



MEASURING THE STATE OF GLOBAL PEACE

# CONTENTS

INSTITUTE FOR  
ECONOMICS  
& PEACE

## QUANTIFYING PEACE AND ITS BENEFITS

The Institute for Economics and Peace (IEP) is an independent, non-partisan, non-profit research organisation dedicated to shifting the world's focus to peace as a positive, achievable, and tangible measure of human well-being and progress.

IEP achieves its goals by developing new conceptual frameworks to define peacefulness; providing metrics for measuring peace; and uncovering the relationships between business, peace and prosperity as well as promoting a better understanding of the cultural, economic and political factors that create peace.

IEP has offices in Sydney and New York. It works with a wide range of partners internationally and collaborates with intergovernmental organisations on measuring and communicating the economic value of peace.

For more information visit [www.economicsandpeace.org](http://www.economicsandpeace.org)

# 01 RESULTS, FINDINGS & METHODOLOGY 03

---

<b>Highlights</b>	<b>3</b>
<b>2013 Global Peace Index rankings</b>	<b>5</b>
<b>Analysis of the results</b>	<b>7</b>
Regional overview	7
The ten countries most at peace	16
The ten countries least at peace	20
Risers and fallers	25
GPI indicators: annual changes	30
<b>Six-year trends in peace</b>	<b>31</b>
<b>Methodology</b>	<b>51</b>

# 02 THE GLOBAL COST OF CONTAINING VIOLENCE 55

---

<b>Highlights</b>	<b>55</b>
<b>Economic impact of violence containment rankings</b>	<b>59</b>
<b>Methodology</b>	<b>68</b>
<b>Economic cost of violence literature review</b>	<b>73</b>

# 03 POSITIVE PEACE INDEX 77

---

<b>Highlights</b>	<b>77</b>
<b>2013 Positive Peace Index rankings</b>	<b>79</b>
<b>The results</b>	<b>81</b>

# 04 ANNEXES 87

---

<b>Annex A - GPI indicator sources, definitions and scoring criteria</b>	<b>87</b>
<b>Annex B – Positive Peace Index methodology</b>	<b>95</b>
<b>References</b>	<b>99</b>

# EXECUTIVE SUMMARY

This is the seventh edition of the Global Peace Index (GPI), which ranks nations according to their level of peace. It is composed of 22 qualitative and quantitative indicators from highly respected sources, which gauge three broad themes: the level of safety and security in society; the extent of domestic or international conflict; and the degree of militarisation. The 2013 GPI has been expanded to rank 162 independent states and updated with the latest available figures and information.

In addition to presenting the findings from the 2013 GPI and its six-year trend analysis, this year's report contains two additional sections; an analysis of the economic impact of containing and dealing with the consequences of violence, followed by the second edition of the Positive Peace Index, which measures the strength of the attitudes, institutions, and structures of 126 nations to determine their capacity to create and sustain a peaceful environment.

**The last year** has been marked by the rising intensity of the civil war in Syria and its geopolitical ramifications, the continued US withdrawal from Afghanistan alongside persistently weak performances by the major economies. These factors have contributed to the world becoming slightly less peaceful continuing the global slide in peacefulness which has now been in effect for the last six years.

2012 has also seen the continuation of two major contrasting themes for global peacefulness; the increasing intensity of internal conflict and declines in large collective inter-state conflicts.

The index has again been topped by Iceland with the ten highest ranking nations in the GPI being all relatively small, stable democracies. Nordic and Alpine countries are particularly well represented. Asia-Pacific is also represented at the top, with New Zealand at 3rd and Japan at 6th.

The most peaceful region of the world continues to be Europe while the least peaceful region is South Asia. Afghanistan this year returns to the bottom of the GPI, partly due to increases in political instability and terrorist activity. It replaces Somalia which experienced a slightly more peaceful year and moved up from the lowest position in the GPI for the first time in two years.

Libya experienced the greatest improvement in its score, with a newly elected government and recovering institutions following the turmoil of the recent revolution and civil war,

however it is still lowly ranked. Syria's descent into civil war has resulted in not only the largest deterioration of the year, but also the largest the GPI-score deterioration in the history of the Index. Côte d'Ivoire registered the second-most substantial decline in peace while Burkina Faso suffered the third-largest deterioration. These two countries are however by no means indicative of Sub-Saharan Africa as a whole.

The fall in global peace in the last year has primarily been driven by the deterioration in three indicators: *number of homicides, military expenditure as a percentage of GDP, and political instability*. Counteracting these falls are improvements in the *likelihood of violent demonstrations, Political Terror Scale, and number of armed service personnel per 100,000*.

*Military spending as a percentage of GDP* increased in more countries than it decreased with 59 countries increasing spending, while 36 cut their military spend. This is in contradiction to the total amount of money spent on defence, which dropped this year for the first time since 1998. The drop was related to only a few large countries decreasing their level of expenditure, most notably the U.S. which decreased its military spending from 4.6% to 4.1% of GDP.

**The past six years** have been marked by many changes, with countervailing trends. While some of these trends have been positive, the majority have been negative with the global peace index score deteriorating by five per cent over the six years.

Only five indicators increased in peace over this time while seventeen indicators deteriorated. Over the six years global peace was negatively affected by a number of major international events including major outbreaks of violence in the Middle-East, caused by the Arab spring; a deterioration of security in Afghanistan and Pakistan; civil wars in Libya and Syria; the escalation of the drug war in Central America; continued deteriorations in peace in Somalia, DRC and Rwanda and violent demonstrations associated with the economic downturn in a number of European countries such as Greece.

On the positive side, the improvements in peace were mainly driven by declining rates of homicide in the US, Western and Eastern Europe, and the winding down of military operations in Iraq and Afghanistan which resulted in declines in the number of external battlefield deaths from organised conflict. Furthermore, the Political Terror Scale, an indicator measuring the presence of state sponsored violence and terror has improved across the

The three countries that had the greatest improvements in peace over the last six years are Chad, Georgia and Haiti while the three countries with the greatest deterioration are Syria, Libya and Rwanda.

world, except for the South Asia and Russia & Eurasia regions.

All the regions of the world have recorded declines in peace since 2008, other than North America which has remained static. Whilst regions like Europe and Asia-Pacific have seen very small decreases in their GPI score, Russia & Eurasia, the Middle East & North Africa, and Central America & the Caribbean have seen larger deteriorations.

The three countries that had the greatest improvements in peace over the last six years are Chad, Georgia and Haiti while the three countries with the greatest deterioration are Syria, Libya and Rwanda.

The three indicators that recorded the greatest deterioration over the last six years are the number of homicides, perceptions of criminality and likelihood of violent demonstrations while the three indicators that have had the greatest improvement are the Political Terror Scale, military expenditure as a percentage of GDP and the number of armed service personnel.

One of the more interesting trends is that countries with small and medium populations - one million to twenty five million - consistently score the highest average level of peace. While very large countries, with populations over 100 million, consistently record the lowest levels of peace.

**The economic impact** of violence on the global economy has also been calculated. IEP has adopted a new and novel method of estimating the cost of violence to the global economy through calculating global violence containment costs. IEP defines violence containment costs as economic activity that is related to the consequences or prevention of violence where the violence is directed against people or property.

This methodology enables global and country-based estimates for the 162 countries covered by the GPI. To allow relative comparisons between countries at different levels of economic development, GDP per capita has been used to scale the costs associated with violence for each country.

Some of the key economic findings of this analysis are:

- The global economic impact of containing violence is estimated to be US\$9.46 trillion in 2012 or 11% of Gross World Product.
- Were the world to reduce its expenditure on violence by approximately 50% it could repay the debt of the

developing world (\$4,076bn), provide enough money for the European stability mechanism (\$900bn) and fund the additional amount required to achieve the Millennium Development Goals (\$60bn).

- The economic impact of violence containment to the world economy is significant and is nearly double the value of the world's agricultural production, nearly five times the total output of the tourism industry to the world GDP and almost thirteen times the annual output of the global airlines industry.
- The economic impact of homicide was \$1.43 trillion in 2012 and comprised approximately 15% of the total expenditure on violence containment.
- The economic impact of violence containment is 75 times the size of the official ODA in 2012 which amounted to \$125.6bn.

**The Positive Peace Index** (PPI) measures the strength of the attitudes, institutions, and structures of 126 nations to determine their capacity to create and sustain a peaceful environment. This is the second edition of the PPI, and as well as ranking countries according to their positive peace, it also measures the movement of these factors over time. The PPI is based on a statistical framework which groups these attributes into eight key categories known as the 'Pillars of Peace'. These pillars have been identified as describing what underpins a peaceful society.

The Pillars of Peace emphasise the importance of a holistic set of institutions which work together to systematically shape the environments that lead to peace. This framework is not aimed at deriving causality between any of the Pillars, rather they work as an inter-dependent set of factors where causality can run in either direction and the strength of the relationships between the Pillars will change depending on the specific circumstances in a particular country.

The 2013 PPI has ranked 126 countries on 24 indicators and found that the global average of positive peace improved in the period between 2005 and 2010 by 1.7%. There have been improvements in the equitable distribution of resources, levels of human capital, free flow of information, levels of corruption, acceptance of the rights of others and well-functioning governments.

# 1

# RESULTS, FINDINGS & METHÓDLOGY

---

**There has been a 5% deterioration in the Global Peace Index score over the last six years, indicating a less peaceful world.**

## [ HIGHLIGHTS ]

The ten highest ranking nations in the GPI are all relatively small, stable democracies, with Nordic and Alpine countries particularly well represented. Europe is comfortably the most peaceful region; few countries are involved in external conflict and most societies are broadly harmonious. Nevertheless, several European countries experienced less peaceful conditions amid challenging economic circumstances, including Spain, Greece, France and Portugal. North America is the second-most peaceful region, followed by Asia-Pacific, which is buoyed by high rankings for New Zealand (2nd) and Japan (6th), as well as Australia, Singapore, Taiwan and Malaysia, all of which lie in the top 30.

Libya experienced the greatest rise in peacefulness, with a newly elected government and recovering institutions following the turmoil of the recent revolution and civil war. Sudan and Chad experienced the second and third-most substantial gains as their respective conflicts eased, but conditions in areas of both countries are far from peaceful and they remain in the lower reaches of the GPI.

Uruguay and Chile stand out as the two most peaceful South American nations, characterised by relatively strong institutions and the rule of law. Conditions worsened in third-ranked Argentina amid a series of trade spats with neighbours. In Central America, Costa Rica again emerges as the most peaceful nation, although it suffered from a decline in internal peace. Nicaragua, Guatemala and El

SINCE 2008  
MORE COUNTRIES  
DETERIORATED  
IN PEACE,

**110**  
THAN INCREASED  
IN PEACE,  
**48**

Salvador all saw improvements in their GPI scores, albeit from low levels. This partly reflects progress made by their governments in improving internal security after several years of heightened violence linked to Mexican drug cartels.

Bhutan remains in 20th place, by far the most peaceful country in South Asia, which is the region least at peace—with the other six nations in the group ranked below 80th place.

War-ravaged Afghanistan returns to the foot of the GPI, amid mounting political instability and a sharp rise in military spending as a share of GDP. Somalia experienced a more peaceful year and it moved up from the lowest position in the GPI for the first time in two years. Syria's descent into civil war was reflected by the world's highest GPI-score deterioration—only Somalia and Afghanistan are ranked lower. Many Middle Eastern and North African countries have continued to be affected by the fallout from the Arab Spring: violent protests and instability combined with crackdowns by authoritarian regimes.

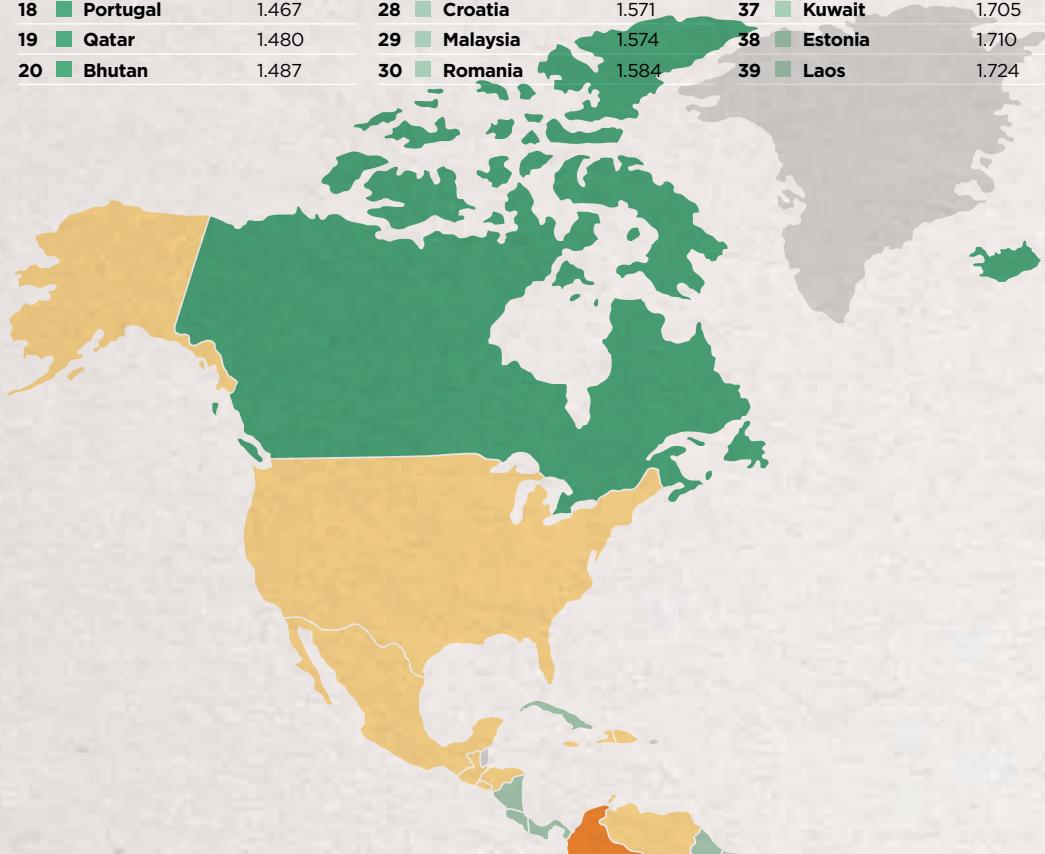
Overall, Cote d'Ivoire registered the second-most substantial decline in peacefulness; a fresh wave of violent conflict punctured an uneasy peace that has held sway since April 2011, while Burkina Faso suffered the third-largest deterioration. These two countries are, however, by no means indicative of Sub-Saharan Africa as a whole. The region ranks above the three regions of Russia and Eurasia, the Middle East and North Africa and South Asia in the 2013

GPI, which partly reflects its rising prosperity and a degree of insulation from the global financial crisis.

Looking at the 2008-2013 trends, the world has gradually become less peaceful over the past six years. The global GPI average score has deteriorated five per cent as 17 of the 22 indicators record a less peaceful state than six years ago. The change however is not completely uniform, as 48 countries have become more peaceful while 110 have seen their scores deteriorate. This global six year trend was predominately shaped by a handful of key international events; namely; major outbreaks of violence in the Middle-East, caused by the Arab Spring, a continued deterioration of security in Afghanistan and Pakistan, civil war in Libya and Syria, the escalation of the drug war in Central America, and violent demonstrations associated with the economic downturn in a number of European countries.

Conversely, there were a number countervailing improvements recorded over the six year period to 2013. There were continued declines in homicide in the US and parts of Eastern and Western Europe; fewer deaths from external organised conflict, and widespread falls in the average level of military expenditure. Furthermore, the Political Terror Scale, an indicator measuring the presence of state sponsored violence has improved on average across the world, with all regions improving except for South Asia, and Russia and Eurasia.

RANK	COUNTRY	SCORE
1	Iceland	1.162
2	Denmark	1.207
3	New Zealand	1.237
4	Austria	1.250
5	Switzerland	1.272
6	Japan	1.293
7	Finland	1.297
8	Canada	1.306
9	Sweden	1.319
10	Belgium	1.339
11	Norway	1.359
12	Ireland	1.370
13	Slovenia	1.374
14	Czech Republic	1.404
15	Germany	1.431
16	Australia	1.438
17	Singapore	1.438
18	Portugal	1.467
19	Qatar	1.480
20	Bhutan	1.487
21	Mauritius	1.497
22	Netherlands	1.508
23	Hungary	1.520
24	Uruguay	1.528
25	Poland	1.530
26	Taiwan	1.538
27	Spain	1.563
28	Croatia	1.571
29	Malaysia	1.574
30	Romania	1.584
31	Chile	1.589
32	Botswana	1.598
33	Slovakia	1.622
34	Bulgaria	1.663
35	Italy	1.663
36	United Arab Emirates	1.679
37	Kuwait	1.705
38	Estonia	1.710
39	Laos	1.724



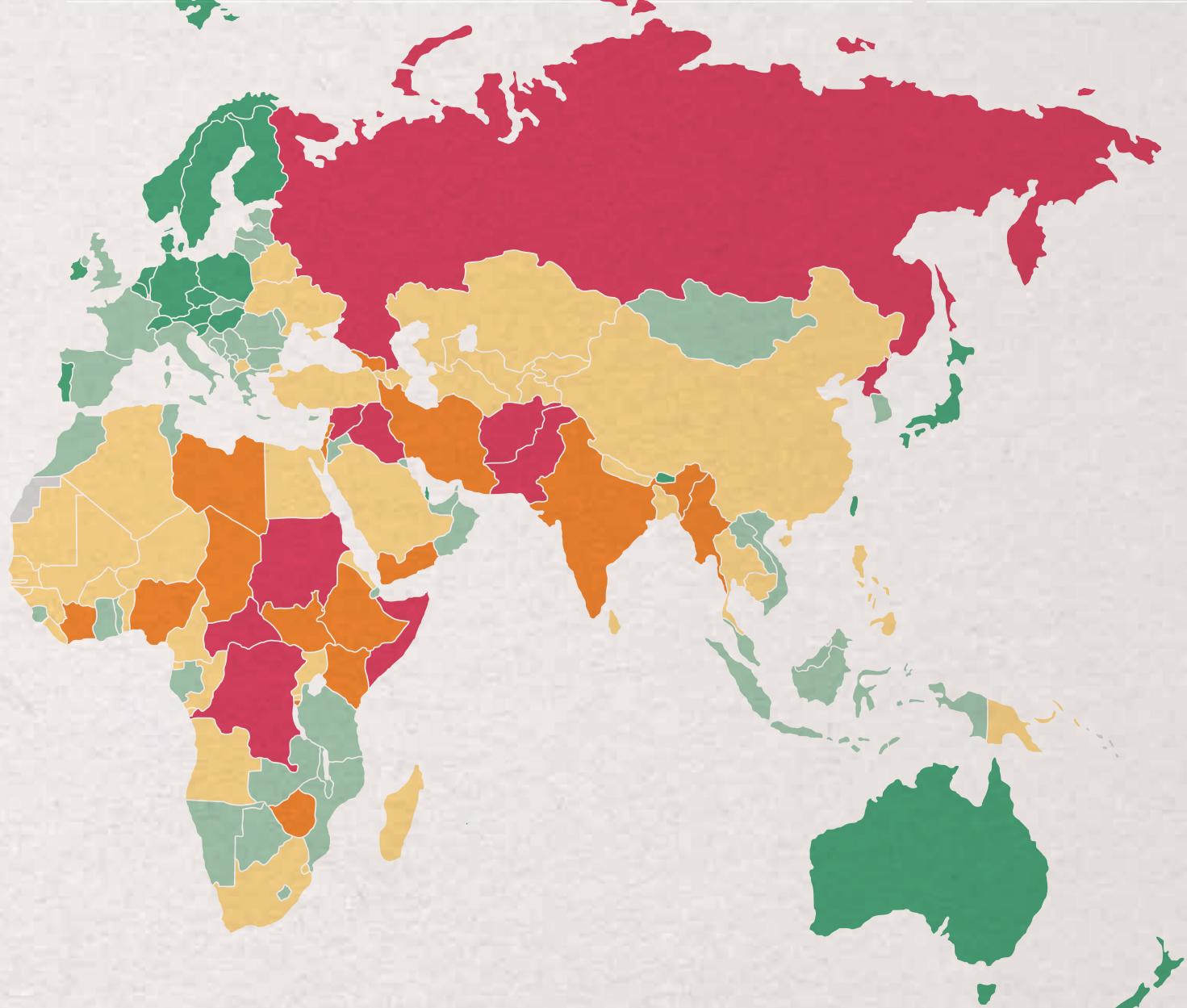
# 2013 GLOBAL PEACE INDEX

## A SNAPSHOT OF THE GLOBAL STATE OF PEACE

RANK	COUNTRY	SCORE
80	Liberia	2.048
81	Brazil	2.051
82	Nepal	2.058
83	Ecuador	2.059
84	Paraguay	2.060
85	Senegal	2.061
86	Bolivia	2.062
87	Burkina Faso	2.064
88	Swaziland	2.069
89	Equatorial Guinea	2.072
90	Madagascar	2.074
91	Trinidad and Tobago	2.074
92	Haiti	2.075
93	The Gambia	2.091
94	Dominican Republic	2.103
95	Bahrain	2.109
96	Belarus	2.117
97	Saudi Arabia	2.119
98	Armenia	2.123
99	Papua New Guinea	2.126
100	USA	2.126
101	China	2.142
102	Angola	2.148
103	Turkmenistan	2.154
104	Benin	2.156
105	Bangladesh	2.159
106	Uganda	2.180
107	Republic of the Congo	2.183
108	Cameroon	2.191
109	Guatemala	2.221
110	Sri Lanka	2.230
111	Ukraine	2.238
112	El Salvador	2.240
113	Egypt	2.258
114	Peru	2.258
115	Cambodia	2.263
116	Guinea	2.272
117	Jamaica	2.274
118	Tajikistan	2.282
119	Algeria	2.284
120	Eritrea	2.288

## 2013 GLOBAL PEACE INDEX /01/ RESULTS, FINDINGS & METHODOLOGY

40	Costa Rica	1.755	50	Lesotho	1.840	60	Argentina	1.907	70	Guyana	1.962
41	Latvia	1.772	51	Timor-Leste	1.854	61	Mozambique	1.910	71	Bosnia & Herz.	1.967
41	Vietnam	1.772	52	Jordan	1.858	62	Serbia	1.912	72	Kosovo	1.969
43	Lithuania	1.784	53	France	1.863	63	Djibouti	1.917	73	Montenegro	1.976
44	United Kingdom	1.787	54	Indonesia	1.879	64	Mongolia	1.921	74	Malawi	1.984
45	Oman	1.806	55	Tanzania	1.887	65	Cuba	1.922	74	Moldova	1.984
46	Namibia	1.807	56	Panama	1.893	66	Nicaragua	1.931	76	Gabon	1.995
47	South Korea	1.822	57	Morocco	1.897	67	Togo	1.954	77	Tunisia	2.005
48	Zambia	1.832	58	Ghana	1.899	68	Greece	1.957	78	Kazakhstan	2.031
49	Cyprus	1.840	59	Sierra Leone	1.904	69	Albania	1.961	79	Macedonia (FYR)	2.044



121	South Africa	2.292	132	Guinea-Bissau	2.431	143	South Sudan	2.576	153	Central African Republic	3.031
122	Mauritania	2.326	133	Mexico	2.434	144	Burundi	2.593	154	North Korea	3.044
123	Honduras	2.332	134	Turkey	2.437	145	Libya	2.604	155	Russia	3.060
124	Uzbekistan	2.333	135	Rwanda	2.444	146	Ethiopia	2.630	156	Congo, Dem. Rep.	3.085
125	Mali	2.346	136	Kenya	2.466	147	Colombia	2.634	157	Pakistan	3.106
126	Azerbaijan	2.350	137	Iran	2.473	148	Nigeria	2.693	158	Sudan	3.242
127	Niger	2.362	138	Chad	2.493	149	Zimbabwe	2.696	159	Iraq	3.245
128	Venezuela	2.370	139	Georgia	2.511	150	Israel	2.730	160	Syria	3.393
129	Philippines	2.374	140	Myanmar	2.528	151	Cote d'Ivoire	2.732	161	Somalia	3.394
130	Thailand	2.378	141	India	2.570	152	Yemen	2.747	162	Afghanistan	3.440
131	Kyrgyz Republic	2.391	142	Lebanon	2.575						

# ANALYSIS OF THE RESULTS

## REGIONAL OVERVIEW

### EUROPE

Europe remains comfortably the world's most peaceful region, with most countries having well-established democracies and few being involved in external conflict. All but one country, Turkey, score better than the world average, highlighting the relative stability of the region. Nordic and Alpine countries, in particular, continue to appear as model countries for peace, with seven of them ranking among the top ten countries in the world.

However, in comparison to the 2012 GPI, Europe has experienced a modest deterioration in its average GPI score, primarily because several countries, particularly in the EU, have been experiencing difficult economic times. This is reflected in increases in the scores of these countries on *likelihood of violent demonstrations, level of violent crime and political instability* in this year's GPI. In late 2012, for instance, Spain introduced a co-payment system for pharmaceuticals and medical prescriptions, which forces patients to pay between 10% and 60% of the cost. By simultaneously reducing unemployment benefits and raising such direct and indirect taxes, Spain has effectively increased the burden shouldered by households. Against this backdrop, an increased risk that the around 6m Spanish unemployed will engage in significant protest has driven Spain's five-position drop in this year's GPI rankings.

Austerity measures are not limited to Spain, however. In Portugal, the government is being pushed to reduce expenditure on vital public services, such as healthcare, education and social security, in order to rein in its deficit. In Greece, the desire to clamp down on tax evaders is leading to a witch hunt. If this were to get out of control, the already tense situation in the country could deteriorate further. Although not to the same extent, similar trends are apparent in many other countries in the Euro zone, including France, Italy, Cyprus and Ireland.

While demonstrations and protests have so far been reasonably peaceful, the public has increasingly shied away from the polls or has chosen to vote for non-governmental parties, as evidenced in Italy's latest elections, for example. With governments seeing their electoral legitimacy dented

**TABLE 1.1** European rankings

COUNTRY	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
Iceland	1	1.16	-0.003	1
Denmark	2	1.21	—	2
Austria	4	1.25	-0.06	3
Switzerland	5	1.27	0.013	4
Finland	7	1.30	—	5
Sweden	9	1.32	—	6
Belgium	10	1.34	-0.027	7
Norway	11	1.36	-0.027	8
Ireland	12	1.37	—	9
Slovenia	13	1.37	—	10
Czech Republic	14	1.40	-0.003	11
Germany	15	1.43	-0.019	12
Portugal	18	1.47	0.027	13
Netherlands	22	1.51	-0.039	14
Hungary	23	1.52	-0.002	15
Poland	25	1.53	—	16
Spain	27	1.56	0.04	17
Croatia	28	1.57	-0.043	18
Romania	30	1.58	—	19
Slovakia	33	1.62	0.04	20
Bulgaria	34	1.66	-0.023	21
Italy	34	1.66	0.003	21
Estonia	38	1.71	0.003	23
Latvia	41	1.77	—	24
Lithuania	43	1.78	-0.016	25
United Kingdom	44	1.79	0.056	26
Cyprus	49	1.84	0.015	27
France	53	1.86	0.037	28
Serbia	62	1.91	0.006	29
Greece	68	1.96	0.05	30
Albania	69	1.96	-0.002	31
Bosnia & Herzegovina	71	1.97	-0.001	32
Kosovo	72	1.97	n/a	33
Montenegro	73	1.98	-0.044	34
Macedonia (FYR)	79	2.04	0.072	35
Turkey	134	2.44	0.116	36
<b>Regional average</b>		<b>1.62</b>		

and their policies systematically oriented towards austerity, a political crisis is boiling under the surface in the Euro zone. Given the historically strong correlation between political stability and internal peace scores, there is a substantive risk of the region's score weakening in coming years.

External factors have been more important for countries such as Turkey, which has suffered from a deterioration of the military situation in neighbouring countries, in particular in Syria. This has also driven to an increase in the risk of terrorist activities. Similarly, the Former Yugoslav Republic of Macedonia (FYROM) has suffered from poor relations with its neighbours, in the shape of a territorial dispute with Greece and accusations that FYROM is seeking to appropriate part of Bulgaria's history, leading foreign ministers from both EU countries to put off setting a date for opening EU-accession talks. At the same time, internal tensions between ethnic Macedonians and ethnic Albanians remain problematic, although a return to inter-ethnic armed conflict is unlikely.

Despite a fall in its military spending due to the recession, Cyprus has seen its GPI score deteriorate. The division of the island between the Turkish Cypriots in the north and the Greek Cypriots in the south is the result of a decade-long conflict, which is still weighing on the country's stability, as illustrated by the 30,000-40,000 military troops stationed in the north of the island. The exploration of offshore gasfields has led to another escalation of tensions with Turkey, which has led military exercises in neighbouring waters. Although it does not claim rights over the gasfields, Turkey argues that any revenue should be shared with the Turkish Cypriots, and that it will therefore continue its military exercises as long as the Cyprus question remains unresolved. Cyprus's financial meltdown may, however, ultimately prove beneficial to the negotiations; as it is desperately seeking new sources of revenue, the Greek Cypriot government is likely to be willing to accelerate the exploitation of its gas resources, and might, therefore, be ready to re-open negotiations with a more flexible attitude.

## NORTH AMERICA

In the 2013 GPI, North America remains one of the world's most peaceful regions overall, even improving its score slightly compared with 2012. However, this strong showing masks a vast disparity in performance between the region's two constituent countries—the US and Canada—which individually rank eighth and 99th, respectively, out of 162 countries. Nevertheless, both countries have improved

**TABLE 1.2** North American rankings

COUNTRY	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
Canada	8	1.31	-0.021	1
United States of America	99	2.13	-0.056	2
<b>Regional average</b>		<b>1.72</b>		

their scores and rankings in this year's index, mainly on the back of developments in the indicator for expenditure on the military as a share of GDP. Both the US and Canada are pivoting away from the overseas military deployments that have been a feature of the past decade or so. The US has largely withdrawn its armed forces from Iraq; a similar process is underway in Afghanistan for the bulk of its forces there, and they will, for the most part, be withdrawn by end-2014. Canada still has forces in Afghanistan as well, albeit not in combat roles, and also plans to complete its mission during 2014. The drawdown of foreign deployments mirrors developments in the state of the US and Canadian public finances; both countries are committed to reducing their federal budget deficits, and defence spending is being targeted, not least because it has been an area of expansion over the past decade. Separately, the wind-down of large-scale international military commitments has helped the US to improve its score on the indicator for the number of deaths from external organised conflicts. There being fewer troops involved in combat operations has led to a lower death rate.

Generally, the US continues to score weakly compared with its OECD peers in the index, on the basis of its high jailed population; its large and active military; its involvement in numerous overseas conflicts, and its high homicide rate and the high number of combat deaths in that context; its nuclear and heavy-weapons capabilities; and the ease of access to small arms and light weapons. By contrast, Canada scores better than the US on most of these measures. The incidence of homicides is just one-third that of the US and the Canadian military is also smaller than its US counterpart. Despite this, the two countries have much in common on the peace front. Both remain at risk of terrorist attacks; the security services in both countries have foiled attacks in the past, but the Boston marathon bombing in April 2013 showed that not every threat can be contained.

## ASIA-PACIFIC

Asia-Pacific exhibits a wide spread with regard to peace and security. New Zealand once again ranks near the top of the overall index, showing it to be a country without major internal or external security risks. Japan, Australia and Singapore join New Zealand among the 20 most peaceful nations worldwide.

Fractious relations with neighbouring countries are a common feature across the region. China is engaged in a number of disputes with its neighbours. Tensions over the South China Sea—which involve a number of South-east Asian countries—will continue; despite the leadership change in the Chinese capital, Beijing, in November last year, the new president, Xi Jinping, will be no less aggressive than his predecessor in pursuing China's claims to disputed territory. Rather than discussing the matter with all claimants collectively in regional fora, such as the Association of Southeast Asian Nations (ASEAN), the Chinese government prefers a bilateral approach to the dispute, as it has more sway over its smaller neighbours individually. As such, progress on finding a lasting solution to the South China Sea dispute is likely to be slow.

Despite strong scores across a wide range of indicators, Japan does not fare well when it comes to its relations with neighbours. Territorial disputes remain an ongoing source of concern for Japan, which contests with China the sovereignty of the uninhabited Senkaku/Diaoyu islands in the East China Sea (the islands are administered by Japan, but claimed by China). Among the majority of Asia-Pacific countries, which sit in the middle of the peace spectrum, relations with neighbouring countries also emerges as a key issue. Vietnam's score in this regard worsened in 2013, reflecting continued tensions with China over competing claims to the South China Sea. South Korea's poor performance with regard to international relations reflects tensions on a number of fronts. Most notably, relations with neighbouring North Korea continue to be very tense, but those with Japan are also an area of concern, owing to a dispute over the Takeshima islets (known as Dokdo in Korea).

Ranking among the least peaceful countries in Asia-Pacific, Thailand, the Philippines and Myanmar all face ongoing internal civil conflict. Last year saw improved prospects for peace between the Philippines government and the Moro Islamic Liberation Front (the main rebel group on the southern island of Mindanao), when a framework deal for a potential peace agreement was signed. There are many obstacles to lasting peace, but negotiations appear to be on-track in 2013. By contrast, in Thailand, a separatist insurgency in the country's Muslim-majority southern provinces rages on. Meanwhile, fighting in Myanmar between government troops and ethnic-minority Kachin

rebels in the country's far north, along with fragile ceasefires with other minority groups, such as the Karen and the Shan, contribute to a highly insecure environment in that country.

**TABLE 1.3** Asia-Pacific rankings

COUNTRY	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
New Zealand	3	1.24	0.003	1
Japan	6	1.29	-0.027	2
Australia	16	1.44	-0.027	3
Singapore	16	1.44	0.005	3
Taiwan	26	1.54	-0.005	5
Malaysia	29	1.57	-0.017	6
Laos	39	1.72	—	7
Vietnam	41	1.77	0.035	8
South Korea	47	1.82	-0.017	9
Timor-Leste	51	1.85	n/a	10
Indonesia	54	1.88	0.007	11
Mongolia	64	1.92	—	12
Papua New Guinea	99	2.13	0.003	13
China	101	2.14	-0.011	14
Cambodia	115	2.26	-0.034	15
Philippines	129	2.37	-0.013	16
Thailand	130	2.38	-0.017	17
Myanmar	140	2.53	-0.019	18
North Korea	154	3.04	0.1	19
<b>Regional average</b>		<b>1.91</b>		

The question for Myanmar, which continues to rank among the least peaceful nations globally, is how the political transition towards a civilian administration, which started in 2011, will affect the level of violence in that country. The military's relinquishing of power has had mixed repercussions, which are reflected in the score changes in the indicators of the 2013 index. On the one hand, less violence is perpetrated against civilians, as well as there being fewer arbitrary arrests and less forced labour. On the other hand, the end of the military's monopoly on power has created more space for open social and political disagreement, and clashes between different ethnic and interest groups. It is entirely possible that, in the course of the long transition to genuine democracy, there may be a short-term deterioration in peace and security in the country.

North Korea continues to sit towards the very bottom of the GPI and the country's score deteriorated in this year's index. The transition to a new administration under the

leadership of Kim Jong-un, whose comparative youth and limited experience seem to have instilled a desire to prove himself, has increased uncertainty about the prospects for peace in North Korea. A so-called satellite launch (in reality, an ill-disguised missile test) in late 2012 marked the start of a particularly tense period for North Korean relations with its enemies, notably the US and South Korea. The questionable ability of Kim Jong-un to retain the absolute loyalty and obedience of the country's citizens marginally worsens the prospects for political stability in North Korea.

## SOUTH AMERICA

With few exceptions, South American countries experienced only slight changes in terms of peacefulness since the last GPI, with the region ranking among the four most peaceful in the world. Relations with neighbours have remained broadly positive and there is a gradual process of greater political and economic integration underway among different sets of countries and among all 11 South American nations in the GPI. Peru was the biggest faller in the region, chiefly on the back of an increase in the score for homicide rates. Two other countries, Paraguay and Argentina, did experience sharp falls in their external peace scores. The former was involved in a constitutional crisis—the president, Fernando Lugo, was removed from office owing to a controversial congressional decision in June 2012—which led to Paraguay being suspended from the Mercado Común del Sur (Mercosur, the Southern Cone customs union). In the past year, Argentina has been involved in a series of trade spats with neighbours (particularly Brazil), as well as high-profile disputes with international organisations over economic matters.

On the upside, there have been no military threats or acts of aggression between any countries. Tensions between Colombia and Venezuela, which rose significantly two years ago, have all but dissipated. This development has helped reduce the need for militarisation and has contained spending. Countries in the region have also shown an increased willingness to address their political differences via international mediation. This includes addressing long-standing border disputes, for example between Chile and Peru, who have taken their case to the International Court of Justice (ICJ) in The Hague.

On the domestic front, South America continued to enjoy broad political stability, including in Paraguay, where the ousting of Mr Lugo did not lead to a rise in political violence and where a democratic transition was broadly respected. However, although there is a low incidence of political violence and terrorism in South America, Colombia continues to struggle with guerrilla violence, highlighted

by repeated attacks on civilians and infrastructure. The 50-year-old civil conflict largely explains Colombia's very poor standing in the GPI, but there is scope for change in the medium term, given the decision by the government to seek a peace agreement with the Fuerzas Armadas Revolucionarias de Colombia (FARC) guerrilla organisation. If successful, this would put an end to the continent's last civil conflict and allow for further institutional strengthening.

Although levels of criminality vary significantly from country to country, South America remains one of the most violent regions in the world. This is reflected in a high homicide rate in some of the biggest countries, such as Brazil and Colombia, and has been a particularly worrying recent trend in Venezuela, where the homicide rate is now one of the highest in the world. There, as in other countries in the region, violence is fuelled by a combination of poor social indicators, the presence of national and international criminal groups (mainly drug-traffickers), weak security forces and corrupt judicial and penal systems. Countries where the rule of law is stronger, such as Chile and Uruguay, rank higher in the index.

**TABLE 1.4** South American rankings

COUNTRY	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
Uruguay	24	1.53	-0.086	1
Chile	31	1.59	0.007	2
Argentina	60	1.91	0.147	3
Guyana	70	1.96	—	4
Brazil	81	2.05	0.004	5
Ecuador	83	2.06	0.01	6
Paraguay	84	2.06	0.134	7
Bolivia	86	2.06	0.006	8
Peru	113	2.26	0.164	9
Venezuela	128	2.37	0.042	10
Colombia	147	2.63	-0.006	11
<b>Regional average</b>		<b>2.04</b>		

## CENTRAL AMERICA AND THE CARIBBEAN

Central America and the Caribbean scores slightly below the global average and ranks slightly behind South America, as the worst-performing region in the Western hemisphere. The Mexican authorities' ongoing war with its drug cartels remains the region's main source of organised internal

conflict, and one that has partly contributed to the rise in criminality seen in some of its Central American neighbours over the past five years. On a more positive note, former violent border cities, such as Tijuana and Ciudad Juárez, have made measurable advances in stemming their high rates of violence. However, this has come at the expense of other cities, as turf wars have shifted; for example, the resort city of Acapulco has now become the most dangerous city in the country in terms of murder rate. A rift between the two main cartels, the Sinaloa Cartel and Los Zetas, may trigger a future flare-up of violence, and the new government has yet to make any radical changes to security strategy compared to its predecessor, with the benefits and shortcomings that this stasis brings.

**TABLE 1.5** Central America and the Caribbean rankings

COUNTRY	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
Costa Rica	40	1.76	0.074	1
Panama	56	1.89	-0.002	2
Cuba	65	1.92	-0.023	3
Nicaragua	66	1.93	-0.096	4
Trinidad and Tobago	90	2.07	-0.019	5
Haiti	92	2.08	-0.103	6
Dominican Republic	94	2.10	0.026	7
Guatemala	109	2.22	-0.093	8
El Salvador	112	2.24	-0.086	9
Jamaica	117	2.27	0.007	10
Honduras	123	2.33	-0.013	11
Mexico	133	2.43	-0.011	12
<b>Regional average</b>		<b>2.10</b>		

In Central America, governments have had mixed success in improving their internal security. Guatemala and El Salvador stand out as two countries that have seen a notable jump in the rankings—10 places each—albeit from already low levels. In some cases, such as that of El Salvador, this has been largely due to unique circumstances, such as a temporary Church-sponsored truce between the two main mara gangs, which has now lasted for over a year. However, other types of violent crime are still commonplace. The isthmus's most dangerous country, however, remains Honduras, which continues to lead the world in homicides per capita. Costa Rica has been suffering from a deterioration of internal peace, although it still remains the region's safest country apart from Cuba, and continues to top the region's overall score in 2013. However, its lead

over Panama is likely to be eroded going forward, given the steady rise in crime in Costa Rica in the past few years.

No consistent trend is evident among Caribbean countries, with Haiti and Trinidad and Tobago jumping up in the rankings, while Jamaica and the Dominican Republic have fallen. Haiti has benefited from an improvement in its homicide rate (now the third-lowest in the region), as the country slowly recovers from the social repercussions of its devastating 2010 earthquake. Caribbean countries are among the most heavily policed in the region, with Jamaica, Trinidad and Tobago and Cuba all reporting over 400 internal security officers and police per 100,000 people (in the case of Cuba, due to the authoritarian nature of the regime, rather than high levels of criminality). Cuba and Trinidad and Tobago also lead the region in armed services personnel per head, with Cuba showing the region's highest levels of overall militarisation of society.

Externally, the region faces few threats, and the diffusion of older tensions, such as a border dispute between Nicaragua and Costa Rica, has helped to improve relations, even if there is a measure of lingering distrust. Military spending as a share of GDP is low (under 1% of GDP for most countries), although both Panama and Trinidad have seen spikes compared to the 2012 GPI.

## SUB-SAHARAN AFRICA

The perception of Sub-Saharan Africa as a locus of economic underperformance and political instability is increasingly out-of-date, as underscored by the 2013 results of the GPI. Sub-Saharan Africa as a whole this year ranks above the Middle East and North Africa, South Asia, and Russia and Eurasia in terms of peacefulness. In part, this reflects rising economic prosperity—Sub-Saharan economic growth has outstripped that of every other region in the world over the past two years—and, ironically, the region's traditional marginalisation from the global economy has helped insulate it from the impact of the global financial crisis.

However, it is clear that risks can arise where there is a public perception that the benefits of more rapid national growth are not being shared equitably. For example, the deterioration in Burkina Faso's ranking is underscored by a rise in the likelihood of violent demonstrations, homicide rates and violent crime. Public anger over the high cost of living and the inadequacy of state services, notwithstanding strong overall economic growth, has already led to a wave of violent protests and strikes, and the potential for further unrest remains high. To a large extent, these institutional weaknesses are reflected in IEP research on positive peace, which found Burkina Faso in 2012 to be the nation with

**TABLE 1.6** Sub-Saharan African rankings

COUNTRY	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
Mauritius	21	1.50	-0.075	1
Botswana	32	1.60	-0.007	2
Namibia	46	1.81	—	3
Zambia	48	1.83	-0.064	4
Lesotho	49	1.84	-0.028	5
Tanzania	55	1.89	0.03	6
Ghana	58	1.90	0.106	7
Sierra Leone	59	1.90	-0.022	8
Mozambique	61	1.91	0.064	9
Djibouti	63	1.92	-0.016	10
Togo	67	1.95	n/a	11
Malawi	74	1.98	0.017	12
Gabon	76	2.00	-0.007	13
Liberia	80	2.05	-0.019	14
Senegal	85	2.06	0.034	15
Burkina Faso	87	2.06	0.2	16
Swaziland	88	2.07	0.023	17
Equatorial Guinea	89	2.07	0.026	18
Madagascar	90	2.07	-0.08	19
The Gambia	93	2.09	0.073	20
Angola	102	2.15	0.004	21
Benin	104	2.16	-0.071	22
Uganda	106	2.18	-0.02	23
Republic of the Congo	107	2.18	0.008	24
Cameroon	108	2.19	0.06	25
Guinea	116	2.27	0.115	26
Eritrea	120	2.29	0.007	27
South Africa	121	2.29	0.023	28
Mauritania	122	2.33	-0.064	29
Mali	125	2.35	0.08	30
Niger	127	2.36	-0.024	31
Guinea-Bissau	132	2.43	-0.024	32
Rwanda	135	2.44	0.096	33
Kenya	136	2.47	0.133	34
Chad	138	2.49	-0.138	35
South Sudan	143	2.58	n/a	36
Burundi	144	2.59	-0.025	37
Ethiopia	146	2.63	0.058	38
Nigeria	148	2.69	-0.014	39
Zimbabwe	149	2.70	0.098	40
Cote d'Ivoire	151	2.73	0.237	41
Central African Republic	153	3.03	0.122	42
Democratic Republic of the Congo	156	3.09	-0.014	43
Somalia	161	3.39	-0.092	44
<b>Regional average</b>		<b>2.24</b>		

the largest positive peace deficit. Frustration with the inequitable division of spoils can also lead to an upsurge in violent crime, or perceptions thereof, as is apparent in the Central African Republic (CAR), Gambia, Mozambique, Niger, Tanzania and Togo.

What a number of these states also have in common is the increasing longevity of their leaders. Longstanding leaders are often accompanied by a marginalisation of opposition parties; deprived of the opportunity to change leadership via the ballot box, populations will turn instead to more violent means, as has been the case in the CAR (the military coup in Mali was an exception, being a reflection of military dissatisfaction with the conduct of an anti-insurgency campaign). While the eventual overthrow of the CAR's president will be reflected in next year's rankings, the preceding violence and instability contributed to the country's ranking of 42nd out of 45 regional states.

The other states propping up the regional rankings demonstrate the enduring impact of conflict; Côte d'Ivoire's 2013 ranking was hit by a surge in violence in the second half of 2012, with a series of attacks in the south of the country blamed by the government on forces loyal to the former president, Laurent Gbagbo. The Democratic Republic of the Congo continues to be affected by armed conflict in the eastern provinces of the country, which in turn is driven by extensive population displacement over decades, as well as a lack of central government control, competition over control of the region's vast natural resources and tensions between various communities and ethnic groups. Sudan's low ranking is a reflection of the long-standing tensions that led to the secession of South Sudan in July 2011. This did not resolve issues in the states bordering what is now South Sudan, while Somalia has not truly recovered from its descent into civil conflict in the early 1990s.

## RUSSIA AND EURASIA

Russia and Eurasia remain among the least peaceful regions in the world in the 2013 edition of the GPI, above only South Asia and the Middle East and North Africa. The pattern of change across the region has been uneven, with half of the countries deteriorating and half seeing their scores improve.

Scores worsened substantially for Ukraine, Tajikistan and Russia. The main factors behind the decline in peacefulness in Ukraine compared with last year were a rise in perception of criminality under the presidency of Viktor Yanukovych (who came to power in early 2010), alongside a worsening of relations with an important neighbour, Russia, as the complex struggle over Ukraine's geo-political orientation has heated up. In the case of Russia, scores for terrorist activity and the number of deaths from internal conflict,

both linked to violence in the North Caucasus, worsened; in the aftermath of two large-scale wars between central government forces and local insurgents, unrest has been substantially suppressed, but still tends to erupt periodically. Russia's score has also deteriorated because of its growing role as a weapons supplier.

2012 was also a challenging year for Tajikistan, with the most serious outbreak of violence since the end of the civil war of the 1990s: in July, up to 60 people were reported killed in clashes between state forces and those loyal to local commanders in the eastern province of Badakhshan, on the Afghan border. In addition, a rise in the murder rate has damaged the country's position in the index.

**TABLE 1.7** Russia and Eurasia rankings

COUNTRY	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
Moldova	74	1.98	-0.007	1
Kazakhstan	78	2.03	-0.115	2
Belarus	96	2.12	-0.015	3
Armenia	98	2.12	-0.091	4
Turkmenistan	103	2.15	-0.029	5
Ukraine	111	2.24	0.156	6
Tajikistan	118	2.28	0.097	7
Uzbekistan	124	2.33	0.016	8
Azerbaijan	126	2.35	0.066	9
Kyrgyz Republic	131	2.39	0.032	10
Georgia	139	2.51	-0.034	11
Russia	155	3.06	0.092	12
<b>Regional average</b>		<b>2.30</b>		

Elsewhere in the region, scores have improved—most noticeably for Kazakhstan and Armenia, both owing to improvements in relations with their neighbours and lower murder rates. Kazakhstan, for example, continued to develop ties with Russia, the main regional power, as part of the customs union project, on which Russia hopes to build a more extensive political and trade bloc as a counterweight to the EU. Kazakhstan, therefore, rises to second place in the region, behind Moldova. Armenia rises by three places, to fourth.

Other notable changes in individual country indicators include a lowering of the score for perception of criminality in Belarus. An independent class of wealthy businessmen able to exert a strong political influence has never been allowed to develop in Belarus, keeping corruption at lower levels than in neighbouring Russia and Ukraine. High levels of control also emerge, as the latest assessments show

that the ratio of internal security forces to population in Belarus is very high. Since the violent suppression of popular protests against the conduct of the presidential election in late 2010, the security apparatus has played an increasingly vital role in the maintenance of the regime of the president, Alyaksandr Lukashenka—including during the tightly controlled parliamentary election of October 2012. The paramilitary militia and internal troops are, together, now thought to outnumber the standing army, perhaps indicating the direction from which the regime feels its continued rule is most threatened.

## MIDDLE EAST AND NORTH AFRICA

**TABLE 1.8** Middle East and North Africa Rankings

COUNTRY	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
Qatar	19	1.48	0.108	1
United Arab Emirates	36	1.68	-0.013	2
Kuwait	37	1.71	-0.003	3
Oman	45	1.81	-0.006	4
Jordan	52	1.86	-0.002	5
Morocco	57	1.90	0.009	6
Tunisia	77	2.01	0.027	7
Bahrain	95	2.11	0.025	8
Saudi Arabia	97	2.12	-0.095	9
Egypt	113	2.26	0.027	10
Algeria	119	2.28	-0.014	11
Iran	137	2.47	0.056	12
Lebanon	142	2.58	0.139	13
Libya	145	2.60	-0.22	14
Israel	150	2.73	-0.037	15
Yemen	152	2.75	0.049	16
Sudan	158	3.24	-0.156	17
Iraq	159	3.25	0.019	18
Syria	160	3.39	0.524	19
<b>Regional average</b>		<b>2.33</b>		

The Middle East and North Africa's GPI score has continued to be affected by the fallout of the Arab Spring. The resulting turmoil, combined with the concurrent crackdowns by long-standing incumbents keen to head off potential internal threats, has had a profound impact

on the region's overall peacefulness. This is especially notable in Tunisia, Egypt and Yemen, which have all seen a deterioration in their scores. The new leaderships in these post-revolutionary states have struggled to implement an orderly transition, resulting in a resurgence of violent protests, rising violent crime and, in the cases of Egypt and Yemen, an increase in terrorist activity. As a result, all three have suffered a further slide down the rankings. More positively, Libya, which is also grappling with a difficult transition, has experienced an improvement in its score, after the conclusion of its civil war and the removal of Muammar Qadhafi.

With the exception of Bahrain, the wealthier Gulf Arab states have managed to remain largely on the peripheries of the Arab Spring, although their internal peace rankings are undermined by a lack of democratic institutions and an intolerance of dissent. Indeed, Saudi Arabia improved significantly, reflecting an easing of concerns over the prospects for violent unrest (a "day of rage", scheduled on Facebook to bring protesters out on the street, barely attracted a dozen people) and a small drop-off in military expenditure, although spending is expected to rise once again in the coming years. In contrast, Bahrain continues to be affected by increasingly violent protests, largely from the country's Shia majority. This prompted the government to introduce a ban on public demonstrations in October, which in turn drove the country's six-place fall in the rankings. The only other Gulf Co-operation Council (GCC) state to see a deterioration in its ranking was Qatar. This largely reflects the Qatari government's increasingly assertive foreign policy, which has led to friction with other regional powers (and has consequently prompted a deterioration in the emirate's score for *relations with neighbouring countries*), and been accompanied by a ramping up of military spending.

Qatar's predilection for foreign intervention has been especially evident of late in Syria, where Qatar has been funnelling arms and money to the opposition, which, unsurprisingly, saw the region's biggest fall in score this year and is now the lowest-ranked MENA country in the GPI. Syria's ongoing civil war has seen a mass militarisation of the population and an upsurge in terrorist attacks, and has resulted in the deaths of around 70,000 people. In addition, 1.3m Syrians have now fled the country, with a further 3.8m internally displaced.

The impact on neighbouring states has also been marked, with politically fragile Lebanon especially affected—divisions between the ruling March 8th alliance, dominated by Hezbollah and its pro-Syrian allies, and the pro-Western March 14th alliance, have been further deepened by the crisis, and, amid the growing turmoil, the prime minister resigned in March. Although less heavily affected domestically, the external peace scores of Iraq and Jordan have also deteriorated in

the wake of the civil war in Syria. The deteriorating situation in Syria is also a major concern for Israel, especially given the regime's large chemical weapons stocks and tensions in the Israeli-occupied, but Syrian-claimed, Golan Heights; however, the worsening in Israel's already low score for peacefulness stems from its short war with Hamas (an Islamist group that controls the Gaza Strip) in November 2012, and the associated rise in its defence spending.

## SOUTH ASIA

**TABLE 1.9** South Asia Rankings

COUNTRY	OVERALL RANK	OVERALL SCORE	CHANGE IN SCORE	REGIONAL RANK
Bhutan	20	1.49	-0.028	1
Nepal	82	2.06	0.054	2
Bangladesh	105	2.16	0.009	3
Sri Lanka	110	2.23	0.03	4
India	141	2.57	-0.105	5
Pakistan	157	3.11	0.106	6
Afghanistan	162	3.44	0.075	7
<b>Regional average</b>		<b>2.44</b>		

South Asia has emerged as the least peaceful of the GPI regional groupings, garnering low scores on both internal and external peace indicators. In the seven-country grouping, India and Bhutan became more peaceful, with an improvement in their overall scores in 2013, while Afghanistan and Pakistan saw the worst declines in the region. Apart from Bhutan and Nepal, all the other countries in this region score higher than the mean GPI of the 162 countries. In this group, the two Himalayan kingdoms fare better, with Bhutan at 20 and Nepal ranked 82nd.

Political instability and terrorist activity have weighed on the scores of Afghanistan, Pakistan and Bangladesh. Afghanistan has emerged as the least peaceful country in the world and is at the bottom of the table, both in terms of its overall rank and its internal peace score. The most significant declines in the country's scores were in *political instability* and *military expenditure as a percentage of GDP*. An ongoing campaign of insurgency by various groups (primarily the Taliban) and the scheduled withdrawal of international forces in 2013-14 have led to a politically unstable environment and numerous internal conflicts. The scores for terrorist activity and political terror also worsened. More positively, Afghanistan's deaths from internal organised conflict declined to 5,146 from 11,351 in 2012.

In Pakistan none of the scores improved from last year,

but there was further deterioration in the level of organised conflict, violent crime and terrorist activity. The scores are mostly a reflection of the escalation in sectarian militant activity targeting the minority Shia community. Although Shias are in the minority in Pakistan, they constitute one-fifth of the population. According to Human Rights Watch, 325 members of the Shia community were killed across Pakistan in 2012, in separate incidents targeting the minority group. In 2013, the death toll for January and February, as a result of two separate bombings targeting the Shia community, stands at 200. It is believed that groups such as Lashkar-e-Jhangvi, which believes that Shia Muslims are heretics, have stepped up attacks on the Shia community.

The political environment in Bangladesh became less stable in the current round of scoring and the country's peace indicators took a hit from increased terrorist activity. Ongoing war tribunals, wherein senior political figures have been charged with atrocities committed in the 1971 war of secession with Pakistan and secular groups have demanded tougher punishments for those convicted, have led to frequent violent street clashes between the police and supporters of the political leaders. Along with this, the campaigns of violence by terrorist groups have also led to increased instability.

In Sri Lanka, both internal and external peace indicators weighed negatively on the overall score. The existing divisions in society, increased attacks on the media and rising anti-Muslim sentiment have impacted the peace scores for the country. India's internal peace indicators benefited from an improvement in the *perception of criminality in society* and the *number of deaths from organised conflict*, but increased defence spending pulled its score down. India's overall internal peace score improved by 0.2 points, but its external peace indicator declined marginally this year. India's relations with neighbours Pakistan and China have been turbulent and border skirmishes are not unheard of. Overall, however, relations with both China and Pakistan have improved, with frequent diplomatic exchanges taking place between the countries. Nevertheless, border tensions require India to maintain a large military force and the increase in defence expenditure was a drag on the overall peace score. Nepal's political stalemate has led to increased uncertainties. Although an interim government was appointed earlier this year, it is yet to finalise the new constitution and determine an election date. Perhaps unsurprisingly, Bhutan, known for using gross national happiness, rather than GDP, to gauge its progress, remains the most peaceful country in the region.

India's internal peace indicators benefited from an improvement in the perception of criminality in society and the number of deaths from organised conflict but increased defence spending pulled its score down.

# THE 10 COUNTRIES MOST AT PEACE

Iceland is classified the most peaceful nation of 162 surveyed in the 2013 GPI, followed by Denmark and New Zealand.

## ICELAND: 1ST PLACE

SCORE 1.162

Iceland is the world's most peaceful country. The island nation is free from conflict; crime and homicide rates are minimal; and the jailed population is considerably lower than elsewhere in Europe and among the smallest proportions in the world, remaining at 47 per 100,000 in 2012. Indeed, all of Iceland's GPI measures of safety and security in society receive the lowest possible scores (1), apart from *the number of internal security officers* and police, and *perceived criminality in society* (both accorded a score of 2: "low"). The political scene has been fairly stable under the centre-left coalition of the Social Democratic Alliance (SDA) and the Left-Green Movement (LGM). Led since April 2009 by the reformist prime minister, Johanna Sigurdardottir, the coalition has presided over a gradual economic recovery, which won praise from the IMF in 2012. However, a growing backlash against austerity and eventual accession to the EU saw the centre-right Independence Party and the Progressive Party return to power in the April 2013 general election. Olafur Ragnar Grimsson remains president; he won a fifth successive term of office in July 2012, defeating his nearest rival by nearly 20% of the vote.

Iceland has no standing army; the Icelandic Defence Agency (IDA), which was launched in 2008 with a budget

of US\$20m, was disbanded amid austerity measures in the wake of the collapse of the country's three main commercial banks and of the currency. A modest budget is channelled to the Coast Guard, which operates a small number of lightly armed ships and aircraft. A member of NATO since its inception in 1949, Iceland participates in international peacekeeping missions in Afghanistan, Lebanon, Palestine and the Balkans.

## DENMARK: 2ND PLACE

SCORE 1.207

Denmark's GPI score was unchanged from 2012 and it remains the world's second-most peaceful country. A slight rise in terrorist activity, from a very low base (according to IEP's Global Terrorism Index), was offset by a drop in imports of major conventional weapons, amid ongoing budget constraints. This continues a trend: the current Danish defence agreement reduces the number of the country's F-16 fighter aircraft from 48 to 30 and the process of procuring new F-35 fighters was put on hold in March 2010. Military spending remains at a relatively modest 1.3% of GDP, although Denmark's heavy-weapons capability is higher than that of Austria, Ireland and Iceland.

Denmark ranks highest in the world for internal peace, ahead of Iceland by virtue of having an even lower number of police and internal security officers per capita. Crime and homicide rates are extremely low, violent demonstrations are highly unlikely and very few citizens are in jail (just 68 people per 100,000, one of the lowest proportions in Europe). While the minority coalition of the Social Democrats, the Socialist People's Party and the Social Liberal Party has seen its poll ratings slide since taking office in October 2011, it is stable and not under threat. Relations with neighbouring Sweden, Norway and Germany have long been harmonious.

## NEW ZEALAND: 3RD PLACE

SCORE 1.237

New Zealand remains the third-most peaceful country in the world. Its overall score deteriorated slightly in response to a marginal rise in military expenditure, to a still-low 1.4% of

GDP. The New Zealand Defence Force has just 8,617 active personnel and a modest stock of military hardware—in 2001 the Labour government removed air-combat capability by cancelling the planned purchase of F-15 jets. The 2010 Defence White Paper included a pledge to maintain and enhance existing capabilities and to provide additional services, such as maritime air patrols, in spite of the tough fiscal climate.

The majority of the GPI's measures of safety and security suggest that New Zealand society is broadly harmonious; violent demonstrations are highly unlikely, while homicides and terrorist acts are very rare. The jailed population dropped, but not sufficiently to have an impact on the country's overall GPI score; at 194 per 100,000, it remains higher than that of most OECD countries, notably Japan (55) and Switzerland (76). New Zealand's political scene remained stable, with support for the prime minister, John Key, and the ruling centre-right National Party holding up amid confidence over the government's handling of the economy, which grew by 2.5% in 2012. New Zealand maintained harmonious relations with its neighbours in 2012; links with Australia are underpinned by the 1983 Closer Economic Relations (CER) agreement. The two governments are negotiating a protocol on a common border, pension portability and joint investment, all of which would move the countries closer to their goal of forming a single economic market.

## AUSTRIA: 4TH PLACE

SCORE 1.250

Austria became more peaceful in 2012/13, moving up two places in the Index. The compilers of the *Political Terror Scale* report a more benign environment and violent demonstrations are considered to have become less likely in the year to March 2013. This indicator ratcheted up in the previous year, partly in response to protests against Internet restrictions (the Anti-Counterfeiting Trade Agreement, ACTA) in several Austrian cities in February 2012. Austria's indicators of internal peace point to a broadly harmonious society, with notably modest tallies for the level of violent crime and the homicide rate, which remain among the lowest of the 162 nations surveyed.

Military spending rose slightly in 2012, but, at just 0.8% of GDP, it remains very low—the legacy of the 1955 Austrian State Treaty, which committed the country to permanent neutrality. Among OECD countries, only Ireland, Mexico and Iceland direct a smaller proportion of their GDP to the military. Budget cuts over recent years have led to substantial reductions in the fleet of armoured vehicles and artillery, although the controversial procurement of Eurofighter Typhoon interceptors went ahead and the

joint-command air force now has 15 of the jets. This results in a higher score ("less at peace") in the nuclear and heavy-weapons capability indicator than, for example, Hungary and Iceland. The political scene is broadly stable, with the coalition of the Austrian People's Party (ÖVP) and the Social Democratic Party (SPÖ) likely to continue until the next election, which is due in September 2013.

## SWITZERLAND: 5TH PLACE

SCORE 1.272

Switzerland drops to 5th position in the 2013 GPI. Last year, it entered the top ten in the Index for the first time, primarily as a result of contractions in its military sphere. While the country has a tradition of neutrality that dates from the Treaty of Paris in 1815, Switzerland maintains a significant defence industry and exports of conventional weapons per capita are among the highest in Europe. However, the volume has declined since restrictions banning sales to countries involved in armed conflict, or that "systematically and severely violate human rights", were introduced in 2009. Military expenditure was at 0.8% of GDP in 2012, continuing a trend that began in 2003, when a sweeping reform programme, known as Army XXI, was introduced. Nuclear and heavy-weapons capabilities are adjudged to be moderate and, while restricted, access to light weapons is easier than in Iceland and New Zealand.

Switzerland enjoys very low levels of violent crime, homicides and political terror, although the GPI gauge of terrorist activity registered a modest rise from a very low base, with three incidents recorded in 2011 by the University of Maryland's Global Terrorism Database. The political scene is stable, although the right-wing Swiss People's Party (SVP), which retained most seats of any party in the October 2011 election, continues to pursue opposition tactics in the five-party coalition government. While the euro debt crisis and the strength of the Swiss franc pose threats, the fundamentals of the economy are strong and violent demonstrations remained highly unlikely in 2012 and early 2013.

## JAPAN: 6TH PLACE

SCORE 1.293

Japan's overall peacefulness improved from last year. The compilers of the *Political Terror Scale* report that conditions in Japan returned to the most peaceful level recognised by the GPI, having previously risen as a result of concerns raised in Amnesty International's 2010 report. Despite the ban on maintaining war potential, which was enshrined in Japan's 1946 constitution, the country's self-defence forces (SDF) are

sophisticated and capable and the government has recently unveiled plans to boost its forces and missile defences over the next decade, in order to counter China's military rise and the threat from a nuclear-armed North Korea. Tensions with China and Taiwan over control of the Senkaku/Diaoyu islands continued: all three countries reiterated their sovereignty claims in 2012, with Japan's supported by a nationalist activist group, Ganbare Nippon. Japan's relations with neighbouring countries are therefore rated "moderate", a notably higher score than the other top-ten nations, which contributes to Japan's relatively lowly rank of 88th in external peace—nine GPI indicators covering militarisation, external conflict and refugees/displaced persons.

In terms of internal peace, Japan is ranked 2nd in the world, behind Iceland. The country remained free from civil unrest in 2012, while violent crime and homicides are very rare and terrorist activity highly unlikely. Japan incarcerates fewer citizens than almost anywhere in the world (55 per 100,000 people) and stringent laws prohibit the possession of firearms. Japan's political scene is stable (more so than most other countries in the region) and the centre-right Liberal Democratic Party (LDP), led by Shinzo Abe, which was emphatically returned to power in December 2012, has a good chance of serving a full four-year term.

## FINLAND: 7TH PLACE

SCORE 1.297

Finland remained essentially peaceful in 2012/13; the country's overall GPI tally was unchanged, but it slipped to 7th place owing to more substantial gains in Austria and Japan. Like many other European countries, defence expenditure has come under pressure and Finland has embarked on a wide-ranging review that may include the closure of bases. Since the end of the cold war, Finland has adopted a policy of strategic non-alignment and chosen not to apply for NATO membership, despite the fact that the three former Soviet Baltic states joined in 2004. The majority of Finland's measures of militarisation are accorded low scores in a broad international comparison, with the lowest number of internal security officers and police per capita (152 per 100,000 population) in the OECD and fairly low volumes of imports and exports of conventional weapons. There is a growing emphasis on participation in international defence partnerships, which will probably extend to procurement, and 195 soldiers are deployed in Afghanistan as part of the NATO-led force there.

Finnish society is broadly safe and secure; there is no civil unrest, crime rates are very low and terrorist activities highly unlikely, although the homicide rate remains higher than in the other Nordic countries. Finland's jailed population is very low: just 60 per 100,000 people in 2012. Among

OECD countries, only Iceland and Japan incarcerate a lower proportion of their populations. While the six-party coalition government that was formed in June 2011 represents a broader spectrum of opinion than is usual, it is stable and expected to last out its four-year term. Relations with neighbouring Nordic countries are harmonious and ties with Russia have improved.

## CANADA: 8TH PLACE

SCORE 1.306

Canada became slightly more peaceful in 2012/13, leading to a one-position improvement in this year's rankings. Canada's military expenditure dipped to 1% of GDP in 2012, reflecting swinging government cutbacks; the army's budget has reportedly been cut by 22% since 2010 and the military has scaled back its Arctic exercises. Canada's relations with the US improved, mainly reflecting the ending of a protectionist-tinted period when the buy American stipulation in the US fiscal stimulus was in force in 2010-12. The number of internal security officers and police rose slightly, to 204 per 100,000 people, which is still low by the standards of OECD countries.

Canadian society is largely harmonious, free from internal conflict and with very low crime and homicide rates. Violent demonstrations are rare, but considered more likely to occur than in some countries, including Iceland and Japan. The proportion of the population in jail is higher than in the Scandinavian nations, but lower than in New Zealand and much lower than in the US. Access to small arms and light weapons has been restricted since the 1995 Firearms Act and they are far less readily available than in the US, but more so than in Japan and several Western European countries. The Conservative Party, led by Stephen Harper, the prime minister, has a majority in parliament, providing a stable political environment; the government is expected to last its full five-year term to 2015.

## SWEDEN: 9TH PLACE

SCORE 1.319

In terms of "internal peace", Sweden performs impressively – 4th of the 162 countries surveyed, behind only Iceland, Japan and Denmark. There is no civil unrest, crime and homicide rates are extremely low, terrorist activities highly unlikely and the jailed population minimal – dropping to just 70 per 100,000 people in 2012. Sweden's relations with neighbouring countries have long been harmonious, and economic integration in the region has strengthened since the Baltic States joined the European Union in 2004. The political scene is stable, with the minority four-party centre-right Alliance for Sweden expected to hold together and

serve a full term to September 2014.

Small arms and light weapons are easier to access than some other countries in the top ten of the GPI, but two other measures of militarization continue to weigh on Sweden's GPI tally: the *volume of exports of major conventional weapons per head of population* and, to a lesser extent, *nuclear and heavy weapons capabilities*. In the former indicator, Sweden is ranked second-lowest of the 162 countries, behind Israel, reflecting the country's dynamic defence industry, with a long history despite Sweden's neutral stance since the early nineteenth century. Karlskronavarvet, specializing in naval surface vessels and submarines, and Bofors, a producer of artillery systems once owned by Alfred Nobel, have, for example, been in business for more than 300 years. The country's heavy weapons are mainly associated with the Swedish Air Force, which was expanded after the Second World War to combat a feared invasion by the Soviet Union. There are 130 fighter jets in service, all of which are built by the local aerospace firm, Saab.

## BELGIUM: 10TH PLACE

SCORE 1.339

---

Belgium is the 10th-most peaceful country in the world in 2012/13. It is free from civil unrest, its homicide rate is very low, terrorist activities are highly unlikely and a relatively low proportion of the population is in jail, although a higher proportion than in Scandinavia. Violent crime is low, as is the risk of violent demonstrations, but both receive higher scores than the Nordic nations. There was an improvement in the country's standing in the *Political Terror Scale* to the lowest (most peaceful) level, for the first time since 2001. This brings Belgium alongside most countries in Western Europe, with the exception of France, Italy, Spain and Portugal. Belgium enjoys harmonious relations with neighbouring countries, but ongoing tensions at home across the two linguistic communities have undermined political stability in recent years. A six-party coalition government, headed by Elio Di Rupo, was finally formed in December 2011, almost 18 months after the general election. The hardline separatist New-Flemish Alliance (N-VA) is likely to exploit its position as the main opposition party in order to boost its popularity further.

An active participant in NATO missions, Belgium typically channels around 1% of its GDP to military/defence purposes. Most GPI gauges of militarisation are accorded relatively low scores, although the volume of transfers (exports) of major conventional weapons is notably higher than for most similarly sized OECD countries. In 2008 FN Herstal, a Belgium-based small-arms manufacturer, controversially signed a €12m contract with Muammer Qaddafi's government to supply Libya's 32nd brigade.

# THE 10 COUNTRIES LEAST AT PEACE

War-torn Afghanistan is classified the least at peace out of 162 countries, followed by Somalia and Syria.

## AFGHANISTAN: 162ND PLACE

SCORE 3.440

Embroiled in conflict and instability for much of the past two decades, Afghanistan remained far from peaceful during 2012. While two GPI indicators registered improvements (fewer people killed as a result of internal conflict and a drop in the number of refugees and displaced people), four deteriorated and the country returned to the foot of the GPI, below an improving Somalia. The UN believes that 2,754 civilians were killed during 2012 (down from 3,021 in 2011), the result of reduced ground fighting by Taliban and US troops, a decrease in the number of NATO airstrikes and fewer attacks by insurgents. Deadly suicide attacks continued throughout 2012, however; one in Maimana in late October killed 41 and injured 56. The capital, Kabul, suffered two major attacks in 2012: on the parliament building, the International Security Assistance Force (ISAF) headquarters and the British and German embassies in mid-April; and, in June, on a hotel, which culminated in a fire-fight, leaving at least 22 dead. Casualties among the NATO-led ISAF dropped to 402 in 2012, compared with 566 in 2011 and 711 in 2010.

The compilers of the *Political Terror Scale* registered a deterioration in Afghanistan's score and the measure of terrorist activities also worsened. Afghanistan's political scene became even more unstable in 2012 amid the ongoing

insurgency, the imminent transition of security responsibility to domestic forces, the withdrawal of international troops over the coming year and the presidential election in 2014. The Afghan National Army (ANA) has expanded steadily in recent years, with reports of 200,000 serving troops in early 2013. Under the 2012 US-Afghanistan Strategic Partnership Agreement, the US designated Afghanistan a "major non-NATO ally" and it will continue to provide funding for the ANA, including for salaries, military equipment and training. The International Institute for Strategic Studies (IISS) reported a sharp rise in Afghanistan's military expenditure in 2012, to 11.2% of GDP, one of the highest proportions in the world.

## SOMALIA: 161ST PLACE

SCORE 3.394

A drop in the number of fatalities resulting from internal conflict and improved relations with neighbouring countries contributed to a more peaceful environment in Somalia in 2012/13, and lifted the country from the foot of the GPI after two years. Worsening conditions in Afghanistan were also a factor. The violent confrontation between the Transitional Federal Government (the Federal Government of Somalia from August 2012) and Islamist rebel groups, Hizbul Islam and al-Shabaab, continued for the seventh successive year. Somali government troops made substantial military gains in the south. In February 2012 al-Shabaab lost the key southern town of Baidoa to Kenyan troops and Somali government forces and, in May, African Union (AU) and Somali government forces captured Afgoye, cutting al-Shabaab territory in half.

While Somalia's political scene remains unstable, the first formal parliament since the country descended into civil war in 1991 took office in August 2012. Hassan Sheikh Mohamud, an academic and civic activist, was chosen by parliament to be president. His appointment, along with the government's recent territorial gains, contributed to the improvement in the GPI measure of *relations with neighbouring countries*; the Somali government is currently receiving support from Kenyan, Ethiopian, Burundian and Djiboutian troops (mostly under the purview of the African Union Mission in Somalia, Amisom) to fight the Islamist militia. There was also a sharp drop in the number of reported pirate attacks off Somalia's coast in 2012, with 75 incidents, according to the International Maritime Bureau, compared with 237

in 2011. This reflected the presence of international naval collaboration and private armed security teams aboard ships. Almost all of Somalia's measures of societal safety and security continue to receive very poor GPI tallies. The exceptions are police numbers per head and the proportion of the population in jail, on account of the country's lack of civil institutions.

## SYRIA: 160TH PLACE

SCORE 3.393

---

Syria experienced by far the greatest deterioration in peacefulness in the world in 2012/13 and the largest fall in the history of the GPI. The violent conflict between forces loyal to the president, Bashar al-Assad, and those opposed to his rule escalated into a full-scale civil war. The UN estimates that 70,000 people have been killed since March 2011, when protests against al-Assad's regime erupted in the southern city of Deraa. Throughout 2012, mass protests took place across the country, which were often violently dispersed by the Syrian Armed Forces (SAF). Rebel-controlled land in the north and east has come under sustained bombardment from government forces, while the SAF has fought to retain its grip on a north-south axis from

Syria experienced by far the greatest deterioration in peacefulness in the world in 2012/13 and the largest fall in the history of the GPI. The violent conflict between forces loyal to the president, Bashar al-Assad, and those opposed to his rule escalated into a full-scale civil war. The UN estimates that 70,000 people have been killed since March 2011.

Damascus through Homs and Hama, to the port of Latakia, formerly home to the al-Assad family. Opposition groups are divided, representing different ethnic groups; there have been clashes between Kurdish militias and Islamist groups, some of which have been reinforced by foreign jihadists. By the end of 2012 more than 500,000 refugees had been registered in Egypt and other neighbouring countries and an estimated 2.3m have been forced to leave their homes within Syria.

Beneath it all has been the brutalisation of life in Syria, a relatively peaceful place two years ago. Most of the GPI indicators of safety and security in society—violent crime, homicide rate, terrorist activities and the *Political Terror Scale*, all worsened substantially. *Political instability* increased, as the regime and its Alawite allies continued to launch attacks on a disintegrating nation from their fortified enclave. Relations with neighbouring Iraq, Israel, Jordan, Lebanon and Turkey remained extremely tense, with the GPI score for this indicator unchanged at 5 from last year. The largest deterioration was seen in the *number of internal security officers and police*, with large use of the army to repress the population and fight the rebels, as Assad tries to hold on to power and armed opposition to the regime increases. The civil war has clearly undermined regulations regarding the possession of firearms; rebel forces have reportedly brought in weapons from Lebanon, and Gulf countries, including Qatar, Saudi Arabia and Kuwait, have reportedly supplied opposition fighters with light weapons, many through private donors.

## IRAQ: 159TH PLACE

SCORE 3.245

---

Iraq became marginally less peaceful in 2012, largely because of a substantial rise in military expenditure, to an estimated 7.1% of GDP (up from 3.1%) in 2011. This reflects the purchase of equipment, including 18 Lockheed Martin F-16 fighter jets, costing around US\$3bn, intended to form the basis of the country's air sovereignty. Iraq remains a highly militarised country; small arms and light weapons are numerous and very easily obtained. The GPI measure of Iraq's relations with its neighbours also deteriorated, specifically with Turkey, following Ankara's arrangement with the autonomous Kurdistan Regional Government (KRG). Economic and diplomatic relations with Turkey may be in jeopardy. There is also heightened tension and uncertainty over Iraq's relationship with Syria; Iraq has been less vocally critical of the Syrian government's crackdown than many of its Arab peers. The political scene became slightly more stable, with the prime minister, Nouri al-Maliki, appearing to have broad popular support; he is likely to remain in office until the next elections, scheduled

for 2014. Nevertheless, the government of national unity, which brings together the four largest political groups, remained weak and divided and tensions between the central government in Baghdad and the KRG, stemming from the allocation of oil revenue, persist.

The compilers of the *Political Terror Scale* report a marginally more benign environment. There was also a reduction in the number of refugees and internally displaced people, to 8.5% of the population, still the sixth-highest proportion in the world. This partly reflects the return of Iraqis from an increasingly unstable Syria (around 1m Iraqis are thought to live there, with another 475,000 in Jordan). The GPI measure of internal conflict remained at a very high level; sectarian tension and violence remain widespread and the Iraq Body Count recorded 4,573 civilian deaths from violence in 2012, up from 4,087 last year. Sunni militant groups launched bomb attacks on governmental institutions and security forces across the country, notably in Anbar, Diyala, Ninawa, Salah ad-Din and the capital, Baghdad. The *homicide rate*, the *level of violent crime*, the *perceptions of criminality*, the *likelihood of violent demonstrations* and *terrorist activity* all receive the highest possible tallies (unchanged from last year).

## SUDAN: 158TH PLACE

SCORE 3.242

Sudan became slightly more peaceful in 2012/13, moving above Iraq, but remaining among the five lowest-ranked nations in the GPI. Measures of internal conflict and battle-related deaths declined from very high levels, as did the homicide rate. Nevertheless, several conflicts raged on: in February 2013; for example, 60 people were reported killed and 83 injured in inter-tribal fighting in the Jebel Marra region of North Darfur. Violent conflicts continued in the Sudanese provinces of South Kordofan and Blue Nile between the government and the Sudan People's Liberation Movement/Army-North. Furthermore, the conflict between Sudan and South Sudan over the oil-rich Abyei area escalated, with reports of aerial bombardments by the Sudanese Air Force and heavy fighting over oil installations in April and May 2012.

The UNHCR reported that the number of refugees and internally displaced persons rose again, reaching 14.2% of Sudan's population. The UN estimates that up to 300,000 people have died and around 2.7m have been forced to flee their homes from the combined effects of war, famine and disease in Darfur since 2003. There were also increases in terrorist activity and in the number of armed services personnel. The political scene remained unstable. Tensions within the ruling National Congress Party (NCP), headed by the president, Omar al-Bashir, over allowing the south

to secede abated following a trade, oil and security deal with the South Sudan government, brokered by Ethiopia in September 2012. Nevertheless, the government faced several protests in Khartoum during 2012 over austerity measures linked to the post-succession drop in oil revenue. Sudan's scores for the *Political Terror Scale* remain at the worst possible level, unchanged since 2012. *Perceptions of criminality* and the *level of violent crime*, however, receive more moderate scores than most countries in the lowest reaches of the GPI, which reflects Sudan's size and the fact that, while parts of the country are in turmoil, other areas, including the capital, Khartoum, are stable. Sudan's military sphere is relatively little-developed; military expenditure, for example, is 1.8% of GDP, lower than elsewhere in the region.

## PAKISTAN: 157TH PLACE

SCORE 3.106

Pakistan became even less peaceful in 2012. Three GPI indicators deteriorated: the intensity of internal conflict, terrorist activity and the level of violent crime, two of which had improved in 2011. Pakistan dropped below the Democratic Republic of the Congo (DRC) and Central African Republic (CAR), to rank 157th of 162 nations. The conflict over national power and political orientation between the government, which is supported by the US, and various Islamist militant groups, including Tehrik-i-Taliban (TTB, also known as the Pakistani Taliban), al-Qaeda and Haqqani network continued for the sixth consecutive year. According to the Global Terrorism Index, terrorism-related violence caused 1,468 deaths in Pakistan in 2011 (the latest available year). The most serious clashes took place in the Federally Administered Tribal Areas (FATA), especially Orakzai, Khyber and North Waziristan, where US drone strikes continued. Sectarian violence also increased in 2012; the Institute for Conflict Management reports 113 attacks against the Shia minority, while ethnic violence in Sindh province eased, with fewer reported attacks and riots in Karachi.

The political scene remained fairly unstable in 2012, although less so than in most countries ranked in the GPI's ten-lowest positions. Speculation about a military coup proved wide off the mark and, while there have been tensions between the coalition government and the army, parliament is set to complete its five-year term, a rarity in Pakistan. Relations with neighbouring Afghanistan and India remained difficult and the compilers of the *Political Terror Scale* placed Pakistan at the highest possible level for a second successive year. As a nuclear-armed state, Pakistan is accorded the highest possible GPI rating for nuclear and heavy-weapons capability. Military expenditure fell marginally, to a relatively high 2.5% of GDP. Small arms and light weapons are very

easily obtained, although other GPI measures of militarisation, such as the number of troops and police as a proportion of the population, and transfers of heavy weapons are accorded low scores, unchanged from last year.

## DEMOCRATIC REPUBLIC OF THE CONGO: 156TH PLACE

SCORE 3.085

Several eastern regions of the Democratic Republic of the Congo (DRC) remained embroiled in violent conflict in 2012, the disastrous consequence of decades of misrule. The country's civil war between 1998 and 2003 caused as many as 3m deaths through fighting or disease and malnutrition. Overall, the country's GPI score was little changed, with rises in the internal conflict indicator (to the highest level) and terrorist activities offset by a modest fall in the *Political Terror Scale* and the number of people killed in internal conflict. The DRC is ranked 156th out of 162 countries in this year's GPI. This is an improvement on last year, which is largely explained by worsening conditions in Pakistan and Syria, which both ranked above the DRC last year. In 2012 there was an escalation in the conflict between the government and the National Congress for the Defence of the People (CNDP, subsequently known as M23).

During November, M23 rebels established a parallel administration in parts of North Kivu, taxing locals and controlling a border post with neighbouring Uganda. They briefly ousted the Forces Armées de la République Démocratique du Congo (FARDC, the national army) from the provincial capital, Goma, in November, before withdrawing under growing international pressure. Clashes in North and South Kivu between the Hutu rebels of the Democratic Forces for the Liberation of Rwanda (FDLR), allied with smaller groups, including the Mayi-Mayi, as well as the FARDC, left hundreds dead and forced thousands to leave their homes. One estimate put the number displaced in South Kivu during the first six months of 2012 at more than 200,000.

DRC's *relations with neighbouring countries* are again accorded a moderate score, which reflects strong links with Rwanda and Zambia. Relations with Angola remained tense, however, with an ongoing dispute over the two countries' maritime border and offshore oil. The continued weakness of the DRC's institutions is underlined by very low numbers of police and security officers per head. While recorded transfers of major conventional weapons are very low, small arms are widespread and readily available. Military expenditure remained at a relatively low level (1.3% of GDP), compared with 2.2% in the Republic of Congo and 3.3% in Angola.

## RUSSIA: 155TH PLACE

SCORE 3.060

Russia experienced a decline in peacefulness in 2012/13, following a slight improvement the previous year. Fatalities from internal conflict rose, there was a rise in terrorist activity, an uptick in exports of major conventional weapons and an increase in military expenditure, to 3% of GDP—a high level by international comparison, but lower than that of the US (4.1%). Russia's exports of major conventional weapons, the number of heavy weapons and the size of the police force relative to the population remain among the highest in the world. While the jailed population dropped for the fifth successive year, 495 per 100,000 people remains very high; only Cuba, Eritrea, Rwanda, the US and North Korea incarcerate a higher proportion of their population.

Ongoing conflict in the North Caucasus and the related terrorist threat are also key factors, along with a poor ranking in the *Political Terror Scale* and a high homicide rate. Shootings, bombings and ambushes against security forces and local authorities took place in Chechnya, Dagestan, Ingushetia, and Kabardino-Balkaria, claiming more than 600 lives in 2012. Dagestan experienced the most serious violence, with an escalation in attacks by militant Islamists, including on a police station in Makhachkala in May, during which at least 13 people were killed and 120 injured. Russia's score for the GPI indicator of internal conflict remained "moderate" in 2012-13, however, reflecting the fact that large areas of the country are free of conflict.

## NORTH KOREA: 154TH PLACE

SCORE 3.044

North Korea is among the ten-least peaceful nations in the GPI for the third year running, and its score worsened in 2012/13, mainly because of a sharp increase in the jailed population, to 830 per 100,000, the highest proportion in the world, above the US (730). Credible reports suggest up to 200,000 prisoners are held in six sprawling political prison camps, with thousands more detained at scores of other detention centres. There was also a rise in *political instability* and a slight escalation in *violent crime*, from very low levels (as is often the case in highly repressive, authoritarian states). This reflects reports of incidents associated with smuggling close to the border with China. Likewise, violent demonstrations are highly unlikely and terrorist activity minimal, which serves to highlight how profoundly "unpeaceful" North Korea is on most other GPI indicators. Since Kim Jong-un succeeded his father as supreme leader in December 2011, tensions on the Korean peninsula have ratcheted up alarmingly, from already high

levels, with increasingly bellicose rhetoric and a third nuclear test in February 2013, said to be twice as powerful as the one in 2009. The lack of a clear motive for the North Korean government's behaviour suggests that domestic politics is playing a role; the inexperienced Kim Jong-un might still feel the need to prove himself by flexing his military muscles. However, there are signs that he may be overreaching himself. Relations with China and Japan also remained strained in 2012/13.

North Korea maintains one of the world's largest standing armies and militarism pervades all aspects of life. Military expenditure is estimated at 20% of GDP, by far the greatest proportion of the 162 countries surveyed. North Korea receives the highest GPI score for *nuclear and heavy-weapons capability*; a recent South Korean report suggests the country had increased its investment in tanks and special forces, which number 200,000. Other measures of militarisation are accorded much lower tallies, notably transfers (imports and exports) of major conventional weapons, reflecting the country's ongoing economic and political isolation.

## CENTRAL AFRICAN REPUBLIC: 153RD PLACE

SCORE 3.031

The Central African Republic (CAR) became markedly less peaceful in 2012, with deterioration of five GPI indicators, four of which concern ongoing conflict and safety and security in society. The conflict for national power between the government and various rebel groups intensified, with a series of violent attacks in the north and east of the country organised by a new coalition, Séléka. This appears to encompass dissident factions of a rebel group that did not sign up to the 2011 peace process, Convention des Patriotes pour la Justice et la Paix (CPJP) and the Union of Democratic Forces for Unity (UFDR). In early December Séléka attacked the north-western town of Ndele and advanced southward, capturing large parts of the country to within 100km of the capital, Bangui. Facing potential military opposition from Chad and other neighbouring countries, Séléka halted its advance in late December and agreed to peace negotiations in January 2013.

The political scene became even less stable; the new government of national unity, consisting of allies of the president, François Bozizé, Séléka and the political opposition lacks coherence, and there is a risk of renewed fighting. Small arms and light weapons are easily obtained in the CAR and military expenditure rose to 2.6% of GDP,

higher than that of Gabon (1.7%) and Senegal (1.6%). Most other GPI measures of militarisation, including transfers of major conventional weapons and heavy-weapons capability, are scored very low—the army comprises just 2,150 trained soldiers.

North Korea maintains one of the world's largest standing armies and militarism pervades all aspects of life. Military expenditure is estimated at 20% of GDP, by far the greatest proportion of the 162 countries surveyed.

Libya experienced the largest improvement in peacefulness of the 162 nations surveyed and climbed three places, to 145th position. Sudan saw the second-largest improvement in peacefulness, followed by Chad, where violent conflicts abated, although clashes continued in some areas. Syria experienced by far the greatest deterioration in peacefulness in the world and the largest fall in the history of the GPI.

## RISERS & FALLERS

**S** OVERALL SCORE / CHANGE IN SCORE  
**R** OVERALL RANK / CHANGE IN RANK

### LIBYA

**S** 2.604 / -0.22 **R** 145 / 3 

### SUDAN

**S** 3.242 / -0.156 **R** 158 / -1 

### CHAD

**S** 2.493 / -0.138 **R** 138 / 4 

### KAZAKHSTAN

**S** 2.031 / -0.115 **R** 78 / 18 

### INDIA

**S** 2.57 / -0.105 **R** 141 / 3 

### UKRAINE

**S** 2.238 / +0.156 **R** 111 / -23 

### PERU

**S** 2.258 / +0.164 **R** 113 / 22 

### BURKINA FASO

**S** 2.064 / +0.2 **R** 87 / -32 

### COTE D'IVOIRE

**S** 2.732 / +0.237 **R** 151 / -15 

### SYRIA

**S** 3.393 / +0.524 **R** 160 / -11 

# RISERS & FALLERS

Libya experienced the largest year-on-year improvement in peacefulness of the 162 nations surveyed and climbed three places, to 145th position. Sudan saw the second-largest improvement in peacefulness, followed by Chad, where violent conflicts abated, although clashes continued in some areas. While these three African nations all experienced substantial improvements in their GPI scores, their positions in the index saw comparatively little change. This is because the countries in the lower reaches of the index have high scores, with a much larger degree of variance between them than countries ranked towards the top of the GPI. In terms of ranking, Kazakhstan saw the greatest advance, rising 18 places, followed by Nicaragua (up 13 positions).

Syria experienced by far the largest deterioration in conditions in the overall index for the second successive year, dropping to 160th position. The conflict between the regime of the Syrian president, Bashar al-Assad, and those opposed to it, escalated and spread—fanning the flames of sectarian hatred and threatening the country's very existence. Peacefulness in Côte d'Ivoire and Burkina Faso worsened by the second and third-largest margins, respectively.

## TOP FIVE NATIONAL IMPROVEMENTS IN PEACEFULLNESS

### LIBYA 145TH

CHANGE IN SCORE 2012/13: **-0.220**

CHANGE IN RANK 2012/13: **↑3**

Libya became markedly more peaceful in 2012/13 after the turmoil of the revolution and civil war that culminated in the overthrow of Muammar Qaddafi in October 2011. Nine GPI indicators improved, three of which dropped from the highest possible levels: *internal conflict*, *perceived criminality in society* and *ease of access to small arms and light weapons*. The threat of violent demonstrations receded and the political scene became more stable following the handover of power from the transitional government to the newly elected General National Congress in August 2012. Nevertheless, political uncertainty remains high; there

were two failed attempts to form a government before Ali Zidan finally took office as prime minister of a broad-based administration in November. Many of Libya's GPI gauges of safety and security retain high scores, reflecting the fact that several militias remain powerful and active. There were several attacks on Sufi shrines by Salafists and a lethal attack on the US consulate in Benghazi in September 2012.

### SUDAN 158TH

CHANGE IN SCORE 2012-13: **-0.156**

CHANGE IN RANK 2012-13: **↓1**

Sudan's substantial rise in peacefulness in 2012/13 mainly reflected an easing of some of the country's conflicts, albeit from highly intense levels. The war between various rebel groups and the government, which had raged in Darfur for ten years, de-escalated and became largely confined to North Darfur. This contributed to a drop in the GPI tally for internal conflict, from the highest possible level, as did the fact that the ongoing conflict over the oil-rich Abeyi area has been designated an international conflict since July 2011, when South Sudan gained independence. The number of deaths from internal conflict fell sharply, from 6,717 to 746, and the homicide rate declined from a very high level. Nevertheless, Sudan remains far from peaceful and among the five lowest-ranked nations in the GPI, with violent conflict continuing in the South Kordofan and Blue Nile provinces and poor scores for a host of GPI indicators of safety and security in society.

### CHAD 138TH

CHANGE IN SCORE 2012-13: **-0.138**

CHANGE IN RANK 2012-13: **↑4**

Chad experienced a substantially more peaceful environment, with gains in three GPI indicators, reflecting a sharp drop in the number of deaths caused by internal conflict, an improvement in Chad's position in the *Political Terror Scale* and better relations with neighbouring countries. This is owing to the ending of the civil war in 2010, although sporadic violence continues between various rebel groups, mainly the Popular Front for Recovery (FPR) and the government led by Idriss Déby. In September

2012, the leader of the FPR, Abdel Kader Baba Laddé, surrendered. Relations with Sudan strengthened in 2012/13; they have steadily improved since the conclusion of a five-year war in January 2010. Sudan has recently announced plans to build a road to Chad, with funding from Qatar. Ties with the Malian authorities improved, underscored by the presence of Chadian troops alongside French forces in ousting Islamist rebels from the north of the country in early 2013. Relations with the Central African Republic also remain strong, illustrated by Chad's support for the CAR government during the Séléka uprising. Nevertheless, sporadic conflict with the FPR and other rebel groups continued along the border with CAR and poor scores for the GPI indicators for ongoing conflict and societal safety and security leave Chad ranked 138th out of 162 nations.

## KAZAKHSTAN 78TH

CHANGE IN SCORE 2012-13: **-0.115**

CHANGE IN RANK 2012-13: **↑18**

Kazakhstan's GPI score improved robustly in 2012/13 amid warming relations with its neighbouring central Asian countries and a drop in the homicide rate; the country rose 18 places, to 78th position. The surge up the GPI is greater than that of Libya, Sudan and Chad because there is a much narrower spread of scores among mid-ranking nations than the lowest-ranked ones. Improving foreign relations led to a gain in the score for that GPI indicator to 2: "good", which partly reflects the country's fast-growing economy and its status as an emerging regional power. Russia remains the closest foreign policy ally, with close political, economic and military ties, cemented by warm personal relations between the president, Nursultan Nazarbayev and his Russian counterpart, Vladimir Putin, who returned to power in May 2012. The customs union between Kazakhstan, Russia and Belarus that was established in 2010 is moving towards a deeper Eurasian economic union, although the target for this of 2015 looks optimistic. Relations with China continued to warm, with expanding strategic and commercial links through the Shanghai Cooperation Organisation (SCO), while economic and trade links between Kazakhstan and Iran also improved.

## INDIA 141ST

CHANGE IN SCORE 2012-13: **-0.105**

CHANGE IN RANK 2012-13: **↑3**

India became more peaceful in 2012/13, with improvements in two GPI indicators: the *number of deaths from internal conflict* and *perceptions of criminality*. The latter has been

revised down one notch from "very high levels of distrust in other citizens" to better reflect conditions for most of the Indian population. Criminality is nevertheless perceived to be "high" in India, more so than elsewhere in South Asia, apart from Afghanistan; brutal acts of violence do occur. Only one of India's GPI measures registered a deterioration: there was a modest rise in military expenditure as a proportion of GDP. For the first time since 1994, the total number of fatalities linked to conflict within India dropped below four figures (799 according to the International Institute of Strategic Studies Armed Conflict Database), with a notable decline in deaths related to Islamist terrorism and insurgency in Jammu and Kashmir. This is the continuation of a trend started in 2001. There was also a reduction in violence and fewer fatalities associated with the Maoist insurgency (Naxalites) across the Red Belt, which includes the states of Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand and Odisha. Nevertheless, several of India's GPI measures of ongoing conflict remained at a high level: the total number of internal and external conflicts, the level of terrorist activity and the *Political Terror Scale*. Indeed, an escalation of violence was reported in some of India's troubled north-eastern states in 2012, notably Nagaland, Manipur and Meghalaya. Nuclear-armed India continues to perform poorly on several GPI measures of militarisation, which contribute to its low rank of 141st out of 162 nations.

**Chad experienced a substantially more peaceful environment, with gains in three GPI indicators, reflecting a sharp drop in the number of deaths caused by internal conflict, an improvement in Chad's position in the Political Terror Scale and better relations with neighbouring countries.**

## TOP FIVE NATIONAL DETERIORATIONS IN PEACEFULLNESS

### SYRIA 160TH

CHANGE IN SCORE 2012-13: +0.524

CHANGE IN RANK 2012-13: ↓11

Syria's descent into full-scale civil war, with as many as 70,000 killed since 2011, is registered by the GPI as by far the most substantial deterioration in peacefulness in the world; only war-torn Somalia and Afghanistan rank lower in the 2013 index. In 2008, Syria was relatively peaceful, ranked 80th out of 138 countries. Conditions gradually deteriorated over the next three years, before conflict erupted, sparked by mass demonstrations against the regime of Bashar al-Assad in the southern city of Deraa on March 11th 2011. There was substantial deterioration in eight of Syria's GPI indicators, most of which relate to societal safety and security: *deaths from internal conflict, violent crime, homicides, terrorist activities and political terror*. Violent demonstrations became even more likely to occur, with weapons becoming more widely available and rebel groups importing arms from Lebanon and elsewhere. Several Gulf nations have reportedly supplied opposition fighters with light weapons, many through private donors. Relations with neighbouring Iraq, Israel, Jordan, Lebanon and Turkey remained extremely tense in 2012; this indicator, along with six other GPI gauges, was accorded the worst possible score.

### COTE D'IVOIRE 151ST

CHANGE IN SCORE 2012-13: +0.237

CHANGE IN RANK 2012-13: ↓15

Côte d'Ivoire became markedly less peaceful in 2012/13, with a fresh wave of violent conflict puncturing an uneasy peace that began in April 2011, when the former president, Laurent Gbagbo, was ousted. Six GPI indicators deteriorated, including increased *terrorist activities* and *homicides*, an uptick in the *Political Terror Scale* and a rise in fatalities linked to conflict within the country. Forces loyal to Mr Gbagbo, thought to number 3,000-4,000, launched raids from Liberia during 2012. In early August several people died after an attack on the Akouédo barracks, in which the assailants captured significant amounts of weapons. The

ease with which they were able to do so raised questions about the effectiveness of the Force Républicaines de Côte d'Ivoire (FRCI, the new national army) and prompted fresh concerns about political stability. The surge in violence highlighted the difficulty Alassane Ouattara's government has faced in resuming the disarmament, demobilisation and reintegration (DDR) of rebel and militia forces associated with Côte d'Ivoire's five-month civil conflict in 2010/11, which claimed more than 3,000 lives. The GPI also records a rise in the number of refugees and internally displaced people and a substantial increase in military expenditure, to 2.5% of GDP, among the highest levels in West Africa.

### BURKINA FASO 87TH

CHANGE IN SCORE 2012-13: +0.200

CHANGE IN RANK 2012-13: ↓32

Until recently ranked one of the most peaceful countries in Africa, Burkina Faso experienced a sharp decline in peacefulness for the second successive year. Five GPI indicators deteriorated, including the *homicide rate* and the *Political Terror Scale*, which relate to the wave of protests, strikes and destructive rampages by army units that erupted in March 2011 following the death of a student, Justin Zongo, in police custody. Social tensions persist; public anger over the cost of living, inadequate government services and widespread corruption remains high, and violent protests are now common across the country. *Violent crime* has risen from a low level (from a score of 2 to a score of 3). The political scene became more unstable; after more than 25 years in power, the president, Blaise Compaoré, is coming under increasing pressure. While the regime has taken steps to implement political reforms, including the creation of a Senate, some moves, notably the granting of immunity to the president, have been strongly criticised by the opposition and civil society groups. There are fears that the ruling Congrès pour la Démocratie et le Progrès (CDP) may try to allow Mr Compaoré to run yet again in the 2015 presidential election.

### PERU 113TH

CHANGE IN SCORE 2012-13: +0.164

CHANGE IN RANK 2012-13: ↓22

Peru's slide of 22 places, to 113th in the 2013 GPI, is partly the result of rises in the homicide rate and terrorist activities. Since the publication of the 2012 index, there have been a series of violent and prolonged bouts of social unrest, linked to fears about the environmental and social impacts of large

mining projects. In May 2012, for instance, the government declared a 30-day state of emergency in the southern region of Espinar, after violent anti-mining protests left two civilians dead and at least 76 police officers injured. In July protesters over Minas Conga—a US\$5bn investment in the northern region of Cajamarca by a US-Peruvian joint venture—stormed a government building, with three fatalities and more than 20 wounded. Clashes between the remaining members of a Maoist guerrilla group, Sendero Luminoso (SL), and the armed forces continued in the remote Ene and Apurímac Valley area where the state's presence is limited. The increase in Peru's homicide rate may also reflect reports of a shift in drug cultivation and trafficking by cartels from Colombia into Peru. Relations with Chile worsened ahead of a ruling by the International Court of Justice (ICJ) in The Hague over a long-running maritime dispute, although Peru's links with its other neighbours remained broadly harmonious. The political scene became less stable in the run-up to regional elections in 2014; radical leaders in several rural districts where national institutions are weak are winning support from the poor and disenfranchised.

## UKRAINE 111TH

CHANGE IN SCORE 2012-13: **+0.156**

CHANGE IN RANK 2012-13: **↓23**

Until recently ranked one of the most peaceful countries in Africa, Burkina Faso experienced a sharp decline in peacefulness for the second successive year.

Six of Ukraine's GPI measures deteriorated in 2012/13 and the country dropped to 111th position. *Perceptions of criminality* have risen to a higher level; the official Ministry of Internal Affairs statistics indicated an increase in all categories of crime in 2011 and there is mounting concern about cybercrime, widespread corruption and inadequate law enforcement. The compilers of the *Political Terror Scale* downgraded Ukraine to a score of 3: "there is extensive political imprisonment". Relations with neighbouring Russia soured over the Ukrainian government's apparent refusal to join a Russian-led customs union and in January 2013 Russia's state-owned energy company, Gazprom, billed Ukraine US\$7bn for gas that it had failed to import in 2012. This was apparently a bid to punish Ukraine for its attempts to reduce its dependence on Russian fuel. Ukraine's political landscape became less stable; the government appointed in December 2012 has a smaller parliamentary majority than its predecessor, drawn mainly from the Party of Regions (PoR) of the president, Viktor Yanukovych. Ukraine's military expenditure increased to a relatively modest (by the standards of former Soviet Republics) 1.2% of GDP.

# GPI INDICATORS: ANNUAL CHANGES

The fall in global peace in the last year has primarily been driven by the deterioration in three indicators: *number of homicides*, *military expenditure as a percentage of GDP* and *political instability*. Counteracting these deteriorations are upturns on a number of indicators which have slightly improved over the last year, in particular: *the likelihood of violent demonstrations*, *Political Terror Scale* and the *number of armed service personnel per 100,000*. The annual change is calculated by taking the average scores for each of the 22 GPI indicators and comparing them with those from the 158 countries analysed in the 2012 GPI.

## IMPROVEMENTS

The *likelihood of violent demonstrations* registered a 1.3% improvement in peace in the last year which was mainly driven by a relatively calmer situation in many Arab Spring countries like Libya, Algeria, Iraq, Yemen, and Saudi Arabia.

The *Political Terror Scale*, which measures levels of political violence and terror worldwide, saw a 1% positive improvement. Political terror decreased especially in countries such as Kenya, Kyrgyz Republic, Zambia, and Tunisia, offsetting increases in Syria, Libya and Cote d'Ivoire. These annual changes are in line with the 6-year trend finding that since 2008 political terror has seen a slow and steady decline.

The *number of armed service personnel per 100,000* is one of the slowest moving indicators in the GPI, reflecting longer term strategic changes in the makeup of military forces. There was a slight improvement on the indicator over the period, meaning there are globally on average fewer armed service personnel per 100,000. The most notable decreases in the number of armed service personnel were seen in Belarus, Israel, Russia, and South Korea.

## DETERIORATIONS

The *number of homicides* increased from the prior year with approximately 40,000 additional homicides occurring (an 8% increase from the previous year) bringing the total for the year to approximately 524,000 homicides. This increase can be almost entirely attributed to Sub-Saharan Africa with countries such as Cote d'Ivoire's experiencing a significant deterioration in their internal peacefulness. The homicide rate in Honduras further increased by almost 10 per 100,000 people and is now the highest in the world at 92 homicides per 100,000 people.

*Military spending as a percentage of GDP* increased on the GPI banded score with 59 countries spending more and 36 cutting military spending as a percentage of GDP. This is in contradiction to the total amount of money spent on defence, which dropped this year for the first time since 1998 in light of a few large countries decreasing their level of expenditure. Most notably the US decreased military spending from approximately 4.6% to 4.1% of GDP. The overall deterioration of the military spending indicator in the GPI is however primarily due to a large number of low income and low-middle income countries, typically authoritarian regimes like Iran, Oman, Zimbabwe, Afghanistan, Cote d'Ivoire and Congo, having increased their expenditure.

*Political instability* increased from the prior year due to deteriorations in the political situation in the sub-Saharan African nations of Mali, Central African Republic and Niger. There were also notable declines in Afghanistan, Mongolia, and Nepal. Italy registered the largest fall for a Western European country. The overall deterioration was driven by large changes in a handful of countries as overall 42 countries actually improved with fewer, 36 deteriorating. The great majority of countries (84) saw no change in their *political instability* score.

**TABLE 1.10** Top three improving and deteriorating indicators from 2012 to 2013, based on banded GPI score

*It should be noted that, on the whole, the magnitude of indicator changes has been greater for those indicators which have deteriorated than those which have improved.*

TOP-THREE IMPROVEMENTS	2012 TO 2013 CHANGE
Likelihood of violent demonstrations	-0.038
Political Terror Scale	-0.025
Number of armed service personnel per 100,000	-0.009

TOP-THREE DETERIORATIONS	2012 TO 2013 CHANGE
Number of homicides	0.082
Military expenditure as a percentage of GDP	0.065
Political instability	0.025

# SIX YEAR TRENDS IN PEACE

The past six years has been marked by many changes, with countervailing trends. While some have been positive, the majority however have been negative with global peace deteriorating by five per cent over this period of time. The major prevailing trend has been a continuing shift away from large collective inter-state conflict towards organised internal conflicts with Syria recording the largest decline in peacefulness over the 2008-2013 period.

The changes have not been uniform. 48 countries have become more peaceful while 110 countries have become less peaceful. Of the twenty two indicators which comprise the GPI, only five indicators improved while 17 deteriorated. Global peacefulness was negatively affected by a number of international events including major outbreaks of violence in the Middle-East, caused by the Arab spring; a deterioration of security in Afghanistan and Pakistan; civil wars in Libya and Syria; the escalation of the drug war in Central America; continued deteriorations in peace in Somalia, DRC and Rwanda and violent demonstrations associated with the economic downturn in a number of European countries such as Greece.

Three key factors have been associated with the negative trend:

- Internal peace indicators measuring safety and security have deteriorated, including an increase in the number of internal conflicts.
- The peace gap between countries under authoritarian regimes and the rest of the world is becoming larger.
- Countries that suffer from recession have decreased in peace at a greater rate than the rest of the world.

On the positive side, the improvements in peace were mainly driven by declining rates of homicide in the US and parts of Western Europe, the winding down of military operations in Iraq and Afghanistan resulting in declines in the number of battlefield deaths from organised conflict and widespread falls in the average level of military expenditure. Furthermore, the *Political Terror Scale*, an indicator measuring the presence of state sponsored violence and terror has improved across the world, except for the South Asia and Russia and Eurasia regions.

The GPI has been analysed using country data which has then been averaged by region and indicator to develop the trends. To determine whether the averages are accurately reflecting global trends, raw data was collected from the variety of publicly available sources on ten key quantitative indicators and has confirmed the trend.

Out of the twenty-two indicators which comprise the GPI, there has been a decrease in peacefulness in all but five indicators since 2008. The indicators that improved were *Political Terror Scale, military expenditure as a percentage of GDP, number of armed services personnel per 100,000 people, nuclear and heavy weapons capabilities* and *estimated number of deaths from organised external conflict*. This reflects the global trend where there is a shift away from large collective inter-state conflicts towards organised internal conflicts, criminal violence, terrorism and violent demonstrations. This is best emphasised by the 72,900 deaths from organised internal conflict in Syria in 2012 as compared to 12,050 deaths from the Iraq conflict in 2008.

The indicators which saw the greatest negative change on average have been *homicide rates, perceptions of criminality* and *violent demonstrations*. Importantly, the regional performance varies greatly as well as performance by income levels, and governance type.

The *homicide rate* has followed a well-documented decline in Europe and North America, but has continued to increase in the Asia-Pacific, Central America and the Caribbean, South America and Sub-Saharan Africa with the most significant increases being in Central America and the Caribbean. While the trends are similar for *perceptions of criminality*, the *likelihood of violent demonstrations* tells a different story, with increases occurring in Europe, the Middle East and North Africa, Russia and Eurasia<sup>1</sup> and South Asia.

Meanwhile the shift away from inter-state conflicts is highlighted by the decline in *military expenditure as a percentage of GDP, the number of armed service personnel* and *number of deaths from external conflict*. Military spending has also been affected by the global financial crisis and the ensuing austerity measures. The lingering effect of financial instability and its consequences has also been a factor negatively affecting some European countries with scores declining for a number of key internal indicators such as *political instability* and *likelihood of violent demonstrations*.

Governance continues to be an important determinant of peace in 2013, with countries classified as authoritarian becoming less peaceful at a greater rate than the world average. This is reflected in their higher *homicide rates*, their *level of violent crime, weapons imports* and increases in *internally displaced people and refugees*. The 52 countries classified as authoritarian tend to be in Sub-Saharan Africa,

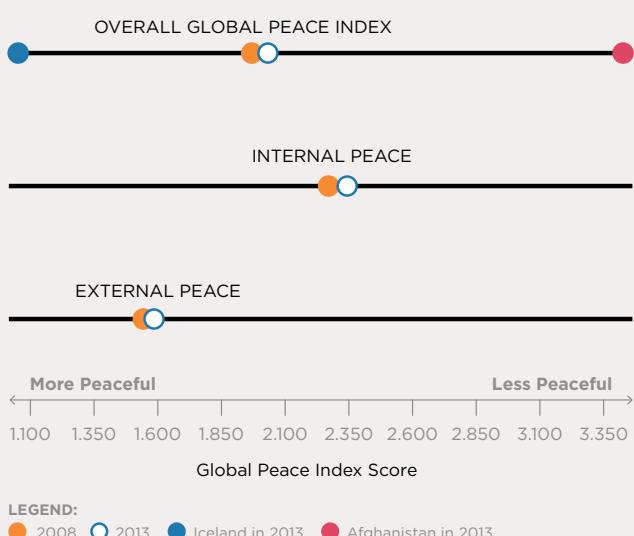
in the Middle East and North Africa and the former Soviet Republics.

## GLOBAL TRENDS AT A GLANCE

Since 2008, the world has become five per cent less peaceful with deteriorations in countries' overall scores as well as their internal and external scores. Figure 1.1 highlights the world's country average score change from 2008 to 2013. On a positive note, contrasting the overall trend, in the last two years external peace measures have been improving due to falls in military expenditure as a percentage of GDP and the winding down of operations in Iraq and Afghanistan which has resulted in fewer battlefield deaths.

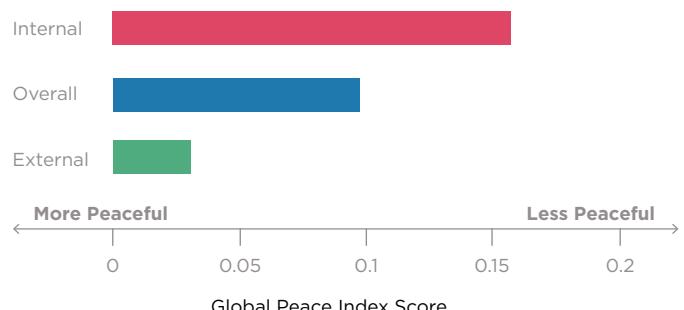
**FIGURE 1.1** GPI scores, 2008-2013

The average score in the Global Peace Index declined slightly since 2008



**FIGURE 1.2** GPI score change, 2008-2013

*The fall in global peacefulness is largely driven by changes in internal peacefulness*



The percentage change over the six years on the overall GPI score has averaged approximately one per cent deterioration each year. Table 1.11 and 1.12 (over page) shows the number of countries that either deteriorated or improved each year illustrating that the overall size of the deteriorations has outweighed the improvements.

For the last three years approximately the same number of countries decreased as increased with the fall in peacefulness in these years being driven by a small number of countries with big falls. These countries were associated with the Arab Spring. In fact if it wasn't for the fall in Syria's score in 2013 the overall level of peacefulness would have been very close to the 2012 level.

In terms of the distribution and range of GPI scores, the evolution of peace over the six-year period has seen two key trends:

- More countries are now clustered around the global average than six years ago;
- The least peaceful nations are becoming even less peaceful and are separating from the rest of the world.

Approximately the same number of countries are above the average, 82 compared to 86 six years ago. In Figure 1.3 (over page) it can be seen that the bottom ten countries, all with scores above 2.95, are now more separated from the next band of countries, showing persistent violence in a handful of the most violent nations has even intensified.

The countries at the very end of the long tail with scores in the range of 3.25 to 3.70 are the bottom five nations of Afghanistan, Somalia, Syria, Iraq, and Sudan. To put their score change into perspective, Syria, Somalia and Afghanistan are less peaceful in 2013 than Iraq was near the height of its sectarian violence in 2008. However, the story is not entirely negative, with some of the largest risers for the six-year period being countries previously in the bottom ten who have emerged from serious conflict; such as Chad, Georgia and Israel.

**TABLE 1.11** GPI scores and percentage change each year, 2008 - 2013

The global GPI score has deteriorated since 2008

	2008	2009	2010	2011	2012	2013
World Average GPI score	1.958	1.995	2.025	2.038	2.046	2.057
Percentage change each year	1.9%	1.5%	0.6%	0.4%	0.5%	
Overall percentage change 2008-2013 = 5%						

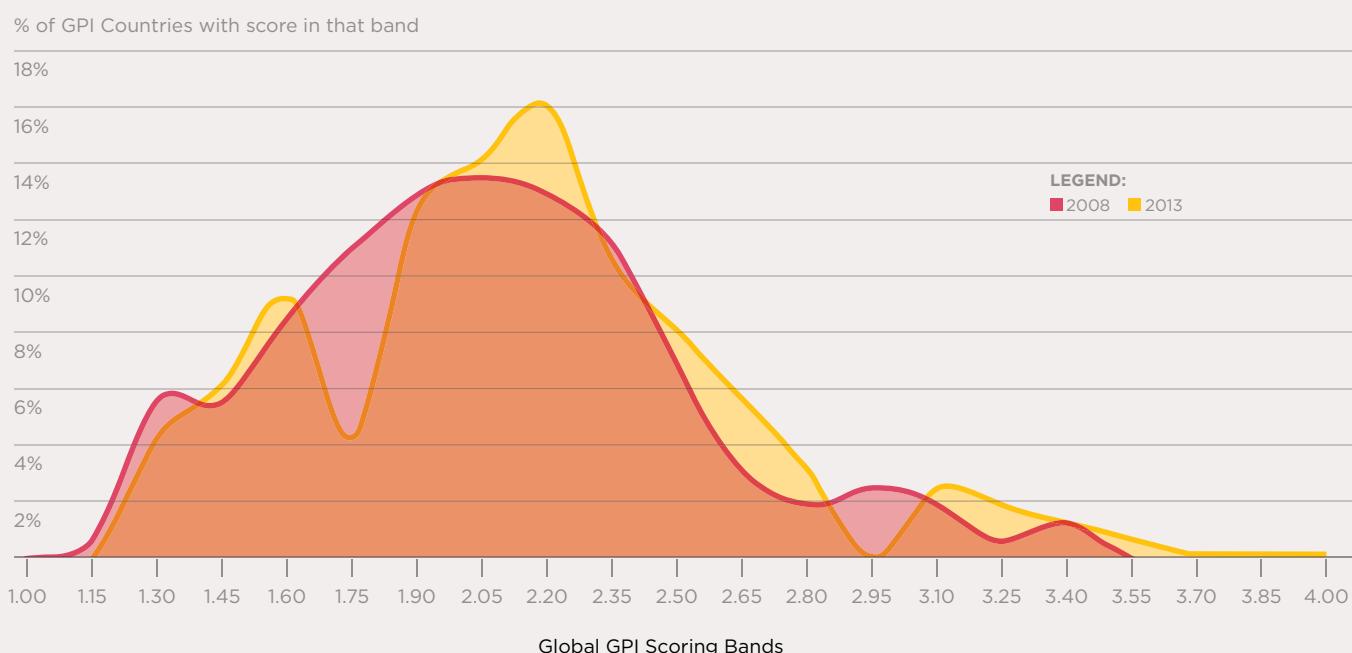
**TABLE 1.12** Country movements each year in the GPI, 2008-2013

The period 2008 to 2009 saw more countries deteriorate than improve

	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2008-2013
Number of countries that improved	52	58	79	73	73	48
Number of countries that deteriorated	84	83	69	80	73	110
Number of countries with no change	2	2	0	0	12	0

**FIGURE 1.3** Distribution of GPI scores, 2008 compared to 2013

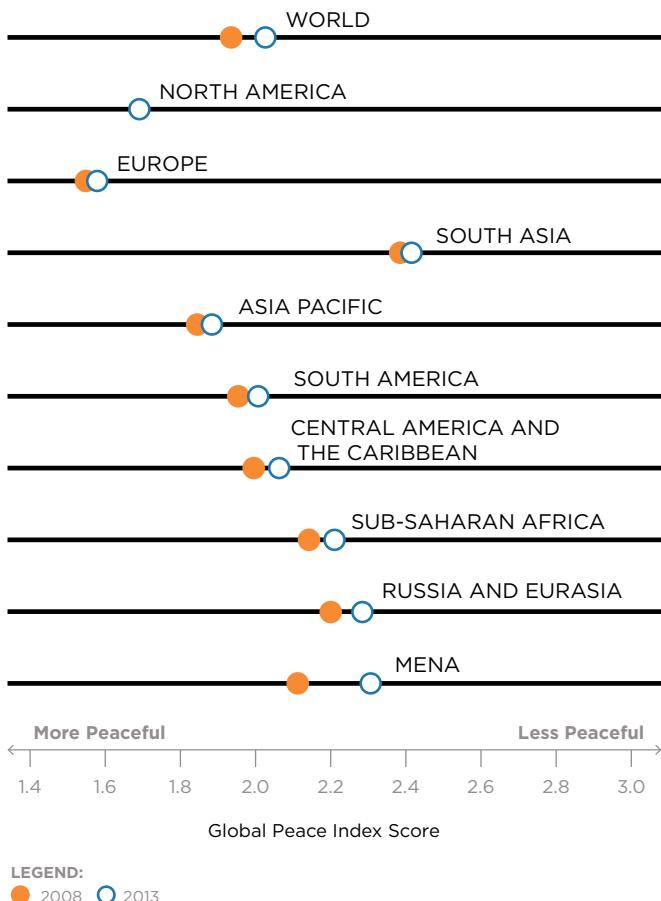
More countries have become clustered around the average and the bottom ten are further away from the rest of the world than six years ago.



## REGIONAL TRENDS 2008-2013

**FIGURE 1.4** Regional trends in the GPI, 2008-2013

All regions have become less peaceful except for North America while the Middle East & North Africa has deteriorated the most



All the regions of the world have seen their levels of peace decrease since 2008, other than North America which has remained static. Whilst regions like Europe and Asia-Pacific have seen very small deteriorations in their GPI score, Russia & Eurasia, Middle East & North Africa, and Central America & the Caribbean have seen a greater deterioration.

- **North America** has only seen a very marginal decrease in its level of peace. Nevertheless, in real terms, North America's level of peace is essentially unchanged since 2008. Its level of peacefulness decreased until 2010 before seeing a steady increase until 2013. This has mainly been driven by the withdrawal from Iraq and improvements in some internal indicators.
- **Europe** has consistently been the most peaceful region

with its level of peacefulness remaining almost unchanged for the past six years.

- **South Asia** has consistently been the least peaceful region in the world since 2008. Although it managed to become slightly more peaceful since its worst year in 2010, its current level of peacefulness is still less than in 2008.
- **Asia-Pacific** region has consistently scored as more peaceful than the global average. Although its current level of peace is less than it was in 2008 there has been a steady improvement since 2010.
- **South America** is slightly more peaceful than the global average but has declined on par with Central America and the Caribbean.
- **Central America & the Caribbean** has been consistently less peaceful than the global average and continued its decline until 2012 when it reversed its trend and became slightly more peaceful in 2013.
- **Sub-Saharan Africa** has seen a decline on average with other regions in the world, but has been brought down by specific circumstances in a small handful of countries, such as DRC, Cote d'Ivoire and Rwanda. Without the changes in these three countries Sub-Saharan Africa would have seen very little change.
- **Russia & Eurasia** has decreased in peacefulness until 2010, and then reversed its trend. Nevertheless, its current level of peacefulness is almost equal to MENA's.
- **Middle East & North Africa (MENA)** saw a small increase in peacefulness from 2008 to 2009 before seeing a sustained decrease in the ensuing years.

The sharpest decreases were from 2010 to 2012 coinciding with the Arab Spring and its aftermath. MENA is the second least peaceful region in the world after South Asia.

## GOVERNANCE AND GOVERNMENT TYPE TRENDS 2008-2013

Governance is related to the extent to which various groups can participate and engage in their country's political, social and economic life. This helps control corruption; formulate and implement good policies; provide public goods and infrastructure and more.

Governance issues are generally linked with government types; however there are some notable exceptions. A key component of good governance is citizens feeling their governments are accountable, not corrupt, and are not mismanaging public goods. It is for these reasons that democracies, on the whole, have better quality public policies as they provide better prospects for citizens to hold their governments accountable.

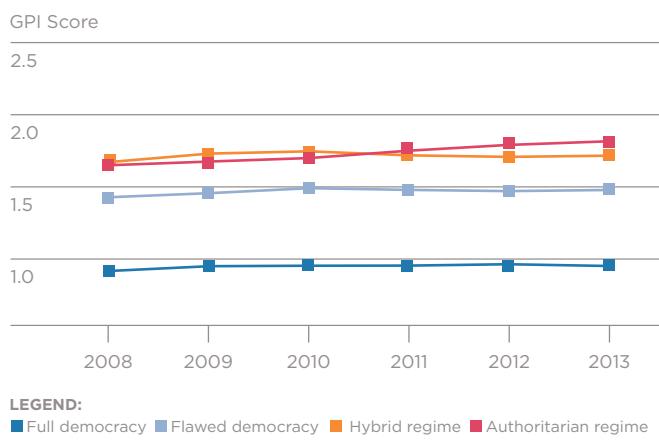
Generally speaking, authoritarian regimes are less

responsive to the interests of their citizens which can significantly hamper their development processes. Hence, the link between government type and the peacefulness of a nation is strong. In saying this, it should be noted there are some exceptions with hybrid regimes like Singapore, Qatar or Bhutan scoring relatively highly on the GPI.

Quality of governance as measured by the EIU covers a broad range of aspects associated with governing such as political systems, accountability and sound management.

**FIGURE 1.5** Governance types and GPI scores, 2008-2013

*While flawed democracies have become less peaceful in the past six years, authoritarian regimes have seen the biggest decreases in peace*



SOURCE: Source: 2012 EIU Democracy Index and the Global Peace Index

Figure 1.5 shows that there is a clear and significant difference between government types and the level of peacefulness of a nation. In terms of peace, democracies fare better on key indicators such as *political instability*, *Political Terror Scale*, *relations with neighboring countries*, and the *number of homicides per 100,000 people*.

Authoritarian regimes and hybrid regimes perform worse than both flawed democracies and full democracies. Hybrid regimes are regimes that share some overlap with both authoritarian regimes and flawed democracies. It is interesting to note that authoritarian regimes performed better than hybrid regimes until 2010.

The decrease in peacefulness of authoritarian regimes was a result of the Arab Spring when Egypt, Bahrain, Libya, and Syria descended into violence.

In Africa the countries of Rwanda, Cote d'Ivoire, and Burkina Faso also fell with increases in terrorist activity and internal conflicts. These changes in peace were largely due to internal factors rather than external violence and conflict.

Population dynamics and governance are closely associated with peace. Levels of violence tend to be higher in authoritarian regimes and in countries with larger populations

## HOW DOES IEP CLASSIFY GOVERNMENT TYPES?

The government type groups in this report are based on the Economist Intelligence Unit's (EIU) classifications from the 2012 Democracy Index. The EIU compile the Democracy Index which has 60 indicators grouped into five categories: electoral process and pluralism, civil liberties, functioning of government, political participation and political culture. The 60 indicators are aggregated to give a score between zero and ten:

- Full democracies: scores of 8 to 10
- Flawed democracies: scores of 6 to 7.9
- Hybrid regimes: scores of 4 to 5.9
- Authoritarian regimes: scores of 0 to 3.9

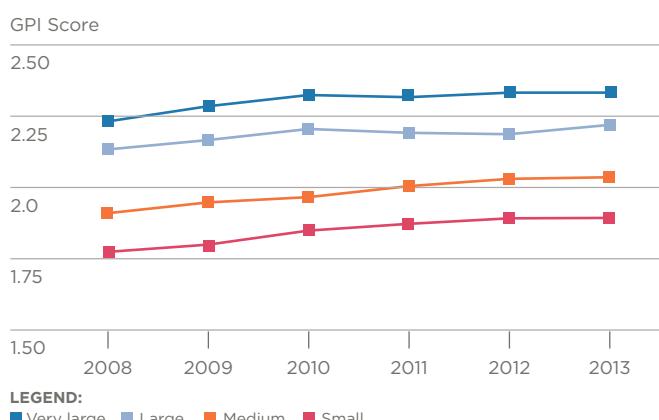
## POPULATION GROUP TRENDS 2008-2013

There is a marked relationship between the size of the population of a country and its peacefulness: on average the level of peacefulness decreases as the population increases. Other factors also affect peace such as migration patterns and the age distribution of the population. For example, the so-called youth bulge is associated with propensities for conflict, violence, and criminality. The correlation between the number of youths aged between 15 and 34 and the GPI is approximately 0.5, showing that countries with a higher percentage of young people to the rest of the population is associated with less peace. Although a large youth cohort can correlate with increased conflict, it is generally only in countries where the economy performs poorly. Properly utilised, a high number of youths provide a deeper stock of human capital. Nevertheless, worries about changes in population dynamics and their potential as a destabilising political force are not only reserved for poorer nations.

In places with an aging adult population concerns about young people are closely linked to debates over crime and immigration in light of the relative youth of many migrants.<sup>2</sup>

**FIGURE 1.6** Country population sizes compared to the GPI, 2008-2013

All population groups have decreased in peace over the past six years, but very large and large population countries are notably less peaceful than the medium and small population countries.



SOURCE: Population data from World Bank, World Development Indicators

## TOP 10 RISERS AND FALLERS OVER 2008-2013

As is usually the case for countries improving significantly on the GPI, the largest risers over the past six years have been countries emerging from conflict. Chad has been emerging from a civil war which ended in 2010 and as a consequence its indicators related to domestic conflict have significantly improved, with the number of deaths from conflict significantly falling from an estimated 2,500 at the peak of the civil war, to zero in 2013. Diplomatic relations with neighboring states has also improved.

Israel, the fourth biggest riser over the period, has improved in several indicators such as *political stability*, *perceptions of criminality*, and also on several indicators related to organised conflict as a consequence of the

**TABLE 1.13** Top 10 Risers 2008-2013

COUNTRY	2008-2013 RAW CHANGE	2008-2013 PERCENTAGE CHANGE
Chad	-0.480	16%
Georgia	-0.331	12%
Haiti	-0.329	14%
Israel	-0.244	8%
Sri Lanka	-0.221	9%
Croatia	-0.188	11%
Armenia	-0.173	8%
Mongolia	-0.138	7%
Benin	-0.136	6%
Taiwan	-0.125	8%
<b>Total</b>	<b>-2.365</b>	

**TABLE 1.14** Top 10 Fallers 2008-2013

COUNTRY	2008-2013 RAW CHANGE	2008-2013 PERCENTAGE CHANGE
Syria	1.400	70%
Libya	0.733	39%
Rwanda	0.575	31%
Madagascar	0.445	27%
Oman	0.338	23%
Tunisia	0.342	21%
Cote d' Ivoire	0.430	19%
Yemen	0.421	18%
Mexico	0.368	18%
Bahrain	0.308	17%
<b>Total</b>	<b>5.360</b>	

# 70%

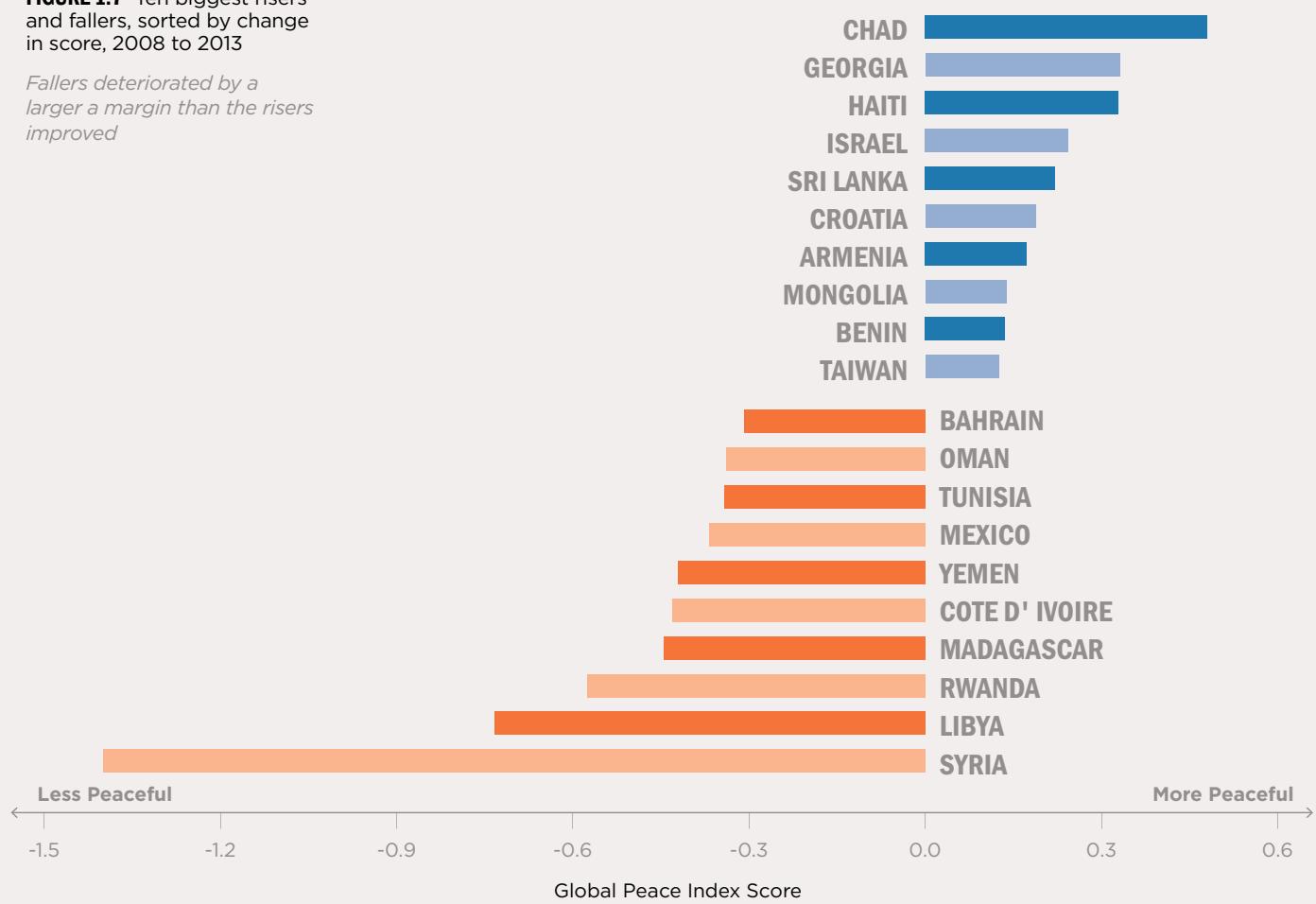
THE AMOUNT SYRIA'S  
GPI SCORE HAS FALLEN  
SINCE 2008 – THE  
LARGEST IN GPI HISTORY

ceasefire after the 2006 Lebanon conflict. Syria's fall on the GPI is the largest in the seven-year history of the GPI. It was ranked close to the global average in 2008 and since then the score has deteriorated by 70%. In 2013 Syria has been scored less peaceful than Iraq was in 2008. The revolutionary protests of the Arab Spring explain the fall of six of the top ten fallers.

Peace improves gradually whereas the onset of conflict can happen quickly. This is shown by a greater average level of deterioration in the ten biggest fallers than the average level of improvement in the ten biggest risers.

**FIGURE 1.7** Ten biggest risers and fallers, sorted by change in score, 2008 to 2013

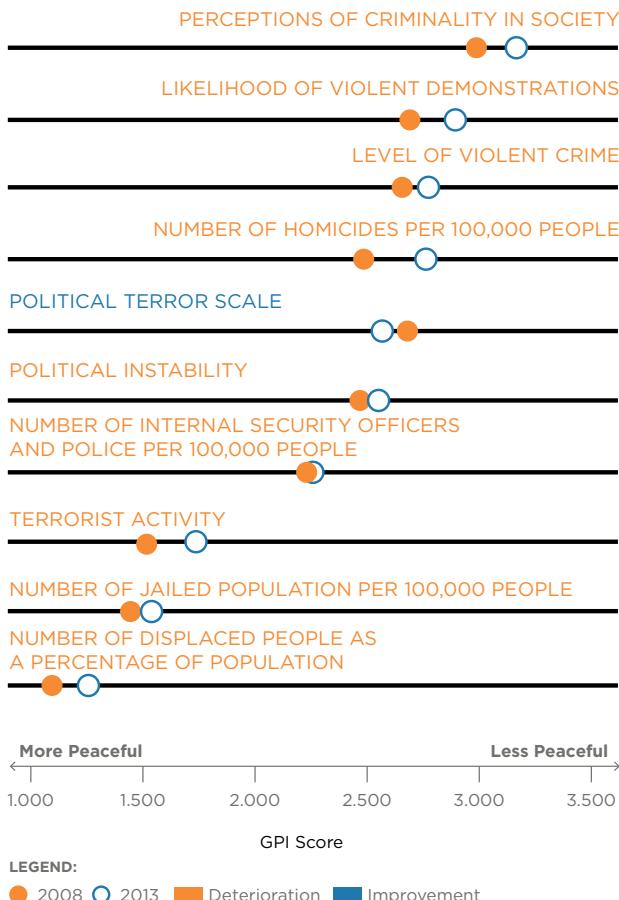
*Fallers deteriorated by a larger a margin than the risers improved*



## INDICATOR CHANGES 2008 – 2013

**FIGURE 1.8** Trend on societal safety and security indicators of the GPI, 2008 -2013

Only one internal safety and security indicator has improved over the past six years

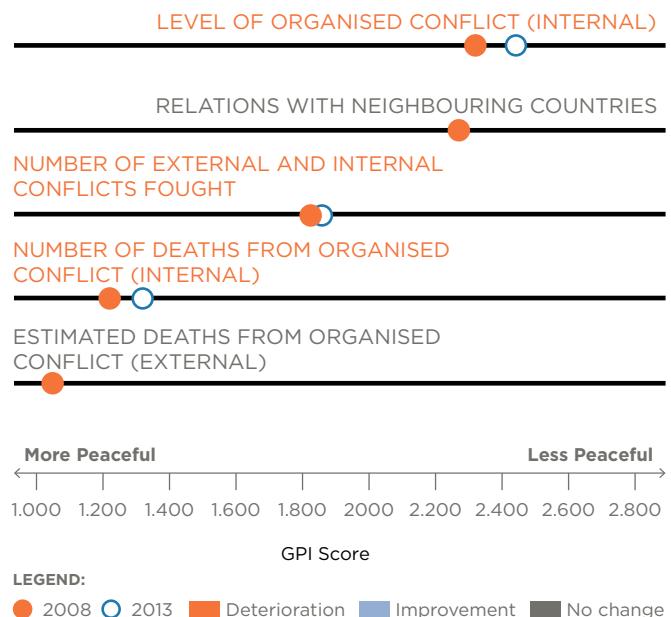


### INDICATOR CHANGES SUMMARY

It can be clearly seen that more indicators have deteriorated in the past six years than improved. Those highlighted in yellow in Figures 1.8, 1.9 and 1.10 show twelve of the 22 indicators were mainly responsible for the decline in peace. As previously stated, most of these are in the safety and security domain, with only one indicator, the *Political Terror Scale* which measures forms of state terror and violence showing improvement. The only other indicator to show notable improvement was military expenditure as a percentage of GDP. Eight of the 22 indicators while experiencing year to year change did not differ significantly enough to materially affect the overall GPI score.

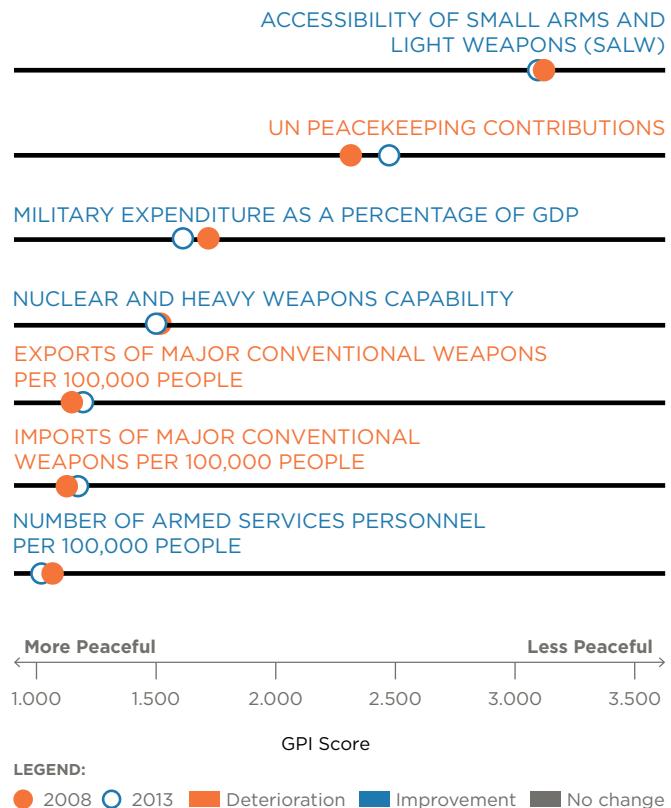
**FIGURE 1.9** Trend on on-going domestic and international conflict indicators of the GPI, 2008 -2013

Ongoing Domestic and International Conflict has only slightly changed in the last six years



**FIGURE 1.10** Trend on militarisation indicators of the GPI, 2008 -2013

Militarisation has improved slightly on four of the seven indicators



## NUMBER OF INTERNAL SECURITY OFFICERS AND POLICE PER 100,000 PEOPLE

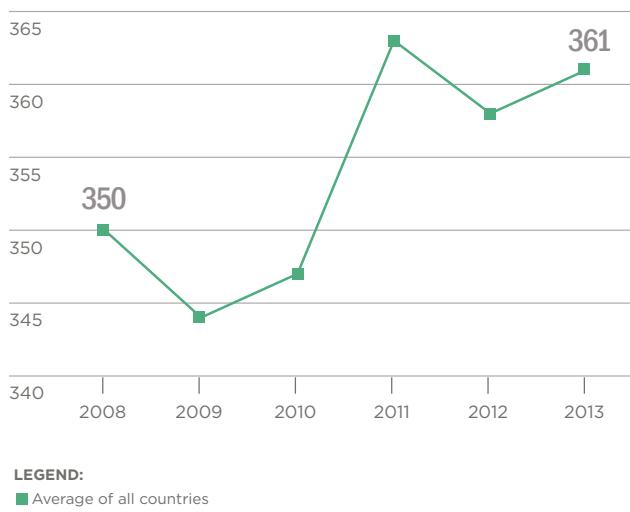
This GPI indicator is derived from the United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (CTS), and refers to the civil police force. Internal security officers and police personnel are defined as personnel in public agencies whose principal functions are the prevention, detection and investigation of crime and the apprehension of alleged offenders. This is distinct from national guards or local militia. Police numbers are included in the GPI to reflect the security needs of a nation, as peaceful countries require fewer police to maintain and enforce the rule of law.

While police numbers remain relatively unchanged from 2008 levels in Europe, North America and the Asia-Pacific, there have been significant increases in South Asia, South America and the MENA region. The MENA region accounts for the largest portion of the increase and has a much higher average number of police officers per 100,000 people than other regions of the world. While there is one outlier, Bahrain with almost six times the world average, several other nations, the UAE, Algeria, Egypt, Sudan, Iraq and Syria and Oman have double the world average. Figure 1.11 shows the increase in the country average.

**FIGURE 1.11** Average police officers rate per 100,000 for GPI countries, 2008-2013

*The police officers rate per 100,000 has increased since the 2008 GPI*

GLOBAL PEACE INDEX 2013



SOURCE: United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (UN-CTS); EIU data; note, years on bottom axis refer to the year of GPI release.

## NUMBER OF JAILED POPULATION PER 100,000 PEOPLE

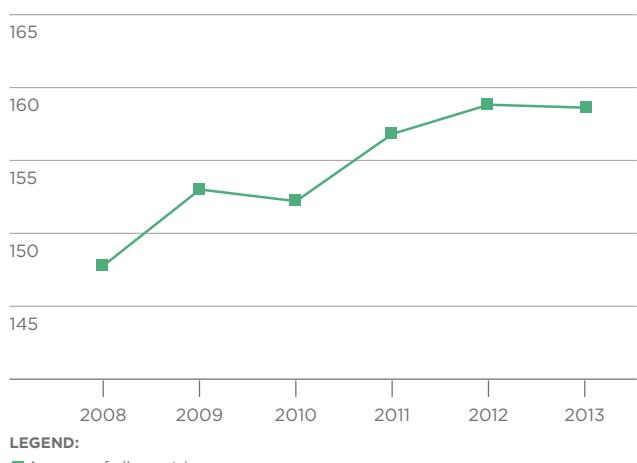
The data for the GPI indicator on prison populations is sourced from the World Prison Brief which is published by the International Centre for Prison Studies. The GPI data shows a consistent increase in the country average rate for prisoners per 100,000 of population from 2008 to 2013, increasing from approximately 147 to 159 prisoners.

The underlying trend of increasing prison populations dates back to at least 1997. According to the International Statistics on Crime and Justice report which is compiled by the UNODC and European Institute for Crime Prevention and Control (HEUNI), the overall global trend in prison populations increased between 1997 and 2007.<sup>3</sup> In this period 104 countries out of 134 (78%) surveyed showed increases in their prison populations, with 91 or 68% reporting increases in the rate per 100,000.

The growth over the 1997 to 2007 period was broadly consistent across continents, whereas from 2008 to 2013 it is being driven by Central America and the Caribbean and South America. In North America and Russia and Eurasia it is falling from very high levels.

**FIGURE 1.12** Average number of jailed population per 100,000 for GPI countries

*Incarceration has been increasing globally in the last six years continuing a trend*



SOURCE: World Prison Brief, International Centre for Prison Studies; EIU data; note, years on bottom axis refer to the year of GPI release.

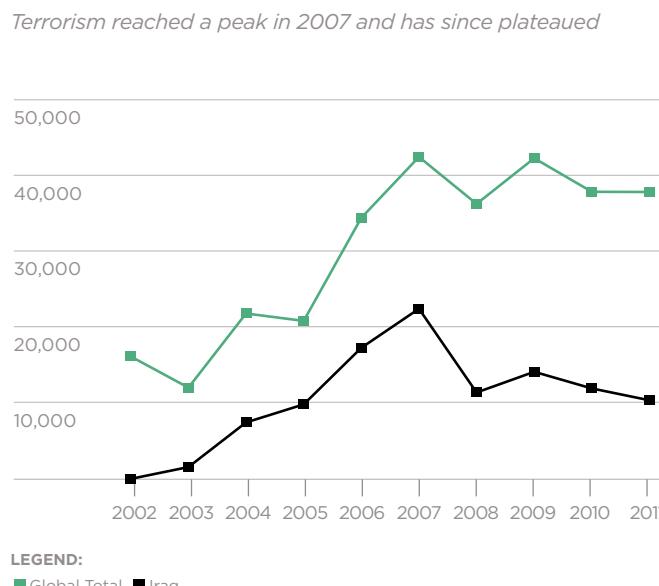
## TERRORIST ACTIVITY AND THE GLOBAL TERRORISM INDEX

In December 2012, IEP released the first comprehensive and harmonised index measuring terrorism based on the START Consortium at the University of Maryland Global Terrorism Database (GTD). This shows that terrorism has increased in frequency, intensity and impact since 2002. The level of terrorism peaked in 2007 when sectarian violence in Iraq increased significantly, and has since then slightly declined. It can be seen that Iraq accounted for a large proportion of the world's terrorism in 2007, approximately 50%, and while it has decreased since then, these improvements have been offset by significant increases in Pakistan, Yemen and Afghanistan since 2008.

Pakistan's increase in terrorist incidents in the past six years rivals the huge increase seen in Iraq from 2003 to 2008. The major difference between the characteristics of terrorism between these two countries is the deadliness of the terrorist attacks, with approximately 800 incidents resulting in over 5,000 fatalities in 2007 in Iraq whereas approximately the same number of incidents in Pakistan in 2011 resulted in a much lower number of fatalities at 1,500.

Unfortunately because the impact of terrorism is now spread across more countries the average country score on the terrorism indicator has in fact increased. This is in spite of the fact the global total which accounts for the fatalities, injuries, incidents and property damage has plateaued in recent years.

**FIGURE 1.13** IEP Global Terrorism Index overall trend, 2002 - 2011



SOURCE: START Consortium, University of Maryland Global Terrorism Database and IEP Global Terrorism Index (GTI).

## NUMBER OF HOMICIDES PER 100,000 PEOPLE

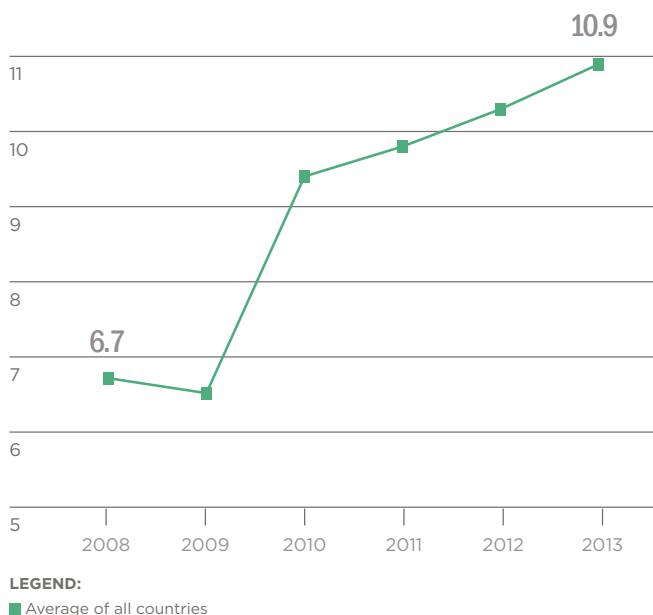
According to GPI data, the average homicide rate per 100,000 appears to have significantly risen since 2008. In identifying this trend it is important to highlight that there are a number of serious difficulties in comparing homicide rates over time due to the lack of accurate time series data. The GPI indicator on homicides is taken from the best available data source on homicide, the United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (CTS). Using this data, Figure 1.14 shows that in terms of raw numbers, the country average homicide rate has risen from around 6.7 deaths per 100,000 to nearly 11 deaths per 100,000. This shows the recorded and reported number of homicides appears to be increasing. Importantly, the reason for this change appears to be a small number of countries in Central America, the Caribbean, South America and Sub-Saharan Africa skewing what is a declining trend for the rest of the world.

It is important to highlight that part of this increase may simply be a consequence of better reporting techniques and improved data collection in particular countries.

The geographical distribution of homicides is of particular interest given the contrary trends experienced by

**FIGURE 1.14** Average homicide rate per 100,000 for GPI countries, 2008-2013

*The global number of homicides is increasing according to GPI data.*

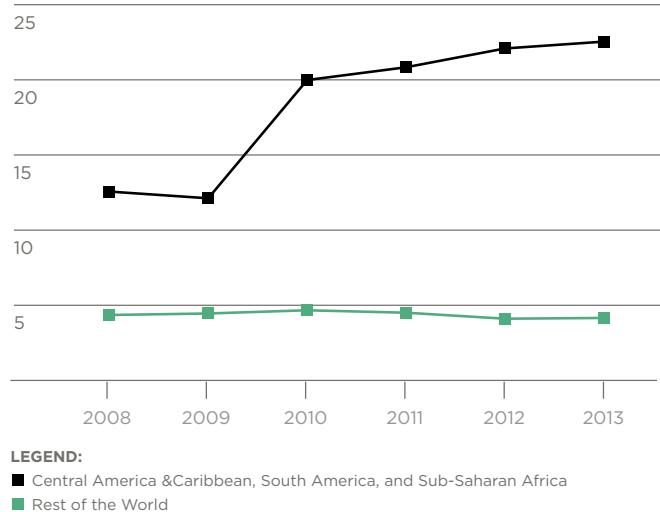


SOURCE: United Nations Survey of Crime Trends and Operations of Criminal Justice Systems; EIU data; note, years on bottom axis refer to the year of GPI release.

the different regions of the world with both North America and parts of Europe experiencing a well-established and significant decline in both violent crime and homicides. This has been analysed in IEP research in the both UK and US Peace Indices where the homicide trend has been closely examined. Contrasted to this, Central America and the Caribbean, South America, and Sub-Saharan Africa account for most of the increase in homicide and violent crime as well as having the highest rates of homicide and violent crime.

On country averages, Central America and the Caribbean have seen their reported homicide rate increase by over 100% from approximately 15 per 100,000 to over 30 per 100,000. Similarly, both Sub-Saharan Africa and South America's homicide rate has significantly increased over the period averaging a 5.6% increase each year for South America and 13.4% each year for Sub-Saharan Africa. The total increases amounted to 28% and 67% respectively over the six years.

Figure 1.15 (below) shows that the country average homicide rate, excluding the three regions mentioned, has declined slightly from 4.42 per 100,000 to 4.22 homicides per 100,000 in 2012. This shows that the increase in the global average has been predominantly caused by Central America and the Caribbean, South America, and Sub-Saharan Africa. Out of all the regions with a homicide rate below the global average, Asia-Pacific is the only one which saw an increase over the six year period, increasing from 3 homicides per 100,000, to 4.7 homicides per 100,000. The Middle East and North Africa, despite seeing political and social turmoil have seen a slow drop in the country average homicide rate from 4 to 3.6 homicides per 100,000, with a brief peak in 2010 at 4.1.

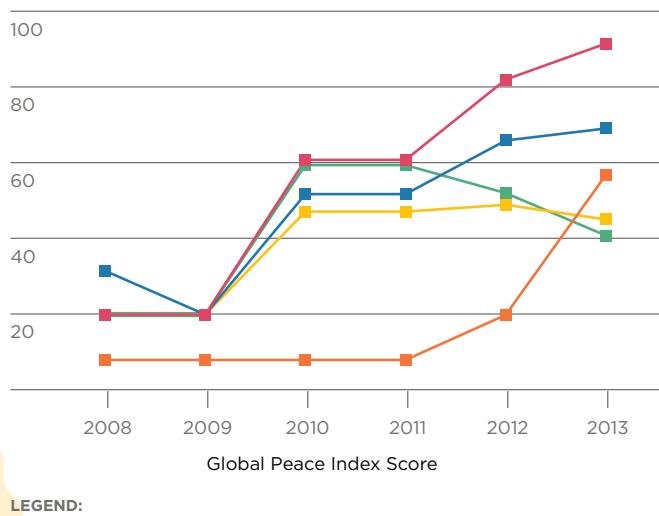


**SOURCE:** United Nations Survey of Crime Trends and Operations of Criminal Justice Systems; EIU data; note, years on bottom axis refer to the year of GPI release.



**FIGURE 1.16** Homicide rate in Honduras, El Salvador, Cote d'Ivoire, Venezuela, Jamaica, 2008-2013

The global rise in homicide has been caused by a small number of countries



**SOURCE:** United Nations Survey of Crime Trends and Operations of Criminal Justice Systems; EIU data; note, years on bottom axis refer to the year of GPI release.

Honduras has the worst homicide rate in the world, currently 92 deaths per 100,000 people. Honduras' homicide rate closely parallels its internal situation where the 2009 coup d'état was followed by a media blackout, curfews, and a subsequent increase in crimes, gangs and violence. It is followed by El Salvador at 69 deaths per 100,000. In comparison, Australia has a homicide rate of one per 100,000 people while a number of Western European countries have a homicide rate as low as 0.5 per 100,000 people. Cuba and Haiti are the only countries within the region to have a homicide rate that is not double-digits, with rates of 5 and 6.9 deaths per 100,000 people respectively.

It should be noted here that the majority of deaths from Mexico's drug war are accounted for in the deaths from organised internal conflict and are not included in the homicide indicator. If we were to include these deaths, Mexico's current homicide rate of approximately 24 per 100,000 people, would rise significantly, along with the regional average.

## NUMBER OF DEATHS FROM ORGANISED CONFLICT (INTERNAL)

The number of deaths from organised internal conflict is taken from the IISS Armed Conflict Database (ACD). Figures for the 2013 GPI are compiled from the most recent edition of the IISS ACD, which uses the following definition of armed conflict-related fatalities: 'Fatality statistics relate to

military and civilian lives lost as a direct result of an armed conflict'. The definition for a conflict is taken from the Uppsala Conflict Data Program's definition of conflict (see Annex A for details). What the data shows is a significant increase in the number of deaths from 2008 to 2013, with increases in both the magnitude and distribution of conflict.

The increase in magnitude is clear with the overall change from 37,269 deaths in 2008 to 178,287 deaths in 2013. This is significant and is almost a five times increase. The expanding distribution of conflict deaths across countries is also notable. Only four countries exceeded 2,000 conflict deaths in 2008, jumping to 11 in 2013, with Mexico, Libya and Syria all recording more than double the number of deaths of Iraq in 2008. Syria's estimated 72,900 deaths is almost double the total number of deaths from internal conflict recorded for entire world in 2008.

**TABLE 1.15** World total number of deaths from internal conflict for GPI countries, 2008-2013

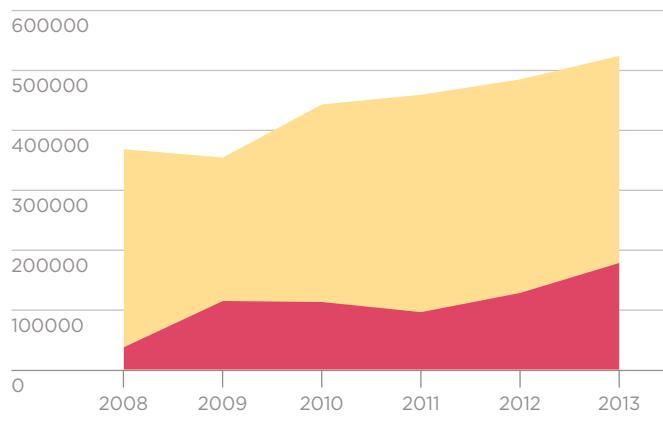
*World total number of deaths from internal conflict has increased substantially*

2008	2009	2010	2011	2012	2013
37,269	114,705	112,999	96,009	128,178	178,287

**SOURCE:** IISS Armed Conflict Database; EIU data, note, years in table refer to the year of GPI release

**FIGURE 1.17** World total number of deaths from internal conflict compared to world total number of homicides, 2008-2013

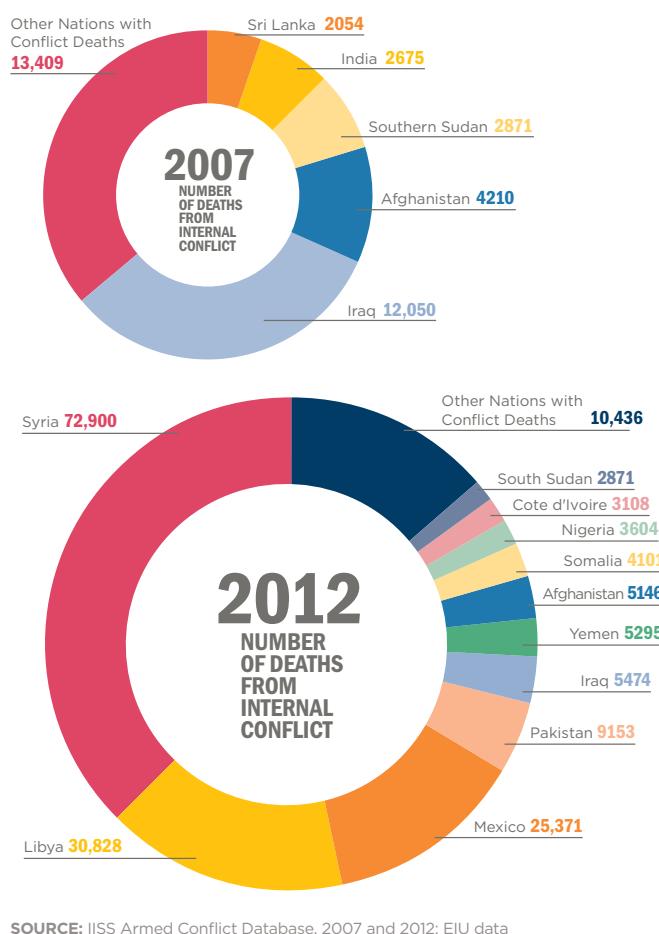
*World total of homicide still significantly outnumbers internal conflict deaths but the ratio is narrowing.*



**LEGEND:**  
■ World Total of Homicide ■ World Total Number of Deaths from Internal Conflict

**SOURCE:** Source: United Nations Survey of Crime Trends and Operations of Criminal Justice Systems; IISS Armed Conflict Database; EIU data, note, years on bottom axis refer to the year of GPI release.

**FIGURE 1.18** Number of deaths from organised internal conflict, 2007 and 2012



It has been established by studies such as the World Bank's World Development Report 2011, and much of the conflict and development literature, that the nature of violence has been shifting away from large inter-state conflicts towards intrastate and criminal violence. Figure 1.17 compares the total number of homicides or deaths from criminal violence to deaths from organised intra-state conflict. While there is a large disparity between the two, with criminal violence still the major cause of violent death, the ratio appears to have narrowed in the past six years from approximately ten homicides for every organised conflict death to approximately three homicides for every organised conflict death. This is somewhat due to fact that the number of deaths from internal conflict in 2008 was well below the long-term trend line. The increasing trend is confirmed by data compiled by the Global Burden of Armed Violence (GBAV) by the Geneva Declaration that shows in the preceding years between 2004 and 2007 there was an average of 52,000 direct conflict deaths, which is lower than the 111,000 deaths which is the yearly average for the

2008 to 2013 period. The rise in devastating conflicts is also accompanied by criminal violence, terrorism and civil unrest and emphasizes the importance of continuing to monitor and improve related metrics.

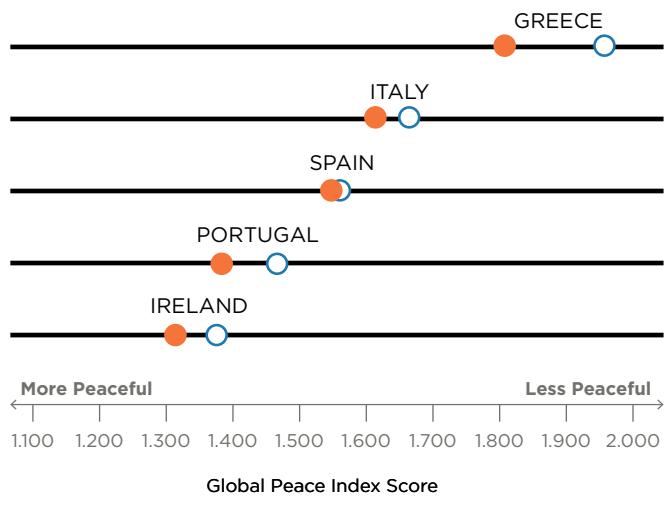
## THE EFFECT OF THE GLOBAL FINANCIAL CRISIS ON PEACEFULNESS

The worst economic crisis since the Great Depression has seen much of the developed world's GDP growth slow significantly and in many cases contract. The subsequent austerity packages have resulted in widespread reductions in public spending. Cuts to public services and social protection, alongside increasing unemployment, has led to increases in violent demonstrations, violent crime and perceptions of criminality in many countries. This has been especially evident in countries hit hardest by the recession.

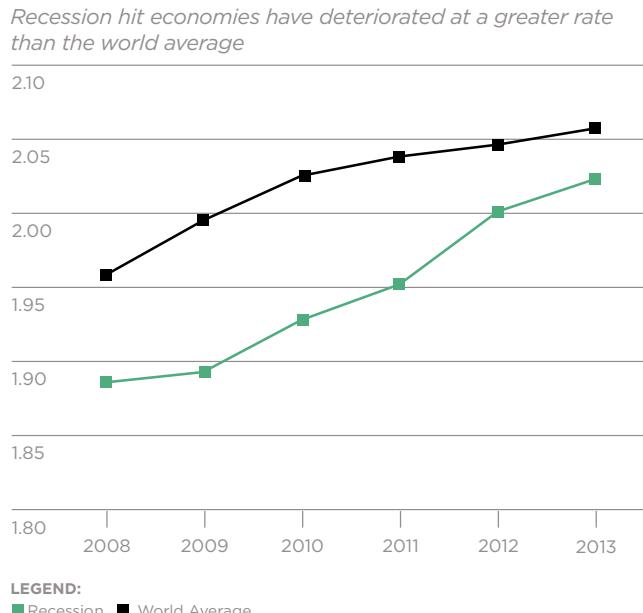
The original sovereign debt crisis countries of Portugal, Ireland, Italy, Greece and Spain have been highlighted in this analysis. These countries saw varying declines in peacefulness with increases in the *perceptions of criminality, likelihood of violent demonstrations, increasing political instability and number of deaths from organised conflict*. Additionally, due to their constrained budgets on average they have fallen behind on their UN peacekeeping commitments.

**FIGURE 1.19** Initial EU Sovereign debt countries GPI score, 2008-2013

The countries which were first hit by the sovereign debt crisis, Greece, Ireland, Italy, Portugal, Spain have all experienced varying declines in their levels of peace.



**FIGURE 1.20** Countries hit by recession compared to the rest of the world average on GPI score, 2008-2013



SOURCE: World Bank national accounts data, and OECD National Accounts data files.

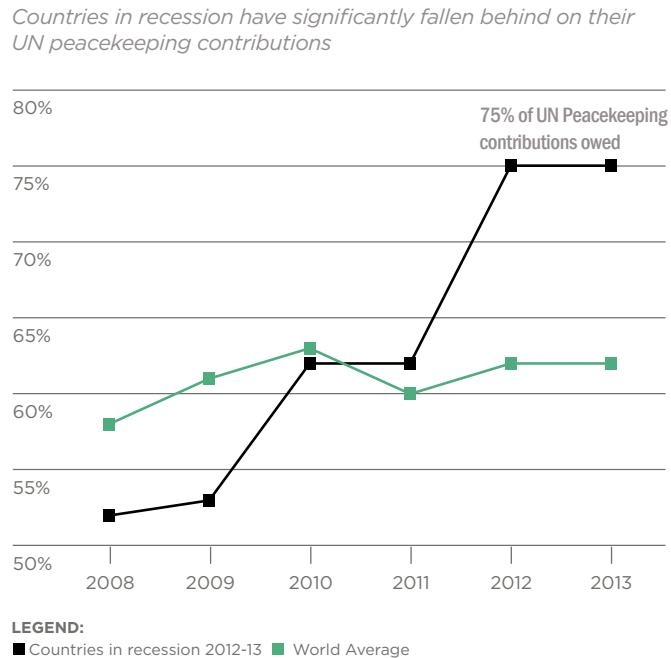
The association between recession hit countries and the change in the GPI is clear. Figure 1.20 shows that countries hit by recession have declined in peace at a greater rate than non-recession countries. Investigation of the specific indicators shows:

- *Perceptions of criminality* has increased at a greater rate than the global average
- *Likelihood of violent demonstrations* has been higher than the global average
- Qualitative assessment of level of violent crime has increased above the global average
- *Political instability* has increased, although there has been a slight improvement in the last year. *Political instability* is also up in Europe albeit slightly
- *Political Terror Scale* is up in these recession hit countries which is contrary to the global trend.
- Countries hit by recession have fallen behind on their UN peacekeeping contributions, from 50% to 75% overdue on average.

Recession hit countries were defined by the World Bank as experiencing negative annual growth for 2011. The World Bank lists the following countries as having negative GDP growth in 2011. (Source: World Bank national accounts data, and OECD National Accounts data files.)

- Tunisia
- Portugal
- Yemen
- Greece
- Croatia
- Trinidad and Tobago
- Slovenia
- Cote d'Ivoire
- Romania
- Somalia
- Japan
- The Gambia

**FIGURE 1.21** UN Peacekeeping contributions for recession and non-recession countries compared, 2008-2013



SOURCE: UN Funding GPI Indicator; UN Committee on Contributions

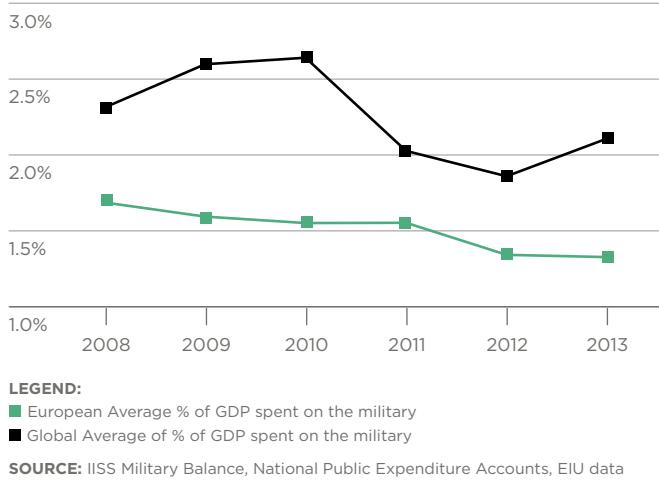
Each year, the UN Committee on Contributions calculates how much countries are required to pay toward peacekeeping commitments based on “the scale of assessments for the regular budget of the United Nations, with an appropriate and transparent system of adjustments based on levels of Member States”. Under this system, Member States are assigned to one of 10 “levels” to facilitate automatic, predictable movement between categories on the basis of the per capita gross national product (GNP) of Member States. What can be clearly seen in figure 1.21 is that recession hit countries have fallen behind significantly on their stated UN peacekeeping commitments.

The fall is in their country average and is represented by the percentage of non-payment of UN assessed contributions for peacekeeping for the three prior years. This represents a fall from 50% of their commitments not being paid to 75% of their commitments not being paid. A commitment to fund UN Peacekeeping operations is a positive measure in the GPI.

European countries have cut their military spending at a greater rate as a percentage of their GDP than the rest of the world. The winding down from the Iraq and Afghanistan conflicts has also improved the indicator that measures the number of internal and external conflicts a country is in.

**FIGURE 1.22** Average % of GDP on military spending, Europe compared to the global average, 2008-2013

European countries have cut military spending as a % of GDP at a faster rate than the global average

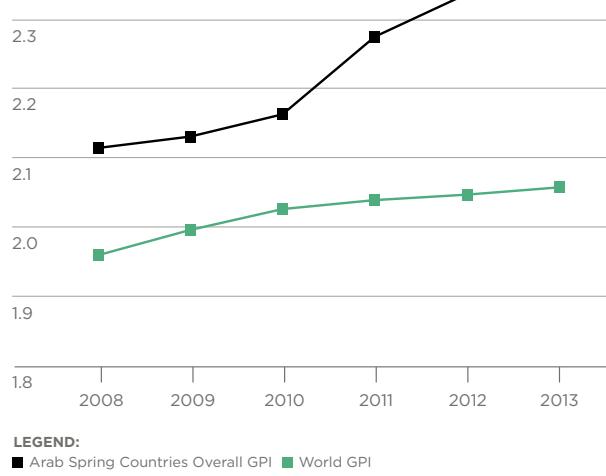


## ARAB SPRING AND PEACE

The wave of violent and non-violent protests that erupted across the Middle East and the North Africa region in late 2010 continues to have domestic and international consequences in 2013. While the various Arab Spring movements shared many of the same goals, one key consequence in the short and medium term has been in the escalation of violence in both internal and external measures of the GPI. Although on average the increases are disappointing there are some bright spots with both Tunisia and Mauritania recording improvements in their scores on the *Political Terror Scale*.

**FIGURE 1.23** Arab spring peacefulness versus the world average, 2008-2013

The gap between the Arab Spring countries and the rest of the world on peacefulness has increased in the past six years

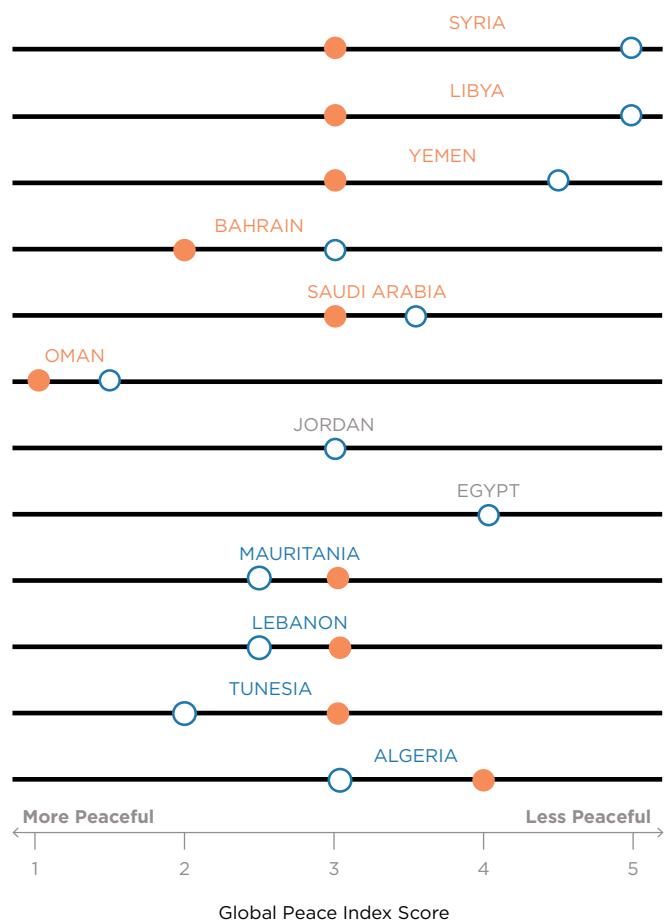


While internal indicators such as the *perceptions of criminality*, *level of violent demonstrations*, and *political instability* have perhaps predictably increased, there have also been increases in *availability of small arms and light weapons*, a slight increase in the *Political Terror Scale*, the *level of terrorist activity*, and increases in the *number of displaced people*.

The Figure 1.24 shows out of the selected Arab Spring countries, only Mauritania, Lebanon, Algeria and Tunisia saw an improvement in their *Political Terror Scale* while Egypt and Jordan experienced no change. Tunisia saw full regime change and Jordan saw the replacement of two Prime Ministers and their Cabinet underpinning the potential

**FIGURE 1.24** Selected Arab Spring countries, Political Terror Scale, 2008-2013

The *Political Terror Scale* suggests on average, Arab Spring countries<sup>4</sup> now experience higher levels of political terror, with more countries deteriorating than improving.



nature of progress in these nations. Yemen also saw the overthrow of its government, but has seen an increase in political repression and violence. Overall however, on average, more Arab Spring countries now experience a greater level of political violence and state-sponsored control with Oman, Saudi Arabia, Yemen, Bahrain and Syria recording higher levels of political violence in 2011.

Three of the Arab Spring countries Egypt, Libya, and Syria have had very different outcomes. Libya had direct NATO intervention, whilst Egypt's conflict was entirely internal in nature. Syria's conflict on the other hand has erupted into a full scale civil war with limited international intervention.

These differences exhibit themselves in differences in the character of each country's peace profiles. For example, the accessibility of small arms and light weapons has risen in Syria which now receives a maximum score of 5, whilst it has declined for Libya. The likelihood of violent demonstrations rose in all three countries however Libya is the only country where the likelihood is now falling. The increased access to small arms and light weapons highlights one of the key legacy factors of civil war and the increased latent destructive capacity that remains in post conflict states.

## POLITICAL TERROR SCALE

**1** = Countries under a secure rule of law, people are not imprisoned for their view, and torture is rare or exceptional. Political murders are extremely rare.

**2** = There is a limited amount of imprisonment for nonviolent political activity. However, few persons are affected, torture and beatings are exceptional. Political murder is rare.

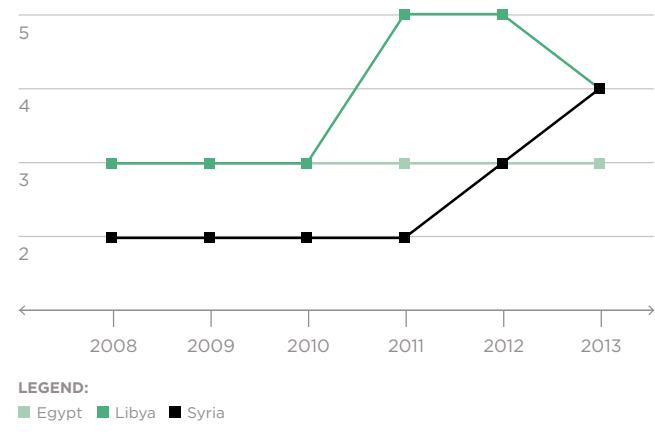
**3** = There is extensive political imprisonment, or a recent history of such imprisonment. Execution or other political murders and brutality may be common. Unlimited detention, with or without a trial, for political views is accepted.

**4** = Civil and political rights violations have expanded to large numbers of the population. Murders, disappearances, and torture are a common part of life. In spite of its generality, on this level terror affects those who interest themselves in politics or ideas.

**5** = Terror has expanded to the whole population. The leaders of these societies place no limits on the means or thoroughness with which they pursue personal or ideological goals.

**FIGURE 1.25** GPI indicator, qualitative assessment of the access to small arms and light weapons, Libya, Syria, and Egypt, 2008-2013

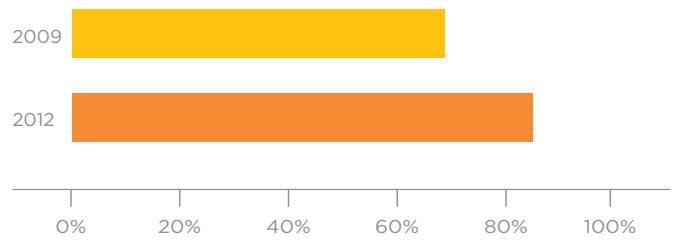
*Access to light arms has increased in Libya and Egypt since 2008*



SOURCE: GPI indicator, EIU qualitative assessment

**FIGURE 1.26** Gallup World Poll, Egypt - % who believe that government corruption is widespread (2012)

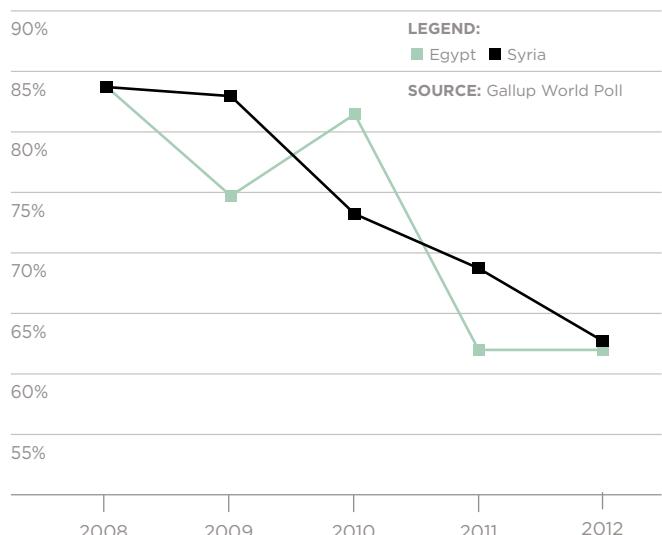
*Perceptions of corruption have increased in Egypt since the Arab Spring and regime change*



SOURCE: Gallup World Poll

**FIGURE 1.27** Gallup World Poll, Egypt and Syria % who feel safe walking alone at night (2008-2012)

*Perceptions of safety in Egypt and Syria have drastically fallen in the past five years. Before civil war in Syria perceptions of safety were gradually declining.*



## ESCALATION AND CONTINUATION OF THE DRUG WAR IN CENTRAL AMERICA

Since the demise of the Colombian cartels, Mexican drug cartels have sought to increase their control in the illicit drug trade. It is now believed that almost all the cocaine sold in the US, the largest consumer of illicit drugs, is supplied by Mexican cartels. As a consequence, Mexican cartels are now the main suppliers of cocaine to the world's drug market and are also the main foreign supplier of marijuana and methamphetamine to the US. The start of the current drug war is generally considered to have begun with the commencement of Operation Michoacan on December 11th, 2006. The ongoing war, now into its sixth year of conflict, has escalated dramatically in the violence and brutality experienced with kidnappings, mass killings, executions and public displays of dead bodies.

**FIGURE 1.28** Top three countries in deaths from organised conflict in South and Central America and the Caribbean, 2008-2013

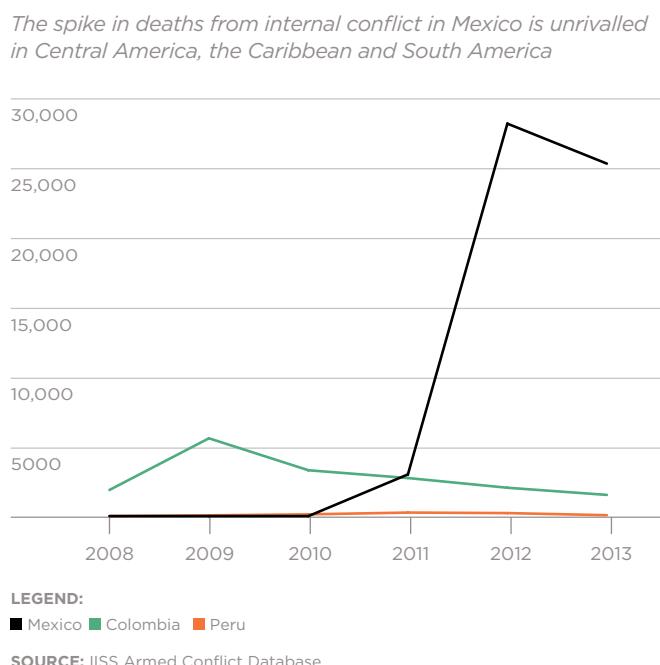


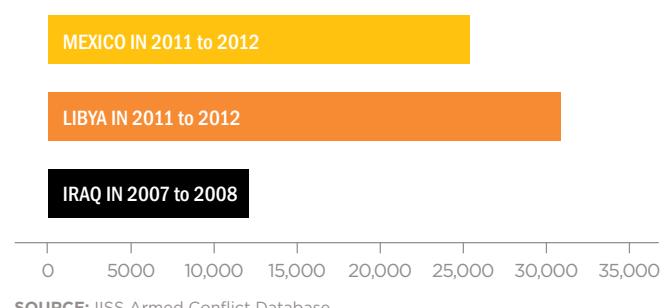
Figure 1.28 shows the number of deaths from organised internal conflict in Mexico compared to Colombia and Peru, the countries to register the most deaths from organised internal conflict in South America. The only other Central American country to suffer from organised conflict deaths was Haiti which registered fewer than 100 deaths over the period. Even compared to South American averages

the Mexico spike is exceptional, Colombia a country with relatively significant levels of internal conflict had 6,000 fewer deaths for the full six years than Mexico had in 2012. Various reports estimate between 60,000 to 90,000 have been killed in Mexico since 2005. Despite the difficulty in accurately gauging the impact of the conflict, the escalation in violence is clear.

Figure 1.29 compares Mexico to Libya in 2011 to 2012 and Iraq in 2007 to 2008, putting the significance of the Mexican conflict into perspective with other major intra-state conflict.

**FIGURE 1.29** Mexican deaths from organised conflict compared to Libya and Iraq

*The number of deaths in Mexico rival that of countries in full civil war*



**FIGURE 1.30** Total refugees and displaced people as a percentage of the Mexican population, 2008 to 2013

*The total number of refugees and displaced persons in Mexico has seen at least a seven times increase in the past six years*

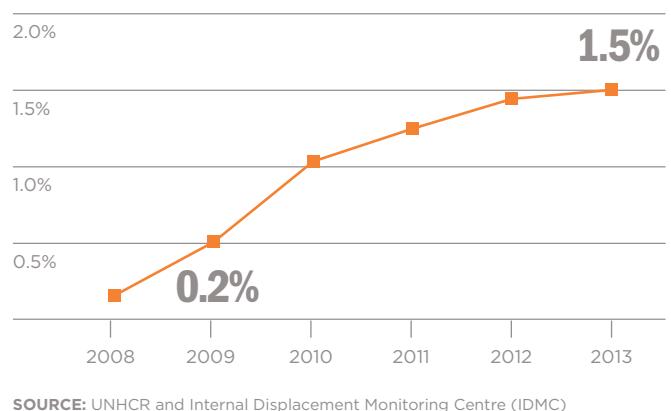


Figure 1.30 shows that the number of people displaced in Mexico has steadily trended upwards. Since 2008, there has been nearly a ten-fold increase in the number of people displaced. Some estimate that up to 1.2 million Mexicans have been displaced as a result of the drug war.

The spill-over of the drug war has affected Mexico's neighbours: the US and Guatemala. The US has incurred a huge institutional and financial burden in order to quell and control the influx of narcotics. The effect of US gun policy on Mexico's drug war is enormous: the sophisticated arms which Mexican drug cartels use are often purchased by US citizens and then smuggled over the border to Mexico. The ease in which arms can be obtained in the US has helped to propel the violence with military grade weaponry commonly available.

## ONGOING CONFLICT AND TERRORISM IN IRAQ, AFGHANISTAN, SOMALIA, DRC AND RWANDA

In spite of the large international focus on state building and peace building efforts in Afghanistan, Somalia and DRC, the conflict has continued and their scores have deteriorated on the GPI. In contrast Iraq has improved from an extremely violent period in 2007 and 2008, but still suffers from near daily occurrences of terrorism.

Rwanda is notable as it has sustained the third largest fall in its GPI score over the six years but is not classified as being in a fragile situation<sup>5</sup> in 2013 and therefore makes an interesting comparison to the aforementioned countries. Rwanda has seen increases in homicide and terrorist activity as well as having falls in several external indicators related to the conflict in neighboring DRC.

These five nations are notable in that outside of the Arab Spring countries, they account for a significant majority of the global fall in peacefulness. Figure 1.31 shows the tail end of the distribution of the GPI where all these nations fall, other than Rwanda which is ranked 135. This shows the size of the tail has increased and the least peaceful nations are becoming less peaceful.

### IRAQ

Iraq is one of the few countries in the ten least peaceful countries to have seen a noteworthy improvement in its level of peace. Since 2010, it has seen a sustained decrease in its overall level of violence as its internal peace score has consistently improved since 2008. Iraq has seen a decrease in the level of *organised internal conflict, likelihood of violent demonstrations and political instability*. However,

**CHART 1.31** Histogram of GPI Scores (2008 and 2013, scores of 2.2 or greater only)

*The least peaceful countries have become increasingly less peaceful since 2008*

Percentage of countries in the GPI

18.0%

16.0%

14.0%

12.0%

10.0%

8.0%

6.0%

4.0%

2.0%

More Peaceful

LEGEND:  
2008 ■ 2013

Less Peaceful

Global Peace Index Score

2.20 2.35 2.50 2.65 2.80 2.95 3.10 3.25 3.40 3.55



over the last two years, it has seen a large increase in *terrorist activity* and whilst the number of deaths from these terrorist acts is less than during the surge, it has still claimed an average of 7,000 deaths annually over the last three years and is still extremely violent.

### AFGHANISTAN

Afghanistan has seen a decline in its overall, internal and external peace score since 2008. Its internal peace score has declined by 0.5 which in terms of the GPI is a significant fall. Afghanistan briefly saw its external peace level increase but since 2011 it has again deteriorated. Its level of internal organised conflict, *political instability, terrorist activity*, and the *number of people displaced* has seen an upward trend.

### SOMALIA

Somalia's overall level of peacefulness has fallen mainly because of its decline in internal peace. The deterioration in internal peace has been driven by a sharp increase in terrorist activity and *political instability*. Furthermore, whilst there has been a drop in deaths from internal conflict

since 2011, its three year average is still 6,100 – nearly the same level as Iraq. The number of people displaced as a percentage of the population has increased steadily with its current rate at 27 displaced people per 100,000, a five-fold increase since 2009.

## DEMOCRATIC REPUBLIC OF THE CONGO

DRC's geographic location and the character of the ongoing conflict has meant that it has seen an increase in its number of internal conflicts. The flow-on effects have seen an increase in the percentage of the population which is displaced, as well as a large rise in the imports of conventional weapons and perceptions of criminality in society. Despite a fall in the homicide rate, its current rate of 22 deaths per 100,000 people is the 23rd highest in the world.

## RWANDA

Rwanda's western border with the DRC has been a source of tension and conflict with both governments often accusing each other of supporting armed rebels. The tension between the two countries goes back to the Rwandan genocide. Rwandan civil society has also suffered with a clampdown on independent media and attacks on political opponents. The destabilizing effect means that Rwanda has seen an increase in its *Political Terror Scale*, the number of people jailed per 100,000 people, *political instability*, level of organised internal conflict, availability of small arms and light weapons, homicide rate, and terrorist activity. These factors have contributed to Rwanda experiencing the third largest fall in the GPI since 2008.

**TABLE 1.16** Global Peace Index score change from 2008 to 2013 for 158 countries

*\*There were only 139 countries in the 2008 GPI. Score change is thus taken from the first year the country entered the GPI. Kosovo, Timor Leste, Togo and South Sudan are not included because they were new countries for the 2013 GPI.*

RANK BY IMPROVEMENT IN GPI SCORE	COUNTRY	GPI SCORE CHANGE* (LOWER = MORE PEACEFUL)	% CHANGE FROM 2008*
1	Chad	-0.480	-16%
2	Georgia	-0.331	-12%
3	Haiti	-0.329	-14%
4	Israel	-0.244	-8%
5	Sri Lanka	-0.221	-9%
6	Croatia	-0.188	-11%
7	Armenia	-0.173	-8%
8	Mongolia	-0.138	-7%
9	Benin	-0.136	-6%
10	Saudi Arabia	-0.136	-6%
11	Uganda	-0.125	-5%
12	Taiwan	-0.125	-8%
13	Iraq	-0.122	-4%
14	Guyana	-0.120	-6%
15	Serbia	-0.110	-5%
16	Ecuador	-0.109	-5%
17	Lebanon	-0.098	-4%
18	Poland	-0.083	-5%
19	Qatar	-0.080	-5%
20	Mauritius	-0.075	-5%
21	Liberia	-0.065	-3%
22	Niger	-0.063	-3%
23	Bulgaria	-0.056	-3%
24	Brazil	-0.051	-2%
25	Botswana	-0.050	-3%
26	Laos	-0.047	-3%
27	Netherlands	-0.046	-3%
28	United States of America	-0.041	-2%
29	Austria	-0.040	-3%
30	Honduras	-0.033	-1%
31	Czech Republic	-0.033	-2%
32	Denmark	-0.031	-3%
33	Montenegro	-0.029	-1%
34	Belgium	-0.028	-2%
35	Lesotho	-0.028	-2%
36	Singapore	-0.026	-2%
37	Guinea Bissau	-0.024	-1%
38	Nicaragua	-0.020	-1%
39	Angola	-0.018	-1%
40	Djibouti	-0.016	-1%
41	Moldova	-0.016	-1%
42	Namibia	-0.011	-1%
43	Algeria	-0.010	0%
44	Myanmar	-0.009	0%
45	Papua New Guinea	-0.006	0%
46	Turkmenistan	-0.004	0%
47	Turkey	-0.002	0%
48	Kazakhstan	-0.001	0%
49	Philippines	0.001	0%
50	Congo Brazzaville	0.002	0%
51	Uruguay	0.002	0%
52	Slovenia	0.003	0%
53	Uzbekistan	0.007	0%

RANK BY IMPROVEMENT IN GPI SCORE	COUNTRY	GPI SCORE CHANGE* (LOWER = MORE PEACEFUL)	% CHANGE FROM 2008*
54	Tajikistan	0.010	0%
55	Eritrea	0.010	0%
56	Spain	0.011	1%
57	Indonesia	0.013	1%
58	Guatemala	0.015	1%
59	Iran	0.016	1%
60	Australia	0.017	1%
61	Trinidad and Tobago	0.017	1%
62	Colombia	0.019	1%
63	Jordan	0.024	1%
64	Germany	0.024	2%
65	Finland	0.025	2%
66	Kuwait	0.036	2%
67	Switzerland	0.037	3%
68	Sweden	0.037	3%
69	Vietnam	0.039	2%
70	Canada	0.042	3%
71	United Kingdom	0.044	3%
72	Italy	0.045	3%
73	New Zealand	0.047	4%
74	Bhutan	0.048	3%
75	Romania	0.048	3%
76	Thailand	0.052	2%
77	Albania	0.055	3%
78	Iceland	0.055	5%
79	Malaysia	0.056	4%
80	Burundi	0.057	2%
81	Mali	0.057	2%
82	Azerbaijan	0.058	3%
83	Dominican Republic	0.059	3%
84	Ireland	0.061	5%
85	Japan	0.061	5%
86	Cuba	0.062	3%
87	Sierra Leone	0.063	3%
88	Bangladesh	0.063	3%
89	Bosnia and Herzegovina	0.067	4%
90	Zambia	0.067	4%
91	Hungary	0.068	5%
92	Norway	0.070	5%
93	Latvia	0.070	4%
94	Mauritania	0.072	3%
95	Morocco	0.075	4%
96	Somalia	0.078	2%
97	Macedonia	0.079	4%
98	Portugal	0.081	6%
99	India	0.082	3%
100	Nepal	0.083	4%
101	Kenya	0.086	4%
102	Sudan	0.088	3%
103	Slovakia	0.089	6%
104	Cameroon	0.094	4%
105	Tanzania	0.098	5%
106	Bolivia	0.106	5%
107	Senegal	0.107	5%

RANK BY IMPROVEMENT IN GPI SCORE	COUNTRY	GPI SCORE CHANGE* (LOWER = MORE PEACEFUL)	% CHANGE FROM 2008*
108	Guinea	0.110	5%
109	Lithuania	0.113	7%
110	France	0.114	7%
111	China	0.118	6%
112	Nigeria	0.119	5%
113	Swaziland	0.121	6%
114	United Arab Emirates	0.122	8%
115	Kyrgyz Republic	0.124	5%
116	Venezuela	0.126	6%
117	Ghana	0.128	7%
118	Estonia	0.130	8%
119	Burkina Faso	0.131	7%
120	Argentina	0.139	8%
121	Malawi	0.140	8%
122	Belarus	0.141	7%
123	Cambodia	0.143	7%
124	El Salvador	0.146	7%
125	Greece	0.150	8%
126	Chile	0.156	11%
127	South Korea	0.158	10%
128	Paraguay	0.161	8%
129	Ethiopia	0.167	7%
130	Equatorial Guinea	0.170	9%
131	The Gambia	0.174	9%
132	South Africa	0.175	8%
133	Costa Rica	0.180	11%
134	Russia	0.186	6%
135	Peru	0.193	9%
136	Cyprus	0.193	12%
137	Mozambique	0.206	12%
138	Panama	0.214	13%
139	Ukraine	0.215	11%
140	Jamaica	0.216	11%
141	Central African Republic	0.218	8%
142	Pakistan	0.221	8%
143	Gabon	0.249	14%
144	North Korea	0.296	11%
145	Egypt	0.299	15%
146	Bahrain	0.308	17%
147	Zimbabwe	0.312	13%
148	Oman	0.338	23%
149	Tunisia	0.342	21%
150	Mexico	0.368	18%
151	Democratic Republic of the Congo	0.396	15%
152	Yemen	0.421	18%
153	Cote d' Ivoire	0.430	19%
154	Afghanistan	0.439	15%
155	Madagascar	0.445	27%
156	Rwanda	0.575	31%
157	Libya	0.733	39%
158	Syria	1.400	70%

# METHODOLOGY

## MEASURING STATES OF PEACE

Peace is notoriously difficult to define. Perhaps the simplest way of approaching it is in terms of harmony achieved by the absence of war, conflict or violence or fear of the aforementioned. Applied to nations, this would suggest that those not involved in violent conflicts with neighbouring states or suffering internal wars or violence have achieved a state of peace, which has been described as “negative peace”.

In attempting to gauge peacefulness, the GPI investigates the extent to which countries are involved in ongoing domestic and international conflicts. It also seeks to evaluate the level of harmony or discord within a nation; ten indicators broadly assess what might be described as safety and security in society. The assertion is that low crime rates, minimal terrorist activity and violent demonstrations, harmonious relations with neighbouring countries, a stable political scene and a small proportion of the population being internally displaced or made refugees can be equated with peacefulness.

Seven further indicators are related to a country’s military build-up—reflecting the assertion that the level of militarisation and access to weapons is directly linked to how peaceful a country feels, both domestically and internationally. Comparable data on *military expenditure as a percentage of GDP* and the number of armed service officers per head are gauged, as are financial contributions to UN peacekeeping missions.

An additional aim of the GPI is to explore the concept of *positive peace*. Various studies have proposed that a culture of peace might be based on human rights, gender equality, democratic participation, a tolerant society, open communication and international security. However, these links between peace and its causes tend to be presumed, rather than systematically measured. For this reason, this report examines the relationships between the GPI and many reliable international measures of democracy, transparency, education and material wellbeing. By doing so, the research ultimately attempts to understand the relative importance of a range of potential determinants, or *drivers*, which may influence the creation and nurturance of peaceful societies, both internally and externally.

## THE RESEARCH TEAM

The GPI was founded by Steve Killelea, an Australian technology entrepreneur and philanthropist. It is produced by the Institute for Economics and Peace, a global think tank dedicated to building a greater understanding of the relationship between economics, business and peace. The GPI is collated and calculated by the Economist Intelligence Unit, which has also contributed the results, findings and methodology section of this report.

An international panel of independent experts played a key role in establishing the GPI in 2007—in selecting the indicators that best assess a nation’s level of peace and in assigning their weightings. The panel has overseen each edition of the GPI; this year, it included:

### **PROFESSOR KEVIN P. CLEMENTS, CHAIRPERSON**

Foundation Chair of Peace and Conflict Studies and director, National Centre for Peace and Conflict Studies, University of Otago, Dunedin, New Zealand

### **DR SABINA ALKIRE**

Director, Oxford Poverty & Human Development Initiative, University of Oxford, United Kingdom

### **DR IAN ANTHONY**

Research co-ordinator and leader of the Arms Control and Non-proliferation Programme, Stockholm International Peace Research Institute (SIPRI), Sweden

### **PROFESSOR SULTAN BARAKAT**

Director, Post-war Reconstruction and Development Unit (PRDU), Department of Politics, University of York, United Kingdom

### **MR NICK GRONO**

CEO, Walk Free, Perth, Australia, formerly deputy president, International Crisis Group (ICG)

### **DR MANUELA MESA**

Director, Centre for Education and Peace Research (CEIPAZ) and president, Spanish Association for Peace Research (AIPAZ), Madrid, Spain

### **DR EKATERINA STEPANOVA**

Head, Unit on Peace and Conflict Studies, Institute of the World Economy and International Relations (IMEWO), Russian Academy of Sciences, Moscow, Russia

## THE INDICATORS

The GPI comprises 22 indicators of the existence or absence of violence or fear of violence. The indicators were originally selected with the assistance of an international panel of independent experts in 2007 and have been reviewed by the expert panel on an annual basis. All scores for each indicator are normalised on a scale of 1-5, whereby qualitative indicators are banded into five groupings and quantitative ones are either banded into ten groupings or rounded to the first decimal point. The Economist Intelligence Unit's team of country analysts has scored seven of the eight qualitative indicators and also provided estimates where there have been gaps in the quantitative data. A detailed explanation of the scoring criteria used for each indicator is supplied in Annex A.

## ONGOING DOMESTIC AND INTERNATIONAL CONFLICT

### **Number of external and internal conflicts fought**

Uppsala Conflict Data Program (UCDP), University of Uppsala; The Economist Intelligence Unit

### **Number of deaths from organised conflict (external)**

UCDP; University of Uppsala

### **Number of deaths from organised conflict (internal)**

International Institute for Strategic Studies (IISS) Armed Conflict Database

### **Level of organised conflict (internal)**

Qualitative assessment by Economist Intelligence Unit analysts

### **Relations with neighbouring countries**

Qualitative assessment by Economist Intelligence Unit analysts

## SOCIAL SAFETY AND SECURITY

### **Level of perceived criminality in society**

Qualitative assessment by Economist Intelligence Unit analysts

### **Number of refugees and displaced people as a percentage of the population**

UNHCR Statistical Yearbook and the Internal Displacement Monitoring Centre (IDMC)

### **Political instability**

Qualitative assessment by Economist Intelligence Unit analysts

### **Political Terror Scale**

Qualitative assessment of Amnesty International and US State Department yearly reports

### **Terrorist activity**

Global Terrorism Index, Institute for Economics and Peace

### **Number of homicides per 100,000 people**

United Nations Surveys on Crime Trends and the Operations of Criminal Justice Systems (CTS); Economist Intelligence Unit estimates

### **Level of violent crime**

Qualitative assessment by Economist Intelligence Unit analysts

### **Likelihood of violent demonstrations**

Qualitative assessment by Economist Intelligence Unit analysts

### **Number of jailed population per 100,000 people**

World Prison Brief, International Centre for Prison Studies, University of Essex

### **Number of internal security officers and police per 100,000 people**

CTS; Economist Intelligence Unit estimates

## MILITARISATION

### **Military expenditure as a percentage of GDP**

The Military Balance, IISS

### **Number of armed-services personnel per 100,000 people**

The Military Balance, IISS

### **Volume of transfers of major conventional weapons as recipient (imports) per 100,000 people**

Stockholm International Peace Research Institute (SIPRI) Arms Transfers Database

### **Volume of transfers of major conventional weapons as supplier (exports) per 100,000 people**

SIPRI Arms Transfers Database

### **Financial contribution to UN peacekeeping missions**

United Nations Committee on Contributions; Institute for Economics and Peace

### **Nuclear and heavy weapons capability**

The Military Balance, IISS; SIPRI; and Institute for Economics and Peace

### **Ease of access to small arms and light weapons**

Qualitative assessment by Economist Intelligence Unit analysts

## CHANGES TO THE METHODOLOGY FOR 2013

The expert panel that oversees the compilation of the GPI agreed to include four additional countries in the 2013 edition: Kosovo, South Sudan, Timor-Leste and Togo. This brings the total coverage of the 2013 GPI to 162 nations, encompassing more than 99% of the world's population. The seven qualitative indicators that are scored by Economist Intelligence Unit analysts still refer to the period from March 16th 2012 to March 15th 2013, in line with the approach

introduced in 2011.

The panel has agreed to the revision of a number of indicators for the 2013 edition of the GPI:

The indicator *military capability/sophistication* has been removed from the Index. Its weight (6.1%) has been equally redistributed across the remaining indicators that make up the *external peace* category. The concept of military capability has been preserved and included in the new indicator *nuclear and heavy weapons capability*. Countries with nuclear capabilities now automatically receive a score of five, the highest score possible.

Heavy weapons, while being scored using the same methodology, are no longer scaled by population. The panel felt that this would better account for countries' actual capacity to project force.

The normalisation of the indicator *number of external conflicts fought* has been similarly revised. The banding for the scores now reflects, in a linear way, the number of conflicts fought in the previous five years; that is, countries that have not been in conflict receive a score of 1, countries that have experienced one conflict are awarded a score of two, and so forth.

The renaming of *terrorist acts* to *terrorist activity* has been agreed upon under the premise that the new label better reflects the information contained in the indicator.

Lastly, *financial contribution to UN peacekeeping missions* has been revised in order to overcome a negative bias towards countries with significant accrued debt vis-à-vis the UN. The indicator now measures outstanding contributions for the three years prior to the index publication, rather than since the year they joined the UN.

## METHODOLOGICAL NOTES

### WEIGHTING THE INDEX

When the GPI was launched in 2007 the advisory panel of independent experts apportioned scores based on the relative importance of each of the indicators on a scale 1-5. Two sub-component weighted indices were then calculated from the GPI group of indicators:

- 1) A measure of how at peace internally a country is;**
- 2) A measure of how at peace externally a country is (its state of peace beyond its borders).**

The overall composite score and index was then formulated by applying a weight of 60% to the measure of internal peace and 40% for external peace. The heavier weight applied to internal peace was agreed upon by the advisory panel, following robust debate. The decision was based on the innovative notion that a greater level

of internal peace is likely to lead to, or at least correlate with, lower external conflict. The weights have been reviewed by the advisory panel prior to the compilation of each edition of the GPI.

### INDICATOR WEIGHT

Internal Peace 60% / External Peace 40%

#### INTERNAL PEACE (Weight 1 to 5)

Level of perceived criminality in society → 3
Number of internal security officers and police per 100,000 people → 3
Number of homicides per 100,000 people → 4
Number of jailed population per 100,000 people → 3
Ease of access to small arms and light weapons → 3
Level of organised conflict (internal) → 5
Likelihood of violent demonstrations → 3
Level of violent crime → 4
Political instability → 4
Political Terror Scale → 4
Volume of transfers of major conventional weapons, as recipient (imports) per 100,000 people → 2
Terrorist activity → 2
Number of deaths from organised conflict (internal) → 5

#### EXTERNAL PEACE (Weight 1 to 5)

Military expenditure as a percentage of GDP → 2
Number of armed services personnel per 100,000 people → 2
Financial contribution to UN peacekeeping missions → 2
Nuclear and heavy weapons capability → 3
Volume of transfers of major conventional weapons as supplier (exports) per 100,000 people → 3
Number of displaced people as a percentage of the population → 4
Relations with neighbouring countries → 5
Number of external and internal conflicts fought → 5
Estimated number of deaths from organised conflict (external) → 5

### QUALITATIVE SCORING: THE ECONOMIST INTELLIGENCE UNIT'S APPROACH

The EIU's Country Analysis team plays an important role in producing the GPI by scoring seven qualitative indicators and filling in data gaps on quantitative indicators when official data is missing. The EIU employs more than 100 full-time country experts and economists, supported by 650 in-country contributors. Analysts generally focus on two or three countries and, in conjunction with local contributors, develop a deep knowledge of a nation's political scene, the performance of its economy and the society in general.

Seven of the GPI's 22 indicators are scored qualitatively by the EIU's country analysts. Scoring follows a strict process to ensure reliability, consistency and comparability:

- 1.** Individual country analysts score qualitative indicators.
- 2.** Country analysts meet with their respective regional teams collectively to assess indicators and to ensure consistency and comparability within the region.
- 3.** Indicator scores are checked by the EIU's Custom Research team (which has responsibility for the GPI) to ensure global comparability.
- 4.** If an indicator score is found to be questionable, the Custom Research team, and the appropriate regional director and country analyst discuss and make a judgment on the score.
- 5.** Scores are assessed by the external advisory panel before finalising the GPI.
- 6.** If the advisory panel finds an indicator score to be questionable, the Custom Research team, and the appropriate regional director and country analyst discuss and make a final judgment on the score.

Because of the large scope of the GPI, occasionally data for quantitative indicators do not extend to all nations. In this case, country analysts are asked to suggest an alternative data source or provide an estimate to fill any gap. This score is checked by the Regional Director to ensure reliability and consistency within the region, and by the Custom Research team to ensure global comparability. Again, indicators are assessed by the external advisory panel before finalisation.

## ENDNOTES

1. Eurasia refers to most of the Commonwealth of Independent States which represent nine former Soviet Republics.
2. Kassimir & Flanagan C., "Youth Civic Engagement in the Developing World: Challenges and Opportunities" in Handbook of Research on Civic Engagement in Youth, 2010, Lonnie R Sherrod, Judith Torney-Purta (ed), Constance A. Flanagan, Wiley & Sons, New Jersey, p. 91.
3. Harrendorf S., Heiskanen M. & Malby, S. (2010). International Statistics on Crime and Justice (Eds) European Institute for Crime Prevention and Control (HEUNI), United Nations Office on Drugs and Crime (UNODC).
4. Arab Spring countries are defined as those in the MENA region that have experienced major and minor protest. These are: Algeria, Bahrain, Djibouti, Egypt, Iraq, Jordan, Kuwait, Libya, Mauritania, Morocco, Oman, Saudi Arabia, Sudan, Syria, Tunisia, and Yemen.
5. Fragile Situation is defined by the World Bank as either having a) a harmonized average CPIA country rating of 3.2 or less, or b) the presence of a UN and/or regional peace-keeping or peace-building mission during the past three years.

The expert panel that oversees the compilation of the GPI agreed to include four additional countries in the 2013 edition: Kosovo, South Sudan, Timor-Leste and Togo. This brings the total coverage of the 2013 GPI to 162 nations, encompassing more than 99% of the world's population.

# 02

# THE GLOBAL COST OF CONTAINING VIOLENCE

## [ SUMMARY ]

**Were the world to reduce its expenditure on violence by approximately 50 per cent it could repay the debt of the developing world (\$4076bn), provide enough money for the European stability mechanism (\$900bn) and fund the additional amount required to achieve the annual cost of the Millennium Development Goals**

Calculating the cost of violence to the global economy is notoriously difficult. In the past IEP has adopted a methodology developed by Brauer and Tepper-Marlin (BTM method) which reviewed existing literature on the cost of violence, conflict and war and then estimated the additional economic flow-on effects if these costs did not arise. To complement this approach IEP has adopted a new and novel method of estimating the cost of violence to the global economy through calculating global violence containment costs. **IEP defines violence containment costs as economic activity that is related to the consequences or prevention of violence where the violence is directed against people or property.**

This approach uses ten indicators from the GPI and three additional key areas of expenditure to place an economic value on these thirteen different dimensions. This process has been developed so that in addition to estimating the global impact, the methodology could also be used to create country based estimates. To enable relative comparisons between countries at different levels of economic development, GDP per capita has been used to scale the cost of violence containment for each country. In both the US and the UK a number of robust analyses have been conducted on the cost of various types of violence and crime and used as the basis for the scaling.

This study is highly conservative as there are many items which have not been counted simply because accurate data could not be obtained. Future studies will attempt to capture these items; therefore future estimates are expected to be much higher.

Using this methodology the economic impact of violence containment to the world economy in 2012 was estimated to be US\$9.46 trillion or 11 per cent of Gross World Product

**THE GLOBAL  
ECONOMIC IMPACT  
OF CONTAINING  
VIOLENCE WAS  
ESTIMATED AT  
US\$9.46  
TRILLION  
IN 2012 OR  
11%  
OF GROSS  
WORLD PRODUCT**

(GWP). This figure is comprised of \$4.73 trillion of direct costs and an additional \$4.73 trillion in additional economic activity that would flow from the reinvestment of these costs into more fruitful economic activities. Were the world to reduce its expenditure on violence by approximately half it would be enough to repay the debt of the developing world, provide the necessary money for the European Stability Fund and fund the yearly cost of the Millennium Development Goals.

One of the easier items to count is military expenditure; therefore it is nearly fully included in the study. The military constitutes 51 per cent of this study's expenditure on violence containment. However, the approach excludes many other forms of violence due to a lack of available data. Given this, if other forms of violence were included in the overall estimate, it is expected that military spending when compared to the total would drop considerably. For the purposes of comparison, the world's direct expenditure on the military is more than twelve times the amount of expenditure on aid, as measured by Official Development Assistance (ODA).

The economic impact of homicides represents the next most significant cost at \$1.43 trillion dollars or 15 per cent of the total impact. The third largest contributor to spending is on internal security officers and police, accounting for around 14 per cent of the total, or \$1.3 trillion dollars of the economic impact.

As mentioned, the methodology used in the paper is conservative due to the fact that the study has only counted what can be derived from the current stock of data and research. As a consequence, many items that are related to violence containment spending have not been included. The longer term research project for IEP aims to categorise and count many of these relevant areas of expenditure. Some

examples of items that have been excluded are:

- The significant costs related to property crimes of motor vehicle theft, arson, household burglary, and larceny/theft as well as rape/sexual assault;
- Many of the large preventative measures such as insurance premiums or the business's costs of surveillance equipment and lost management time;
- Direct costs of domestic violence in terms of lost wages, emotional costs and recovery costs; and
- The indirect costs, such as lost wages, lost household work and lower productivity from crime.

While expenditures on containing and dealing with the consequences of violence are important and a necessary public good, the less a nation spends on violence related functions the more resources can be allocated to other, more productive areas of economic activity. Simply, economic expenditure on containing violence is economically efficient when it effectively prevents violence for the least amount of outlay. However, money that is diverted on surplus violence containment, or money that is spent on inefficient programs has the potential to constrain a nation's economic growth. This is simply because much of this type of expenditure is fundamentally unproductive, and if redirected toward productive pursuits, would improve government balance sheets, company profits and ultimately, the productivity and wellbeing of society.

It should be noted that some societies have lower levels of violence and crime and also have lower levels of protection against violence. These societies reap a peace dividend. The imperative is to understand the attitudes, institutions and structures which shape these societies so that they can be reproduced elsewhere.

# FINDINGS

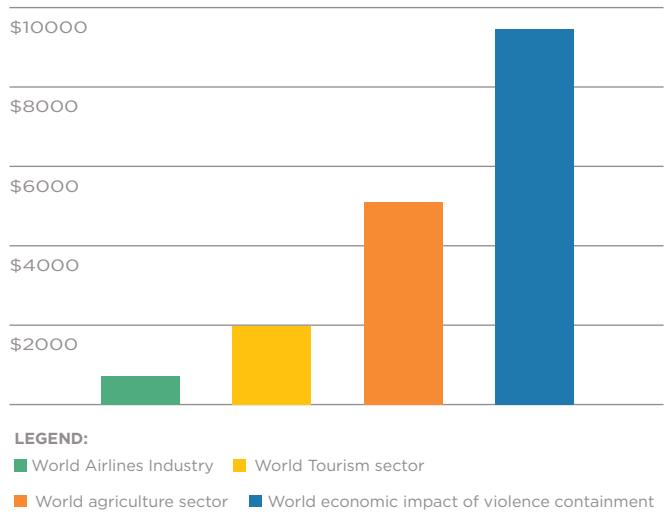
This study is considered to conservatively estimate the economic impact of violence mainly because of the lack of available data for many categories of expenditure related to violence. Some of the categories that are missing have been detailed further in the study. A simple method of demonstrating the conservative scope of this analysis is by showing the difference between the final estimate reached for the U.S. in this study and the more detailed analysis of the U.S. which was previously commissioned by the IEP. Specifically, in *Violence Containment Spending in the United States* (IEP, 2012) it was found that the costs were close to 15 per cent of US GDP, whilst this study has estimated the cost of violence containment to be closer to 11 per cent.

Although both estimates are reasonably close, the differences are the result of the focussed study being able to more comprehensively estimate the costs of containing violence as a consequence of the greater availability of data for the U.S. For instance, the detailed study was able to provide an estimate of the cost of intentionally lit fires, rape/sexual assault and mental health care costs for children which have been the victims of abuse, whereas this study has not.

Results stemming from the analysis suggest that the economic impact of violence containment to the world economy is significant, amounting to \$9.46 trillion per annum, or almost 11 per cent of World GDP. This is the equivalent of \$1,300 for each person in the world, and almost double the value of world agricultural production. Some examples to illustrate the size of this expenditure include:

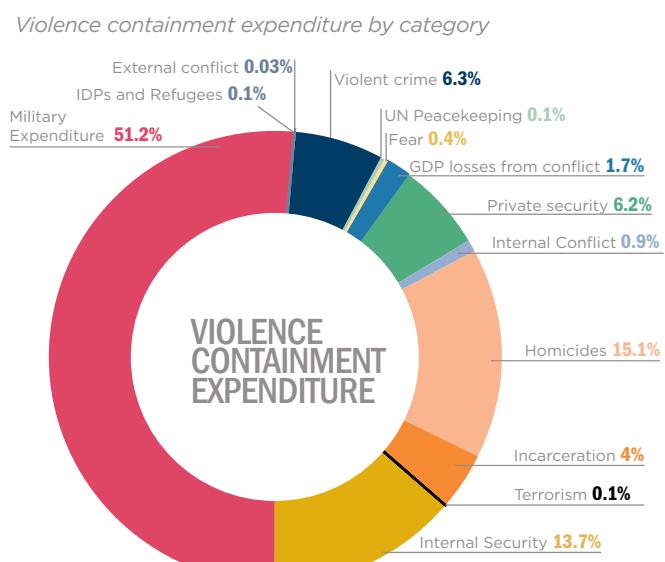
- 50 per cent reduction in violence containment expenditure would provide approximately enough funds to repay the debt of the developing world, currently estimated at US\$4,076bn in 2010, which is 43 per cent of the total economic impact of violence to the global economy;
- Provide the US\$900bn needed for the European Stability Mechanism. This is equivalent to 9 per cent of the total economic impact of violence; and
- Fund the additional amount required to achieve the annual cost of the Millennium Development Goals (\$60bn).

**FIGURE 2.1** Economic impact of violence containment compared to the global size of selected industries (US\$ billions)



Military expenditure is the largest single contributor, contributing more than \$4.9 trillion<sup>1</sup> or 51 per cent of the economic impact per annum. Homicides were the second highest category with an estimated impact of \$1.43 trillion per annum, accounting for 15.1 per cent of world expenditure on violence containment. This was closely followed by police and security which accounted for \$1.3 trillion per annum or 13.7 per cent of world violence containment costs. This has been illustrated in more detail in Figure 2.2.

**FIGURE 2.2** The Economic Impact of Global Violence Containment



Whilst the figure above does not encompass all forms of violence containment it is one of the most comprehensive estimates completed to date. What has been counted in each category is outlined in greater detail below:

- **Military expenditure** – this category includes the total level of expenditure on the military.
- **Internal Security** – includes the total cost of government expenditure on internal security personnel, such as police.

### WHAT ARE WE NOT COUNTING IN THIS ANALYSIS?

This calculation is conservative because data is not available for many relevant categories of violence containment. Categories not counted in the study include:

- The spill-over effect of conflict on neighbouring countries which has been emphasized by Collier et al. (2003)
- The costs related to property crimes of motor vehicle theft, arson, household burglary, larceny/theft and rape/sexual assault.
- Some of the costs associated with preventative measures are also excluded, such as insurance premiums or the business cost of surveillance equipment.
- Direct costs of domestic violence in terms of individual expenditures and costs to providers. Also the indirect costs such as lost wages resulting from lower productivity and absenteeism from work and the inability to perform household and other domestic tasks.
- The monetary value associated with the time, effort, and expenditures which minimize the risk of being victims of crime such as costs associated with household security systems, security guards, badge-only access at workplaces, guard dogs, neighborhood watch programs, and time spent seeking travel routes perceived to be safer.
- The social, developmental, environmental and strategic costs of conflict.
- The indirect cost of terrorism such as the pain and suffering of the victims and their relatives as well as their psychological trauma. The indirect costs in terms of forgone revenues for the travel and tourism industry as a result of a terrorist attack.
- Estimates for the cost of conflict also do not include the costs attributable to injuries from armed conflict.

- **Private Security** – this category includes estimates of the amount of expenditure on security personnel employed by private bodies, such as security guards employed by business.
- **Deaths from internal conflict** – includes the costs of battle-related deaths which have occurred as a consequence of internal conflict.
- **Deaths from external conflict** – this category includes the costs of battle-related deaths which have occurred as a consequence of external conflict.
- **Fear** – this denotes the average annual economic cost of individuals being in fear of violence.
- **GDP losses from conflict** – includes the total impact of conflict as a consequence of GDP reductions in countries currently in conflict.
- **IDPs and Refugees** – counts the budgetary costs of refugees and internally displaced persons (IDP) for the United Nations High Commissioner for Refugees (UNHCR). Costs borne by countries is not included, thus the figure is highly conservative.
- **Incarceration** – denotes the costs attributable to the world's jailed population.
- **Terrorism** – includes the economic impact of deaths, injuries, asset damage and ransom payments which occur as a consequence of terrorism.
- **UN Peacekeeping** – counts the total cost of UN peacekeeping missions around the world.
- **Violent crime** – is an estimate of the cost of serious physical attacks on individuals. Excluding indecent/sexual assault; threats and slapping/punching.

Results stemming from the analysis suggest that the economic impact of violence containment to the world economy is significant, amounting to \$9.46 trillion per annum, or almost 11 per cent of World GDP.

# ECONOMIC IMPACT OF VIOLENCE CONTAINMENT RANKINGS

**TABLE 2.1** Violence Containment Costs  
Percentage of GDP, all countries, 2012

*All countries and their violence containment cost as a % of GDP. Note estimates have been rounded and do not include the multiplier effect*

Just as the level of peace varies across countries, so does the cost and economic impact of violence. The net amount a country spends on violence containment is highly dependant on income per capita, therefore a better way of analysing the economic burden is to express the figure as a percentage of GDP. This has been illustrated in detail in Table 2.1 below.

ECONOMIC VIOLENCE CONTAINMENT RANK	COUNTRY	TOTAL COST IN US 2012 (\$ MILLIONS PPP)	VIOLENCE CONTAINMENT COST PER PERSON (2012 US PPP)	% OF GDP
1	North Korea	\$ 10,980	\$450	27%
2	Syria	\$ 20,900	\$1,005	24%
3	Liberia	\$ 670	\$160	23%
4	Afghanistan	\$7,280	\$205	21%
5	Libya	\$ 20,395	\$3,175	20%
6	Somalia	\$1,085	\$115	18%
7	Zimbabwe	\$1,355	\$105	18%
8	Honduras	\$6,900	\$890	17%
9	South Sudan	\$2,865	\$280	17%
10	Iraq	\$ 26,835	\$815	15%
11	Cote d' Ivoire	\$6,115	\$305	14%
12	El Salvador	\$6,550	\$1,050	14%
13	Trinidad and Tobago	\$3,415	\$2,535	12%
14	Democratic Republic of the Congo	\$3,615	\$55	12%
15	Sudan	\$9,385	\$275	12%
16	Jamaica	\$2,930	\$1,085	11%
17	Colombia	\$ 57,110	\$1,215	11%
18	Oman	\$ 10,275	\$3,610	11%
19	Bahrain	\$3,635	\$2,745	11%
20	United States of America	\$ 1,708,575	\$5,485	11%
21	Central African Republic	\$ 425	\$95	10%
22	Lesotho	\$ 435	\$200	10%
23	Venezuela	\$ 41,670	\$1,425	10%
24	Israel	\$ 25,175	\$3,240	10%
25	Uganda	\$5,075	\$145	9%
26	Mauritania	\$750	\$210	9%
27	Algeria	\$25,775	\$715	9%
28	Yemen	\$5,170	\$210	8%
29	Saudi Arabia	\$ 66,260	\$2,360	8%
30	South Africa	\$ 51,210	\$1,010	8%
31	Kenya	\$6,890	\$165	8%
32	Guatemala	\$6,730	\$455	8%
33	Myanmar	\$7,820	\$160	8%

ECONOMIC VIOLENCE CONTAINMENT RANK	COUNTRY	TOTAL COST IN US 2012 (\$ MILLIONS PPP)	VIOLENCE CONTAINMENT COST PER PERSON (2012 US PPP)	% OF GDP
34	Botswana	\$2,700	\$1,330	8%
35	Republic of the Congo	\$1,635	\$395	8%
36	Zambia	\$2,060	\$155	8%
37	Panama	\$4,790	\$1,340	8%
38	Russia	\$ 206,600	\$1,445	8%
39	Angola	\$ 10,385	\$530	8%
40	Burundi	\$ 440	\$50	8%
41	Haiti	\$1,065	\$105	8%
42	Ethiopia	\$8,345	\$100	7%
43	Namibia	\$1,310	\$565	7%
44	Iran	\$ 74,505	\$995	7%
45	Brazil	\$ 175,785	\$895	7%
46	Malawi	\$1,095	\$70	7%
47	Armenia	\$1,390	\$450	7%
48	Pakistan	\$ 37,355	\$210	7%
49	Jordan	\$2,805	\$455	7%
50	Mexico	\$ 126,055	\$1,100	7%
51	Guinea-Bissau	\$ 140	\$90	7%
52	Chad	\$1,455	\$125	7%
53	Guyana	\$ 425	\$560	6%
54	Eritrea	\$ 290	\$55	6%
55	Egypt	\$ 35,155	\$425	6%
56	Mali	\$1,130	\$70	6%
57	Ecuador	\$8,765	\$600	6%
58	Dominican Republic	\$6,360	\$635	6%
59	United Arab Emirates	\$ 16,400	\$2,080	6%
60	United Kingdom	\$ 137,265	\$2,190	6%
61	Tanzania	\$4,480	\$95	6%
62	Lebanon	\$3,710	\$870	6%
63	Nigeria	\$ 26,835	\$165	6%
64	Rwanda	\$ 895	\$80	5%
65	Cameroon	\$2,945	\$145	5%
66	Uzbekistan	\$6,145	\$210	5%
67	Burkina Faso	\$1,405	\$85	5%
68	Kuwait	\$9,235	\$3,275	5%
69	Kyrgyz Republic	\$ 800	\$145	5%
70	Thailand	\$ 37,245	\$535	5%
71	Gabon	\$1,475	\$960	5%
72	Nicaragua	\$1,095	\$185	5%
73	Timor-Leste	\$ 540	\$460	5%
74	Djibouti	\$ 125	\$140	5%
75	Guinea	\$ 640	\$65	5%
76	Greece	\$ 13,240	\$1,170	5%
77	Singapore	\$ 16,470	\$3,175	5%
78	Benin	\$ 785	\$85	5%
79	Turkey	\$ 55,895	\$760	5%

**TABLE 2.1** Continued

ECONOMIC VIOLENCE CONTAINMENT RANK	COUNTRY	TOTAL COST IN US 2012 (\$ MILLIONS PPP)	VIOLENCE CONTAINMENT COST PER PERSON (2012 US PPP)	% OF GDP
80	Montenegro	\$ 345	\$545	5%
81	Morocco	\$8,375	\$260	5%
82	Cyprus	\$1,030	\$925	4%
83	Georgia	\$1,235	\$275	4%
84	Costa Rica	\$2,675	\$565	4%
85	Belgium	\$ 18,085	\$1,640	4%
86	Sri Lanka	\$5,685	\$275	4%
87	Equatorial Guinea	\$1,240	\$1,725	4%
88	Sweden	\$ 16,895	\$1,790	4%
89	Taiwan	\$ 36,970	\$1,585	4%
90	Peru	\$ 14,195	\$485	4%
91	Tunisia	\$4,430	\$415	4%
92	South Korea	\$ 68,745	\$1,380	4%
93	Portugal	\$9,875	\$935	4%
94	Germany	\$ 130,155	\$1,590	4%
95	Kazakhstan	\$9,855	\$595	4%
96	Bolivia	\$2,290	\$225	4%
97	Finland	\$7,950	\$1,475	4%
98	France	\$ 89,370	\$1,365	4%
99	Paraguay	\$1,780	\$270	4%
100	Senegal	\$1,085	\$85	4%
101	Vietnam	\$ 13,215	\$150	4%
102	Estonia	\$1,140	\$850	4%
103	Togo	\$ 280	\$45	4%
104	Albania	\$1,005	\$315	4%
105	Serbia	\$3,085	\$425	4%
106	Australia	\$ 37,510	\$1,680	4%
107	Cuba	\$4,495	\$400	4%
108	Cambodia	\$1,455	\$100	4%
109	India	\$ 186,300	\$150	4%
110	Azerbaijan	\$3,765	\$410	4%
111	Czech Republic	\$ 10,565	\$1,005	4%
112	Swaziland	\$ 220	\$210	4%
113	Belarus	\$5,580	\$590	4%
114	Croatia	\$2,795	\$635	3%
115	Uruguay	\$1,905	\$565	3%
116	Turkmenistan	\$1,750	\$345	3%
117	Ukraine	\$ 12,185	\$265	3%
118	Netherlands	\$ 24,305	\$1,455	3%
119	Bulgaria	\$3,565	\$485	3%
120	Macedonia (FYR)	\$ 765	\$370	3%
121	Qatar	\$6,685	\$3,575	3%
122	Niger	\$ 480	\$30	3%
123	Mongolia	\$ 580	\$210	3%
124	Poland	\$ 26,990	\$700	3%
125	Papua New Guinea	\$ 630	\$90	3%
126	Mauritius	\$ 685	\$535	3%
127	Chile	\$ 10,885	\$630	3%

ECONOMIC VIOLENCE CONTAINMENT RANK	COUNTRY	TOTAL COST IN US 2012 (\$ MILLIONS PPP)	VIOLENCE CONTAINMENT COST PER PERSON (2012 US PPP)	% OF GDP
128	Lithuania	\$2,135	\$705	3%
129	Latvia	\$1,225	\$595	3%
130	Tajikistan	\$ 595	\$85	3%
131	Hungary	\$6,250	\$625	3%
132	Slovenia	\$1,805	\$880	3%
133	Bosnia and Herzegovina	\$1,000	\$265	3%
134	Slovakia	\$4,115	\$760	3%
135	Ireland	\$5,840	\$1,275	3%
136	Gambia	\$ 115	\$65	3%
137	Sierra Leone	\$ 265	\$45	3%
138	Spain	\$ 40,130	\$870	3%
139	New Zealand	\$3,820	\$865	3%
140	Italy	\$ 52,450	\$865	3%
141	Romania	\$8,065	\$375	3%
142	Mozambique	\$ 805	\$35	3%
143	Malaysia	\$ 14,265	\$495	3%
144	Denmark	\$5,795	\$1,040	3%
146	Norway	\$7,110	\$1,435	2%
147	Canada	\$ 34,255	\$995	2%
148	Japan	\$ 100,560	\$785	2%
149	Austria	\$7,800	\$925	2%
150	Switzerland	\$6,410	\$810	2%
151	Iceland	\$ 195	\$605	1%

**TABLE 2.2** Global Violence Containment broken down<sup>2</sup>

The costs of violence containment from military expenditure, homicides and internal security are significant.

VIOLENCE TYPE	TOTAL DIRECT COST (BILLIONS US)	PER CENT OF DIRECT COST
Military expenditure	2,425	51.2%
Homicides	715	15.1%
Internal Security	650	13.7%
Violent crime	300	6.3%
Private Security	295	6.2%
Incarceration	190	4.0%
GDP losses from conflict	80	1.7%
Deaths from internal conflict	40	0.9%
Fear	20	0.4%
Terrorism	5	0.1%
IDPs and Refugees	3	0.1%
UN Peacekeeping	5	0.1%
Deaths from external conflict	1	0.0%
<b>Total Direct Cost</b>	<b>4,729</b>	
<b>Total Impact (including multiplier)</b>	<b>9,458</b>	

Although it is a utopian vision to expect a world free of violence, a 10 per cent reduction in violence containment would represent approximately \$473 billion in savings and an additional \$473 billion in additional economic activity. This would have a substantial positive impact on global GDP, allowing for resources to be diverted back to more productive uses such as investments in business, infrastructure, education or healthcare.

The three countries which have the largest percentage of their GDP diverted to violence containment were North Korea, Syria and Liberia. For North Korea this was chiefly a consequence of their high levels of military expenditure, accounting for over 70 per cent of their expenditure on violence. Homicide costs and internal security were also significant, at approximately 10 per cent each. For Syria, it was found that over 50 per cent of its violence costs were related to deaths from internal conflict, this was followed by military expenditure and internal security which accounted for 16 per cent and 14 per cent respectively.

**TABLE 2.3** Ten countries with highest expenditures - Violence Containment spending as portion of GDP<sup>3</sup>

*North Korea, Syria and Liberia were found to have the highest level of violence containment costs as a proportion of GDP.*

TOP 10 (AS A PROPORTION OF GDP)	%
North Korea	27%
Syria	24%
Liberia	23%
Afghanistan	21%
Libya	20%
Somalia	18%
Zimbabwe	18%
Honduras	17%
South Sudan	17%
Iraq	15%

The countries with the biggest costs of violence containment in absolute terms were found to be the United States, China and Russia, accounting for almost half of the world's violence containment costs. This is despite these countries only accounting for 26 per cent of the world's population. In all three cases the majority of their costs were from military expenditure. Specifically, in the United States approximately 70 per cent was found to be military expenditure followed by the cost of homicides, which were 8 per cent of the total. Similarly for China the military was found to be the major contributor to violence containment expenditure followed by internal security, and private security. For Russia, the biggest contributor to violence costs after military expenditure was the containment relating to internal security and homicides, each accounting for 22 per cent of their total violence containment costs.

**TABLE 2.4** Top ten countries by total Violence Containment spending

*The United States, China and Russia are significant contributors to the world economic cost of violence containment.*

TOP 10 (\$)	(BILLION US\$ - PPP)
United States of America	1,709
China	354
Russia	207
India	186
Brazil	176
United Kingdom	137
Germany	130
Mexico	126
Japan	101
France	89

The potential for these economic resources to be diverted into other more productive areas of expenditure is significant; this has been highlighted on a per-capita basis in Table 2.5, illustrating the average burden per person. It needs to be emphasised that high income countries will tend to have the highest per capita costs of violence containment as costs within these countries are related to the high levels per capita income.

**TABLE 2.5** Countries with highest GDP per capita economic impact of violence containment<sup>4</sup>

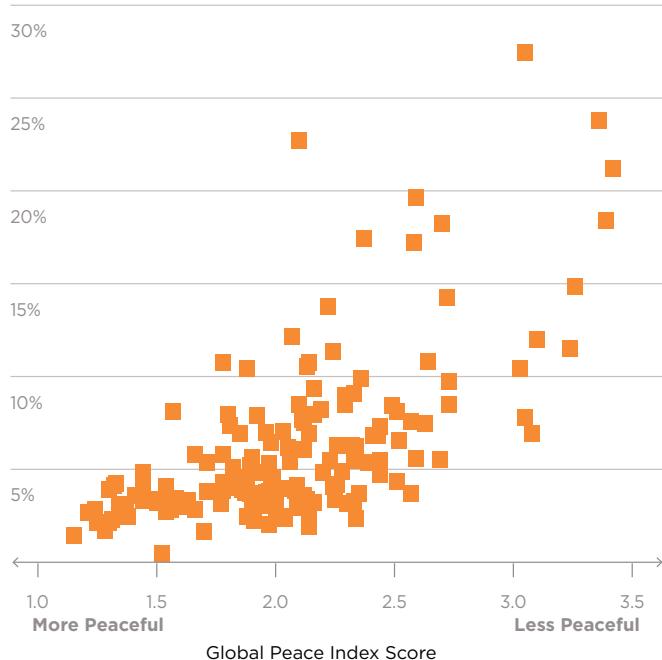
*The United States, Oman and Qatar's per-capita economic cost of violence containment are the highest in the world.*

COUNTRY	VIOLENCE CONTAINMENT COST PER PERSON (US PPP 2012)	GDP PER CAPITA (PPP)	% OF PER CAPITA GDP
United States of America	\$5,485	\$42,486	13%
Oman	\$3,610	\$25,330	14%
Qatar	\$3,575	\$77,987	5%
Kuwait	\$3,275	\$47,935	7%
Israel	\$3,240	\$26,719	12%
Singapore	\$3,175	\$53,591	6%
Libya	\$3,175	\$13,300	24%
Bahrain	\$2,745	\$28,200	10%
Trinidad and Tobago	\$2,535	\$22,142	11%
Saudi Arabia	\$2,360	\$21,430	11%

On this basis the United States has the highest cost of violence per person in outright terms, followed by Oman and Qatar. This is illustrated above in Table 2.5. As previously mentioned the majority of these costs were found to be attributed to military expenditure and the costs of maintaining internal security forces. It is interesting to note the dominance of Middle Eastern nations in this table which is because of their high incomes combined with high levels of military spending and high levels of expenditure on internal security. Given that many of the items used to calculate the cost of violence are also used as measures to calculate the Global Peace Index (GPI) it would be expected that a close relationship would exist between changes in peacefulness and changes in the percentage of GDP diverted to dealing with or containing violence. This has been illustrated in Figure 2.3, which shows there is non-linear relationship between the costs of violence containment as a proportion of GDP and the country's level of peacefulness, as measured by their GPI. As a country becomes less peaceful the costs of violence containment as a proportion of GDP generally will increase.

**FIGURE 2.3** Violence expenditure as a per cent of GDP and the GPI ( $R= 0.64$ )

*More peaceful nations tend to spend proportionally less on violence containment as a proportion of their GDP*



Although violence containment expenditure and GPI were found to be correlated, the relationship is not universal. However, this is unsurprising given that the composition of violence varies significantly across countries. For instance, Honduras has relatively low military spending but extremely high homicide rates so its costs profile is quite different to a country such as the UK which has much lower homicide rates and higher military spending. Finally, the overall relationship is skewed by a number of countries, such as North Korea, which has very high levels of militarization and internal security.

## COUNTRIES THAT HAVE SUFFERED THE GREATEST ECONOMIC DAMAGE FROM CONFLICT

### ECONOMIC COST OF CONFLICT IN AFGHANISTAN:

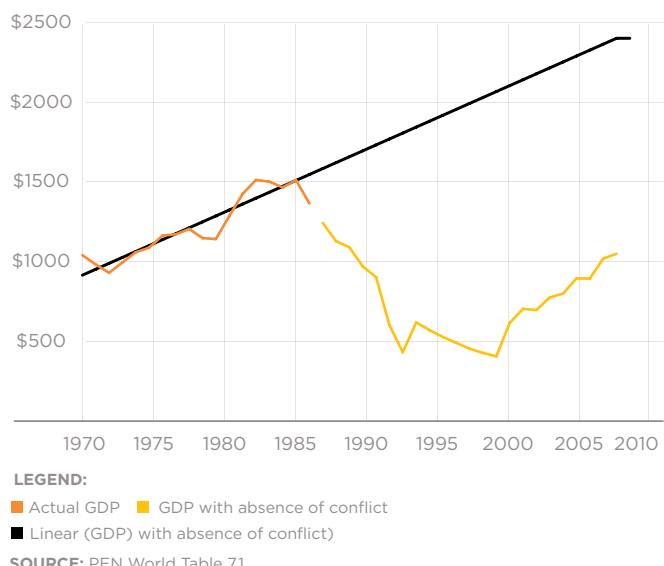
The Afghan Civil War began with the withdrawal of the occupying force of the Soviet Union in 1989. In 1992 after several years of civil war, the Afghan government succumbed to a coup. Although this was followed by

a temporary recovery in economic growth, this was short lived, with a return to civil war. This continued until September 1996 when the Taliban established the Islamic Emirate of Afghanistan. Economic growth remained stagnant over this period until 2001, with the United States' installation of the Karzai government. Although this coincided with an improvement in the economic performance of Afghanistan, much of this was related to the influx of funds relating to the war effort. A consequence of this is that per-capita GDP figures are likely to underestimate the economic costs of the conflict.

Details of Afghanistan's GDP since 1970 have been provided in greater detail in Figure 2.4. The figure illustrates actual GDP before, during and after the conflict. The dark line also provides a linear projection of what GDP would have been (based on past growth) had the conflict not occurred.

**FIGURE 2.4** GDP per capita in Afghanistan (1970 to 2010)

*The economic loss as a consequence of continued conflict amounts to approximately 39 billion, which is greater than Afghanistan's current annual GDP.*

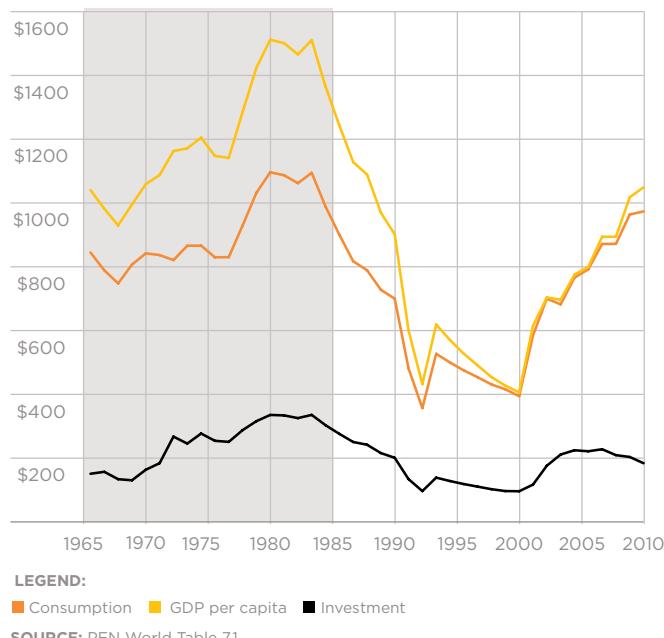


SOURCE: PEN World Table 7.1

The economic impacts of conflict were clearly significant, with a projection of GDP growth suggesting that the per capita GDP in 2010 would have been \$2,400 US, or almost double what was actually achieved. Furthermore, as a point of comparison, Afghanistan's per capita income was approximately as high in 1970 as it was in 2010, implying that conflict has cost the country at least 40 years of economic growth. Overall, IEP estimates that this lost growth from conflict in 2010 alone at US\$39 billion, more than Afghanistan's entire GDP in 2010.

**FIGURE 2.5** Afghanistan GDP per capita, consumption and investment (1965 to 2010)

*Conflict resulted in a significant impact on GDP per capita, consumption and investment.*

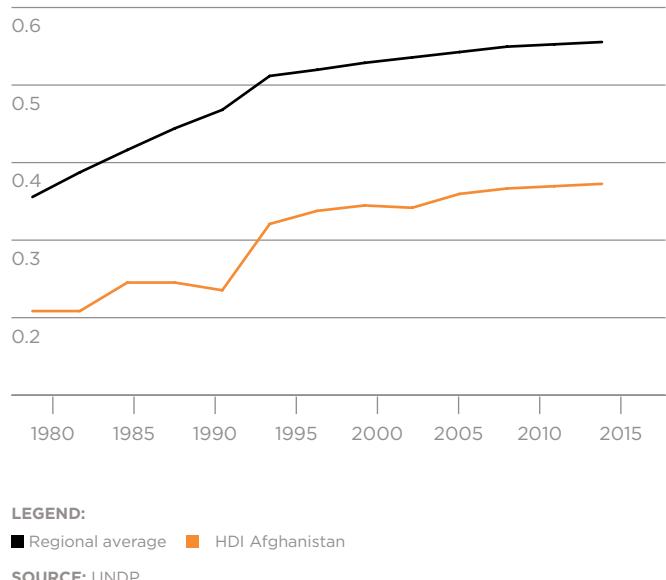


Apart from the economic losses experienced due to the conflicts, it is also interesting to review the effect that conflict has had on development. Afghanistan makes an interesting case study due to the focus of international donors in trying to stabilise the country through aid. For example according to the OECD in 2011 Afghanistan received 4.9 per cent of all development assistance or the equivalent of approximately \$US6.7 billion. As a point of comparison this amounts to more aid than received by the region of South America. It needs to be noted that Afghanistan also received substantial development aid in the form of military and judicial assistance as well as other forms of aid that have not been included in the ODA figure. These transfers dwarf the size of the official ODA figures.

Despite this, there has been limited progress in relation to human development, as measured by the United Nation's Human Development Index (HDI), illustrated in more detail in Figure 2.6.

**FIGURE 2.6** Afghanistan Human Development Index (1980 to 2010)

*Afghanistan achieved little improvement in human development during the conflict.*



As shown, despite the improvement in the HDI from 2000 to 2012, human development is still far below the average levels for South Asia. When this is coupled with the trends in economic growth, it highlights the difficulties of achieving either economic or human development in the face of conflict. Although this analysis is specific to Afghanistan and its region, it represents the experience of other states, with no conflict affected state having achieved a single Millennium Development Goal (World Bank, 2011).

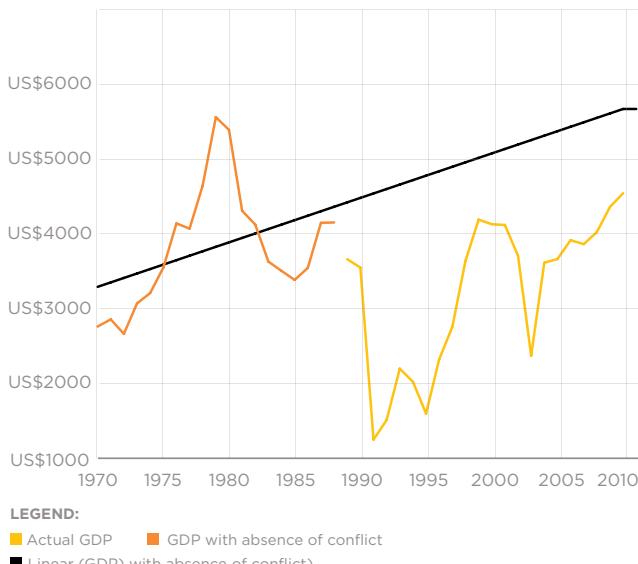
## ECONOMIC COST OF CONFLICT IN IRAQ

In a bid to challenge Iranian dominance of the Middle East, Iraq went to war with Iran in 1980. The two main Iraqi Kurdish parties used the war to ally themselves with Iran and to then control parts of northern Iraq. However, the Iraqi government launched a counter-insurgency program in 1987, culminating in 1988, with between 50,000 and 100,000 civilian deaths resulting from mass executions.

This prolonged history of conflict has had a devastating impact on Iraq's economy. For instance, in 1980 after initiation of hostilities with Iran, per capita GDP dropped drastically from US\$ 5,374 in 1980, to US\$ 1,253 in 1991. In fact, by 2010, although GDP per capita had climbed to US\$ 4,532, it was still approximately 20 per cent below the per capita income of 1979. Similarly, in terms of human development Iraq is also below the regional average for the Arab States.

**FIGURE 2.7** Iraq GDP per capita (1970 to 2010)

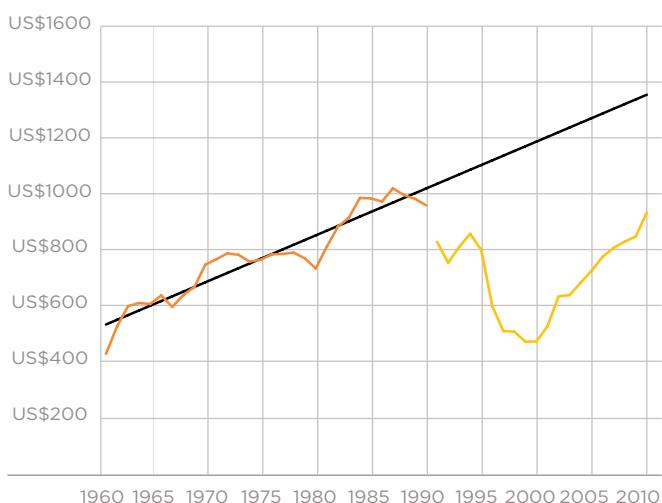
*Conflict had a significant impact on average GDP, dropping from US \$5,374 in 1980 to US \$1,253 in 1991.*



SOURCE: PEN World Table 7.1

## ECONOMIC COST OF CONFLICT IN SIERRA LEONE

The Sierra Leone Civil War lasted for 11 years, beginning in 1991 and ending in 2002, leaving over 50,000 people dead. Aside from the devastating impact this had in terms of lost life, it has also had a large impact on economic development. This has been illustrated in more detail by Figure 2.8 which highlights the actual GDP per capita and its trend prior to and after the conflict.



LEGEND:

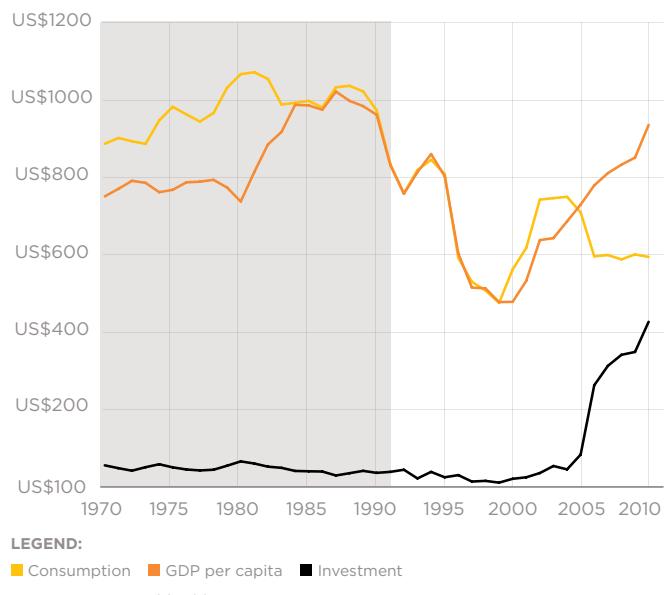
- Actual GDP
- GDP with absence of conflict
- Linear (GDP) with absence of conflict

SOURCE: PEN World Table 7.1

Even though the end of the war brought back economic growth, by 2010 the level of GDP per capita was still 31 per cent lower than what it would have been in the absence of conflict. These negative impacts are also clearly illustrated by the drop in consumption and investment during the conflict, as illustrated in Figure 2.9. Investment did not start to substantially increase again until 2005, three years after the end of the civil War.

**FIGURE 2.9** Investment and growth significantly improved after the end of conflict

*Conflict significantly impacted GDP per capita, consumption and investment in Sierra Leone.*



LEGEND:

- Consumption
- GDP per capita
- Investment

SOURCE: PEN World Table 7.1

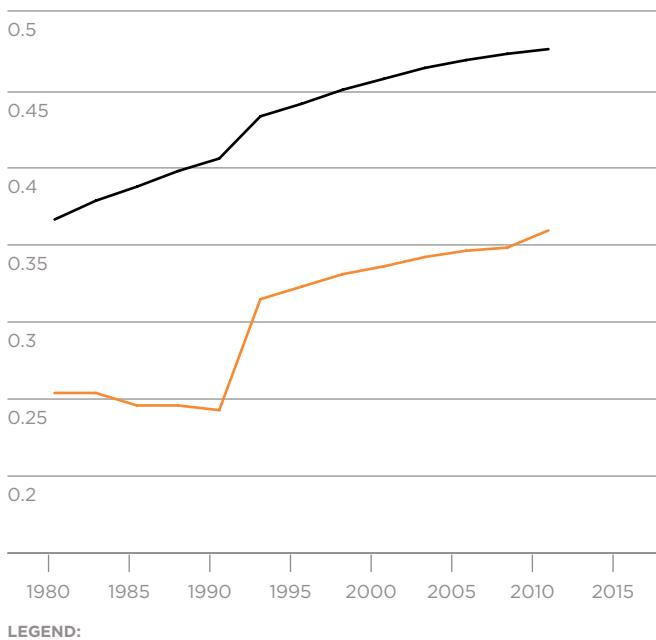
The negative economic impacts from conflict in Sierra Leone have also been mirrored by the trends in human development as measured by the HDI. This has been illustrated in Figure 2.10. As can be clearly seen, not only is the level of human development significantly lower than the average for the region, human development slightly declined until after the cessation of conflict.

**FIGURE 2.8** Sierra Leone GDP Per Capita (1960 to 2010)

*The level of GDP per capita is 31% lower than what it would have likely been without conflict.*

**FIGURE 2.10** Sierra Leone Human Development Index Score (1980 to 2010)

Sierra Leone achieved limited improvements in human development until the cessation of conflict.



LEGEND:

■ Regional average ■ Sierra Leone

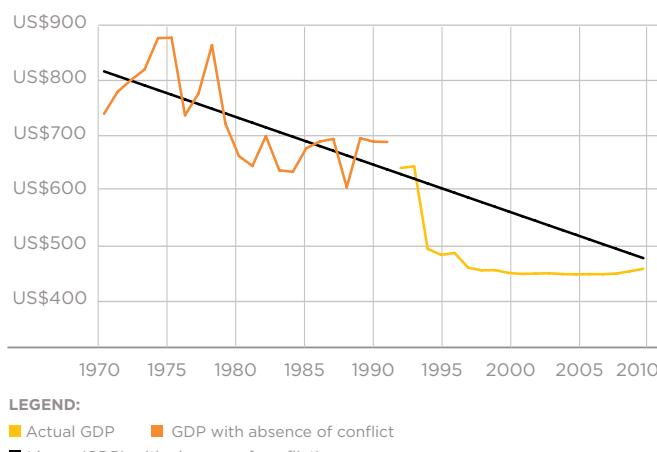
SOURCE: UNDP

## ECONOMIC COST OF CONFLICT IN SOMALIA

In Somalia the removal of long-time leader Siad Barre in 1991 led to a political vacuum, resulting in armed opposition groups competing for control of the country. As a result, the economy was badly affected and GDP per capita fell drastically from US\$643 in 1992 to US\$452 in 2001. As a point of reference this is only 65 per cent of pre-war levels. This is shown in greater detail by Figure 2.11.

**FIGURE 2.11** Somalia GDP Per Capita Trend (1970 to 2010)

Somalia has been in continuous conflict and GDP per capita is only 65% of the 1992 level.



LEGEND:

■ Actual GDP ■ GDP with absence of conflict

■ Linear (GDP) with absence of conflict

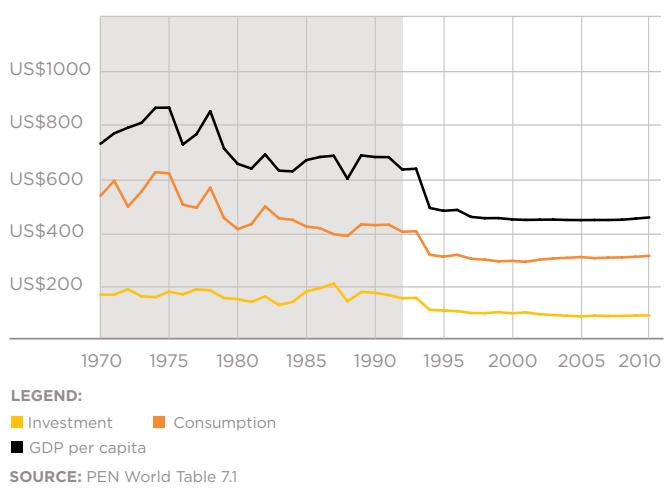
SOURCE: PEN World Table 7.1

**JUST  
1%**  
OF THE MONEY  
LOST ON VIOLENCE  
CONTAINMENT IS WHAT  
WOULD ANNUALLY BE  
REQUIRED TO FUND  
THE ADDITIONAL AMOUNT  
REQUIRED TO ACHIEVE  
THE MDGS (\$60BN).

Somalia varies from the other countries analysed as there was a negative trend line for GDP per capita prior to the conflict. This trend may have been one of the causes of the conflict. Despite this, GDP per capita is still lower than the trend projection. Consumption and investment levels also dropped significantly with the start of the conflict and have remained stagnant from 1995 until 2010.

**FIGURE 2.12** Somalia GDP Per Capita, Investment, Consumption Trend (1970 to 2010)

For Somalia per capita income, consumption and investment have experienced little growth since conflict began.



LEGEND:

■ Investment ■ Consumption

■ GDP per capita

SOURCE: PEN World Table 7.1

# METHODOLOGY

## METHODOLOGICAL APPROACH FOR ACCOUNTING FOR GLOBAL VIOLENCE CONTAINMENT

It has been well established that violence has a marked negative impact on economic activity and social development. Many studies have demonstrated the direct and indirect economic impacts of criminal violence, organised conflict, and outright war, as well as the costs of state responses to violence in the form of policing, incarceration and maintenance of justice and rule of law. However, in spite of the multitude of methodological approaches to counting the costs of crime and violence, there is no universally agreed method to holistically aggregate the current and future financial effects of conflict. To complement the available literature IEP has adopted a new and novel method of estimating the cost of violence to the global economy through calculating global violence containment costs. **IEP defines violence containment costs as economic activity that is related to the consequences or prevention of violence where the violence is directed against people or property.**

This approach uses ten indicators from the GPI and three additional key areas of expenditure to place an economic value on these thirteen different dimensions. This process has been developed so that the costs could also be estimated by country as well as globally. To enable relative comparisons between countries at different level of economic development, GDP per capita adjusted for relative prices (PPP) has been used to scale the cost of violence containment for each country. In both the US and the UK a number of robust analyses have been conducted on the cost of various types of violence and crime. Where data was not available for a country these studies were then scaled according to a country's GDP per capita.

Expenditure related to the prevention and alleviation of violence can divert resources from other, more beneficial, causes such as health, education or public infrastructure. That is, the costs imposed on the wider society for having to respond to greater levels of violent crime, homicide or terrorism could potentially be invested in programs which proactively encourage a more peaceful and prosperous society. Violence also can have a range of less tangible impacts, such as increased morbidity, mortality and emotional disorders for victims and their social networks (Buvinic, Morrison, & Shifter, 1999). Therefore to truly estimate the economic impact of violence a multiplying

factor was used to estimate the trapped economic activity that would be unleashed by reductions in violence.

Many existing approaches to counting costs of crime and conflict tend to be fixed on specific categories of violence, such as the cost of terrorism, armed conflict, violent crime or homicide. In contrast to these approaches, IEP has developed a methodology aimed at comprehensively counting both the direct costs of violence in terms of the costs of prevention and protection and also its consequences. By identifying different dimensions of violence containment spending it is possible to develop a fuller picture of the proportion of global economic activity captured by the actions to prevent consequence of conflict. By aggregating these total costs it is possible to illustrate the potential economic benefits of a more peaceful global economy.

There are at least two types of economic gain associated with increases in peace:

- 1 **The direct benefits** associated with the absence of violence and the loss via asset destruction which can occur in war, organised conflict, or armed violence. Importantly, the direct benefits also accrue in terms of lowering the costs of preventing violence and the risk abatement required to mitigate violence via incarceration, justice expenditure, policing and the military. Tangible examples of direct costs in a current year include; medical costs from violence, lost wages from violence-related incapacitation or death, insurance premiums paid by business to protect against the consequences of asset destruction and private security guards just to name a few.
- 2 **The indirect benefits** generated from the additional economic activity gained from the more productive use of expenditure as well as the flow-on effects from economic activity trapped by violence such as the wages of injured people. Very large indirect benefits may accrue when one considers lost life-time wages from homicide and the loss of human capital from the economy when labor and capital is displaced or when workers are less productive due to trauma or unable to work due to injury.

This study has aimed to predominately account for the first category, direct costs, which specifically fall due in the current year. However, some indirect costs are counted but where possible these were only included where they fell in the current year. The methodology presented here has been

compared to a variety of other approaches to contextualise and compare IEP's approach to other studies. The analysis is also complimented by previous research commissioned by the IEP and conducted by Prof. Jurgen Brauer and Prof. John Tepper Marlin<sup>5</sup>, who developed a methodology to analyse the economic value of peace. This methodology found that the total economic effect of peace in 2012 on the global economy was US\$8.99 trillion, or approximately 13.1 per cent of gross world product was possible if the world were completely at peace.

### CATEGORIES USED TO COUNT THE YEARLY COST OF VIOLENCE CONTAINMENT

In calculating the total global size of violence containment costs, the GPI has been used as an initial point of reference for specifying the indicators which most accurately reflect the level of violence in a nation. Financial costs were determined by first measuring the level of specific types of violence and multiplying these by estimates of their likely cost. Types of violence which were included as part of the analysis included:

- The number of deaths from internal conflict;
- The number of deaths from external conflict;
- The level of violent crime;
- The level of expenditure on the military;
- The number of refugees, stateless and internally displaced persons;
- The number of homicides;
- The number of internal security officers and police;
- The extent of the jailed population;
- Private security forces;
- The costs of terrorism;
- The economic cost of conflict to the economy;
- The costs associated with fear from violence; and
- The cost of funding UN peacekeeping missions.

### ESTIMATING THE COSTS OF VIOLENCE CONTAINMENT

Because the GPI comprises a range of both quantitative and qualitative measures which are scaled and weighted as part of creating the index, the analysis was based on the original underlying data, or 'raw scores', where possible. That is, the data underlying the index, such as the number of homicides which have occurred for a country were used. Individual raw scores were then multiplied by the 'unit cost' of a particular type of violence to provide a total cost for each type of violence. For instance, the total cost of homicide was estimated by multiplying the number of homicides by estimates of the cost of a homicide. Where qualitative

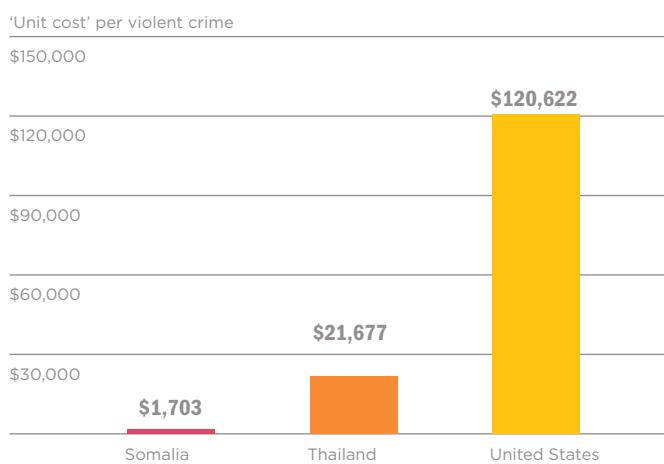
measures were used, such as the cost of fear of violence, other data sets were utilized. In the case of fear of violence the base cost was taken from authoritative studies.

The final value therefore provides an indication of the annual cost of violence to a country. Where unit costs were unavailable, estimates from the literature were 'scaled' in order to provide a reasonable approximation of the domestic costs per occurrence of violence for each category. Typically this was conducted using the ratio of the GDP per capita between the estimate country and the country being examined.

An example of the scaling methodology is provided below in Figure 2.13. As can be seen, countries such as Somalia and Thailand whose GDP per capita is 1 per cent and 18 per cent of the United States have their costs of violence scaled accordingly. For example, based on relative incomes and purchasing power it is assumed the cost of violence in Somalia is 1.4 per cent of the cost in the United States or \$1,703 (US PPP).

**FIGURE 2.13** Scaling violence costs by GDP per capita (PPP)

*The cost of violence for Thailand and Somalia when scaled by GDP per capita (PPP) is \$1,703 and \$21,677 respectively.*



Although a range of methods were considered by IEP, this method was preferred as it is a simple method for providing a proxy for averaging differences in living standards and direct and indirect costs of violence containment across nations. In order to adjust for differing price levels across countries 'Purchasing Power Parity' estimates were used, unless otherwise mentioned. Because estimates often were unavailable for the current year, past estimates were inflated to 2012 dollars according to the relevant change in consumer prices sourced from the US Bureau of Labour Statistics where the unit cost was based on a U.S. study.

When qualitative indicators used in the GPI were

identified as being crucial for determining the extent, and therefore cost of violence, alternative data was used. For instance, UNODC data on violent crimes was substituted for the qualitative 'extent of violent crime' index. Unless otherwise mentioned the levels of violence were not estimated for a country unless the data available was considered sufficient. A result of this is that we expect that our calculations underestimate the world costs of violence.

A more detailed overview of the methodology employed for individual components has been provided below.

### **ESTIMATING THE COST OF INTERNAL SECURITY OFFICERS**

To provide estimates of likely costs for security personal a review of the literature was conducted to provide a credible estimate of the cost of an internal security officer. Where direct estimates were unavailable for a country, the available estimates were 'scaled' by GDP per capita (PPP). Specifically, data on the number of officers were sourced from the United Nations Surveys of Crime Trends and Operation of Criminal Justice Systems (UN-CTS) and the Economist Intelligence Unit. Importantly, because these are reported in the numbers of personnel per one hundred thousand, the raw estimates were multiplied by the relevant population statistics to arrive at an absolute number of internal security personnel for each country.

### **ESTIMATING THE GLOBAL COSTS OF VIOLENCE AND LOSS OF LIFE**

Estimates of the costs attributable to deaths and violence were based on studies by McCollister (2010) who used a range of methods to estimate both the tangible and intangible costs attributable to violence and homicides. Specifically, their analysis used the 'cost-of-illness' and extent of 'jury compensation' to estimate the costs of crime in the United States. Because the jury compensation method, by nature, attempts to comprehensively take into account both the direct costs of violence and its associated pain and suffering, it is considered to be a more comprehensive measure. This method does not include punitive damages which may be awarded by U.S. courts in civil cases.

These estimates were therefore used as the underlying assumption for the cost of a homicide, violent assault, death from external conflict and a terrorism-related fatality or injury. Specifically, a homicide was assumed to cost \$8,888,692, while each violent assault and terrorism-related injury was \$120,622. Because it was assumed many of the costs related to deaths from conflict would be accounted for in military expenditure only direct costs were included, that is the cost was assumed as \$1,370,449 (McCollister, French, & Fang, 2010).<sup>6</sup>

It is important to note that these estimates are considered to be relatively conservative, being located near the middle of estimates by similar studies (Aos, Phipps, Barnoski, & Lieb, 2001; Cohen, Rust, Steen, & Tidd, 2004; Cohen, 1988; Miller, Cohen, & Rossman, 1993; Miller, Cohen, & Wiersema, 1996; Rajkumar & French, 1997).

### **ESTIMATING THE COSTS OF HOMICIDE**

The total costs of homicide were therefore determined by multiplying the aforementioned cost per homicide by the number of homicides which occurred in the most recent year. Data was sourced from the United Nation's Survey of Crime Trends and Operations of Criminal Justice Systems for 2013. The dataset provides intentional homicide data for 198 countries and territories and has been elaborated by UNODC from a number of sources, including data provided to the Crime Trends Survey and other national and cross-national criminal justice and public health sources. For countries where the cost estimates of homicide did not exist, available estimates were used and 'scaled' according to their GDP per capita (PPP) relative to the source of the estimate.

### **ESTIMATING THE COSTS OF TERRORISM**

The costs of terrorism were estimated using data from the Global Terrorism Database (GTD) which is collated by the National Consortium for the Study of Terrorism and Responses to Terrorism (START). The database is currently the most comprehensive unclassified data base on terrorist events in the world and has been developed from a range of sources including wire services, government reports, and major international newspapers. The database, which includes individual terrorist attacks back to 1970, provides a range of variables such as estimates of the infrastructure damage, ransom paid, type of attack and the number of injuries and fatalities per attack.

Because not all terrorist attacks in the terrorism database include an estimate of the extent of property damage and extortion costs, a methodology which was informed by the underlying data was developed to provide an estimate for each attack in the database. The approach used involved three key steps:

- 1 Where recorded, the average property damage and ransom paid for a terrorist attack was calculated by type of attack (e.g. kidnapping, armed assault, infrastructure attack);
- 2 This was then separated by a range estimate of the likely extent of property damage for each attack. That is, even when a direct estimate was unavailable a likely range was provided in the database (eg, <\$1 million, >\$1 million but <\$1 billion etc). This then allowed an average to be calculated for each estimated damage range by attack type.

- 3** Finally, this was further split by the income level classification of the country in which the attack occurred (eg low-income, upper middle income, high income etc). By doing this, an average or ‘unit cost’ of a terrorist attack could be determined by income level, attack type and the range estimate of the damage.

Estimates of the average level of infrastructure damage and ransom payments made by attack type were then multiplied by the number of each type of attack experienced by a country in 2011 (the most recent year available in the GTD). In addition the cost of deaths and injuries from terrorism were then estimated by multiplying the number of deaths by the costs of homicide or injury and then scaled for an individual country’s GDP per capita (GDP PPP) relative to the source of the estimate.

## ESTIMATING THE COSTS OF INCARCERATION

The number of prisoners per country was sourced from the World Prison Population list which has been based on figures from the national prison administration of each country. This was then multiplied by an estimate of incarceration costs per person. Prisoner costs were based on average cost per prisoner from the United States Bureau of Justice Statistics (BJS), to provide an indication of the costs for each country. This estimate was then scaled according to relative GDP per capita (PPP) so as to account for differing price levels across nations.

Because the original BJS figures do not count the full public expenditures that may relate to maintaining the correctional services and administrative functions related to a prisoner this is considered to be a conservative assumption.

## ESTIMATING THE COSTS OF VIOLENT CRIME

Because the level of violent crime is a qualitative indicator, estimates of violent crime were based on the UNODC’s statistics regarding violent assault. The estimates include police-recorded physical attacks against another person resulting in serious bodily injury but exclude indecent/sexual assault; threats and slapping/punching and assault which led to death. As previously discussed, costs for each violent crime were based upon estimates provided by McCollister (2010).

Because the level of violent crime is both more comprehensive than provided for by the data, and there is likely to be some level of underreporting, estimates based on this data are expected to underrepresent the true costs of violence.

## CALCULATING MILITARY EXPENDITURE

Data provided from the Economist Intelligence Unit and the International Institute for Strategic Studies (IISS) 2013 Military Balance as well as the Stockholm International Peace Research Institute (SIPRI) was used to provide a direct estimate of the level of military expenditure for each country. In order to account for differing price levels across countries, GDP which accounts for relative purchasing power was applied (PPP). Previous research by IEP has found that the level of military expenditure for the US is significantly underreported. Consequently, it was revised upwards to \$1,203 billion as per the report *Violence Containment Spending in the United States* (IEP, 2012).

## CALCULATING THE COST OF UN PEACEKEEPING

In order to account for the costs of maintaining peace through peacekeeping missions, data on United Nations peacekeeping missions was collected from the UN Committee on Contributions. Because the financial costs of peacekeeping missions reflect the requirement for violence containment in a specific country, the costs of missions have been attributed to the country in which they hold a base of operations. IEP used raw figures derived from the GPI indicator on UN Funding of peacekeeping missions. Importantly, because these funds are provided by the international community they are expected to hold a similar level of purchasing power as US dollars. They have therefore not been adjusted for the relative price levels of countries.

## ESTIMATING COSTS OF DEATHS FROM INTERNAL AND EXTERNAL CONFLICT

The cost of deaths from external and internal conflict was determined for each nation by multiplying the most recent number of battle field deaths from conflict by the estimated cost of homicide.

Data on deaths from external conflict was sourced from the Uppsala Conflict Data Program. Deaths from external conflict were defined as those which occurred during a contested incompatibility that concerns government and/or a territory where there is the use of armed force between two parties, of which at least one is the government of a state, resulting in at least 25 battle-related deaths in a year.

Deaths from internal conflict were sourced from the International Institute for Strategic Studies, Armed Conflict Database. Conflict deaths were defined as deaths which occurred from a contested incompatibility that concerns a government and/or a territory where there is a use of armed force between two parties, of which at least one is the government of a state and the conflict results in at least 25

battle-related deaths in a year.

Although it is likely that the costs of deaths from conflict vary, homicide estimates were considered to be the most representative estimate of both the intangible and tangible costs of death. For individual countries, these estimates were then scaled according to relative GDP per capita (PPP).

## CALCULATING THE COST OF THE FEAR OF VIOLENCE

In order to provide an estimate of the intangible cost of fear, Gallup World Poll data were used to estimate the number of people who are fearful of crime. Specifically, the poll question used asked "Do you feel safe walking alone at night in the city or area where you live?" When a person answered 'No', they were considered to be at fear from violence. The proportion who answered 'No' was then multiplied by a nation's population to determine the number of people who could be considered to be fearful of crime.

A review of the literature suggested that in the UK the average annual costs of being fearful of crime is approximately £19.50 per person (Dolan & Peasgood, 2007). The cost of the fear of violence was therefore estimated by multiplying the number of people fearful of a crime by the annual cost of being fearful. Where necessary, the estimates of the cost of fear were scaled according to a country's relative GDP per capita (PPP).

## ESTIMATING THE COST OF DISPLACEMENT AND REFUGEES

The costs of refugees, internally displaced and stateless persons were determined using the most recent budget allocations of the United Nations High Commissioner for Refugees (UNHCR) for individual countries. Because the UNHCR is the UN agency mandated to support and protect the displaced, their budgetary allocations are expected to proxy the level of financial support required to respond to displacement. Importantly, because these allocations are not likely to encompass all costs associated with refugees, such as contributions by the state, they are also expected to be relatively conservative.

## ESTIMATING LOSS OF PRODUCTION FROM CONFLICT

For those countries currently experiencing conflict, the cost in terms of lost output was estimated by applying estimates of the impact of war to the GDP of countries currently in conflict. A review from the literature suggested that the immediate impact of conflict was between two and eight per cent of GDP (Collier & Hoeffler, 1998; Hess, 2003).

The issue of 'double counting' was also addressed.

Specifically, because many studies of reductions take a top-down approach to estimating the impact of conflict on GDP, there is a possibility that their estimates will also count costs we have estimated individually, such as the costs of violence or fear. Although the risk of this was considered low due to the methodology employed by the chosen study being sufficiently detailed to account for this, a conservative estimate of conflict's loss was used to reduce the impact of any double counting.

Specifically, it was decided to use 2 per cent, as this represented the most conservative assumption and was considered to minimise the chances of overestimating the costs of conflict. This choice also appeared to be confirmed by recent research on 'Arab Spring' countries, where the reduction of GDP was 2 per cent on average (Middlebrook, Hajaj, Miller, Stellman, Stewart, Bennamour, Ahmed, 2011).

Conflict-affected states were identified from the Uppsala Conflict Data Program, which identified 22 countries currently in conflict as of 2012. In total these countries represent a GDP (PPP) of \$4 trillion. The total cost of conflict was therefore estimated as being \$82 billion for these countries. Individual estimates of being in conflict were therefore determined by multiplying a country currently in conflict's GDP (PPP) by 2 per cent.

## ESTIMATING THE COST OF PRIVATE SECURITY GUARDS

The current number of internal security officers was estimated using collated estimates from the 2011 edition of the Small Arms Survey (GIIDS, 2011). Data was available for 68 countries. Because estimates often were not current they were inflated by multiplying the growth in internal security personnel since the original estimate, with the ratio of private security to internal security at the time of the estimate. Essentially, this assumes that the ratio of private security personnel would grow at the same rate as internal security.

To determine the overall financial cost of private security the number of officers were then multiplied by \$49,500, which represents a high estimate of the starting salaries for internal security officers in the US, from the US Bureau of Justice Statistics. The upper starting salary was used to account for the other costs not reflected in the starting salary (such as overheads). This is also considered a relatively conservative assumption given that this represents a little under 40 per cent of the assumed cost of a government employed internal security officer. Where necessary, these unit costs were then scaled according to relative GDP per capita (PPP) to proxy differences in living standards and prices in individual countries.

Where estimates on the level of private security were not available, no cost was attributed to this country. Again,

when combined with the conservative unit cost of a security officer, this suggests that we are likely underestimating the true costs of private security for a number of countries.

## ECONOMIC COST OF VIOLENCE LITERATURE REVIEW

Violence is generally described as “an intentional use of force or power with a predetermined end by which one or more persons produce physical, mental (psychological), or sexual injury, injure the freedom of movement, or cause the death of another person or persons” (including him or herself) (Concha-Eastman, 2002). The sources of violence are diverse, ranging from different types of crimes to terrorism and armed conflicts. While the social impact of violence is well understood, there is no agreement regarding the economic impact of violence for the world economy and its quantification.

A review of the crime-costing literature reveals multiple sources, including published articles and government reports, which collectively represent the alternative approaches for estimating the economic losses associated with criminal activity. One distinctive aspect of many of the previous studies is that methods, measures, and data sources vary greatly from each other.

Most of the studies identify different type of costs associated with crime, placing emphasis on the existence of tangible and intangible costs and their measurement methods. One influential paper regarding the cost of crime was written by Cohen M, (2000), who reviewed some of the methodologies to measure society's responses to crime and its cost. He has pointed out that there are many different approaches to measuring society's response to the costs of crime, and classified costs as either tangible or intangible, and measurement methods as either direct or indirect. He defined tangible costs as those that involve monetary payments such as medical costs, stolen or damaged property, wage losses, prison cells, and police expenditures. On the other hand, he classified as intangible or non-monetary those costs not normally exchanged in private or public markets, such as fear, pain, suffering, and lost quality of life.

Since intangible costs are relatively harder to identify and measure, there are several approaches that have been used to estimate their monetary value. A recent trend in cost of crime estimates has been towards a ‘willingness to pay’ methodology (Webber A, 2010) which involves asking the public what they would be willing to pay to reduce the likelihood of them becoming a victim of a specific crime,

and then combining this with information about the risk of victimization to calculate the implied cost of one crime from the results. However, one limitation to “willingness to pay” measures is that the methodology assumes that people are well informed about the risks of crime. If there are misperceptions regarding crime in the community, then “willingness to pay” estimates may not be completely accurate (Mayhew, 2003). Even though the willingness to pay method has been used in recent studies, there is a methodology developed by Cohen M, (2000) for the estimation of the intangible costs of crime which still is the reference for many of the studies in the field. He used the “jury compensation method” which is based on jury award data to estimate the monetary value of pain, suffering, and lost quality of life for *non-fatal* injuries.

Another recent study by McCollister et al (2010) distinguished between tangible and intangible costs. Their analysis followed a two-pronged approach that employs both cost-of-illness and jury compensation methods to estimate the costs of crime for the US. The cost-of-illness approach estimates the tangible costs of crime, including lost productivity for the perpetrator and victim as well as short term medical expenses, lost earnings, and property damage/loss for the victim. As part of the tangible costs, they also include a “crime career cost” that has not always been explicitly measured in previous studies, defined as the opportunity costs associated with the criminal's choice to engage in illegal rather than legal and productive activities. The intangible costs for victims were estimated based on the difference between the jury's total award and the direct economic loss to the victim (medical expenses and lost earnings incurred by the victim), which are determined during the trial. Considering only tangible costs (victim cost, crime career cost, and justice system cost), their figures were as follows: for murder \$1,278,424, rape/sexual assault \$41,247, aggravated assault \$19,537 and robbery \$21,398. Their total cost estimations (tangible and intangible in 2008 dollars) were much higher with murder being estimated at nearly \$9 million per offense, rape/sexual assault at \$240,776 per offense, aggravated assault at \$107,020, and the average robbery leads to a societal burden of \$42,310. These figures clearly show the significance of intangible costs in determining the totals.

Following the same line of research, Mayhew and Adkins (2003) assessed some of the major costs in Australia for a range of offences, using similar methodologies as other studies in the US and UK. That is, they considered tangible and intangible costs but clarified that measuring the full impact of crime requires an estimate of the actual number of crimes that occur rather than the number recorded by police. Their approach was to use victimization survey figures to estimate the “real” level of crime. Then, they constructed a multiplier for each crime which was the ratio

between the survey-estimated number of crimes in 1997-98 and the number recorded by the police over the same period. The methodology follows current work in the US and the UK insofar as estimates are made of medical costs, lost output and intangible costs. It is worth noting that many studies use homicide data as a starting point and then estimate other crimes with reference to the homicide figure, and because the estimate represents the value of a life, estimates of the value of a statistical life (VSL) from other fields (such as health or road safety) can be used for comparison (Miller, 2000).

In addition to all these tangible and intangible costs identified in most of the literature, crime and violence have significant “multiplier” effects on the economy by suppressing savings, investments, earnings, productivity, labor market participation, tourism, and ultimately growth. Morrison et al, (2003) presented a typology of many of the costs that may be associated with violence which not only reflects direct monetary and non-monetary costs but also others so called economic multiplier effects (macroeconomic, labor market, intergenerational productivity effects) and social multiplier effects which refer to the impact on interpersonal relations and quality of life. As an example, they mentioned a case study of Colombia suggesting that for every additional 10 homicides per 100,000 residents, the level of investment falls by approximately 4%, or alternatively, if homicide rates in Colombia had remained unchanged since the 1960s, total annual investment in Colombia today would be around 20 per cent higher.

Building further on the existing body of literature related to violence, there are other studies that have attempted to measure the cost of violence resulting from terrorism and conflicts. For instance, Crain & Crain (2005) estimated the macroeconomic consequences of terrorism on GDP, investment, consumer spending, and tourism, showing that a reduction in terrorism could potentially yield large economic benefits depending on the country's demographics, base level of output, and investment. Following the same line of research, Blomberg et al. (2004) examined the macroeconomic consequences of international terrorism in 177 countries from 1968 to 2000 and found that terrorism has a negative effect on growth but was considerably smaller and less persistent than external wars or internal conflict. Their data indicated that terrorism had a strong and negative impact of about half of a percentage point on the investment to GDP ratio, while other types of conflict do not. Furthermore, the study finds that the economic consequences of terrorism are visible only in the short term and dissipate quickly, even after one year, while the effects of external wars take up to three years, and internal conflict takes up to six years to dissipate.

Regarding the effects of internal and external conflicts

The economic impact of violence containment to the world economy is significant and is nearly double the value of the world's agricultural production, nearly five times the total output of the tourism industry to the world GDP and almost thirteen times the annual output of the global airlines industry.

and the cost for the countries involved, several studies have attempted to quantify the extent of the damage imposed to the societies by this type of violence. De Groot et al. (2009) has pointed out that one overlapping feature of most studies is that they tend to express the economic consequences of conflict as a proportion of Gross Domestic Product (GDP) and many of them only include effects that are directly attributable to the conflict and omit the non-direct costs. The literature present two main lines of research in terms of the methodology used to estimate the cost of conflicts: one is an accounting technique, while the other uses counterfactual analysis. The first tries to calculate the total value of goods destroyed as a result of conflict, whereas the latter estimates a conflict-free counterfactual outcome and considers the gap between such counterfactual and the actual situation as a cost.

Most studies rely on counterfactual regression analyses such as the study from Abadie & Gardeazabal (2003) who had investigated the economic effects of conflict, using the terrorist conflict in the Basque Country as a case study. Their methodology was using a combination of other Spanish regions to construct the “synthetic” control region which resembles relevant economic characteristics of the Basque Country before the outset of Basque political terrorism. They compared the economic evolution of this counterfactual Basque Country without terrorism to the actual experience of the Basque Country and found that, after the outbreak of terrorism, per capita GDP in the Basque Country declined about 10 percentage points relative to the synthetic control region, suggesting this figure as the cost of having the conflict. Similarly, Kelegama

(1999) analysed Sri Lanka and attributed the opportunity costs in terms of GDP forgone as a result of the conflict to specific channels. They used data on military expenditure to calculate the amount of forgone investment, and calculated the influence of forgone investment on the growth rate of GDP. Additionally, they analysed temporary losses in production on the basis of destroyed assets, and the losses due to forgone tourism. Finally, they even included the rehabilitation costs of displaced persons as a cost of the conflict. Even though case studies are very valuable, there is little consistency across them. Studies that use a cross-country perspective generally assume the consequences of conflict to adhere to a common pattern across countries and time periods (de Groot et al, 2009).

One of the most influential studies in the literature to survey the economic consequences of conflict is from Collier (1999) who focuses on civil war. He argued that civil wars affect growth through the destruction of resources, the disruption of infrastructure and social order, budgetary substitution, dissaving and portfolio substitution of foreign investors, highlighting that the first four of these channels are expected to influence an economy only during conflict, whereas the final one is likely to continue having an effect after the restoration of peace. In particular, he argued that long-running conflicts are more likely to be followed by an increase in growth, whereas short-lasting conflicts will suffer reduced growth rates over a longer period of time. He supported his argument using data on all civil wars since 1960 and running an Ordinary Least Squares (OLS) regression model, concluding that during civil conflict, the annual growth rate is reduced by 2.2%. After a one-year conflict, the five post-conflict years will have a growth rate 2.1% below the growth path in absence of conflict. On the other hand, after a 15-year conflict, the post-war growth rate is 5.9% higher.

Apart from this seminal paper, there are other studies which have followed similar approaches, but the paper from Hess (2003) presented an interesting methodology to measure the economic welfare cost of conflict, very different from the standard Collier-style regressions. He sets out to estimate how much income people would be willing to give up to live in a peaceful world. He employs a technique developed by Lucas (1987) and compares the actual consumption path of the world's citizens with a hypothetical consumption path in a world in which there is no conflict at all. He found that individuals who live in a country that has experienced some conflict during the 1960-1992 period would permanently give up to approximately 8 percent of their current level of consumption to live in a purely peaceful world.

## ENDNOTES

1. A previous study from The Institute for Economics and Peace (IEP) on US violence containment spending shows that public sector spending in national defence was the largest contributor to the country total violence containment spending.
2. Please note, individual category estimates do not include the 'multiplier effect'.
3. Because these estimates exclude the 'multiplier' effect, the economic costs are likely to be higher.
4. These estimates exclude the 'multiplier effect'.
5. Dr. J. Brauer is Professor of Economics at Georgia Regents University's James M Hull College of Business and co-editor of The Economics of Peace and Security Journal. Dr. J. Tepper Marlin is principal at CityEconomist and Adjunct Professor at the Stern School of Business, NYU.
6. All the aforementioned figures have been presented in 2012 dollars.



03

# POSITIVE PEACE INDEX 2013

---

**There has been a 1.7% improvement in  
global Positive Peace since 2005.**

OF THE TOP 30 COUNTRIES  
**21**  
 ARE FULL DEMOCRACIES WHILE  
**8**  
 ARE FLAWED DEMOCRACIES AND  
**1**  
 IS A HYBRID REGIME

## [ HIGHLIGHTS ]

This is the second edition of the Positive Peace Index (PPI), a measure of the strength of the attitudes, institutions, and structures of 126 nations to determine their capacity to create and maintain a peaceful society. The PPI is based on a statistical framework which groups these attributes into eight key categories known as the 'Pillars of Peace'. These pillars have been identified as describing what underpins a peaceful society.

The Pillars of Peace emphasise the importance of a holistic set of institutions which work together to systematically shape the environments that lead to peace. This framework is not aimed at deriving causality between any of the Pillars, rather they work as an inter-dependent set of factors where causality can run in either direction and the strength of the relationships between the Pillars will change depending on the specific circumstances in a particular country.

In constructing the Pillars of Peace, over 800 different

indexes, datasets and attitudinal surveys were analysed in conjunction with a broad literature review about the key factors that drive peace, resilience and conflict.

In order to ensure the final framework was holistic, a multidisciplinary and 'systems approach' to the concept of peace was used, drawing on recent research.

The 2013 PPI has ranked 126 countries on 24 indicators and found that the global average of positive peace improved in the period between 2005 and 2010 by 1.7%. Globally there have been improvements in *equitable distribution of resources, levels of human capital, free flow of information, levels of corruption, acceptance of the rights of others and well-functioning governments*.

North America and Europe remain the regions with the highest levels of positive peace. Relative improvements have been made in Asia-Pacific, South America, Central America, MENA and Russia and Eurasia.

RANK	COUNTRY	SCORE
1	Denmark	1.25
2	Norway	1.28
3	Finland	1.30
4	Switzerland	1.32
5	Netherlands	1.35
6	Sweden	1.37
7	Iceland	1.46
8	Austria	1.50

9	New Zealand	1.50	17	Singapore	1.82	25	Chile	2.06
10	Australia	1.54	18	France	1.82	26	South Korea	2.08
11	Ireland	1.54	19	United States	1.83	27	Italy	2.13
12	Canada	1.54	20	Slovenia	1.87	28	Poland	2.14
13	Germany	1.59	21	Portugal	1.87	29	Lithuania	2.14
14	Belgium	1.65	22	Czech Republic	1.91	30	Cyprus	2.15
15	United Kingdom	1.67	23	Estonia	1.91	31	Hungary	2.16
16	Japan	1.79	24	Spain	1.97	32	Uruguay	2.18



RANK	COUNTRY	SCORE
63	Thailand	2.95
64	Kazakhstan	3.00
65	Jordan	3.01
66	Moldova	3.03
67	Colombia	3.04
68	Turkey	3.04
69	Armenia	3.05
70	Morocco	3.08

71	Saudi Arabia	3.10	79	Indonesia	3.19	87	Bolivia	3.28
72	Ukraine	3.10	80	Russia	3.20	88	Senegal	3.28
73	Guatemala	3.11	81	China	3.24	89	India	3.32
74	Paraguay	3.12	82	Azerbaijan	3.25	90	Gabon	3.33
75	Nicaragua	3.13	83	Lebanon	3.26	91	Egypt	3.34
76	Honduras	3.16	84	Ecuador	3.26	92	Burkina Faso	3.34
77	Vietnam	3.17	85	Algeria	3.26	93	Tanzania	3.36
78	Sri Lanka	3.19	86	Philippines	3.27	94	Swaziland	3.36

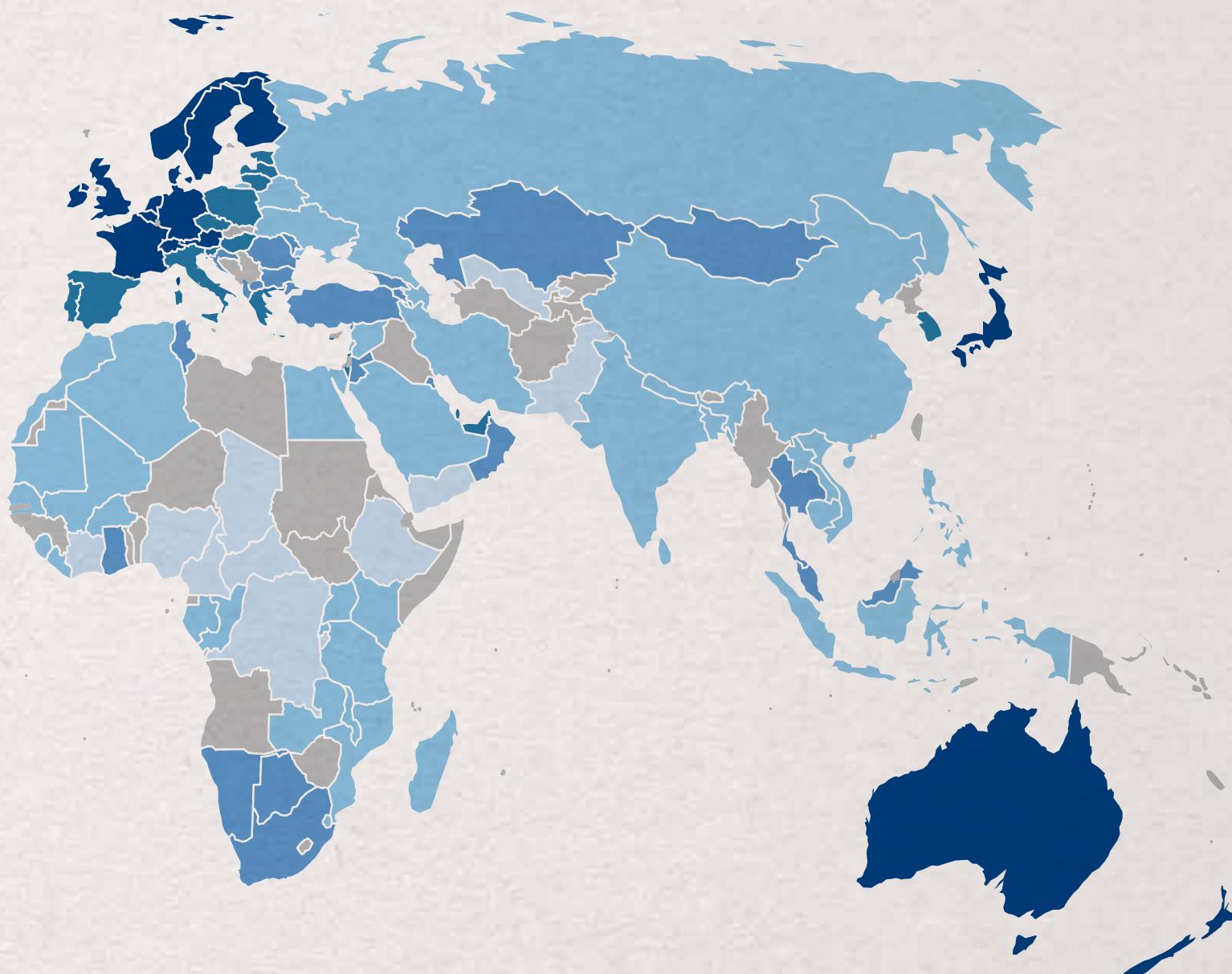
2013 GLOBAL PEACE INDEX / 03/ POSITIVE PEACE INDEX 2013

33	Greece	2.23
34	Latvia	2.25
35	Israel	2.35
36	Costa Rica	2.36
37	Qatar	2.36
38	United Arab Emirates	2.41
39	Bulgaria	2.49

40	Croatia	2.51
41	Botswana	2.58
42	Romania	2.58
43	Malaysia	2.65
44	Panama	2.68
45	Kuwait	2.68
46	Bahrain	2.71
47	Oman	2.72

48	El Salvador	2.73
49	Argentina	2.73
50	Macedonia (FYR)	2.75
51	Namibia	2.77
52	Albania	2.81
53	South Africa	2.82
54	Brazil	2.84
55	Ghana	2.86

56	Mexico	2.87
57	Peru	2.91
58	Tunisia	2.91
59	Dominican Republic	2.92
60	Georgia	2.92
61	Mongolia	2.93
62	Guyana	2.93



95	Malawi	3.39
96	Belarus	3.40
97	Mozambique	3.40
98	Zambia	3.41
99	Mali	3.41
100	Cambodia	3.41
101	Venezuela	3.42
102	Syria	3.44

103	Madagascar	3.45
104	Bangladesh	3.47
105	Rwanda	3.48
106	Kenya	3.51
107	Nepal	3.54
108	Uganda	3.55
109	Laos	3.60
110	Iran	3.61

111	Republic of the Congo	3.61
112	Liberia	3.62
113	Sierra Leone	3.62
114	Mauritania	3.66
115	Cameroon	3.68
116	Ethiopia	3.68
117	Haiti	3.73
118	Burundi	3.73

119	Pakistan	3.74
120	Uzbekistan	3.74
121	Ivory Coast	3.77
122	Nigeria	3.85
123	Central African Republic	3.93
124	Yemen	4.00
125	Chad	4.09
126	Democratic Republic of the Congo	4.27

# THE RESULTS

## POSITIVE PEACE OVERVIEW

- The Positive Peace Index (PPI) is a measure of the strength of the attitudes, institutions, and structures of 126 nations to determine their capacity to create and maintain a peaceful society.
- Positive peace is a proxy to measure institutional capacity and resilience or vulnerability against external shocks.
- The index is composed of 24 indicators with three indicators in eight domains
- The scores are between 1 and 5, with a score closer to 1 representing higher positive peace.
- The PPI is based on the Pillars of Peace framework and has eight pillars or domains:
  - A well-functioning government;
  - A sound business environment;
  - An equitable distribution of resources;
  - Acceptance of the rights of others ;
  - Good relations with neighbors;
  - The free flow of information;
  - High levels of human capital; and
  - Low levels of corruption.

approach to defining positive peace and is unique in peace studies. This work provides a foundation for researchers to deepen their understanding of the empirical relationships between peace, and cultural and economic development.

The empirical link between negative peace and the factors in the PPI appear to hold in developing and developed contexts. Both negative and positive peace can be seen as the producer and product of forms of trust and cohesion that are a pre-requisite for well-functioning and prosperous societies. Countries higher in positive peace also tend to have many other fundamentally positive social and economic outcomes. For instance, IEP finds high peace countries have:

- **Higher per capita incomes**
- **More equitable distribution of resources**
- **Better health and education outcomes**
- **Improved trust between citizens**
- **Greater social cohesion**

Moreover these same attitudes, institutions and structures are also associated with many other aspects that are priorities for the post-2015 development agenda, such as a strong economic growth and employment, environmental sustainability, greater food security, gender empowerment, and development gains in improving access to water and energy resources.

## WHAT IS PEACE?

While there are many nuanced definitions of peace, this analysis uses two concepts, both of which have a rich history in peace studies. These two types of peace are commonly referred to as 'positive' and 'negative' peace as defined by Johan Galtung. Negative peace is the absence of violence or fear of violence, an intuitive definition that many agree with. This was used in defining the measures for the GPI which include indicators that measure both the internal peacefulness of nations as well their external peace in relation to other states.

In an effort to determine positive peace, the IEP has used a statistical framework to derive what are the attitudes, institutions and structures that are associated with peace as measured by the GPI. This is the only known quantitative

## 2013 FINDINGS

- Positive Peace has slightly improved over the five year period from 2005 to 2010 (by 1.7%).
- Five of the top ten countries are Nordic.
- There are only two countries that are not high income countries in the top 30; Chile and Lithuania. Both are upper middle income nations.
- Of the top 30 countries, 21 are full democracies while 8 are flawed democracies. Singapore is the only country in the top 30 with a hybrid regime.
- France, Slovenia, Chile, Italy, Poland, Lithuania, Cyprus and Estonia are the flawed democracies in the top 30.
- Six of the bottom ten countries are sub-Saharan African nations. The other four are Yemen (MENA), Uzbekistan (Russia and Eurasia), Pakistan (South Asia) and Haiti (Central America and Caribbean).

- North America and Europe rank highest on the PPI.
- South Asia and Sub-Saharan Africa rank lowest on positive peace.
- Six pillars improved: *equitable distribution of resources, levels of human capital, free flow of information, levels of corruption, acceptance of the rights of others and well-functioning governments*.
- The other two Pillars, sound business environment and *good relations with neighbours* recorded little notable change
- Unlike the GPI, scores in the PPI are slow moving with most countries' 2010 score remaining within five percent of the 2005 score.
- The bottom ten nations lag most on the *equitable distribution of resources*, while the top ten perform largely better than the world average on *levels of corruption* and *well-functioning government*.

**FIGURE 3.1** The Pillars of Peace

## A SYSTEMS APPROACH TO PEACE

The PPI is based on a systems approach. A system is a collection of components which interact together to perform a function. An example of this might be a forest which is comprised of individual components such as trees, grass, soil and fauna. Importantly, just as the organisms that live in the forest rely on it for their survival, so too does the forest rely on the organisms. The system is therefore more than simply the sum of its component parts, as the wider interactions in a system also determine the way components themselves operate.

Similarly, when considering the environment which underlies a peaceful society it is vital to

recognise the complex way formal institutions of government and the economy interact with informal cultural norms. This means the eight domains or pillars of the PPI cannot be considered alone. For example when considering well-functioning government, we must also consider how free flow of information and the other pillars may interact with it.

This also means that defining causality is difficult, as it may not be possible to individually identify or isolate factors which interact with one-another to make a country more peaceful. Therefore it is best to think in terms of virtuous or vicious cycles with the system interacting to propel it in a certain direction. Because of

this, the Pillars underpinning the PPI should be seen as mutually inter-dependent, meaning sustainable improvements in peace only result from improvements in the entire system.

Figure 3.1 is a visual representation of the Pillars of Peace which underpin the PPI. All of the eight domains can be seen as highly interconnected and interacting in varied and complex ways to form either virtuous or vicious cycles with causality running both ways. The strength of the various interactions will depend on the historical, political, economic and cultural circumstances of particular societies.

**TABLE 3.1** The 2013 PPI country scores for each Pillar of Peace, 126 countries, based on 2010 data

**LEGEND: State of Peace**

PPI RANK	COUNTRY	OVERALL PPI SCORE	WELL FUNCTIONING GOVERNMENT	SOUND BUSINESS ENVIRONMENT	EQUITABLE DISTRIBUTION OF RESOURCES	ACCEPTANCE OF THE RIGHTS OF OTHERS	GOOD RELATIONS WITH NEIGHBOURS	FREE FLOW OF INFORMATION	HIGH LEVELS OF HUMAN CAPITAL	LOW LEVELS OF CORRUPTION
1	Denmark	1.252	1.078	1.393	1.030	1.000	1.201	1.000	1.298	1.055
2	Norway	1.276	1.208	1.160	1.026	1.155	1.032	1.000	1.206	1.293
3	Finland	1.303	1.045	1.676	1.061	1.154	1.133	1.000	1.411	1.199
4	Switzerland	1.322	1.213	1.322	1.223	1.136	1.616	1.000	1.000	1.210
5	Netherlands	1.350	1.187	1.692	1.166	1.103	1.204	1.000	1.241	1.313
6	Sweden	1.373	1.116	1.642	1.000	1.422	1.000	1.000	1.803	1.149
7	Iceland	1.461	1.270	1.722	1.000	1.089	1.805	1.076	1.469	1.469
8	Austria	1.501	1.434	1.789	1.122	1.163	1.083	1.080	1.781	1.682
9	New Zealand	1.503	1.415	1.555	1.321	1.430	2.316	1.112	1.391	1.073
10	Australia	1.537	1.256	1.369	1.280	1.621	2.378	1.460	1.112	1.342
11	Ireland	1.539	1.567	1.402	1.241	1.775	1.050	1.222	1.673	1.593
12	Canada	1.544	1.334	1.493	1.233	1.510	1.799	1.600	1.279	1.486
13	Germany	1.591	1.628	1.786	1.095	1.864	1.296	1.055	1.660	1.662
14	Belgium	1.654	1.805	1.935	1.216	1.450	1.208	1.126	1.716	2.045
15	United Kingdom	1.672	1.573	1.591	1.304	1.906	1.584	1.204	1.644	1.980
16	Japan	1.785	1.914	1.893	1.000	1.265	2.422	1.751	1.891	1.800
17	Singapore	1.818	1.471	1.000	1.398	2.020	2.218	3.274	1.588	1.638
18	France	1.820	1.814	2.185	1.201	1.912	1.563	1.687	1.951	1.944
19	United States	1.834	1.685	1.216	1.482	1.993	2.118	1.527	2.231	2.113
20	Slovenia	1.869	2.384	2.395	1.164	1.590	1.204	1.589	2.171	2.063
21	Portugal	1.874	2.161	2.379	1.362	1.749	1.368	1.279	2.292	2.131
22	Czech Republic	1.907	2.096	2.602	1.037	1.414	1.419	1.129	2.103	2.866
23	Estonia	1.909	2.041	2.189	1.380	1.752	1.445	1.053	2.214	2.740
24	Spain	1.966	2.128	2.228	1.243	1.698	1.572	1.495	2.115	2.811
25	Chile	2.061	2.116	2.397	1.792	2.166	2.177	1.795	2.610	1.869
26	South Korea	2.078	2.116	1.943	1.181	2.129	2.734	1.856	1.763	2.772
27	Italy	2.132	2.501	2.668	1.267	1.506	1.801	1.754	2.087	3.195
28	Poland	2.137	2.963	2.807	1.305	1.804	1.350	1.295	2.518	2.861
29	Lithuania	2.137	2.601	2.409	1.442	2.108	1.592	1.299	2.705	2.846
30	Cyprus	2.146	2.242	2.111	1.253	1.427	1.997	2.424	2.410	3.066
31	Hungary	2.163	2.497	2.708	1.236	1.646	1.794	1.736	2.389	3.116
32	Uruguay	2.185	2.429	3.151	1.653	2.116	2.456	1.298	2.788	2.184
33	Greece	2.229	2.520	2.843	1.262	1.921	2.068	2.116	2.081	3.047
34	Latvia	2.252	2.710	2.547	1.397	2.284	1.556	1.666	2.666	3.150
35	Israel	2.352	2.135	2.337	1.339	2.601	3.757	2.227	1.440	3.345
36	Costa Rica	2.363	2.754	3.520	1.863	2.375	2.063	1.663	2.734	2.667
37	Qatar	2.365	2.586	1.166	1.516	4.006	1.747	2.894	3.035	2.378
38	United Arab Emirates	2.412	2.937	1.685	1.248	3.165	2.205	2.998	2.988	2.481
39	Bulgaria	2.493	3.519	3.106	1.643	1.904	1.882	2.059	2.730	3.424
40	Croatia	2.509	3.074	3.228	1.277	2.624	2.485	2.099	2.518	3.274
41	Botswana	2.581	2.610	2.845	3.611	2.831	2.656	1.797	3.630	2.456
42	Romania	2.585	3.645	3.095	1.419	3.118	1.707	1.893	2.659	3.531

PPI RANK	COUNTRY	OVERALL PPI SCORE	WELL FUNCTIONING GOVERNMENT	SOUND BUSINESS ENVIRONMENT OF RESOURCES	EQUITABLE DISTRIBUTION OF RESOURCES	ACCEPTANCE OF THE RIGHTS OF OTHERS	GOOD RELATIONS WITH NEIGHBOURS	FREE FLOW OF INFORMATION	HIGH LEVELS OF HUMAN CAPITAL	LOW LEVELS OF CORRUPTION
43	Malaysia	2.650	2.543	2.473	1.654	3.164	2.528	3.237	2.877	3.479
44	Panama	2.677	3.379	2.993	2.246	2.674	2.534	2.458	2.861	3.293
45	Kuwait	2.678	3.255	2.134	1.588	3.076	2.660	2.380	3.315	3.621
46	Bahrain	2.706	2.992	2.262	1.357	3.376	2.541	3.533	3.015	3.304
47	Oman	2.718	3.015	2.423	1.652	3.542	1.751	3.255	3.633	3.276
48	El Salvador	2.729	3.705	3.589	2.298	2.749	2.230	1.754	3.093	3.489
49	Argentina	2.730	3.469	4.002	1.757	2.607	2.480	2.048	3.088	3.436
50	Macedonia	2.751	3.665	2.666	1.849	2.341	2.761	2.796	3.009	3.688
51	Namibia	2.768	3.158	3.520	3.820	2.736	2.280	1.785	3.754	3.010
52	Albania	2.810	3.656	3.349	1.608	2.497	2.563	2.892	2.874	3.853
53	South Africa	2.823	2.981	2.917	3.354	2.996	3.193	1.940	3.581	3.389
54	Brazil	2.841	3.464	3.979	2.302	2.456	2.802	2.677	3.032	3.444
55	Ghana	2.860	3.431	3.471	3.372	2.918	2.988	1.869	3.465	3.253
56	Mexico	2.871	3.529	2.747	1.992	2.935	2.700	3.638	2.747	3.718
57	Peru	2.912	3.694	2.869	2.221	3.065	2.819	2.638	3.347	3.831
58	Tunisia	2.912	3.158	3.151	1.807	3.584	2.480	3.691	3.105	3.566
59	Dominican Republic	2.915	3.719	3.778	2.227	2.889	2.178	2.441	3.077	4.131
60	Georgia	2.917	3.565	2.585	2.528	2.539	3.592	2.898	2.768	4.085
61	Mongolia	2.929	3.678	3.531	2.825	2.814	2.567	2.580	2.974	3.904
62	Guyana	2.930	3.724	4.205	2.495	2.839	3.083	1.793	3.027	3.834
63	Thailand	2.950	3.213	2.732	1.991	3.350	2.958	3.249	3.155	4.096
64	Kazakhstan	3.002	3.836	3.017	1.666	3.274	2.181	3.666	2.850	4.366
65	Jordan	3.011	3.487	3.633	1.706	3.672	3.444	3.228	3.076	3.452
66	Moldova	3.027	4.106	3.778	1.689	3.158	3.009	2.496	2.918	4.228
67	Colombia	3.038	3.669	2.942	2.477	3.219	3.197	3.150	3.038	4.062
68	Turkey	3.038	3.206	3.066	1.801	4.141	3.423	3.455	2.968	3.766
69	Armenia	3.053	3.942	2.832	1.976	3.620	3.880	2.526	2.836	4.159
70	Morocco	3.077	3.522	3.741	2.164	3.437	2.730	3.406	3.500	3.763
71	Saudi Arabia	3.096	3.571	2.382	1.825	5.000	2.766	3.691	3.203	3.749
72	Ukraine	3.101	4.115	4.394	1.340	3.003	2.884	2.910	2.791	4.498
73	Guatemala	3.106	4.158	3.655	2.767	2.996	2.302	2.607	4.158	3.884
74	Paraguay	3.116	4.201	3.738	2.445	2.845	2.746	2.905	3.090	4.376
75	Nicaragua	3.134	3.967	4.011	2.655	3.633	2.102	2.752	3.336	4.236
76	Honduras	3.161	4.085	4.063	2.877	3.285	2.298	2.955	3.226	4.229
77	Vietnam	3.174	3.584	4.029	2.523	3.122	2.890	3.781	3.131	4.135
78	Sri Lanka	3.190	3.160	3.681	2.046	3.795	3.179	3.869	3.018	4.411
79	Indonesia	3.192	3.592	4.149	2.696	3.511	2.626	3.263	3.405	4.182
80	Russia	3.204	4.155	3.680	1.685	3.728	2.828	3.511	2.882	4.481
81	China	3.244	3.357	3.801	2.303	3.347	3.048	4.418	3.586	4.019
82	Azerbaijan	3.251	4.255	3.310	1.938	3.553	3.065	3.815	2.924	4.549
83	Lebanon	3.255	3.769	3.659	2.204	3.364	4.268	3.089	2.936	4.544
84	Ecuador	3.259	4.302	4.308	2.177	3.188	2.826	2.922	3.562	4.449

**LEGEND: State of Peace**



PPI RANK	COUNTRY	OVERALL PPI SCORE	WELL FUNCTIONING GOVERNMENT	_SOUND BUSINESS ENVIRONMENT	EQUITABLE DISTRIBUTION OF RESOURCES	ACCEPTANCE OF THE RIGHTS OF OTHERS	GOOD RELATIONS WITH NEIGHBOURS	FREE FLOW OF INFORMATION	HIGH LEVELS OF HUMAN CAPITAL	LOW LEVELS OF CORRUPTION
85	Algeria	3.263	3.782	4.243	2.135	4.106	3.125	3.260	3.372	4.052
86	Philippines	3.266	3.952	4.239	2.707	3.299	3.216	3.197	3.034	4.427
87	Bolivia	3.281	4.173	4.551	3.084	3.172	3.208	2.993	2.898	4.310
88	Senegal	3.281	3.729	4.614	3.486	3.326	3.564	2.716	3.856	3.664
89	India	3.319	3.518	4.255	3.552	3.442	3.833	3.182	3.622	3.863
90	Gabon	3.334	4.023	4.276	2.729	3.073	3.805	2.913	3.910	4.192
91	Egypt	3.338	3.600	3.825	1.878	4.633	3.524	3.681	3.224	4.288
92	Burkina Faso	3.341	3.893	4.387	4.275	2.467	3.244	2.650	4.584	4.010
93	Tanzania	3.359	3.671	4.220	4.151	3.706	3.143	2.898	3.950	3.967
94	Swaziland	3.359	3.883	4.010	4.018	3.520	3.096	4.103	3.141	3.826
95	Malawi	3.390	3.504	4.566	4.378	2.908	2.851	3.320	4.381	4.108
96	Belarus	3.395	4.331	3.356	1.208	4.842	3.392	4.008	3.257	4.367
97	Mozambique	3.402	3.665	4.409	4.555	3.408	2.550	3.000	4.822	3.845
98	Zambia	3.406	3.771	3.825	4.810	3.671	3.120	3.211	3.956	3.933
99	Mali	3.407	3.797	4.464	4.562	3.505	2.872	2.705	4.856	3.661
100	Cambodia	3.415	4.117	4.230	3.419	3.380	2.632	3.776	3.443	4.575
101	Venezuela	3.421	4.505	4.897	2.021	3.825	2.997	3.413	3.087	4.570
102	Syria	3.444	3.678	4.430	1.833	3.835	3.687	4.486	3.294	4.422
103	Madagascar	3.453	3.818	4.194	4.192	3.628	3.519	3.462	3.674	4.097
104	Bangladesh	3.474	4.006	4.338	3.414	3.288	3.264	3.727	3.581	4.629
105	Rwanda	3.478	3.522	3.390	4.755	3.307	3.150	4.571	4.408	3.843
106	Kenya	3.509	3.863	4.104	4.050	4.030	3.365	2.882	3.965	4.607
107	Nepal	3.536	3.958	4.102	3.260	3.959	3.236	3.714	4.166	4.480
108	Uganda	3.545	3.634	3.991	4.125	3.710	3.556	3.414	4.337	4.529
109	Laos	3.596	4.093	4.652	3.279	3.929	2.369	4.365	3.975	4.659
110	Iran	3.609	4.357	4.414	1.962	4.022	4.161	4.456	2.935	4.803
111	Republic of the Congo	3.611	4.517	4.996	4.297	3.433	3.288	2.646	4.357	4.472
112	Liberia	3.617	4.256	4.686	4.836	3.205	3.726	3.433	3.996	4.219
113	Sierra Leone	3.619	4.103	4.541	4.619	3.425	4.010	3.026	4.168	4.407
114	Mauritania	3.661	4.403	4.673	3.556	3.860	4.503	2.651	4.470	4.349
115	Cameroon	3.679	4.125	4.611	3.620	4.418	3.109	3.759	4.117	4.628
116	Ethiopia	3.681	3.694	4.332	3.671	3.106	4.638	4.464	4.209	4.504
117	Haiti	3.727	4.743	4.808	4.388	3.651	3.789	2.780	4.164	4.736
118	Burundi	3.728	4.152	4.753	4.690	3.124	2.902	4.231	4.700	4.589
119	Pakistan	3.736	4.091	3.992	3.499	4.800	4.201	3.895	3.665	4.763
120	Uzbekistan	3.741	4.209	4.635	3.590	4.816	3.701	4.387	2.733	4.855
121	Ivory Coast	3.772	4.256	4.737	3.757	4.340	3.738	3.222	4.700	4.667
122	Nigeria	3.848	4.629	4.201	4.547	4.304	4.309	3.324	4.321	4.694
123	Central African Republic	3.928	4.878	4.984	4.683	4.127	3.676	3.250	4.879	4.679
124	Yemen	4.001	4.190	4.122	3.061	5.000	5.000	4.510	4.336	4.777
125	Chad	4.090	4.644	4.977	4.900	4.158	4.002	4.093	4.927	5.000
126	Democratic Republic of the Congo	4.271	4.990	5.000	5.000	4.908	4.277	4.478	4.901	4.844
	World Average	<b>2.809</b>	<b>3.234</b>	<b>3.281</b>	<b>2.403</b>	<b>2.941</b>	<b>2.697</b>	<b>2.689</b>	<b>3.052</b>	<b>3.496</b>

**TABLE 3.1** Continued

## TRENDS IN POSITIVE PEACE

By looking at global trends in positive peace we can track how the world has improved or gone backwards in terms of building institutional capacity and resilience. In the years between 2005 and 2010, the global average of positive peace scores of the 121 countries for which data could be collected in both years decreased from, indicating that positive peace improved by a modest 1.7% in the period. This improving trend is across all Pillars of Peace with highest gains being made in equitable distribution of resources, acceptance of the rights of others and well-functioning governments. This is good news considering the world has fallen on the GPI and has experienced a large financial crisis during the period.

By examining the changes in scores in the PPI it can be seen that unlike the GPI where large changes in score can occur quite rapidly, positive peace scores on average change much more slowly and are within a 5% of their 2005 levels.

This reflects the fact that institution building is a long term process requiring sustained political, economic and social investment. Negative peace however is much more volatile and can erode quickly. Riots in the United Kingdom in 2012 show this phenomenon is not isolated to just lower income contexts. While the specific timeliness, intensity and

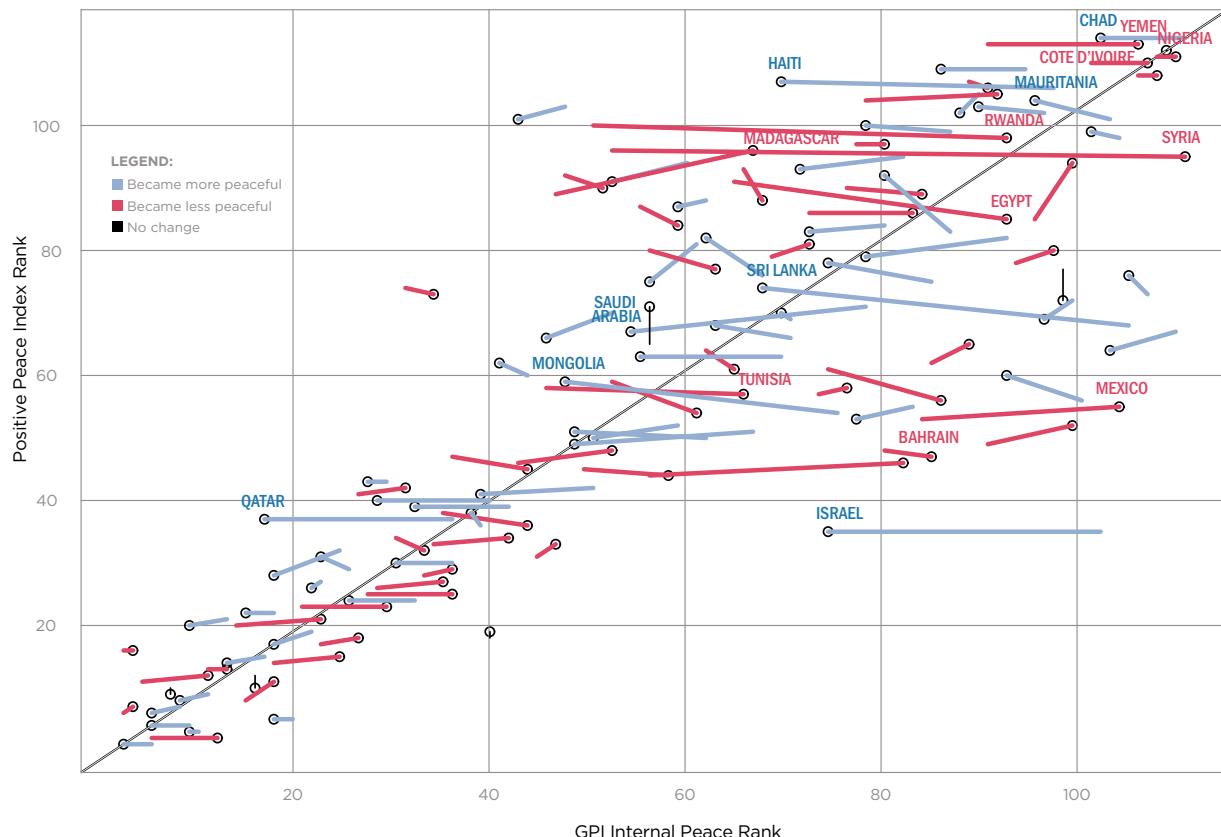
duration of these types of events may not be predictable, it can be predicted that countries that score well on positive peace will tend to be less violent, more stable and resilient and be able to recover quicker from internal shocks. While the nature of the changes in GPI and PPI are significantly different, the two measures still correlate strongly, highlighting the inherent link between a nation's absence of violence and their institutional strength and capacity.

Figure 3.2 shows how 114 nations have tracked in their ranks of PPI and GPI internal peace score over the period.

The first aspect apparent in the figure is the relative stability of countries that score well in both the GPI and the PPI. Countries within this group are largely European, North American and Australasian. Past ranks of greater than 45 though, countries experience some drastic changes in their position relative to other countries. In fact, if the two groups are split at rank 45, then the movement (or the length of the line) of the less peaceful group of countries is almost double that of the more peaceful countries.

**FIGURE 3.2** Rank Change on both PPI and GPI from 2008 to 2013

Pass the midway point negative peace becomes more volatile. Notable risers and fallers in score are labelled.



# ANNEX A

## GPI INDICATOR SOURCES, DEFINITIONS, METHODOLOGY AND SCORING CRITERIA

The information below details the sources, definitions, and scoring criteria of the 22 indicators that form the Global Peace Index. All scores for each indicator are “banded” or normalised either on a scale of 1-5, whereby qualitative indicators are banded into five groupings and quantitative ones are either banded into ten groupings or rounded to the first decimal point. The Economist Intelligence Unit (EIU) has provided imputed estimates in the rare event there are gaps in the quantitative data.

### INTERNAL PEACE INDICATORS

#### LEVEL OF PERCEIVED CRIMINALITY IN SOCIETY

Indicator type	Qualitative
Indicator weight	3
Indicator Weight (% of total Index)	4%
Data Source	EIU
Measurement period	March 16 2012 to March 15 2013

**Definition:** Assessment of the level of perceived criminality in society, ranked from 1-5 (very low to very high) by the EIU's Country Analysis team. Country analysts are asked to assess this indicator on an annual basis, for the period March to March.

#### Scoring Criteria:

- 1 = Very low:** the majority of other citizens can be trusted; very low levels of domestic security.
- 2 = Low:** an overall positive climate of trust with other citizens.
- 3 = Moderate:** reasonable degree of trust in other citizens.
- 4 = High:** high levels of distrust in other citizens; high levels of domestic security.
- 5 = Very high:** very high levels of distrust in other citizens - people are extremely cautious in their dealings with others; large number of gated communities, high prevalence of security guards.

#### NUMBER OF INTERNAL SECURITY OFFICERS AND POLICE PER 100,000 PEOPLE

Indicator type	Quantitative
Indicator weight	3
Indicator Weight (% of total Index)	4%
Data Source	UNODC, 2012 United Nations Survey of Crime Trends and Operations of Criminal Justice Systems
Measurement period	2011

**Alternative Source:** EIU. Where data is not provided, the EIU's analysts have filled them based on likely scores from the set bands of the actual data.

**Definition:** This indicator comes from the United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (UN-CTS), and refers to the civil police force. Police Personnel means personnel in public agencies whose principal functions are the prevention, detection and investigation of crime and the apprehension of alleged offenders. It is distinct from national guards or local militia.

#### Scoring Bands

1/5	2/5	3/5	4/5	5/5
0 - 199.8	199.9 - 399.8	399.9 - 599.8	599.9 - 799.8	> 799.9

**Additional Notes:** For Nicaragua, the score has been smoothed out following the latest UNODC data release. For Belarus, the score has been smoothed out while reflecting an increase accounting for the ubiquitous militia in the country.

#### NUMBER OF HOMICIDES PER 100,000 PEOPLE

Indicator Type	Quantitative
Indicator Weight	4
Indicator Weight (% of total Index)	5.3%
Data Source	UNODC, 2012 United Nations Survey of Crime Trends and Operations of Criminal Justice Systems
Measurement period	2011

**Alternative Source:** EIU. Where data is not provided, the EIU's analysts have filled them based on likely scores from the set bands of the actual data.

**Definition:** This indicator comes from the United Nations Survey of Crime Trends and Operations of Criminal Justice Systems (UN-CTS). Intentional homicide refers to death deliberately inflicted on a person by another person, including infanticide. The figures refer to the total number of penal code offences or their equivalent, but excluding minor road traffic and other petty offences, brought to the attention of the police or other law enforcement agencies and recorded by one of those agencies.

**Scoring Bands**

1/5	2/5	3/5	4/5	5/5
0 – 1.99	2 – 5.99	6 – 9.99	10 – 19.99	> 20

**Additional Notes:** For Haiti, the score has been smoothed following an update of UNODC data.

## NUMBER OF JAILED POPULATION PER 100,000 PEOPLE

Indicator Type	Quantitative
Indicator Weight	3
Indicator Weight (% of total Index)	4.0%
Data Source	International Centre for Prison Studies, University of Essex, World Prison Brief
Measurement period	2002-12, depending upon data availability

**Definition:** Figures are from the International Centre for Prison Studies, and are compiled from a variety of sources. In almost all cases the original source is the national prison administration of the country concerned, or else the Ministry responsible for the prison administration. Prison population rates per 100,000 people are based on estimates of the national population. In order to compare prison population rates, and to estimate the number of persons held in prison in the countries for which information is not available, median rates have been used by the International Centre for Prison Studies to minimise the effect of countries with rates that are untypically high or low. Indeed, comparability can be compromised by different practice in different countries, for example with regard to pre-trial detainees and juveniles, but also psychiatrically ill offenders and offenders being detained for treatment for alcoholism and drug addiction.

**Scoring Bands**

1/5	1.5/5	2/5	2.5/5	3/5
0 – 109.74	109.75 – 199.4	199.5 – 289.24	289.25 – 378.9	379.0 – 468.74
3.5/5	4/5	4.5/5	5/5	
468.75 – 558.4	558.5 – 648.24	648.25 – 737.9	> 738	

**Additional Notes:** The data provided by World Prison Briefs are not annual averages but indicate the number of jailed population per 100,000 inhabitants in a particular month during the year. The year and month may differ from country to country.

## EASE OF ACCESS TO SMALL ARMS AND LIGHT WEAPONS

Indicator Type	Qualitative
Indicator Weight	3
Indicator Weight (% of total Index)	4.0%
Data Source	EIU
Measurement period	March 16 2012 to March 15 2013

**Definition:** Assessment of the accessibility of small arms and light weapons (SALW), ranked from 1-5 (very limited access to very easy access) by the EIU's Country Analysis team. Country analysts are asked to assess this indicator on an annual basis, for the period from March to March.

**Scoring Criteria:**

- 1 = Very limited access:** the country has developed policy instruments and best practices, such as firearm licences, strengthening of export controls, codes of conduct, firearms or ammunition marking.
- 2 = Limited access:** the regulation implies that it is difficult, time-consuming and costly to obtain firearms; domestic firearms regulation also reduces the ease with which legal arms are diverted to illicit markets.
- 3 = Moderate access:** there are regulations and commitment to ensure controls on civilian possession of firearms, although inadequate controls are not sufficient to stem the flow of illegal weapons.
- 4 = Easy access:** there are basic regulations, but they are not effectively enforced; obtaining firearms is straightforward.
- 5 = Very easy access:** there is no regulation of civilian possession, ownership, storage, carriage and use of firearms.

## LEVEL OF ORGANISED CONFLICT (INTERNAL)

Indicator Type	Qualitative
Indicator Weight	5
Indicator Weight (% of total Index)	6.7%
Data Source	EIU
Measurement period	March 16 2012 to March 15 2013

**Definition:** Assessment of the intensity of conflicts within the country, ranked from 1-5 (no conflict to severe crisis) by the EIU's Country Analysis team. Country analysts are asked to assess this indicator on an annual basis, for the period March to March.

**Scoring Criteria:**

- 1 = No conflict.**
- 2 = Latent conflict:** positional differences over definable values of national importance.
- 3 = Manifest conflict:** explicit threats of violence; imposition of economic sanctions by other countries.
- 4 = Crisis:** a tense situation across most of the country; at least one group uses violent force in sporadic incidents.
- 5 = Severe crisis:** civil war - violent force is used with a certain continuity in an organised and systematic way throughout the country.

## LIKELIHOOD OF VIOLENT DEMONSTRATIONS

Indicator Type	Qualitative
Indicator Weight	3
Indicator Weight (% of total Index)	4.0%
Data Source	EIU
Measurement period	March 16 2012 to March 15 2013

**Definition:** Assessment of the likelihood of violent demonstration ranked from 1-5 (very low to very high) by the EIU's Country Analysis team, based on the question "Are violent demonstrations or violent civil/labour unrest likely to pose a threat to property or the conduct of business over the next two years?". Country analysts assess this question on a quarterly basis. The score provided for March 2012 - March 2013 is the average of the scores given for each quarter.

### Scoring Criteria

"Are violent demonstrations or violent civil/labour unrest likely to pose a threat to property or the conduct of business over the next two years?"

**1/5 Strongly no**

**2/5 No**

**3/5 Somewhat of a problem**

**4/5 Yes**

**5/5 Strongly yes**

## LEVEL OF VIOLENT CRIME

Indicator Type	Qualitative
Indicator Weight	4
Indicator Weight (% of total Index)	5.3%
Data Source	EIU
Measurement period	March 16 2012 to March 15 2013

Definition: Assessment of the likelihood of violent crime ranked from 1 to 5 (very low to very high) by the EIU's Country Analysis team based on the question "Is violent crime likely to pose a significant problem for government and/or business over the next two years?". Country analysts assess this question on a quarterly basis. The score provided for March 2012 - March 2013 is the average of the scores given for each quarter.

### Scoring Criteria

"Is violent crime likely to pose a significant problem for government and/or business over the next two years?"

**1/5 Strongly no**

**2/5 No**

**3/5 Somewhat of a problem**

**4/5 Yes**

**5/5 Strongly yes**

## POLITICAL INSTABILITY

Indicator Type	Qualitative
Indicator Weight	4
Indicator Weight (% of total Index)	5.3%
Data Source	EIU
Measurement period	March 16 2012 to March 15 2013

**Definition:** Assessment of political instability ranked from 0 to 100 (very low to very high instability) by the EIU's Country Analysis team, based on five questions. This indicator aggregates five other questions on social unrest, orderly transfers, opposition stance, excessive executive authority, and an international tension sub-index. Country analysts assess this question on a quarterly basis. The score provided for March 2012 - March 2013 is the average of the scores given for each quarter.

### Specific Questions:

- What is the risk of significant social unrest during the next two years?
- How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?
- How likely is it that an opposition party or group will come to power and cause a significant deterioration in business operating conditions?
- Is excessive power concentrated or likely to be concentrated, in the executive so that executive authority lacks accountability and possesses excessive discretion?
- Is there a risk that international disputes/tensions will negatively affect the economy and/or polity?

### Scoring Bands

1/5	2/5	3/5	4/5	5/5
0 - 20.4	20.5 - 40.4	40.5 - 60.4	60.5 - 80.4	80.5 - 100

## POLITICAL TERROR SCALE

Indicator Type	Qualitative
Indicator Weight	4
Indicator Weight (% of total Index)	5.3%
Data Source	Gibney, M., Cornett, L., & Wood, R., (2011) Political Terror Scale 1976-2011
Measurement period	2011

**Definition:** The Political Terror Scale (PTS) measures levels of political violence and terror that a country experiences in a particular year based on a 5-level "terror scale" originally developed by Freedom House. The data used in compiling this index comes from two different sources: the yearly country reports of Amnesty International and the US Department of State's Country Reports on Human Rights Practices. The average of the two scores is taken.

**Scoring Criteria:**

- 1** = Countries under a secure rule of law, people are not imprisoned for their view, and torture is rare or exceptional. Political murders are extremely rare.
- 2** = There is a limited amount of imprisonment for nonviolent political activity. However, few persons are affected, torture and beatings are exceptional. Political murder is rare.
- 3** = There is extensive political imprisonment, or a recent history of such imprisonment. Execution or other political murders and brutality may be common. Unlimited detention, with or without a trial, for political views is accepted.
- 4** = Civil and political rights violations have expanded to large numbers of the population. Murders, disappearances, and torture are a common part of life. In spite of its generality, on this level terror affects those who interest themselves in politics or ideas.
- 5** = Terror has expanded to the whole population. The leaders of these societies place no limits on the means or thoroughness with which they pursue personal or ideological goals.

### VOLUME OF TRANSFERS OF MAJOR CONVENTIONAL WEAPONS, AS RECIPIENT (IMPORTS) PER 100,000 PEOPLE

Indicator Type	Quantitative
Indicator Weight	2
Indicator Weight (% of total Index)	2.7%
Data Source	SIPRI Arms Transfers Database; Economist Intelligence Unit
Measurement period	2007-2011

**Definition:** Measures the total volume of major conventional weapons imported by a country between 2006 and 2010, divided by the average population in this time period at the 100,000 people level (population data supplied by the EIU). The SIPRI Arms Transfers Database covers all international sales and gifts of major conventional weapons and the technology necessary for the production of them. The transfer equipment or technology is from one country, rebel force or international organisation to another country, rebel force or international organisation. Major conventional weapons include: aircraft, armoured vehicles, artillery, radar systems, missiles, ships, engines.

**Scoring Bands**

1/5	1.5/5	2/5	2.5/5	3/5
0 - 7.596	7.597 - 15.192	15.193 - 22.788	22.789 - 30.384	30.385 - 37.980
3.5/5	4/5	4.5/5	5/5	
37.981 - 45.576	45.577 - 53.172	53.173 - 60.768	> 60.769	

### TERRORIST ACTIVITY

Indicator Type	Quantitative
Indicator Weight	2
Indicator Weight (% of total Index)	2.7%
Data Source	IEP, Global Terrorism Index, GTI
Measurement period	1 Jan 2010 to 1 Jan 2011

**Definition:** Terrorist incidents are defined as “intentional acts of violence or threat of violence by a non-state actor”. This means an incident has to meet three criteria in order for it to be counted as a terrorist act:

- a)** The incident must be intentional – the result of a conscious calculation on the part of a perpetrator.
  - b)** The incident must entail some level of violence or threat of violence – including property violence, as well as violence against people.
  - c)** The perpetrators of the incidents must be sub-national actors. This database does not include acts of state terrorism.
- For all incidents listed, at least two of the following three criteria must be present:
- 1.** The act must be aimed at attaining a political, economic, religious, or social goal.
  - 2.** There must be evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) than the immediate victims.
  - 3.** The action must be outside the context of legitimate warfare activities.

**Methodology:** Using the comprehensive event database, the Global Terrorism Database (GTD), the TERR indicator based on the GTI combines four variables to develop a composite score; the number of terrorist incidents in a given year, total number of fatalities in a given year, total number of injuries caused in a given year and the approximate level of property damage in a given year. The composite score captures the direct effects of terrorist related violence, in terms of its physical effect, but also attempts to reflect the residual effects of terrorism in terms of emotional wounds and fear by attributing a weighted average to the damage inflicted in previous years.

**Scoring Bands**

1/5	1.5/5	2/5	2.5/5	3/5
0 - 3.39	3.37 - 11.36	11.36 - 38.30	38.30 - 129.1	129.11 - 435.21
3.5/5	4/5	4.5/5	5/5	
435.21 - 1,467.03	1,467.03 - 4,945.15	4,945.15 - 16,669.41	>16,669.41	

## NUMBER OF DEATHS FROM ORGANISED CONFLICT (INTERNAL)

Indicator Type	Quantitative
Indicator Weight	5
Indicator Weight (% of total Index)	6.7%
Data Source	International Institute for Strategic Studies (IISS), Armed Conflict Database (ACD)
Measurement period	2011-2012

**Alternative Source:** EIU. When no data was provided by the IISS ACD, then EIU analysts have scored the figures available for 2012 and 2013 according to the set bands of the actual data.

**Definition:** This indicator uses the UCDP's definition of conflict. UCDP defines conflict as: "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a year". Statistics are compiled from the most recent edition of the IISS ACD, which has the following definition of armed conflict-related fatalities: 'Fatality statistics relate to military and civilian lives lost as a direct result of an armed conflict'.

The figures relate to the country which is the main area of conflict. For some conflicts no reliable statistics are available. Estimates of war fatalities vary according to source, sometimes by a wide margin. In compiling data on fatalities, the IISS has used its best estimates and takes full responsibility for these figures. Some overall fatality figures have been revised in light of new information. Changes in fatality figures may therefore occur as a result of such revisions as well as because of increased fatalities. Fatality figures for terrorism may include deaths inflicted by the government forces in counter-terrorism operations.

### Scoring Bands

1/5	2/5	3/5	4/5	5/5
0 - 23 deaths	24 - 998 deaths	999 - 4,998 deaths	4,999 - 9,998 deaths	> 9,999 deaths

## EXTERNAL PEACE INDICATORS

### MILITARY EXPENDITURE AS A PERCENTAGE OF GDP

Indicator Type	Quantitative
Indicator Weight	2
Indicator Weight (% of total Index)	2.6%
Data Source	International Institute for Strategic Studies, The Military Balance 2013
Measurement period	2011-2012

**Alternative Source:** When no data was provided, several alternative sources were used: National Public Expenditure Accounts, SIPRI information and the Military Balance 2012. Alternative data are from 2007 to 2012, depending upon data availability.

**Definition:** Cash outlays of central or federal government to meet the costs of national armed forces—including strategic, land, naval, air, command, administration and support forces as well as paramilitary forces, customs forces and border guards if these are trained and equipped as a military force. Published EIU data on nominal GDP (or the World Bank when unavailable) was used to arrive at the value of military expenditure as a percentage of GDP.

**Scoring Criteria:** This indicator is scored using a min-max normalisation. Applying this method, a country's score is based on the distance of its military expenditure as a share of GDP from the benchmarks of 0% (for a score of 1) and 12.97% or above (for a score of 5). The bands while linear approximately conform as follows:

<b>1/5 Between 0-3.11 %</b>
<b>2/5 Between 3.12-6.39 %</b>
<b>3/5 Between 6.4-9.67 %</b>
<b>4/5 Between 9.68-12.96 %</b>
<b>5/5 &gt;12.97 %</b>

## NUMBER OF ARMED SERVICES PERSONNEL PER 100,000 PEOPLE

Indicator Type	Quantitative
Indicator Weight	2
Indicator Weight (% of total Index)	2.6%
Data Source	International Institute for Strategic Studies, The Military Balance 2013
Measurement period	2012-2013

**Alternative Source:** World Bank population data used if unavailable from the EIU.

**Definition:** Active armed services personnel comprise all servicemen and women on full-time duty in the army, navy, air force and joint forces (including conscripts and long-term assignments from the reserves). Population data provided by the EIU.

### Scoring Bands

1/5	1.5/5	2/5	2.5/5	3/5
0 - 660.94	660.95 - 1,311.90	1,311.91 - 1,962.85	1,962.86 - 2,613.81	2,613.82 - 3,264.76
3.5/5	4/5	4.5/5	5/5	
3,264.77 - 3,915.72	3,915.73 - 4,566.67	4,566.68 - 5,217.63	>5,217.64	

**Additional Notes:** The Israeli reservist force is used to calculate Israel's number of armed services personnel.

## FINANCIAL CONTRIBUTION TO UN PEACEKEEPING MISSIONS

Indicator Type	Quantitative
Indicator Weight	2
Indicator Weight (% of total Index)	2.6%
Data Source	IEP; United Nations Committee on Contributions
Measurement period	2008 - 2010

**Methodology:** The UNFU indicator measures whether UN member countries meet their UN peacekeeping funding commitments. Although countries may fund other programs in development or peacebuilding, the records on peacekeeping are easy to obtain and understand, and provide an instructive measure of a country's commitment to peace. The indicator calculates the percentage of countries' "outstanding payments versus their annual assessment to the budget of the current peacekeeping missions" over an average of three years. This ratio is derived from data provided by the United Nations Committee on Contributions Status reports. The indicator is compiled as follows:

- 1) The status of contributions by UN Member States is obtained.
- 2) For the relevant peacekeeping missions, the assessments (for

that year only) and the collections (for that year only) are recorded. From this, the outstanding amount is calculated for that year.

**3)** The ratio of outstanding payments to assessments is calculated. By doing so a score between 0 and 1 is obtained. Zero indicates no money is owed; a country has met their funding commitments. A score 1 indicates that a country has not paid any of their assessed contributions. Given that the scores already fall between 0 and 1, they are easily banded into a score between 1 and 5. The final banded score is a weighted sum of the current year and the previous two years. The weightings are 0.5 for the current year, 0.3 for the previous year and 0.2 for two years prior. Hence it is a three year weighted average.

**4)** Outstanding payments from previous years and credits are not included. The scoring is linear to one decimal place.

### Scoring Criteria

1/5	0 - 25% of stated contributions owed
2/5	26 - 50% of stated contributions owed
3/5	51 - 75% of stated contributions owed
4/5	75-99% of stated contributions owed
5/5	100% of stated contributions owed (no contributions made in past three years)

**Additional Notes:** All United Nations Member States share the costs of United Nations peacekeeping operations. The General Assembly apportions these expenses based on a special scale of assessments applicable to peacekeeping. This scale takes into account the relative economic wealth of member states, with the permanent members of the Security Council required to pay a larger share because of their special responsibility for the maintenance of international peace and security. Due to delays in the release of new data, the 2013 indicator scores take into account a 2008, 2009, and 2010 weighted average.

## NUCLEAR AND HEAVY WEAPONS CAPABILITIES

Indicator Type	Quantitative
Indicator Weight	3
Indicator Weight (% of total Index)	3.9%
Data Source	IEP; SIPRI; IISS The Military Balance; United Nations Register of Conventional Arms
Measurement period	2011

**Methodology:** This indicator is based on a categorised system for rating the destructive capability of a country's stock of heavy weapons. Holdings are those of government forces and do not include holdings of armed opposition groups. Heavy weapons numbers were determined using a combination of the International Institute for Strategic Studies, The Military Balance and the United Nations Register of Conventional Arms.

There are five categories of weapons, each of which receive a certain number of weighted points. The five weapons categories are weighted as follows:

1. Armoured vehicles and artillery pieces = 1 point
2. Tank = 5 points
3. Combat aircraft and combat helicopter = 20 points
4. Warship = 100 points
5. Aircraft carrier and nuclear submarine = 1000 points

Countries with nuclear capabilities automatically receive the maximum score of five. Other scores are expressed to the second decimal point, adopting a min-max normalisation that sets the max at two standard deviations above the average raw score. Nuclear Weapon equipped states are determined by the SIPRI World Nuclear Forces chapter in the SIPRI Yearbook, as follows:

#### Scoring Bands

1/5	2/5	3/5	4/5	5/5
Nil - 18,184	18,185 - 36,368	36,369 - 54,553	54,553 - 72,737	States with nuclear capability receive a 5, or states with heavy weapons capability of 72,738 or in the top 2% of heavy weapons receive a 5.

**Additional Notes:** This indicator methodology was changed in 2013 to remove the population denominator and include nuclear weapon equipped states.

#### VOLUME OF TRANSFERS OF MAJOR CONVENTIONAL WEAPONS AS SUPPLIER (EXPORTS) PER 100,000 PEOPLE

Indicator Type	Quantitative
Indicator Weight	3
Indicator Weight (% of total Index)	3.9%
Data Source	SIPRI, Arms Transfers Database
Measurement period	2006-2011

**Definition:** Measures the total volume of major conventional weapons exported by a country between 2006 and 2011 divided by the average population during this time period (population data supplied by the EIU). The SIPRI Arms Transfers Database covers all international sales and gifts of major conventional weapons and the technology necessary for the production of them. The transfer equipment or technology is from one country, rebel force or international organisation to another country, rebel force or international organisation. Major conventional weapons include: aircraft, armoured vehicles, artillery, radar systems, missiles, ships and engines.

#### Scoring Bands

1/5	1.5/5	2/5	2.5/5	3/5
0 - 2.972	2.973 - 5.944	5.945 - 8.917	8.918 - 11.890	11.891 - 14.863
3.5/5	4/5	4.5/5	5/5	
14.864 - 17.835	17.836 - 20.808	20.809 - 23.781	> 23.782	

#### NUMBER OF REFUGEES AND DISPLACED PEOPLE AS A PERCENTAGE OF THE POPULATION

Indicator Type	Quantitative
Indicator Weight	4
Indicator Weight (% of total Index)	5.2%
Data Source	UNHCR Global Trends 2011; International Displacement Monitoring Centre (IDMC)
Measurement period	2011

**Definition:** Refugee population by country or territory of origin, plus the number of a country's internally displaced people (IDPs) as a percentage of the country's total population.

#### Scoring Bands

1/5	1.5/5	2/5	2.5/5	3/5
0 - 1.50	1.51 - 3.02	3.03 - 4.54	4.55 - 6.06	6.07 - 7.58
3.5/5	4/5	4.5/5	5/5	
7.59 - 9.10	9.11 - 10.62	10.63 - 12.14	> 12.15	

#### RELATIONS WITH NEIGHBOURING COUNTRIES

Indicator Type	Qualitative
Indicator Weight	5
Weighting % of External Peace	16.1%
Data Source	EIU
Measurement period	16 March 2012 to 15 March 2013

**Definition:** Assessment of the intensity of contentiousness of neighbours, ranked from 1-5 (peaceful to very aggressive) by the EIU's Country Analysis team. Country analysts are asked to assess this indicator on an annual basis, for the period March to March.

#### Scoring Criteria

- 1 = Peaceful: none of the neighbours has attacked the country since 1950.
- 2 = Low: the relationship with neighbours is generally good, but

aggressiveness is manifest in politicians' speeches or in protectionist measures.

**3** = Moderate: there are serious tensions and consequent economic and diplomatic restrictions from other countries.

**4** = Aggressive: open conflicts with violence and protests.

**5** = Very aggressive: frequent invasions by neighbouring countries.

## NUMBER OF EXTERNAL AND INTERNAL CONFLICTS FOUGHT

Indicator Type	Quantitative
Indicator Weight	5
Indicator Weight (% of total Index)	6.5%
Data Source	UCDP, Armed Conflict Dataset
Measurement period	2007-2011

**Definition:** This indicator measures conflicts, as defined by Uppsala Conflict Data Program (UCDP), which began in 2007 and were extant in 2007-11, irrespective of whether or not they ended during that period. For instance, a country is given a score of one if it has been in conflict for that year or in any of the previous four years. Therefore, the country total is the sum of all conflicts that a country has been in over a five year bracket. UCDP defines conflict as: "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a year".

### Scoring Bands

1/5	2/5	3/5	4/5	5/5
Zero conflicts	One conflict	Two conflicts	Three conflicts	Four or more conflicts

**Additional Notes:** Uppsala codes Afghanistan as two contested incompatibilities, IEP has manually consolidated them into one so as to not double count for a country that may be participating in that conflict.

## NUMBER OF DEATHS FROM ORGANISED CONFLICT (EXTERNAL)

Indicator Type	Quantitative
Indicator Weight	5
Indicator Weight (% of total Index)	6.5%
Data Source	UCDP, Armed Conflict Dataset
Measurement period	2007-2011

**Alternate Source:** When no data was provided, several alternative sources have been used: International Institute for Strategic Studies (IISS) Armed Conflict Database; the Iraq Coalition Casualty Count, and the EIU.

**Definition:** This indicator uses the UCDP's definition of conflict as a "a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in a year".

### Scoring Bands

1/5	2/5	3/5	4/5	5/5
0 - 23 deaths	24 - 998 deaths	999 - 4,998 deaths	4,999 - 9,998 deaths	> 9,999 deaths

# ANNEX B

## POSITIVE PEACE INDICATOR METHODOLOGY

The Positive Peace Index is similar to the GPI in that it is a composite index attempting to measure an unobserved multidimensional concept. The PPI is the first known attempt to build an empirical derived index aiming to measure the latent variable of positive peace from the definition of "the set of attitudes, institutions and structures which when strengthened, lead to a more peaceful society."

The starting point for developing the PPI was to correlate the GPI against over 800 cross country harmonised datasets measuring a variety of economic, governance, social, attitudinal and political factors. This aggregation of data attempted to cover every known quantitative and qualitative data set measuring factors at the nation-state level. Each dataset which was significantly correlated was then organised under eight distinct headings or factors\*, and became eight domains of the PPI. These structures were derived

by empirical inspection and from the large body of qualitative and quantitative economic, development studies and peace and conflict literature highlighting the importance of these factors. Rather than attempting to isolate singular factors associated with peace, this approach is focused on identifying the broad and complex associations that exist between the drivers of violence and a multitude of formal and informal cultural, economic, and political, variables.

Under each of the eight domains, the data sources most closely correlated with the GPI were then aggregated for each country.

**TABLE 4.1** PPI Indicators

PPI DOMAIN	PPI INDICATOR	WEIGHTING	SOURCE
WELL-FUNCTIONING GOVERNMENT	Government effectiveness	5%	World Governance Indicators, World Bank
	Rule of law	5%	World Governance Indicators, World Bank
	Political culture	5%	Sub-Index, Democracy Index, Economist Intelligence Unit
SOUND BUSINESS ENVIRONMENT	Ease of doing business	4%	Ease of Doing Business Index, World Bank
	Economic freedom	4%	Heritage Foundation
	Gdp per capita	4%	World Bank
EQUITABLE DISTRIBUTION OF RESOURCES	Life expectancy index loss	4%	Human Development Report, United Nations Development Programme
	Gini coefficient	2%	Economist Intelligence Unit
	Population living below \$2/day	5%	World Bank, IEP
ACCEPTANCE OF THE RIGHTS OF OTHERS	Hostility to foreigners and Private property rights	3%	Economist Intelligence Unit
	Empowerment index	4%	Cignarelli-Richards Human Rights Dataset
	Gender inequality	4%	Human Development Report, United Nations Development Programme
GOOD RELATIONS WITH NEIGHBOURS	Satisfaction with community	3%	Human Development Report, United Nations Development Programme
	Regional integration	4%	Economist Intelligence Unit
	Intergroup cohesion	5%	Indices for Social Development, International Institute for Social Studies
FREE FLOW OF INFORMATION	Freedom of the press index	4%	Freedom House
	World press freedom index	4%	Reporters Without Borders
	Mobile phones subs per 1000	3%	International Telecommunications Union
HIGH LEVELS OF HUMAN CAPITAL	Youth development index	4%	Commonwealth Secretariat
	Non income hdi	4%	Human Development Report, United Nations Development Programme
	Number of scientific publications	4%	World Bank and UNDP
LOW LEVELS OF CORRUPTION	Control of corruption	5%	World Governance Indicators, World Bank
	Factionalised elites	5%	Fund for Peace
	Perceptions of corruption	5%	Transparency International

## 24 INDICATORS UNDER EIGHT DOMAINS

- 122 countries covered in 2005
- 126 countries covered in 2010
- 121 countries covered in both 2005 and 2010
- 114 countries with scores for both GPI and PPI allowing for time series comparison of the two scores

## INDICATOR WEIGHTINGS

All indicators are scored between one and five, with one being the most 'positively peaceful' score and five the least 'positively peaceful'. This means countries which score closer to one are likely to have relatively more institutional capacity and resilience in comparison to nations which score closer to five. The weightings are between two and five per cent and have been derived by the strength of the indicator's statistical correlation to the 2013 GPI score. The stronger the correlation to the Global Peace Index, the higher the weighting portioned in the Positive Peace Index.

## DATA AVAILABILITY

Due to limited data availability some countries that are included in the GPI could not be included in this edition of the PPI. (See Table 4.2) This is important to note as some of the countries would potentially be identified in the analysis as key countries of focus. It is the intention of IEP in the future development of the PPI to expand coverage to more countries in order to more comprehensively research peace in future.

**TABLE 4.2** Countries that are in the GPI but could not be included in the PPI in 2013

*Due to low data availability, the following 36 countries could not be included in the PPI in 2013. This highlights the common data availability problems that exist in both lower middle and low income countries.*

COUNTRIES IN THE GPI BUT NOT IN THE PPI		
Afghanistan	Guinea-Bissau	Serbia
Angola	Iraq	Slovakia
Benin	Jamaica	Somalia
Bhutan	Kosovo	South Sudan
Bosnia and Herzegovina	Kyrgyzstan	Sudan
Cuba	Lesotho	Taiwan
Djibouti	Mauritius	Tajikistan
East Timor	Montenegro	Togo
Equatorial Guinea	Myanmar	Trinidad and Tobago
Eritrea	Niger	Turkmenistan
Gambia	North Korea	Zimbabwe
Guinea	Papua New Guinea	

## WELL-FUNCTIONING GOVERNMENT

Well-functioning Government is dependent upon levels of political participation, political culture, the separation of powers, the quality of democracy and public service delivery. It is dependent upon a multitude of formal and informal institutional variables, such as:

- The quality and quantity of public services
- The quality of the civil service and the degree of its independence from political pressures
- The quality of policy formulation and implementation
- The credibility of a government's commitment to its policies.

### ***Government Effectiveness (sub index) - World Bank, World Governance Indicators (WGI)***

**Definition:** Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

**Data Source:** The full WGI data set compiles and summarizes information from 30 existing data sources. The data aims to report the views and experiences of citizens, entrepreneurs, and experts in the public, private and NGO sectors from around the world, on the quality of various aspects of governance. The government effectiveness sub-indicator uses approximately 41 data points from a mix of the above sources.

### ***Rule of Law (sub index) - World Bank, WGI***

**Description:** Rule of law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

**Data Source:** The total WGI compile and summarise information from 30 existing data sources that report the views and experiences of citizens, entrepreneurs, and experts in the public, private and NGO sectors from around the world, on the quality of various aspects of governance. The rule of law sub-indicator uses approximately 76 data points from these sources.

### ***Political Culture (sub-index, Democracy Index) - Economist Intelligence Unit (EIU)***

**Description:** The EIU's Democracy Index is based on five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture. IEP has used the sub index Political Culture in the PPI, as the other metrics in the Well-Functioning Government PPI indicator cover the measurement of the formal institutions of governance. Political Culture uses survey data from World Values Survey and other sources to determine the informal attitudes towards democracy.

**Data Source:** Composite index based on dichotomous and three-point scoring qualitative scoring system by country experts.

## EQUITABLE DISTRIBUTION OF RESOURCES

The Equitable Distribution of resources in society refers not just to income distribution but also to the evenness of the broader development process, such as whether people have access to basic needs like water, healthcare, transportation, education or access to just legal processes. Uneven distribution of resources can generate fundamental inefficiencies within the system as well as lead to alienation of groups and the depletion of human capital.

In conceptual terms, inequality is about much more than poverty, which may only measure whether an individual or household's income is below a certain level. In both undeveloped and developed nations, access to health or first order needs, should be seen as necessities.

### **Percentage loss of the Human Development Life Expectancy Index due to inequality (sub index) - United Nations Development Programme (UNDP)**

**Definition:** As part of constructing the Human Development Index, the United Nations Development Programme (UNDP) build composite indexes on three categories, life expectancy, education and income. Due to the nature of composite indexes, it is possible in the standard HDI for two countries to achieve the same score while very different results when measured by the equitability of the distribution of the resources. To accommodate for this, an Inequality Adjusted HDI is calculated that takes into account not only the average achievements of a country on health, education and income, but also how those achievements are distributed among its citizens. This means it measures inequality in the key human development variables. This difference between the HDI and the IHDI therefore measures the loss of potential within a nation due to inequality. The difference between life expectancy index and the inequality adjusted life expectancy index has been selected for the PPI as it offers the widest coverage of countries.

**Source:** The UNDP sources its information from the World Health Organisation (WHO), United Nations Children's Fund (UNICEF), UN Inter-agency Group for Child Mortality Estimation (IGME), United Nations Department of Economic and Social Affairs (UNDESA), and Gallup World Poll.

### **Gini Coefficient (Income)**

**Definition:** The Gini coefficient measures the statistical inequality among values of a frequency distribution. It is defined using a Lorentz curve plotting the proportion of total income of a population that is cumulatively earned by the increasing proportions of the population ranked by their earnings. The Gini coefficient is the proportional area difference between this curve and the line of equality that would result if everyone within the population earned the same income.

**Source:** EIU (imputing data using Gini estimates from the World Bank)

### **Percentage of population living on less than \$2/day**

**Definition:** Percentage of population living on less than \$2/day  
Source: World Bank and UNDP

## SOUND BUSINESS ENVIRONMENT

The 'Sound Business Environment' structure refers to the strength of economic conditions as well as the formal institutions that support the operation of the private sector. Strong private sector conditions are essential for employment and economic growth and also ensure that there is a viable tax base upon which governments can fund other critical services which the private sector cannot.

### **Ease of Doing Business Index**

**Definition:** Since 2003 the Ease of Doing Business project measures the efficiency and strength of laws, regulations and institutions that are relevant too small to medium-sized companies throughout their life cycle. It covers 10 aspects of doing business including starting a business, getting electricity, taxes, contracts, getting credit, resolving insolvency and protecting investors. Data is sourced both from substantial qualitative legal research and from quantitative data into the cost of regulatory frameworks.

**Sources:** World Bank

### **Index of Economic Freedom - Heritage Foundation**

**Definition:** Economic Freedom is defined by the Heritage Foundation by the right of individuals to control his or her own property. In an economically free society individuals are less constrained by the State to work, produce and consume. While this index covers micro level factors such as covered by the Ease of Doing Business measure, it also covers more macro level factors such as democracy, government spending and economic growth. Sources: Index is comprised of many sources including the World Bank, the Economist Intelligence Unit, International Monetary Fund as well as regional and national summary analysis reports.

### **GDP per Capita (PPP) - World Bank, World Development Indicators**

**Definition:** GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States.

**Sources:** World Bank, World Development Indicators

## ACCEPTANCE OF THE RIGHTS OF OTHERS

Acceptance of the Rights of Others is a category designed to include both the formal institutions that ensure basic rights and freedoms as well as the informal social and cultural norms that relate to the behaviours of citizens. These factors relate to tolerance between the different ethnic, linguistic, religious, and socio-economic groups within a country.

### **Cingranelli-Richards (CIRI) Empowerment Index - CIRI Human Rights Dataset**

**Definition:** The CIRI Empowerment Index is an additive index constructed from the Foreign Movement, Domestic Movement, Freedom of Speech, Freedom of Assembly & Association, Workers' Rights, Electoral Self-Determination, and Freedom of Religion indicators. It ranges from 0, no government respect for these seven

rights, to 14, full government respect for these seven rights.

**Sources:** Constructed from the CIRI Human Rights Dataset which takes its primary source of information about human rights practices from the annual United States Department of State's Country Reports on Human Rights Practices. Coders for CIRI use this source for all variables. Coders also use a second source, Amnesty International's Annual Report. Both reports can be found online for recent years. If there are discrepancies between the two sources, coders are instructed to treat the Amnesty International evaluation as authoritative

#### **Gender Inequality Index (sub index) - UNDP**

**Definition:** The UNDP recognises gender equality as core concern to society and human development. High gender inequality is still common in many developing nations. The Gender Inequality Index is included in the Human Development Index to capture gender-based gaps in access to health, education, labour market and political representation within a nation.

**Sources:** UNDP sources its information from the World Health Organisation (WHO), United Nations Department of Economic and Social Affairs (UNDESA), Inter-Parliamentary Union (IPU), Barro and Lee and United Nations Educational, Scientific and Cultural Organization (UNESCO)

#### **Hostility to Foreigners and private property (sub-index) - EIU**

**Definition:** This indicator assesses the extent to which the government and society have negative attitudes towards foreigners and their investments in the country.

### **GOOD RELATIONS WITH NEIGHBOURS**

This domain refers to both the relations between communities within a nation and to the relationships between neighbouring states. This is based on the interdependent nature of the relationships investigated, as countries with positive external relations are more peaceful and also tend to be politically stable. This acknowledges the apparent close relationship between interpersonal and interstate violence.

#### **Satisfaction with community - UNDP**

**Definition:** In constructing the HDI, UNDP uses attitudinal surveys regarding perceptions of community and safety. To gauge satisfaction with community, UNDP uses the most recent Gallup World Poll data over the period between 2007-2011 of respondents who answered positively to the question "Right now, do you think that economic conditions in the city or area where you live, as a whole, are getting better or getting worse?"

Sources: Gallup World Poll

#### **Extent of Regional Integration - EIU**

**Definition:** Extent of Regional Economic Integration

Source/Methodology: Qualitative Assessment on the level of membership of trade alliances by EIU country analysts on a one to five score.

- 1: Not a member of any regional trade grouping.
- 2: Formally may be a member of regional trade grouping, but in practice intra-bloc trade remains significantly restricted and any

preferential access to major regional trade areas is limited.

- 3: The country is formally in a free trade area, but there are a large number of sectoral and other restrictions. Or the country enjoys a very high level of preferential access to a major regional trade area.
- 4: The country is part of a free trade area, and there are few sectoral restrictions. Or the country enjoys a very high level of preferential access to major regional trade area (i.e. NAFTA).
- 5: The country belongs to an economic union. There is freedom of movement for goods, capital and people (i.e. the E.U)

### **FREE FLOW OF INFORMATION**

Free Flow of Information captures how easily citizens can gain access to information, whether the media is free and independent, as well as the extent to which citizens are informed and engaged in the political process. In this sense free flow of information is an attempt to account for the degree of access to information as well as the independence of that information from vested political and economic interests.

#### **Press Freedom Index - Freedom House**

**Definition:** The Freedom of the Press index is an annual survey of media independence in 197 countries and territories. The index assesses the degree of print, broadcast, and internet freedom in every country in the world, analysing the events of each calendar year.

**Sources:** 23 methodology questions divided into three subcategories; the legal environment, the political environment, and the economic environment.

#### **World Press Freedom Index - Reporters Without Borders (RWB)**

**Definition:** The Reporters Without Borders index measures the state of press freedom in the world. It reflects the degree of freedom of journalists and news organisations and the efforts made by the authorities to respect and ensure respect for this freedom.

**Sources:** The data informing the RWB report is based on a questionnaire sent to partner organisations of RWB and its 130 correspondents around the world, as well as to journalists, researchers, jurists and human rights activists.

#### **Internet Usage - International Telecommunications Union (ITU) and United Nations**

**Definition:** Mobile-cellular telephone subscriptions per 100 of population.

**Sources:** Data is from the ITU, World Telecommunication/ICT Development Report and database. Over 500 in-country and survey data sources are used. Data is updated annually.

### **HIGH LEVELS OF HUMAN CAPITAL**

The concept of human capital encompasses the stock of human capacity and skills that a nation can use as a resource. In such a sense it can include knowledge, social and person attributes and attitudes, creativity and the ability to transform labour into economic value.

### Youth Development Index

**Definition:** Youth development is an important consideration for the prosperity of a nation as it empowers youth to build on their competencies and capabilities for life. It enables them to contribute and benefit from a politically stable, economically viable, and legally supportive environment, ensuring their full participation as active citizens in their countries. The Youth Development index is a composite measure aimed at comparing nations on their levels of youth development. It is based on 15 indicators under five key domains: Education, Health and Wellbeing, Employment, Civic Participation and Political Participation.

**Sources:** IEP composite index sourcing World Bank, UNDP, WHO, United Nations Office on Drugs and Crime, UNAIDS, Centres for Disease Control and Prevention, Global Youth Tobacco Survey, United Nations Statistical Division, Millennium Development Goals Database, African Economic Outlook, Commonwealth Secretariat, Ace Electoral Network and Gallup World Poll.

### Education and Health HDI

**Definition:** This is the HDI calculated on Education and Health indexes within the HDI.

Sources: UNDP sourcing UNESCO, OECD and Gallup World Poll.

### Scientific Publications

**Definition:** Measures of human capital are possible but current datasets, such as the Human Capital Index, are limited in country coverage. To maximise coverage the number of scientific and technical publications that a nation produces within a year per 100 000 people is used as a proxy measure creative and innovation aspects of human capital.

**Sources:** World Bank

## LOW LEVELS OF CORRUPTION

Two indexes focusing on corruption, Transparency International's Corruption Perceptions Index (CPI) and the World Bank's World Governance Indicators Control of Corruption measure were chosen as the pre-eminent global measures of corruption.

### Control of Corruption - World Bank, World Governance Indicators

**Definition:** A sub-index of the World Governance Indicators. Captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

**Sources:** Based on 31 sources of expert and survey data.

### Corruption Perception Index - Transparency International

**Definition:** The CPI ranks countries according to their perceived levels of public-sector corruption.

**Sources:** The data sources for the Transparency International CPI vary each year but draw upon different assessments and business opinion surveys carried out by independent institutions. The surveys and assessments used to compile the index include questions relating to the bribery of public officials, kickbacks in

public procurement, embezzlement of public funds, and questions that probe the strength and effectiveness of public-sector anti-corruption efforts.

### Factionalised Elites - Fund For Peace

**Definition:** Nations with poor government run the risk of becoming unstable as small groups, in the absence of a widely accepted leadership, begin to rally for power. The rise of factionalised elites indicator measures the level of elite groups, along ethnic, religious or racial have become fragmented with state institutions. The measure itself captures the levels of power struggles, defectors, flawed elections and political competition.

**Sources:** UNHCR, WHO, UNDP, Transparency International, World Fact book, Freedom House, World Bank, and other reliable sources.

## REFERENCES

- Abadie, A., & Ardeazabal, J. (2003). The Economic Costs of Conflict : A Case Study of the Basque Country. *American Economic Review*.
- Addison, T. (2012). Human security report 2009/2010: the causes of peace and the shrinking costs of war. *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, 33(1), 106-108.
- Adsera, A., Boix, C., & Payne, M. (2003). Are you being served? Political accountability and quality of government. *Journal of Law, Economics, and Organization*.
- Akcay, S. (2006). Corruption and Human Development. *Cato Journal*, 26. Retrieved from <http://heinonline.org/HOL/Page?handle=hein.journals/catoj26&id=31&div=&collection=journals>
- Aos, S., Phipps, P., Barnoski, R., & Lieb, R. (2001). The Comparative Costs and Benefits of Programs to Reduce Crime. *Washington State Institute for Public Policy*. Olympia, WA
- Ardagna, S., & Lusardi, A. (2010). Heterogeneity in the effect of regulation on entrepreneurship and entry size. *Journal of the European Economic Association*, 8(2-3).
- Aron, J. (2000). Growth and institutions: a review of the evidence. *The World Bank Research Observer*. Retrieved from <http://wbro.oxfordjournals.org/content/15/1/99.short>
- Barrett, G., Vanderplaat, M., Castellano Gonzalez, M. E., Ferreira Irmao, J., Godoy Ampuero, M. C., & Miranda Vera, C. E. (2011). Civic Networks and Community Resilience in Brazil, Canada, Chile, and Cuba. *Journal of Civil Society*, 7(4), 333-362.
- Basabe, N., & Valencia, J. (2007). Culture of peace: Sociostructural dimensions, cultural values, and emotional climate. *Journal of Social Issues*.
- Berkman, H. (2007). Social Exclusion and Violence in Latin America and the Caribbean. *Inter-American Development Bank. Discussion Paper Series*. Washington, DC 20577.
- Berrebi, C., & Klor, E. (2005). The impact of terrorism across countries: an empirical study. *The Maurice Falk Institute for Economic Research in Israel*. Jerusalem, Israel.
- Blomberg, Brock S., Gregory D. Hess, and Athanasios Orphanides. 2004. The Macroeconomic Consequences of Terrorism. *Journal of Monetary Economics* 51(5): 1007-1032.
- Bozzoli, C., Brück, T., Drautzburg, T., & Sottas, S. (2008). Economic Cost of Mass Violent Conflicts. *DIW Berlin, Department of International Economics*. Berlin, Germany.

- Brand, S., & Price, R. (2000). The economic and social costs of crime. *Home Office RDS, Research Study*, 217. London SW 1H 9AT.
- Bratić, V. (2006). Media effects during violent conflict: Evaluating media contributions to peace building. *Conflict & Communication online*, 5(1).
- Brian, K. (2007). OECD Insights Human Capital How what you know shapes your life: How what you know shapes your life. Danvers, MA01923 USA.
- Bruck, T., Naudé, W., & Verwimp, P. (2013). Business under Fire: Entrepreneurship and Violent Conflict in Developing Countries. *Journal of Conflict Resolution*, 57(1), 3-19.
- Brunetti, A., & Weder, B. (2003). A free press is bad news for corruption. *Journal of Public Economics*, 87(7-8), 1801-1824.
- Buesa, M., Valiño, A., Heijis, J., Baumert, T., & Gómez, J. G. (2007). The Economic Cost of March 11: Measuring the Direct Economic Cost of the Terrorist Attack on March 11, 2004 in Madrid. *Terrorism and Political Violence*, 19(4), 489-509.
- Buvinic, M., Morrison, A., & Shifter, M. (1999). Violence in Latin America and the Caribbean : A Framework for Action. *Technical Study. Sustainable Development Department - Inter-American Development Bank*. Washington, DC 20577
- Chang, H.-C., Huang, B.-N., & Yang, C. W. (2011). Military expenditure and economic growth across different groups: A dynamic panel Granger-causality approach. *Economic Modelling*, 28(6), 2416-2423.
- Cohen, M. (1988). Pain, suffering and jury awards: A study of the cost of crime to victims. *Law & Society Review*, 22(3), 537-556.
- Cohen, M. A. (2000). Measuring the Costs and Benefits of Crime and Justice. *Criminal Justice*, 4, 263-315.
- Cohen, M., Rust, R., Steen, S. & Tidd, S. (2004). Willingness-to-Pay for Crime Control Programs. *Criminology*, 42, 86-106.
- Colletta, N. J., & Cullen, M. L. (2000). Armed Conflict and the Transformation of Social Capital: Lessons from Rwanda, Somalia, Cambodia and Guatemala (p. 139). World Bank Publications.
- Collier, P. (1999). On the economic consequences of civil war. *Oxford Economic Papers*, 51(1), 168-183.
- Collier, P., & Hoeffler, A. (1998). On economic causes of civil war. *Oxford economic papers*.
- Concha-Eastman, Alberto (2002), "Urban Violence in Latin American and the Caribbean. Dimensions, Explanations, Actions." *Citizens of Fear: Urban Violence in Latin America*. New Brunswick, NJ: pp. 37-54.
- Crain, N. V. & Crain, W. M. (2006). Terrorized Economies. *Public Choice*, vol. 128, No 1/2.
- Das, J., & DiRenzo, C. E. (2012). Global peace and repression: a cross-country analysis. *Global Change, Peace & Security*, 24(2), 271-287.
- Day, T., McKenna, K., & Bowlus, A. (2005). The economic cost of violence against women: an evaluation of the literature. *The University of Western Ontario*. Ontario, Canada.
- De Groot, O. J. (2009b). A Methodology for the Calculation of the Global Economic Costs of Conflict. *DIW Berlin, Department of International Economics*. Berlin, Germany.
- De Groot, O. J. (2010). The spillover effect of conflict on economic growth in neighbouring countries in Africa. *Defence and Peace Economics*, 21(2), 149-164.
- De Groot, O., Bruck, T., & Bozzoli, C. (2009a). How many bucks in a bang: on the estimation of the economic costs of conflict. Discussion Paper No 948. *DIW Berlin, Department of International Economics*. Berlin, Germany.
- Diener, E., Diener, M., & Diener, C. (1995). Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology*, 69(5).
- Dolan, P. (2005). Estimating the Intangible Victim Costs of Violent Crime. *British Journal of Criminology*, 45(6), 958-976.
- Dolan, P., & Peasgood, T. (2006). Estimating the Economic and Social Costs of the Fear of Crime. *British Journal of Criminology*, 47(1), 121-132.
- Dreher, A., & Herzfeld, T. (2005). The economic costs of corruption: A survey and new evidence. IAMO Working paper Series.
- Dube, O., & Vargas, J. (2008). Commodity price shocks and civil conflict: Evidence from Colombia. Unpublished manuscript Harvard University.
- Eberts, R. (1990). Public infrastructure and regional economic development. *Economic Review*.
- Fajnzlber, P., Lederman, D., & Loayza, N. (2002). Inequality and Violent Crime. *Journal of Law & Economics*, 45.
- Feils, D. J., & Rahman, M. (2011). The Impact of Regional Integration on Insider and Outsider FDI. *Management International Review*, 51(1), 41-63.
- Fernandez, R., & Kulik, J. (1981). A multilevel model of life satisfaction: effects of individual characteristics and neighborhood composition. *American Sociological Review*.
- Fiala, N. (2012). The economic consequences of forced displacement. *H/CN working paper*, No 137. University of Sussex. Brighton, BN1 9RE UK.
- Finkel, S. E. (n.d.). Civic Education and the Mobilization of Political Participation in Developing Democracies. *The Journal of Politics*, 64(04), 994-1020.
- Fischer, R., & Hanke, K. (2009). Are societal values linked to global peace and conflict? *Peace and Conflict: Journal of Peace Psychology*, 15(3).
- Freedom House. (2012). Property Rights: Definition, Economic Growth, Index, Examples.
- Galtung, J. (1985). Twenty-five years of peace research: ten challenges and some responses. *Journal of Peace Research*.
- Galtung, J. (1996). *Peace by peaceful means: Peace and conflict, development and civilization*.
- Garcia-Montalvo, J., & Reynal-Querol, M. (2004). Ethnic Polarization, Potential Conflict, and Civil Wars. *SSRN Electronic Journal*.
- Gates, S., Hegre, H., Nygård, H. M., & Strand, H. (2012). Development Consequences of Armed Conflict. *World Development*, 40(9), 1713-1722.
- Gizelis, T., & Wooden, A. (2010). Water resources, institutions, & intrastate conflict. *Political Geography*.
- Gupta, S. (2002). *Fiscal Consequences of Armed Conflict and Terrorism in Low- and Middle-Income Countries* (p. 28). International Monetary Fund.
- Haider, H. (2012). Topic guide on conflict. *Governance and Social Development Resource Centre, University of Birmingham*. Birmingham.
- Hegre, H., & Sambanis, N. (2006). Sensitivity analysis of empirical results on civil war onset. *Journal of Conflict Resolution*. Retrieved from <http://jcr.sagepub.com/content/50/4/508.short>
- Hegre, H., Oneal, J. R., & Russett, B. (2010). Trade does promote peace: New simultaneous estimates of the reciprocal effects of trade and conflict. *Journal of Peace Research*, 47(6), 763-774.
- Hegre, H., Oneal, J., & Russett, B. (2010). Trade does promote peace: New simultaneous estimates of the reciprocal effects of trade and conflict. *Journal of Peace Research*.
- Helliwell, J. (2001). *Social capital, the economy and well-being*. The review of economic performance and social progress 2001: the longest decade, Canada in the 1990s.
- Helliwell, JF. (2006). Well-Being, Social Capital and Public Policy: What's New\*. *The Economic Journal*, 116(510), C34-C45.
- Hess, Gregory D. (2003) The Economic Welfare Cost of Conflict: An Empirical Assessment. *CESifo Working Paper Series*. No. 852.
- Homer-Dixon, T. (1994). Environmental scarcities and violent conflict: evidence from cases. *International security*.
- Imai, K., & Weinstein, J. (2000). Measuring the Economic Impact of Civil War. Working Paper No 51. *Center for International Development, Harvard University*. USA
- Institute for Economics and Peace. (2010). The Global Peace Index and Multi-National Attitude Research.
- Institute for Economics and Peace. (2012). United States Peace Index 2012. Sydney, Australia.
- J., G., Amos, B., & Plumptre, T. (2003). *Principles for Good Governance in the 21st Century*. Institute on Governance: Policy Brief, 15. Retrieved from [http://www.growthregion.ca/images/file/governance/policybrief15\\_0.pdf](http://www.growthregion.ca/images/file/governance/policybrief15_0.pdf)
- Jedwab, R., & Moradi, A. (2011). Transportation Infrastructure and Development in Ghana. *Paris School of Economics Working paper*, 24.
- Julius, M., Ngao, G., David, M., & Paul, M. (2012). Peace Education for Sustainable Peace and Development: A Case of Kenya. *Journal of research in peace gender and development*, 2(2), 28-33.
- Kaufmann, D. (2009). *Governance matters 2009: learning from over a decade of the Worldwide Governance Indicators*. The Brookings Institution.
- Kimenyi, M. (2011). Contribution of Higher Education to Economic Development: A Survey of International Evidence. *Journal of African Economies*, 20(3).
- Klugman, J. (2010). *Human development report 2010: the real wealth of nations: pathways to human development*.
- Korf, B. (2005). Rethinking the Greed-Grievance Nexus: Property Rights and the Political Economy of War in Sri Lanka. *Journal of Peace Research*, 42(2), 201-217.
- Lake, D. A., & Baum, M. A. (2001). The Invisible Hand of Democracy: Political Control and the Provision of Public Services. *Comparative Political Studies*, 34(6), 587-621.
- Lambsdorff, J. G. (2010). Who accepts bribery? Evidence from a global household survey. University of Passau working paper, 61.
- Lindley, D. (2006). Promoting Peace with Information (pp. 574-631).

- Mancini, L. (2005). Horizontal Inequality and Communal Violence : Evidence from Indonesian Districts. *CRISE working paper*, (22).
- Mani, R. (1998). Conflict resolution, justice and the law: Rebuilding the rule of law in the aftermath of complex political emergencies. *International Peacekeeping*, 5(3), 1-25.
- Mayhew, P. (2003a). Counting the Costs of Crime in Australia. *Trends & Issues in crime and criminal justice*, No 247.
- Mayhew, P. (2003b). Counting the Costs of Crime in Australia : Technical Report. *Technical and Background paper Series*, no 4. Australian Institute of Criminology. Canberra, Australia
- McCollister, K. E., French, M. T., & Fang, H. (2010). The cost of crime to society: new crime-specific estimates for policy and program evaluation. *Drug and alcohol dependence*, 108(1-2), 98-109.
- Messer, E., Cohen, M., & Marchione, T. (n.d.). Conflict: A Cause and effect of hunger. ECSP report, 7.
- Miller, Ted R., Mark A. Cohen, and Brian Wiersema. (1996). Victim Costs and Consequences: A New Look. *National Institute of Justice*. Washington, DC.
- Mueller, J., & Stewart, M. G. (2011). Terror, Security, and Money: Balancing the risks, benefits, and costs of homeland security. *Annual Convention of the Midwest Political Science Association*. Chicago, IL.
- Mullainathan, S., & Shleifer, A. (2002). Media bias. Retrieved from <http://www.nber.org/papers/w9295>
- Muto, M., & Yamano, T. (2009). The impact of mobile phone coverage expansion on market participation: Panel data evidence from Uganda. *World Development*.
- Myint, U. (2000). Corruption: causes, consequences and cures. *Asia Pacific Development Journal*.
- Nelson, T., Clawson, R., & Oxley, Z. (1997). Media framing of a civil liberties conflict and its effect on tolerance. *American Political Science Review*.
- Ness, I. (Ed.). (2013). *The Encyclopedia of Global Human Migration*. Oxford, UK: Blackwell Publishing Ltd.
- Njoh, A. J. (2012). Impact of Transportation Infrastructure on Development in East Africa and the Indian Ocean Region. *Journal of Human Planning and Development*, 138(1).
- Persson, T., Roland, G., & Tabellini, G. (1997). Separation of Powers and Political Accountability. *The Quarterly Journal of Economics*, 112(4), 1163-1202.
- Quinlan, A. (2010). Building resilience in Ontario: More than metaphor or Arcane concept. *Resilience Science*.
- Rajkumar, A.S., French, M.T., 1997. Drug abuse, crime costs, and the economic benefits of treatment. *Journal of Quantitative Criminology*. 13, 291-323.
- Randall K.Q. Akee, Arnab K. Basu, Nancy H. Chau, M. K. (2010). Migration and Culture. *Frontiers of Economics and Globalization*, 8, 691-716.
- Rice, S., Graff, C., & Lewis, J. (2006). Poverty and Civil War: What Policymakers Need to Know. *Brookings Global Economy and Development Working paper*, 2.
- Rivera-Batiz, F. L. (2002). Democracy, Governance, and Economic Growth: Theory and Evidence. *Review of Development Economics*, 6(2), 225-247.
- Ross, M., Lujala, P., & Rustad, S. (2012). Horizontal inequality, decentralizing the distribution of natural resource revenues, and peace. Retrieved from [http://elr.info/sites/default/files/251-259\\_ross\\_lujala\\_rustad.pdf](http://elr.info/sites/default/files/251-259_ross_lujala_rustad.pdf)
- Rousseau, P. L., & Yilmazkuday, H. (2009). Inflation, financial development, and growth: A trilateral analysis. *Economic Systems*, 33(4), 310-324. doi:10.1016/j.ecosys.2009.06.002
- Rue, F. La. (2011). Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression. Human Rights Council.
- Schwens, C., Eiche, J., & Kabst, R. (2010). The Moderating Impact of Informal Institutional Distance and Formal Institutional Risk on SME Entry Mode Choice. *Journal of Management Studies*, 48(2), no-no.
- Sen, A. (1999). Development as freedom. Oxford, UK: Oxford University Press.
- Shapiro, R., & Hasset, K. (2012). The Economic Benefits of Reducing Violent Crime: a case study of eight American cities. *Center for American Progress*. Washington, DC 2005.
- Sharma, M. (2011). Education for nurturing peace culture. *MIER Journal of Educational Studies*.
- Simons, K. L. (2011). No time to thrive : armed conflict and early language and cognitive development in Ethiopia and Peru. Georgetown University.
- Skaperdas, S., Soares, R., Willman, A., & Miller, S. C. (2009). The Cost of Violence. *Social Development Department - The World Bank*. Washington, DC 20433.
- Solheim, E. (2010). Climate, Conflict and Capital: Critical Issues for the MDGs and Beyond 2015. *IDS Bulletin*, 41(1), 100-103.
- Sonn, C. C., & Fisher, A. T. (1998). Sense of community: community resilient responses to oppression and change. *Journal of Community Psychology*.
- Stewart, F. (2011). Horizontal inequalities as a cause of conflict a review of CRISE findings. The World Bank. Washington DC. The World Bank.
- Stromseth, J. (2009). Justice on the Ground: Can International Criminal Courts Strengthen Domestic Rule of Law in Post-Conflict Societies? *Hague Journal on the Rule of Law*.
- Sunshine Hillygus, D. (2005). The missing link: Exploring the Relationship Between Higher Education and Political Engagement. *Political Behavior*, 27(1), 25-47. doi:10.1007/s11109-005-3075-8
- The Fund for Peace Failed States Index 2012 . (n.d.). Retrieved March 11, 2013, from <http://www.fundforpeace.org/global/library/cfsir1210-failedstatesindex2012-06p.pdf>
- The Institute for Economics and Peace. (2009). 2009 Discussion Paper: Peace, its Causes and Economic Value. Retrieved March 13, 2013, from <http://economicsandpeace.org/wp-content/uploads/2011/09/2009-GPI-Discussion-Paper.pdf>
- Tong, K. K., Hung, E. P. W., & Yuen, S. M. (2010). The Quality of Social Networks: Its Determinants and Impacts on Helping and Volunteering in Macao. *Social Indicators Research*, 102(2), 351-361.
- Transparency International. (2009). Corruption Perceptions Index 2009.
- UN. (2012). Extreme poverty and human rights (A /67/278), 45806(August). Retrieved from <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N12/458/06/PDF/N1245806.pdf?OpenElement>
- University of Oxford- Refugee Studies Centre. (2011). *Volume II: Study on Impacts and Costs of Forced Displacement. State of the art literature review*. Oxford, UK.
- Walter, B. (2011). Conflict Relapse and the Sustainability of Post-Conflict Peace. Retrieved from <https://openknowledge.worldbank.org/handle/10986/9069>
- Waters, H. R., Hyder, A. A., Rajkotia, Y., Basu, S., & Butchart, A. (2005). The costs of interpersonal violence: an international review. *Health policy*, 73(3), 303-15.
- Webber, A. (2010). Literature Review: cost of crime. *NSW Government-Attorney General & Justice*. Sydney, Australia.
- WEF. (2013). Global Risks 2013 - Eighth Edition | World Economic Forum - Global Risks 2013 - Eighth Edition. Global Risks 2013 - Eighth Edition - World Economic Forum. Retrieved March 10, 2013, from <http://www.weforum.org/reports/global-risks-2013-eighth-edition>
- Wickrama, K. A. S., & Mulford, C. L. (1996). Political Democracy, economic development, disarticulation and social well-being in developing countries. *The Sociological Quarterly*, 37(3), 375-390.
- Wilkinson, R., Soysa, I. de, & Emadi-Coffin, B. (n.d.). Regional Trade Integration and Conflict Resolution. abhatoo.net.ma. Retrieved from [http://www.abhatoo.net.ma/index.php/fre/content/download/7281/102673/file/doc\\_ircd\\_.pdf](http://www.abhatoo.net.ma/index.php/fre/content/download/7281/102673/file/doc_ircd_.pdf)
- World Bank. (2011). World Development Report 2011: Conflict, Security, and Development. The World Bank.
- World Bank. (2012a). Rule of law Variable Definition. World Governance Indicators data definitions. Retrieved March 11, 2013, from <http://info.worldbank.org/governance/wgi/pdf/r1.pdf>
- World Bank. (2012b). Voice and accountability measures the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. World Governance Indicators data definitions.
- World Economic Forum. (2006). The Competitiveness Indexes. Retrieved March 12, 2013, from [https://members.weforum.org/pdf/Global\\_Competitiveness\\_Reports/Reports/gcr\\_2006/chapter\\_1\\_1.pdf](https://members.weforum.org/pdf/Global_Competitiveness_Reports/Reports/gcr_2006/chapter_1_1.pdf)
- Yakop, M., & Van Bergeijk, P. A. G. (2011). Economic diplomacy, trade and developing countries. *Cambridge Journal of Regions, Economy and Society*, 4(2), 253-267.

## OTHER PUBLICATIONS FROM THE INSTITUTE FOR ECONOMICS AND PEACE

### United Kingdom Peace Index 2013

Institute for Economic & Peace - April 2013

The UK Peace Index report analyses the fabric of peace in the UK over the last decade and has found that since 2003 the UK has become more peaceful.



### Pillars of Peace

Institute for Economics and Peace - January 2013

Pillars of Peace is a new conceptual framework for understanding and describing the factors that create a peaceful society.



### Global Terrorism Index 2012

Institute for Economic & Peace - December 2012

The Global Terrorism Index is the first index to systematically rank and compare 158 countries according to the impact of terrorism.



### Violence Containment Spending in the United States

Institute for Economic & Peace - September 2012

Violence Containment Spending provides a new methodology to categorise and account for the public and private expenditure on containing violence.



### Global Peace Index 2012

Institute for Economic & Peace - June 2012

The Global Peace Index is the world's preeminent measure of peacefulness. This is the 6th edition of the Global Peace Index.



### United States Peace Index 2012

Institute for Economic & Peace - April 2012

The 2012 United States Peace Index has found that the U.S. is more peaceful now than at any other time over the last twenty years.



### Economic Consequences of War on the U.S. Economy

Institute for Economic & Peace - February 2012

The Economic Consequences of War on the U.S. Economy analyses the macroeconomic effects of U.S. government spending on wars since World War II.



### Measuring Peace in the Media

Institute for Economics & Peace and Media Tenor - January 2012

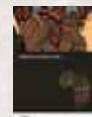
IEP and Media Tenor have jointly analysed global television networks' coverage of peace and violence issues; covering over 160,000 news items from 31 programs.



### Holding G8 Accountability to Account

Jeffery Sachs, Earth Institute and Steve Killelea, IEP - September 2010

A critical analysis of the G8's internal accountability mechanism and the failure of the G8 to meet self-determined deadlines for aid relief donations in Africa.



Available for download at

**[www.economicsandpeace.org](http://www.economicsandpeace.org)**

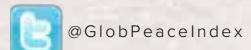
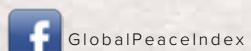
# INSTITUTE FOR ECONOMICS & PEACE

IEP is an independent, non-partisan, non-profit research organisation dedicated to shifting the world's focus to peace as a positive, achievable, and tangible measure of human wellbeing and progress.

IEP has offices in Sydney and New York. It works with a wide range of partners internationally and collaborates with intergovernmental organisations on measuring and communicating the economic value of peace.

The Institute for Economics and Peace is a registered charitable research institute in Australia and a Deductible Gift Recipient. IEP USA is a 501(c)(3) tax exempt organisation.

FOR MORE INFORMATION  
[INFO@ECONOMICSANDPEACE.ORG](mailto:INFO@ECONOMICSANDPEACE.ORG)  
EXPLORE OUR WORK  
[WWW.ECONOMICSANDPEACE.ORG](http://WWW.ECONOMICSANDPEACE.ORG) AND  
[WWW.VISIONOFHUMANITY.ORG](http://WWW.VISIONOFHUMANITY.ORG)



GlobalPeaceIndex

@GlobPeaceIndex

**IEP REPORT 21**



Scan code to go to the  
Vision of Humanity website

ISBN 978-0-9806279-8-5



9 780980 627985