinked with numerous other factors determining their progress over time. Poor economic performance is a strong contributing factor to deteriorations in peace and vice versa. Figure 4.1 illustrates the growth gap between four groups of countries by their level of peace.

Per capita GDP growth was also higher for countries that improved their level of peace over the last ten years. The twenty countries that improved the most in their GPI scores from 2008 to 2018 achieved a GDP growth seven times higher than the 20 countries that deteriorated the most.

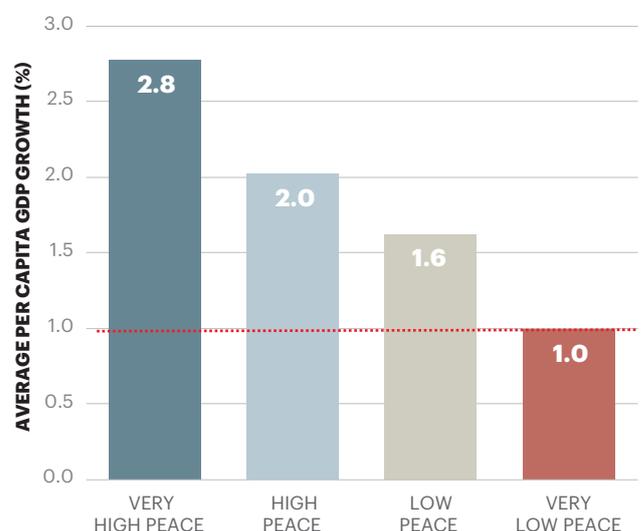
The long-term trend in economic growth shows a divergence in per capita GDP across countries with varying levels of peacefulness. GDP growth in the most peaceful economies is nearly three times higher than in low peace economies. As such, per capita GDP is 20 times larger in highly peaceful countries because of higher growth rates over the long run. The persistent lower level of growth in per capita income makes it challenging for the least peaceful nations to close the existing gap in living standards without major structural changes. Figure 4.2 shows growth over a 60-year period for countries based on the level of peacefulness.

Deviation from the long-term average indicates greater volatility in growth and creates boom and bust cycles, as seen in Figure 4.1 for very low peace countries. Economies that experience higher levels of volatility and fluctuation suffer from economic

FIGURE 4.2

Per capita GDP growth by level of peacefulness, 1960–2016

Countries with a very high level of peace achieved, on average, over three times higher per capita GDP growth compared to the least peaceful countries.



Source: WDI, IEP

instability. Deviation from long-term average growth are seven times higher in less peaceful countries, leaving their economies more unstable. Figure 4.1 illustrates that least peaceful countries experience larger deviations from their long-term mean.

GDP growth scenario analysis

Due to different growth rates, there is a slow and sustained process of ‘prosperity’ divergence among countries depending

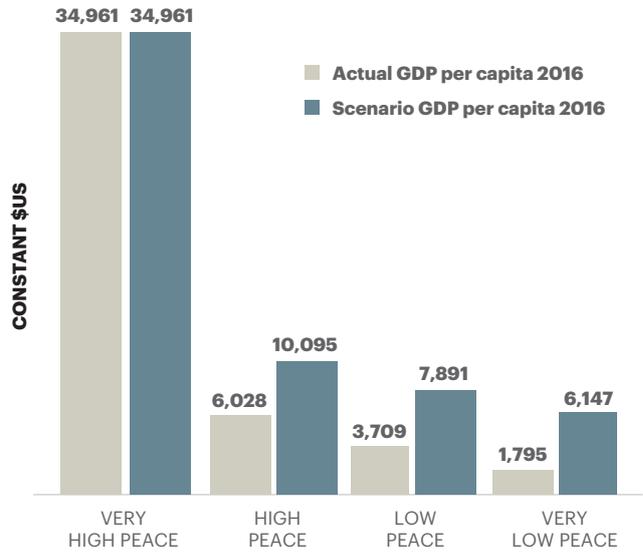
on their levels of peacefulness. The magnitude of the income gap between high and low peace countries can be illustrated using a hypothetical scenario where it is assumed that all countries increased their growth rates to the same level as high peace countries.

Figure 4.3 shows per capita GDP in 2016 and compares it to a scenario in which the eleven least peaceful countries have an equivalent growth rate to the most peaceful over the past 60 years. It is assumed that per capita GDP in the least peaceful countries increased at the same rate as highly peaceful countries, that is at 2.8 per cent per year instead of the actual one per cent. The results find that per capita GDP in very low peace countries would have been US\$6,147 in 2016, compared to the actual US\$1,795. In other words, GDP per capita would have been US\$4,352 higher than what it actually was in 2016. Estimates from this scenario also show that the global economy in 2016 would have been US\$13.87 trillion dollars larger than its current level.

Another way to illustrate the emergence of the income gap is a forward-looking scenario. If the growth rate is assumed to be equal among countries, by 2030, the least peaceful countries will achieve US\$527 higher per capita GDP. This scenario assumes that very low peace countries maintain a growth rate of 2.8 per cent until 2030. Figure 4.4 shows two scenarios for the least peaceful countries and the resulting difference that arises.

FIGURE 4.3
Prosperity gap by level of peacefulness, 2016

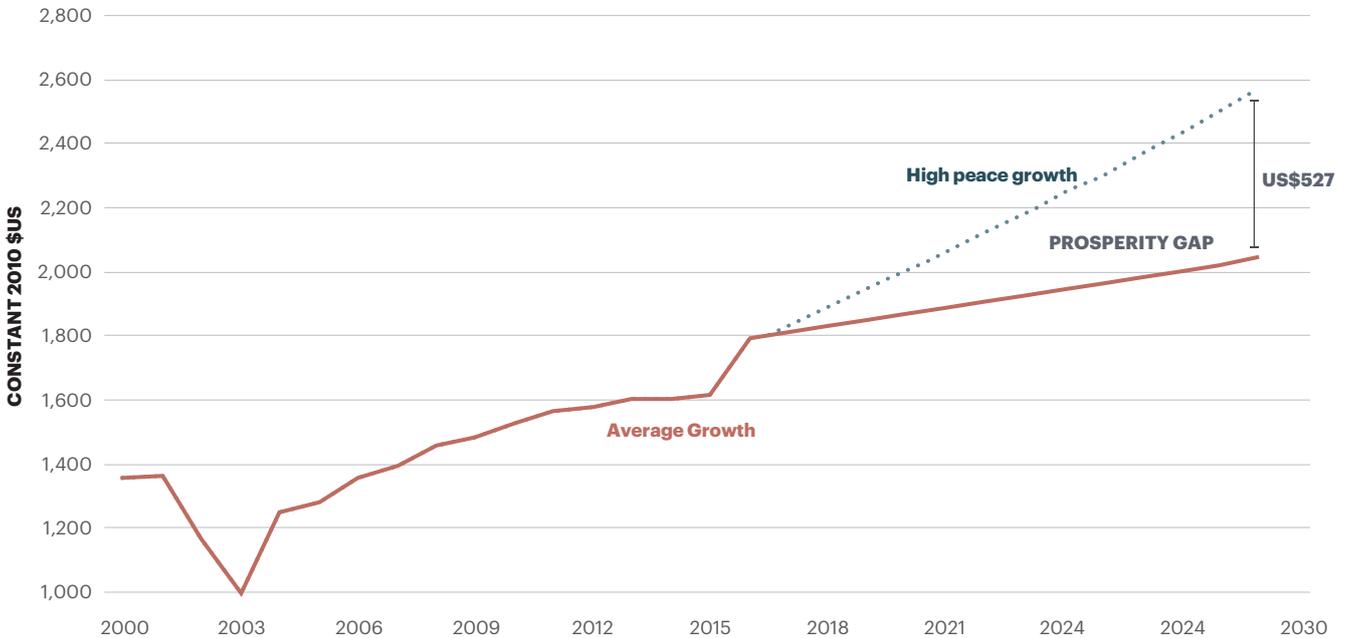
If low and very low peace countries had achieved an average growth rate equivalent to high peace countries, their per capita income would have been two to three times higher than what it was in 2016.



Source: WDI, IEP

FIGURE 4.4
Scenario analysis of per capita GDP growth for least peaceful countries, 2000–2030

GDP per capita would be US\$527 higher in the least peaceful countries if they had the same average growth rate as the most peaceful countries.



Source: WDI, IEP



Economic cost of violence by country, total in millions of 2017 PPP, per capita in 2017 PPP, and as % of GDP

The economic impact of violence includes the direct and indirect costs of violence as well as an economic multiplier applied to the direct costs. The economic cost of violence includes only the direct and indirect costs. Per capita and percentage-of-GDP results are calculated using the economic cost of violence.

ECONOMIC COST OF VIOLENCE (Rank by % GDP)	COUNTRY	ECONOMIC IMPACT OF VIOLENCE (Millions, 2017 PPP)	ECONOMIC COST OF VIOLENCE (Millions, 2017 PPP)	PER CAPITA (2017, PPP)	AS % OF GDP
1	Syria	41,982.7	29,065.2	1,589.6	68%
2	Afghanistan	67,811.1	42,662.6	1,172.9	63%
3	Iraq	366,416.8	277,839.6	7,062.6	51%
4	El Salvador	32,621.7	26,959.2	4,204.8	49%
5	South Sudan	13,131.3	11,255.2	871.2	49%
6	Central African Republic	1,469.5	1,215.9	256.6	38%
7	Cyprus	11,488.6	10,247.4	8,617.9	37%
8	Colombia	276,178.2	233,897.9	4,728.6	34%
9	Lesotho	2,633.7	1,983.0	876.3	30%
10	Somalia	2,406.8	1,881.2	123.9	30%
11	Honduras	15,339.9	12,996.4	1,380.1	30%
12	North Korea	9,084.1	4,726.2	184.5	27%
13	Yemen	26,693.1	17,892.7	618.8	26%
14	Libya	28,963.6	17,715.9	2,737.8	26%
15	South Africa	239,480.2	175,191.0	3,052.2	24%
16	Eritrea	1,941.4	1,504.0	289.9	22%
17	Jamaica	7,054.9	5,359.2	1,848.8	21%
18	Ukraine	102,780.6	68,977.3	1,567.3	20%
19	Sudan	43,067.8	35,286.7	850.0	19%
20	Congo	8,339.3	5,512.9	1,020.9	19%
21	Palestine	6,994.9	4,221.5	835.5	18%
22	Trinidad and Tobago	11,020.1	8,061.1	5,872.9	18%
23	Namibia	7,320.8	4,639.4	1,792.8	18%
24	Russia	1,013,775.5	617,606.2	4,290.0	17%
25	Guatemala	26,873.4	21,563.6	1,250.4	16%
26	Venezuela	105,119.6	84,539.9	2,610.8	16%
27	Oman	51,648.9	26,541.0	5,495.1	16%
28	Republic of the Congo	12,565.9	10,569.2	125.8	15%
29	Azerbaijan	36,212.6	24,908.4	2,509.9	15%
30	Botswana	7,531.2	5,499.4	2,357.0	14%
31	Mexico	419,932.0	312,372.9	2,388.9	14%
32	Burundi	1,633.6	1,116.1	99.5	14%
33	Guyana	1,019.3	805.9	1,030.2	13%
34	Georgia	7,060.4	4,811.1	1,231.4	13%
35	Pakistan	180,488.3	129,916.6	647.0	13%
36	Turkey	373,084.1	257,278.8	3,140.7	13%
37	Brazil	511,364.9	401,639.9	1,904.7	13%
38	Uganda	12,675.6	9,250.1	208.9	12%
39	Swaziland	2,211.2	1,363.7	980.1	12%
40	Kuwait	69,407.2	36,426.2	8,678.8	12%
41	Mali	6,375.6	4,484.5	234.7	12%
42	Mauritania	2,601.0	1,923.7	423.7	12%
43	Algeria	123,877.0	68,649.2	1,634.2	11%
44	Saudi Arabia	376,078.1	196,673.2	5,861.3	11%
45	Nigeria	150,259.7	121,195.1	618.7	11%
46	Philippines	117,695.8	88,676.5	832.5	11%

ECONOMIC COST OF VIOLENCE (Rank by % GDP)	COUNTRY	ECONOMIC IMPACT OF VIOLENCE (Millions, 2017 PPP)	ECONOMIC COST OF VIOLENCE (Millions, 2017 PPP)	PER CAPITA (2017, PPP)	AS % OF GDP
47	Bolivia	12,604.0	8,629.5	769.4	11%
48	Jordan	17,148.0	9,254.3	934.4	11%
49	Dominican Republic	22,406.5	17,033.6	1,565.2	11%
50	Chad	4,283.3	3,000.9	195.5	10%
51	Côte D'Ivoire	12,239.0	9,121.5	366.2	10%
52	Serbia	17,430.5	10,669.5	1,217.7	10%
53	Bahrain	12,813.9	6,882.3	4,392.1	10%
54	United Arab Emirates	137,061.8	69,511.5	7,285.1	10%
55	Mongolia	5,292.6	3,788.2	1,213.5	10%
56	Liberia	686.1	367.8	75.8	10%
57	Myanmar	32,400.1	21,154.5	392.8	10%
58	Nicaragua	4,012.0	3,233.9	514.6	9%
59	India	1,190,509.6	806,236.9	595.4	9%
60	Armenia	4,266.3	2,374.2	809.1	9%
61	Israel	53,624.3	28,879.7	3,416.6	9%
62	Angola	26,819.3	16,756.1	544.5	9%
63	The Gambia	395.2	305.9	141.4	9%
64	Lebanon	13,423.2	7,625.4	1,251.4	9%
65	Costa Rica	10,808.7	7,097.3	1,432.9	9%
66	Rwanda	2,901.8	2,004.7	160.4	9%
67	Ethiopia	19,094.1	15,225.7	141.6	9%
68	Egypt	136,124.5	90,234.9	908.0	8%
69	Guinea	2,928.9	2,057.1	157.6	8%
70	Iran	212,901.3	131,776.7	1,606.8	8%
71	Sri Lanka	31,574.8	21,337.4	1,018.5	8%
72	Kyrgyz Republic	2,723.7	1,712.2	279.2	8%
73	United States	2,670,097.7	1,454,775.7	4,452.0	8%
74	Lithuania	11,034.0	6,510.2	2,263.3	8%
75	Bulgaria	19,079.1	10,370.5	1,473.7	8%
76	Bhutan	853.3	536.7	656.9	8%
77	Tunisia	17,300.9	9,964.3	854.6	8%
78	Kenya	18,035.0	11,271.5	221.2	7%
79	Niger	920.5	579.6	26.0	7%
80	Moldova	2,316.0	1,376.4	340.6	7%
81	Guinea Bissau	296.6	208.7	109.4	7%
82	Haiti	1,851.2	1,379.7	124.2	7%
83	Togo	1,100.0	803.8	100.6	7%
84	Panama	9,223.3	6,552.1	1,574.0	7%
85	Zambia	6,852.4	4,605.7	261.6	7%
86	Paraguay	5,810.2	4,428.9	642.2	7%
87	Argentina	90,258.4	59,667.0	1,335.2	7%
88	Latvia	5,944.2	3,372.3	1,747.4	7%
89	Estonia	4,738.0	2,629.3	2,012.0	7%
90	Belarus	18,713.7	11,521.5	1,218.9	7%
91	Gabon	3,259.7	2,399.7	1,160.6	7%
92	Albania	3,818.0	2,216.0	755.2	7%
93	United Kingdom	312,272.8	184,586.2	2,772.7	7%
94	Qatar	32,563.2	21,347.9	7,921.8	7%
95	Zimbabwe	3,059.8	2,130.6	126.0	7%
96	Uruguay	7,857.4	4,841.8	1,395.5	7%
97	Senegal	3,517.6	2,562.6	157.3	6%
98	Chile	45,205.3	26,684.8	1,466.4	6%
99	Cameroon	6,984.1	5,401.2	218.9	6%
100	Ecuador	17,786.9	11,754.8	697.1	6%
101	Bosnia and Herzegovina	3,595.0	2,702.8	771.5	6%
102	Tanzania	12,160.5	9,344.8	158.1	6%
103	Papua New Guinea	3,134.2	2,099.0	249.3	6%
104	Mozambique	3,477.3	2,165.6	70.9	6%
105	Greece	34,439.6	17,779.8	1,595.7	6%
106	Peru	36,264.6	25,419.1	780.9	6%
107	Kazakhstan	41,414.8	27,596.0	1,499.5	6%
108	Croatia	10,681.8	5,895.2	1,415.5	6%
109	Nepal	7,287.5	4,293.3	144.9	6%
110	France	294,850.6	165,212.6	2,532.6	6%
111	Morocco	27,887.3	16,287.0	450.0	6%
112	Thailand	109,604.3	67,213.1	971.5	6%
113	Sierra Leone	955.7	626.5	81.2	6%
114	Poland	113,068.2	59,202.6	1,553.7	6%
115	Romania	47,217.6	25,631.4	1,309.0	6%
116	Hungary	26,120.9	14,747.2	1,522.1	6%

ECONOMIC COST OF VIOLENCE (Rank by % GDP)	COUNTRY	ECONOMIC IMPACT OF VIOLENCE (Millions, 2017 PPP)	ECONOMIC COST OF VIOLENCE (Millions, 2017 PPP)	PER CAPITA (2017, PPP)	AS % OF GDP
117	Montenegro	1,069.3	614.7	976.9	6%
118	Belgium	49,085.9	29,422.0	2,558.8	6%
119	Portugal	33,733.3	17,587.4	1,709.0	6%
120	Australia	111,653.9	61,477.3	2,481.7	6%
121	Turkmenistan	8,195.3	5,085.7	869.1	5%
122	Djibouti	250.9	163.1	167.9	5%
123	Slovakia	15,812.9	8,355.0	1,533.1	5%
124	Italy	223,436.5	117,521.2	1,982.1	5%
125	Czech Republic	33,183.3	18,246.4	1,717.3	5%
126	Benin	1,583.8	1,170.8	101.9	5%
127	Singapore	46,958.4	24,181.0	4,175.0	5%
128	Uzbekistan	16,886.6	10,180.3	314.5	5%
129	South Korea	160,120.3	86,746.3	1,695.4	5%
130	Spain	147,495.5	77,561.0	1,671.7	5%
131	Mauritius	2,040.1	1,224.0	965.0	5%
132	Netherlands	70,717.9	39,154.2	2,291.8	5%
133	Malaysia	65,286.0	38,571.0	1,203.7	4%
134	Macedonia (FYR)	2,386.2	1,360.9	652.7	4%
135	Laos	2,285.4	1,930.8	277.4	4%
136	Kosovo	433.1	288.5	150.3	4%
137	New Zealand	13,771.0	7,664.8	1,613.8	4%
138	Bangladesh	39,728.3	24,278.2	145.9	4%
139	China	1,704,618.7	888,854.8	628.1	4%
140	Germany	298,695.9	163,538.6	1,987.3	4%
141	Slovenia	5,069.7	2,731.4	1,312.4	4%
142	Vietnam	39,929.1	23,838.4	247.1	4%
143	Timor-Leste	177.0	101.9	76.9	4%
144	Sweden	31,960.1	18,134.8	1,816.6	4%
145	Finland	16,356.3	8,826.2	1,592.4	4%
146	Cambodia	3,347.4	2,063.2	127.0	4%
147	Norway	19,924.5	10,548.9	1,970.5	3%
148	Ireland	19,495.7	11,350.9	2,362.9	3%
149	Cuba	3,645.4	2,854.1	248.4	3%
150	Tajikistan	1,330.5	841.8	92.4	3%
151	Austria	24,155.3	12,874.7	1,471.1	3%
152	Denmark	14,986.7	7,992.4	1,388.9	3%
153	Japan	292,321.4	150,940.9	1,186.8	3%
154	Equatorial Guinea	1,195.2	874.2	665.4	3%
155	Madagascar	1,677.2	1,016.0	38.7	3%
156	Iceland	830.3	459.4	1,360.0	3%
157	Malawi	749.0	553.7	28.9	3%
158	Ghana	4,592.3	2,914.4	98.9	2%
159	Taiwan	25,173.2	13,695.7	578.0	2%
160	Canada	56,326.8	35,817.5	969.3	2%
161	Burkina Faso	1,208.5	724.5	36.7	2%
162	Indonesia	117,586.2	65,837.3	246.8	2%
163	Switzerland	13,789.7	7,472.9	874.6	1%

B

Methodology

While there have been many studies that look at the cost of violence to society, there is no universally agreed upon method to aggregate the current and future financial effects of violence and conflict. IEP takes a holistic approach to counting the costs of violence. This methodology looks at both the costs of containing violence and of dealing with its consequences, in both the short and long term, where violence is directed against people or property. The sum total of these costs is labelled the total economic impact of violence.

There are two main approaches to measuring the economic cost of violence: cost accounting and economic modelling methods. The accounting method uses incidents of violence and spending on responding to and containing violence. The economic modelling method measures the impact of violence on consumption, investment, production, trade and overall GDP growth. IEP uses the cost accounting method, which aggregates costs arising from incidents of violence and expenditure on containing violence.

The main benefits of the accounting method are that costs can be disaggregated by category. For example, the cost of violence can be disaggregated to public and private spending. It could also be separated to direct and indirect costs depending on how the incident of violence impacts the victim, perpetrator and government. Further, the cost of violence can be broken down by whether it accrues in the short or long term. The flexibility of the accounting methods also allows sufficient flexibility for inclusion and exclusion of variables based on the availability of reliable data.

The total global economic impact of violence is defined as expenditure related to “containing, preventing and dealing with the consequences of violence”. IEP’s model includes both direct and indirect costs of the violence as well as a peace multiplier. The multiplier effect calculates the additional economic activity that would have been accrued if the direct costs of violence had been avoided. Examples of direct costs include medical costs for victims of violent crime, capital destruction from violent conflict and costs associated with the security and judicial systems. Indirect costs include lost wages or productivity from crime due to physical and emotional trauma. There is also a measure of the impact of fear on the economy, as people who fear that they may become a victim of violent crime alter their behaviour.²⁰

An important aspect of the model is the ability to compare the economic impact of violence across countries. Therefore, the methodology presents the final numbers in 2017 constant purchasing power parity (PPP) international dollars, which makes the cost comparable between countries and over time.

TYOLOGY OF THE COST OF VIOLENCE

IEP estimates the economic impact of violence using a comprehensive aggregation of costs related to violence, conflict and violence containment spending. The GPI is used as the initial point of reference for developing the costing model by matching unit costs of different types of violence with the GPI indicators, where possible. The 2018 version of the economic impact of violence includes 16 variables across three domains.

TABLE B.1

Variables included in the economic impact of violence model, 2017

The cost of violence containment model includes both costs aimed at preventing violence and the consequential costs of violence.

Security services and prevention oriented costs	Armed conflict related costs	Interpersonal violence
Military expenditure	Direct costs of deaths from internal violent conflict	Homicide
Internal security expenditure	Direct costs of deaths from external violent conflict	Violent assault
Security agencies	Indirect costs of violent conflict (GDP losses due to conflict)	Sexual assault
Private security	Losses from status as refugees and IDPs	Fear of crime
UN peacekeeping	Small arms imports	Indirect costs of incarceration
ODA peacebuilding expenditure	Terrorism	

The Multiplier Effect

The 'multiplier effect' is a commonly used economic concept used to describe the extent to which additional expenditure improves the wider economy. Every time there is an injection of new income into the economy this will lead to more spending which will, in turn, create employment, further income and additional spending. For this reason, a dollar of expenditure can create more than a dollar of economic activity. This mutually reinforcing economic cycle is captured by the multiplier effect.

Although the exact magnitude of this effect is difficult to measure, it is likely to be particularly high in the case of expenditure related to containing violence. For instance, if a community were to become more peaceful, the society would spend less time and resources protecting themselves against violence. Because of this decrease in violence there are likely to be substantial flow-on effects for the wider economy, as money is diverted towards more productive areas such as health, business investment, education and infrastructure.

When a homicide is avoided, the direct costs, such as the money spent on medical treatment and a funeral, can be

spent elsewhere. The economy also benefits from the lifetime income of the victim. The economic benefits from greater peace can therefore be significant. This was also noted by Brauer and Tepper-Marlin (2009) who argued that violence or the fear of violence may result in some economic activities not occurring at all. More generally, there is strong evidence to suggest that violence and the fear of violence can fundamentally alter the incentives for business. For instance, analysis of 730 business ventures in Colombia from 1997 to 2001 found that with higher levels of violence, new ventures were less likely to survive and profit. Consequently, with greater levels of violence it is likely that we might expect lower levels of employment and economic productivity over the long-term, as the incentives faced discourage new employment creation and longer-term investment.

This study assumes that the multiplier is one, signifying that for every dollar saved on violence containment, there will be an additional dollar of economic activity. This is a relatively conservative multiplier and broadly in line with similar studies.

The model outputs a conservative estimate of the global impact of violence, as it only includes variables of violence for which reliable data could be obtained. The following indicators are not counted in the economic impact of violence:

- **domestic violence**
- **household out-of-pocket spending on safety and security**
- **the cost of crime to business**
- **spillover effects from conflict and violence**
- **self-directed violence**
- **the cost of intelligence agencies.**

The economic impact of violence includes the following components:

- **Direct costs** are the cost of violence to the victim, the perpetrator, and the government. These include direct expenditure such as the cost of policing.
- **Indirect costs** accrue after the violent event and include indirect economic losses, physical and physiological trauma to the victim as well as the lost productivity.
- **The multiplier** represents the flow-on effects of direct costs, such as additional economic benefits that would come from investment in business development or education instead of containing or dealing with violence. Text Box B.1 provides a details explanation of the peace multiplier used.

ESTIMATION METHODS

A combination of approaches is used to estimate the economic cost violence at the country level. The economic costing of

violence involves three main approaches:

1. Financial information detailing expenditure on items associated with violence and included in this year's costing exercise were used. These expenditures were either obtained as actual expenditure or as per cent of GDP of a country. When sourced as a percentage of GDP, GDP data from the IMF was used to get the actual expenditure.
2. A unit cost approach was used to cost variables included in this year's GPI costing and for which detailed expenditure were not available. The unit costs were obtained from a literature review and appropriately adjusted for all countries included in the 2018 GPI. The study uses unit costs from McCollister et al. (2010) for homicides, violent and sexual crimes.²¹ The cost of homicides is also used for battle deaths and deaths due to terrorism. The unit cost for fear of crime is sourced from Dolan & Peasgood (2006).²²
3. Where both expenditure and incidence data were missing for an item, it was either calculated using an appropriate proxy or excluded from the study.

SCALING UNIT COSTS

Unit costs were used to estimates the cost of incidents of violence such as homicide, violent and sexual crimes. However, unit costs are not available for most of the countries that are included in the costing model. Therefore, to estimate the cost of violence for these countries, the unit costs are adjusted using the ratio of GDP per capita in PPP terms. For example, a country with a GDP per capita PPP that was 26% of US GDP per capita would have a homicide unit cost equal to 26% of the US homicide unit cost.

CONVERTING COSTS TO CONSTANT AND PURCHASING POWER PARITY

The cost of violence is presented in constant purchasing power parity terms to enable direct comparison between countries. Initially, the cost of violence was converted from current to constant using consumer price index (CPI). CPI data is sourced from the World Bank's world development indicators. In the second phase, the costs are converted to PPP using a PPP conversion factor.

INDICATORS OF VIOLENCE CONTAINMENT COST

Military expenditure

Data from the Economist Intelligence Unit (EIU), the International Institute for Strategic Studies (IISS) and the Stockholm International Peace Research Institute (SIPRI) was used to provide the level of *military expenditure* as per cent of GDP. This was then combined with GDP data from the International Monetary Fund (IMF) and converted to PPP international dollars using a PPP converter obtained from World Development Indicators database. The *military expenditure* estimate for the United States military includes additional categories related to Veteran Affairs, the maintenance cost of its nuclear arsenal, and interest payments on military related debt.

Internal security expenditure

Internal security expenditure was taken from the OECD, IMF and the United Nations for 80 countries. The data on public order and safety includes spending on police services, law courts, prisons, fire services and public safety R&D. For countries without data, estimates were based on the number of police personnel multiplied by an adjusted unit cost. Police officer statistics were obtained from UNODC Survey of Crime Trends and Operations of Criminal Justice Systems.

UN peacekeeping

Country contributions to peacekeeping missions were included as UN peacekeeping expenditure. The data on contribution was sourced from UN Committee on Contributions.

Peacebuilding

IEP with assistance from the UN Peacebuilding Support Office (UN-PBSO) undertook a stocktaking exercise to ascertain the amount of ODA spent on programs related to peacebuilding. The data for peacebuilding expenditure was obtained from the OECD Development Assistance Committee (DAC) Creditor Reporting System (CRS).

Homicide

Data on homicide comes from the United Nations Survey of Crime Trend and Operations of Criminal justice system (CTS). Where country data was unavailable, estimates taken from the GPI were used. The adjusted unit cost from McCollister et al. (2010) is applied to the total number of homicides for each country to obtain the final cost.

Violent and sexual assault

Data on violent and sexual assaults is obtained from UNODC. The adjusted unit cost from McCollister et al. (2010) is applied to both violent assault and sexual assault to calculate the total cost.

Fear of crime

The data for fear of crime comes from the Gallup World Poll which surveys the proportion of the population who expresses fear of being a victim of crime in their own neighbourhood. This is then multiplied by adjusted costs from Dolan & Peasgood (2006) to obtain the final cost.

Incarceration

IEP calculated the annual lost wages of prisoners as the indirect cost lost due to incarceration. The lost wages are assumed to be equivalent to the minimum wage for the period of incarceration adjusted by the labour force participation rate for incarcerated individuals. This unit cost is then adjusted base on purchasing power parity income per capita compared to US income per capita. The *incarceration rate* data comes from the World Prison Brief, compiled by the International Centre for Prison Studies at the University of Essex. Judicial costs and the direct cost of prisons are included in internal security expenditure.

Battle deaths

The unit cost for battle deaths is the same as for homicides. The data for battle deaths from internal conflict is sourced from UCDP Armed Conflict dataset. Battle deaths from external conflict are obtained from the IISS Armed Conflict Database (ACD).

Terrorism

The cost of terrorism related deaths is calculated in the same way as homicides. The impact of injuries is calculated using the unit cost from McCollister et al (2010). Data for deaths and injuries due to terrorism is taken from the Global Terrorism Database, maintained by START at the University of Maryland.

Indirect cost of conflict

The indirect cost of conflict is calculated for countries which have experienced an active conflict during the years of the study and only for years for which the country had the conflict. The assumption is an attempt to capture the loss of formal economic activity including capital flight. IEP assumes a GDP loss of 2.2 per cent for each year of conflict based on Collier (1999).

Small arms imports

Accounts for the total imports value of small arms, with data taken from the Small Arms Survey.

Population displacement

UNHCR annual expenditure is assumed as the direct cost of *refugees and IDPs*. In addition, it is assumed that the indirect cost of *refugees and IDPs* to the economy of the origin country is equivalent to the lost production and consumption for each displaced person who was part of the labour market. However, IEP costing model does not capture some of the adverse implications of forced displacement such as asset losses, expenditure by the displaced people as well as the physical and psychological distress that is inflicted on the displaced population. Therefore, the total indirect cost is a conservative estimate.

Data on the number of *refugees and IDPs* is sourced from UNHCR and the Internal Displacement Monitoring Centre (IDMC). Data on UNHCR contribution is also sourced from UNHCR.

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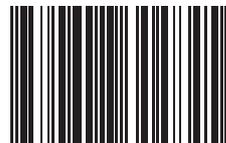
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