

INSTITUTE FOR ECONOMICS & PEACE

2008 METHODOLOGY, RESULTS & FINDINGS



## EXECUTIVE SUMMARY

The ground-breaking Global Peace Index (GPI) has been expanded and updated with the latest available figures for 2008, a year on from the completion of the first GPI, which ranked 121 nations according to their relative states of peace. The index is composed of 24 qualitative and quantitative indicators from highly respected sources, which combine internal and external factors ranging from a nation's level of military expenditure to its relations with neighbouring countries and the level of respect for human rights. These indicators were selected by an international panel of academics, business people, philanthropists and peace institutions. The GPI is collated and calculated by the Economist Intelligence Unit.

As before, the GPI has been tested against a range of potential “drivers” or potential determinants of peace – including levels of democracy and transparency, education and material wellbeing. Now including 140 countries, the GPI brings a snapshot of relative peacefulness among nations while continuing to contribute to an understanding of what factors help create or sustain more peaceful societies.

The GPI was founded by Steve Killelea, an Australian international technology entrepreneur and philanthropist. It forms part of the Institute for Economics and Peace, a new global think tank dedicated to the research and education of the relationship between economics, business and peace. This report is written in cooperation with the Economist Intelligence Unit.

## BACKGROUND

### Defining peace

The concept of peace is notoriously difficult to define. The simplest way of approaching it is in terms of harmony achieved by the absence of war or conflict. Applied to nations, this would suggest that those not involved in violent conflicts with neighbouring states or suffering internal wars would have achieved a state of peace. This is what Johan Galtung<sup>1</sup> defined as a “negative peace” – an absence of violence. The concept of negative peace is immediately intuitive and empirically measurable, and can be used as a starting point to elaborate its counterpart concept, “positive peace”: having established what constitutes an absence of violence, is it possible to identify which structures and institutions create and maintain peace? The Global Peace Index is a first step in this direction; a measurement of peace that seeks to determine what cultural attributes and institutions are associated with states of peace.

In 1999 the UN General Assembly launched a programme of action to build a “culture of peace” for the world’s children, which envisaged working towards a positive peace of justice, tolerance and plenty. The UN defined a culture of peace as involving values, attitudes and behaviours that:

- Reject violence
- Endeavour to prevent conflicts by addressing root causes
- Aim at solving problems through dialogue and negotiation

It proposed that such a culture of peace would be furthered by actions promoting education for peace and sustainable development, which it suggested was based

on human rights, gender equality, democratic participation, tolerant solidarity, open communication and international security. However, these links between the concept of peace and the causes of peace were presumed rather than systematically measured. For example, while Doyle<sup>2</sup> and advocates of his liberal peace theory have held that democratic states rarely attack each other, the ongoing war in Iraq demonstrates how some democratic countries can be militant or belligerent – the justification for war often being that peace is ultimately secured through violence or the threat of violence.

### Measuring states of peace

The difficulties in defining the concept of peace may partly explain why there have been so few attempts to measure states of peace across nations.

This project has approached the task on two fronts – the first aim is to produce a scoring model and global peace index that ranks 140 nations by their relative states of peace using 24 indicators. The indicators have been selected as being the best available datasets that reflect the incidence or absence of peace, and contain both quantitative data and qualitative scores from a range of trusted sources. The second aim is to use the underlying data and results from the Global Peace Index to undertake investigations into the relative importance of a range of potential determinants or “drivers” that may influence the creation and nurturance of peaceful societies, both internally and externally.

### The research team

As with all composite indexes of this type, there are issues of bias and arbitrariness in the factors that are chosen to assess peace and, even more seriously, in assigning

<sup>1</sup> Galtung, Johan. *Peace by Peaceful Means: peace and conflict, development and civilization*. Oslo: International Peace Research Institute, 1996

<sup>2</sup> Doyle, Michael. *Kant, Liberal Legacies, and Foreign Affairs*. *Philosophy and Public Affairs* (1983) 205, 207-208

## BACKGROUND

weights to the different indicators (measured on a comparable and meaningful scale) to produce a single synthetic measure. In order to minimise these slants, the choices of indicators and the weights assigned to them were agreed following close and extensive consultation with the following international panel of experts in 2007 and 2008:

**Professor Kevin P Clements**

Director, Australian Centre for Peace and Conflict Studies (ACPCS)  
University of Queensland, Australia

**Associate Professor Mohammed Abu-Nimer**  
School of International Service,  
American University, Washington DC, USA

**Alyson JK Bailes**

(Former) Director, Stockholm International Peace Research Institute (SIPRI), Sweden

**Professor Daniel Druckman**

Visiting scholar, Australian Centre for Peace and Conflict Studies (ACPCS)  
University of Queensland, Australia

**Dr Bates Gill**

Director, Stockholm International Peace Research Institute (SIPRI), Sweden

**Professor Andrew Mack**

Director, Human Security Centre,  
University of British Columbia, Canada

**Dr Manuela Mesa**

Director, Center for Education and Peace Research (CEIPAZ) and President, Spanish Association for Peace Research (AIPAZ), Spain

**Dan Smith**

Author, in a private capacity

**Emeritus Professor Stuart Rees**

Sydney Peace Foundation,  
University of Sydney, Australia

**Paul van Tongeren**

Executive Director, Global Partnership for the Prevention of Armed Conflict (GPPAC),  
The Netherlands

## METHODOLOGY AND DATA SOURCES

### The indicators

Twenty-four indicators of the existence or absence of peace were chosen by the panel (listed below), which are divided into three key thematic categories. Many of the indicators have been “banded” on a scale of 1-5; qualitative indicators in the index have been scored by the Economist Intelligence Unit’s extensive team of country analysts, and gaps in the quantitative data have been filled by estimates. Indicators of quantitative data such as military expenditure or jailed population have been normalised on the basis of:

$$x = (x - \text{Min}(x)) / (\text{Max}(x) - \text{Min}(x))$$

Where Min (x) and Max (x) are respectively the lowest and highest values in the 140 countries for any given indicator. The normalised value is then transformed from a 0-1 value to a 1-5 score to make it comparable with the other indicators. For details on the precise definition of each indicator see Annex A.

### Measures of ongoing domestic and international conflict

The Global Peace Index is intended as a review of the state of peace in nations over the past year, although many indicators are based on available data from the last two years. The advisory panel decided against including data reflecting a country’s longer-term historical experience of domestic and international conflict on the grounds that the GPI uses authoritative statistics on ongoing civil and trans-national wars collated by institutes such as the Uppsala Conflict Data Program and the International Peace Research Institute, Oslo. These, combined with two indicators scored by the Economist Intelligence Unit’s analysts, comprise five of the 24 indicators.

- Number of external and internal conflicts fought: 2001-06
- Estimated number of deaths from organised conflict (external)
- Number of deaths from organised conflict (internal)
- Level of organised conflict (internal)
- Relations with neighbouring countries

### Measures of societal safety and security

Ten of the indicators assess the levels of safety and security in a society (country), ranging from the level of distrust in other citizens, to the level of respect for human rights and the rate of homicides and violent crimes. Crime data is from the UN Office of Drugs and Crime (UNODC). The difficulties of comparing international crime statistics are discussed in detail in Appendix A. Five of these indicators have been scored by the Economist Intelligence Unit’s team of country analysts.

- Level of distrust in other citizens
- Number of displaced people as a percentage of the population
- Political instability
- Level of disrespect for human rights (Political Terror Scale)
- Potential for terrorist acts
- Number of homicides per 100,000 people
- Level of violent crime
- Likelihood of violent demonstrations
- Number of jailed population per 100,000 people
- Number of internal security officers and police per 100,000 people

## METHODOLOGY AND DATA SOURCES

### Measures of militarization

Nine of the indicators are related to a country's military build-up – reflecting the assertion that the level of militarization and access to weapons is directly linked to how at peace a country feels internationally. Comparable data are readily available from sources such as the International Institute of Strategic Studies (IISS).

- Military expenditure as a percentage of GDP
- Number of armed services personnel per 100,000 people
- Volume of transfers (imports) of major conventional weapons per 100,000 people
- Volume of transfers (exports) of major conventional weapons per 100,000 people
- UN Deployments 2007-08 (percentage of total armed forces)
- Non-UN Deployments 2007-08 (percentage of total armed forces)
- Aggregate number of heavy weapons per 100,000 people
- Ease of access to small arms and light weapons
- Military capability/sophistication

### Weighting the index

The advisory panel apportioned scores based on the relative importance of each of the indicators on a 1-5 scale. The consensus scores for each indicator are given in Table 1 on page 7.

Two sub-component weighted indices were then calculated from the GPI group of indicators, 1) a measure of how at peace a country is internally; 2) a measure of how at peace a country is externally (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 within 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 – in other words, if ‘charity begins at home’ – so might peace.

Indicator	Weight (1 to 5)
INTERNAL PEACE	60%
EXTERNAL PEACE	40%
Level of distrust in other citizens	4
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 weapons of minor destruction	3
Level of organised conflict (internal)	5
Likelihood of violent demonstrations	3
Level of violent crime	4
Political instability	4
Respect for human rights	4
Volume of transfers of major conventional weapons, as recipient (imports) per 100,000 people	2
Potential for terrorist acts	1
Number of deaths from organised conflict (internal)	5
Military expenditure as a percentage of GDP	2
Number of armed services personnel per 100,000 people	2
UN Deployments 2007-08 (percentage of total forces)	2
Non-UN Deployments 2007-08 (percentage of total forces)	4
Aggregate number of heavy weapons per 100,000 people	3
Volume of transfers of major conventional weapons as supplier (exports) per 100,000 people	3
Military capability/sophistication	2
Number of displaced people as a percentage of the population	4
Relations with neighbouring countries	5
Number of external and internal conflicts fought: 2001-06	5
Estimated number of deaths from organised conflict (external)	5

Table 1

## ANALYSIS OF THE RESULTS

Table 2 provides the GPI rankings for the 140 countries in 2008. Countries most at peace are ranked first. Those countries shaded green are in the top 20%; those shaded red are in the bottom 20%.

Rank	Country	Score	Rank	Country	Score
1	Iceland	1.176	34	Costa Rica	1.701
2	Denmark	1.333	35	Estonia	1.702
3	Norway	1.343	36	France	1.707
4	New Zealand	1.350	37	Vietnam	1.720
5	Japan	1.358	37	Malaysia	1.721
6	Ireland	1.410	39	Latvia	1.723
7	Portugal	1.412	40	Ghana	1.723
8	Finland	1.432	41	Lithuania	1.723
9	Luxembourg	1.446	42	United Arab Emirates	1.745
10	Austria	1.449	43	Madagascar	1.770
11	Canada	1.451	44	Taiwan	1.779
12	Switzerland	1.465	45	Kuwait	1.786
13	Sweden	1.468	46	Botswana	1.792
14	Germany	1.475	47	Tunisia	1.797
15	Belgium	1.485	48	Panama	1.797
16	Slovenia	1.491	49	United Kingdom	1.801
17	Czech Republic	1.501	50	Mozambique	1.803
18	Hungary	1.576	51	Laos	1.810
19	Chile	1.576	52	Cyprus	1.847
20	Slovakia	1.576	53	Zambia	1.856
21	Uruguay	1.606	54	Greece	1.867
22	Netherlands	1.607	55	Gabon	1.878
23	Hong Kong	1.608	56	Argentina	1.895
24	Romania	1.611	57	Bulgaria	1.903
25	Oman	1.612	58	Tanzania	1.919
26	Bhutan	1.616	59	Nicaragua	1.919
27	Australia	1.652	60	Croatia	1.926
28	Italy	1.653	61	Libya	1.927
29	Singapore	1.673	62	Cuba	1.954
30	Spain	1.683	63	Morocco	1.954
31	Poland	1.687	64	Equatorial Guinea	1.964
32	South Korea	1.691	65	Jordan	1.969
33	Qatar	1.694	66	Bosnia and Herzegovina	1.974

Table 2 (continued over page)

Rank	Country	Score	Rank	Country	Score
67	China	1.981	104	Honduras	2.335
68	Indonesia	1.983	105	Iran	2.341
69	Egypt	1.987	106	Yemen	2.352
70	Paraguay	1.997	107	India	2.355
71	Senegal	2.011	108	Saudi Arabia	2.357
72	Kazakhstan	2.018	109	Haiti	2.362
73	Malawi	2.024	110	Angola	2.364
74	Bahrain	2.025	111	Uzbekistan	2.377
75	Syria	2.027	112	Algeria	2.378
76	Rwanda	2.030	113	Philippines	2.385
77	Namibia	2.042	114	Uganda	2.391
78	Bolivia	2.043	115	Turkey	2.403
79	Albania	2.044	116	South Africa	2.412
80	Peru	2.046	117	Congo (Brazzaville)	2.417
81	Burkina Faso	2.062	118	Thailand	2.424
82	Dominican Republic	2.069	119	Kenya	2.429
83	Moldova	2.091	120	Mauritania	2.435
84	Ukraine	2.096	121	Ethiopia	2.439
85	Serbia	2.110	122	Cote d' Ivoire	2.451
86	Bangladesh	2.118	123	Venezuela	2.505
87	Macedonia	2.119	124	Zimbabwe	2.513
88	Mongolia	2.155	125	Sri Lanka	2.584
89	El Salvador	2.163	126	Myanmar	2.590
90	Brazil	2.168	127	Pakistan	2.694
91	Cambodia	2.179	128	DRC	2.707
92	Cameroon	2.182	129	Nigeria	2.724
93	Mexico	2.191	130	Colombia	2.757
94	Belarus	2.194	131	Russia	2.777
95	Papua New Guinea	2.224	132	Lebanon	2.840
96	Jamaica	2.226	133	North Korea	2.850
97	United States of America	2.227	134	Central African Republic	2.857
98	Trinidad and Tobago	2.230	135	Chad	3.007
99	Mali	2.238	136	Israel	3.052
100	Ecuador	2.274	137	Afghanistan	3.126
101	Azerbaijan	2.287	138	Sudan	3.189
102	Turkmenistan	2.302	139	Somalia	3.293
103	Guatemala	2.328	140	Iraq	3.514

Table 2

## ANALYSIS OF THE RESULTS

### Highlights

Nineteen additional countries were included in the 2008 edition of the Global Peace Index, bringing the total number covered to 140, encompassing around 98% of the world's population and over 85% of the planet's land mass. Iceland, one of the additional countries, is ranked as the country most at peace, followed by Denmark and Norway. The average score for the group of 140 nations is 2.043 (based on a 1-5 measure) with the countries relatively evenly spread around the mean, although there is an exceptional tail on the countries at the bottom of the rankings.

As before, based on 24 indicators which evaluate ongoing domestic and international conflict, measures of safety and security in society and the level of militarization, it is clear that small, stable and democratic countries are the most peaceful – 16 of the top 20 countries are western or central European democracies. Most of them are members of the European Union. Three Scandinavian countries are in the top ten. Island nations generally fare well.

Table 3 groups countries by region. Western Europe is markedly the most peaceful region, with the majority of the countries in this group ranking in the top 20 overall. Spain, France, the United Kingdom, Cyprus and Greece fare the least well of the European nations. Spain, which experienced an upsurge of violence linked to Basque separatists in 2007, fares less well on our internal measures of conflict, as do Cyprus and Greece. The United Kingdom and France's relatively high levels of militarization, sophisticated weapon industries and arms exports pushes them lower down the overall rankings. The United Kingdom's battlefield troop losses

in Afghanistan and Iraq during the review period reduce its ranking further to 49th overall.

Most of the other regions are characterised by wide variations in their overall rankings. In central and eastern Europe, the recent members of the European Union generally fare well, with Slovenia leading the way in 16th place, followed by Czech Republic (17th position). Russia comes last within the region and 131st overall, scoring poorly in almost all of the measures, but mostly on measures of internal peace with high scores for homicides, jailed population, distrust amongst citizens, violent crime and respect for human rights.

The Asia Pacific region is the third most peaceful region on average, but again exhibiting wide variation. The region's OECD nations rank highly, with New Zealand coming fourth overall and Japan fifth, a two-pronged impact of very strong scores for overall domestic peace and low levels of militarization.

Large numbers of ongoing internal conflicts and high levels of militarization in Afghanistan, North Korea, Pakistan, Myanmar and India contribute to their low rankings. Sri Lanka, Thailand and the Philippines are all ranked higher than these nations, but their relatively low scores reflect elevated levels of crime and internal disharmony and in the case of Sri Lanka, ongoing internal conflict.

Latin America also exhibits a broad spread, led by Chile and Uruguay (both in 19th and 21st position respectively), but with Colombia ranking 130th and Venezuela also in the bottom 20 (123rd overall). The countries of the Middle East and

Western Europe	Overall Rank	Overall Score	Regional Rank
Iceland	1	1.18	1
Denmark	2	1.33	2
Norway	3	1.34	3
Ireland	6	1.41	4
Portugal	7	1.41	5
Finland	8	1.43	6
Luxembourg	9	1.45	7
Austria	10	1.45	8
Switzerland	12	1.46	9
Sweden	13	1.47	10
Germany	14	1.48	11
Belgium	15	1.49	12
Netherlands	22	1.61	13
Italy	28	1.65	14
Spain	30	1.68	15
France	36	1.71	16
United Kingdom	49	1.80	17
Cyprus	52	1.85	18
Greece	54	1.87	19
<b>Average</b>	<b>20</b>	<b>1.53</b>	

Central and Eastern Europe	Overall Rank	Overall Score	Regional Rank
Slovenia	16	1.49	1
Czech Republic	17	1.50	2
Hungary	18	1.58	3
Slovakia	20	1.58	4
Romania	24	1.61	5
Poland	31	1.69	6
Estonia	35	1.70	7
Latvia	39	1.72	8
Lithuania	41	1.72	9
Bulgaria	57	1.90	10
Croatia	60	1.93	11
Bosnia and Herzegovina	66	1.97	12
Kazakhstan	72	2.02	13
Albania	79	2.04	14
Moldova	83	2.09	15
Ukraine	84	2.10	16
Serbia	85	2.11	17
Macedonia	87	2.12	18
Belarus	94	2.19	19
Azerbaijan	101	2.29	20
Turkmenistan	102	2.30	21
Uzbekistan	111	2.38	22
Turkey	115	2.40	23
Russia	131	2.78	24
<b>Average</b>	<b>62</b>	<b>1.93</b>	

Middle East and North Africa	Overall Rank	Overall Score	Regional Rank
Oman	25	1.61	1
Qatar	33	1.69	2
United Arab Emirates	42	1.74	3
Kuwait	45	1.79	4
Tunisia	47	1.80	5
Libya	61	1.93	6
Morocco	63	1.95	7
Jordan	65	1.97	8
Egypt	69	1.99	9
Bahrain	74	2.02	10
Syria	75	2.03	11
Iran	105	2.34	12
Yemen	106	2.35	13
Saudi Arabia	108	2.36	14
Algeria	112	2.38	15
Lebanon	132	2.84	16
Israel	136	3.05	17
Iraq	140	3.51	18
<b>Average</b>	<b>80</b>	<b>2.19</b>	

Africa	Overall Rank	Overall Score	Regional Rank
Ghana	40	1.72	1
Madagascar	43	1.77	2
Botswana	46	1.79	3
Mozambique	50	1.80	4
Zambia	53	1.86	5
Gabon	55	1.88	6
Tanzania	58	1.92	7
Equatorial Guinea	64	1.96	8
Senegal	71	2.01	9
Malawi	73	2.02	10
Rwanda	76	2.03	11
Namibia	77	2.04	12
Burkina Faso	81	2.06	13
Cameroon	92	2.18	14
Mali	99	2.24	15
Angola	110	2.36	16
Uganda	114	2.39	17
South Africa	116	2.41	18
Congo (Brazzaville)	117	2.42	19
Kenya	119	2.43	20
Mauritania	120	2.43	21
Ethiopia	121	2.44	22
Cote d'Ivoire	122	2.45	23
Zimbabwe	124	2.51	24
DRC	128	2.71	25
Nigeria	129	2.72	26
Central African Republic	134	2.86	27
Chad	135	3.01	28
Sudan	138	3.19	29
Somalia	139	3.29	30
<b>Average</b>	<b>95</b>	<b>2.30</b>	

Asia and Australia	Overall Rank	Overall Score	Regional Rank
New Zealand	4	1.35	1
Japan	5	1.36	2
Hong Kong	23	1.61	3
Bhutan	26	1.62	4
Australia	27	1.65	5
Singapore	29	1.67	6
South Korea	32	1.69	7
Vietnam	37	1.72	8
Malaysia	38	1.72	9
Taiwan	44	1.78	10
Laos	51	1.81	11
China	67	1.98	12
Indonesia	68	1.98	13
Bangladesh	86	2.12	14
Mongolia	88	2.16	15
Cambodia	91	2.18	16
Papua New Guinea	95	2.22	17
India	107	2.35	18
Philippines	113	2.38	19
Thailand	118	2.42	20
Sri Lanka	125	2.58	21
Myanmar	126	2.59	22
Pakistan	127	2.69	23
North Korea	133	2.85	24
Afghanistan	137	3.13	25
<b>Average</b>	<b>72</b>	<b>2.06</b>	

Latin America	Overall Rank	Overall Score	Regional Rank
Chile	19	1.58	1
Uruguay	21	1.61	2
Costa Rica	34	1.70	3
Panama	48	1.80	4
Argentina	56	1.89	5
Nicaragua	59	1.92	6
Cuba	62	1.95	7
Paraguay	70	2.00	8
Bolivia	78	2.04	9
Peru	80	2.05	10
Dominican Republic	82	2.07	11
El Salvador	89	2.16	12
Brazil	90	2.17	13
Mexico	93	2.19	14
Jamaica	96	2.23	15
Trinidad and Tobago	98	2.23	16
Ecuador	100	2.27	17
Guatemala	103	2.33	18
Honduras	104	2.34	19
Haiti	109	2.36	20
Venezuela	123	2.50	21
Colombia	1.30	2.76	22
<b>Average</b>	<b>79</b>	<b>2.10</b>	

North America	Overall Rank	Overall Score	Regional Rank
Canada	11	1.45	1
United States of America	97	2.23	2
<b>Average</b>	<b>54</b>	<b>1.84</b>	

Table 3

## ANALYSIS OF THE RESULTS

North Africa are broadly ranked in the bottom half of the GPI, with war-torn Iraq the country least at peace. Israel's lowly rank reflects its very high levels of militarization as well as the ongoing Palestinian conflict and poor relations with neighbouring countries. Oman, Qatar and the United Arab Emirates are ranked in the top 30, all scoring well on the measure of internal peace. Sub-Saharan African nations are generally placed in the bottom half of the index, the lowest-ranked including conflict-ravaged Somalia (139th), Sudan (138th) and Chad (135th). Ghana fares best, in 40th position, as a result of minimal militarization and few ongoing external and internal conflicts. Madagascar and Botswana were the next highest ranked sub-Saharan African nations (43rd and 46th place respectively).

Three of the world's major military-diplomatic powers (the European Union could be considered the 4th) score relatively badly overall, with China at 67th, the US at 97th and Russia at 131st. The US could be seen to be suffering for a Pax Americana<sup>3</sup> with very high levels of military expenditure and engagement beyond its borders. However, its score also suffers on the internal measures, with the highest proportion of its population in jail out of the 140 countries and comparatively high levels of homicides per 100,000 people for a developed country. Members of the G8 apart from Russia, the UK and the US do better, with Japan at 5th, Canada at 11th and Germany at 14th.

<sup>3</sup> Pax Americana is a term describing the period of relative peace in the West since 1945, coinciding with the dominant military and economic position of the United States

## THE TEN MOST AT PEACE

### **Iceland: 1st position**

*Score: 1.176*

Iceland is the nation most at peace of the 140 countries ranked in the 2008 Global Peace Index. Included for the first time in 2008, Iceland's very high score reflects its political stability, which has been an enduring feature since the island became independent in 1944, and good relations with neighbouring countries, particularly the four fellow members of the Nordic Council. There is very little violent crime, terrorist acts are highly unlikely and people are broadly trusting of each other.

The proportion of citizens who are in jail is one of the lowest of the 140 countries surveyed, although there are more internal security officers and police per head than in Denmark and Finland.

A member of NATO since its inception in 1949, Iceland has no standing army, which means it receives the lowest possible scores for most of the measures of militarization, although the score for military capability/sophistication is relatively high on account of the nation's well-equipped Coast Guard. Although the US military departed from its Icelandic base at Keflavik in 2006 after 55 years, Washington has said it intends to continue to honour the long-standing bilateral defence agreement. In April 2007 the Icelandic government signed peacetime security co-operation agreements with its Norwegian and Danish counterparts, which mainly focus on monitoring the North Atlantic. Iceland also receives a favourable score on UN peacekeeping deployments through the work of the Icelandic Crisis Response Unit (ICRU), which was founded in 2001 and comprises a team including police officers, doctors and engineers.

### **Denmark: 2nd position**

*Score: 1.333*

Denmark is politically stable and enjoys good relations with its neighbours. Rates of violent crime and homicides are low, violent demonstrations are highly unlikely to occur and there is a high level of respect for human rights. Although Denmark abandoned its policy of neutrality in 1949 to become a member of NATO, it has maintained a relatively modest level of defence contribution and refuses to allow nuclear weapons on its soil in peacetime. Military expenditure as a percentage of GDP is low and has fallen slightly since last year, which partly explains the country's rise in the rankings. Denmark's exports of major conventional weapons per 100,000 people are notably lower than Sweden's and Norway's, but they increased slightly year on year, along with the volume of imports of major conventional weapons.

Since the late 1990s Denmark's foreign policy has seen a greater emphasis on maintaining close relations with the US. The government, led by Anders Fogh Rasmussen (Liberal Party), lent strong support to the US-led intervention in Iraq in March 2003, and around 500 Danish troops were present in Iraq from June 2003 until they were withdrawn in August 2007. Emphasis has been placed on active membership of the UN and participation in peacekeeping operations, although the number of both UN and non-UN deployments fell in 2007. Along with the other Nordic states, Denmark has contributed both equipment and training to help the Baltic States establish stronger military capacities.

## THE TEN MOST AT PEACE

### Norway: 3rd position

*Score: 1.343*

The nation ranked most at peace of the 121 countries surveyed in 2007 is in third position in the 2008 GPI, its high score reflecting the continued absence of internal conflict and the fact that involvement in external conflicts is limited to peacekeeping roles. Relations between Norway and its neighbouring Scandinavian countries, with which it shares a strong cultural and linguistic heritage, are very good; indeed, close co-operation with the other Nordic countries is a cornerstone of Norway's foreign policy. The rate of violent crime is very low, there is a strong level of respect for human rights, the political scene is stable and violent demonstrations are highly unlikely to occur, all of which indicate a harmonious society.

Norway's measures of militarisation receive low scores in a broad international comparison, and military expenditure as a percentage of GDP has fallen to the same level as the other Nordic countries surveyed, including Denmark, which is also a NATO member. Access to small arms and light weapons remains highly restricted. Norway's direct military role in the international struggle against terrorism following the September 11th 2001 attacks on the US has been limited, although important for Norwegian forces. The change in the nature of threats to security in the western hemisphere has altered the priorities of Norwegian defence. Instead of being chiefly geared to counter a Russian invasion, the military is adopting a more flexible structure. A reform process has been underway since 2002 and the active peacetime military force is being gradually cut by at least 5,000 troops (from about 26,600 at the outset) and the military intends to dispose of one-third of its property.

### New Zealand: 4th position

*Score: 1.350*

New Zealand retains a lofty position in the GPI, in part as a result of its lack of internal conflict and its generally good relations with neighbouring countries - Australia and fellow member states of the Pacific Islands Forum (PIF, the main regional body). Diplomatic and economic links with Australia, with which it shares a cultural and linguistic heritage, have been underpinned since 1983 by the Closer Economic Relations (CER) agreement. Measures of safety and security such as the level of violent crime, the likelihood of violent demonstrations and the number of homicides receive very low scores (unchanged from last year). However, violent crime and the number of jailed population per 100,000 is higher than in the five Nordic nations surveyed.

New Zealand's military expenditure as a percentage of GDP is low, and notably lower than that of Australia. It fell slightly in 2007 compared with the previous year, although the indicator for the number of internal and external conflicts fought in the past five years (2001-06) rose, reflecting the New Zealand Defence Force's (NZDF) involvement in the UN-sanctioned and Australian-led military deployment to Timor Leste in May 2006. A total of 183 NZDF troops remained there in April 2008. New Zealand has also played a security role in the troubled Solomon Islands - it sent 35 policemen and 230 military personnel there in July 2003 as part of a 2,225-strong Australian-led peacekeeping force. Although New Zealand committed troops to the US-led war against terrorism in Afghanistan in late 2001 (146 remained there in April 2008) the government did not support the US-led war in Iraq in 2003, which upset bilateral relations.

### **Japan: 5th position**

*Score: 1.358*

Japan's 5th position in the 2008 GPI is unchanged from last year's ranking. The country has remained free from civil unrest, although relations with neighbouring China and North Korea became tenuous during 2007. Measures of societal safety and security such as the level of violent crime, the likelihood of violent demonstrations and the number of homicides are among the lowest in the world – receiving very low scores in the 2007 GPI that did not change in 2008. Respect for human rights is high and stringent laws prohibit the possession of firearms. Japan has generally been stable since the turbulence that followed the end of the second world war, but political instability increased slightly in 2007 as a result of the scandal-hit premiership of Shinzo Abe, who was forced to resign as prime minister in July 2007 when the resurgent opposition refused to back his reformist agenda.

Japan's low level of military expenditure as a percentage of GDP reflects the ban on maintaining war potential that was enshrined in the 1946 constitution. Nevertheless, the annual defence budget is sizeable (around US\$45bn) and Japan's Self-Defence Forces (SDF) are highly sophisticated. They have increasingly been deployed on international humanitarian and peacekeeping missions, including, controversially within Japan, to Iraq in December 2003. An arms export ban that dated back to 1946 was overturned in 2004, although subsequent exports have been on a relatively small scale. Military expenditure as a proportion of GDP fell slightly in 2007, but most measures of militarisation remained unchanged year on year.

### **Ireland: 6th position**

*Score: 1.410*

Ireland enjoys political stability and good relations with neighbouring countries. Measures of safety and security in society including the level of distrust in other citizens, the number of homicides per 100,000 and respect for human rights received very low scores in the 2007 GPI and are unchanged this year. Violent crime is low, although the rate remains higher than that of the Scandinavian countries surveyed. Ireland has a very small professional defence force, which serves with UN peacekeeping missions as well as NATO's Partnership for Peace (PfP) programme. There was a slight increase in the number of non-UN military deployments in 2007, a negative indicator that contributed to Ireland's modest fall in the rankings this year, to 6th place. The country has traditionally been uninvolved in military alliances and the government secured an opt-out from any future EU defence arrangements in 2002. Military expenditure as a percentage of GDP is one of the lowest of the 140 countries surveyed and it fell slightly, along with the number of armed services personnel per 100,000, in 2007. Most other measures of militarization received very low scores in the initial GPI and were unchanged in this year's index, with small arms and light weapons remaining more easily accessible than in Norway and New Zealand.

Ireland's high position in the GPI is perhaps surprising, given the historical conflict between the Provisional Irish Republican Army (PIRA) and Great Britain over the status of Northern Ireland. However, the majority of the violence that occurred during the "troubles" took place on British soil and the indicators that form the GPI reflect

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events since 2000 (by which time the peace process that followed the signing of the Good Friday Agreement in April 1998 had gained momentum). In July 2005 the PIRA announced an end to all illegal activities and claimed it would decommission its weapons.

### **Portugal: 7th position**

*Score: 1.412*

Politically stable and free from civil unrest since the mid-1980s, Portugal remains the highest-ranked southern European country in the GPI. Relations with neighbouring countries are very good and the level of violent crime is very low, although human rights accord less respect than the top-ranked eight countries in the index. Other measures of safety and security in society, such as the likelihood of violent demonstrations, the level of distrust in other citizens and the number of internal security officers and police per head of population are fairly low in global terms, but notably higher than the Nordic countries. Access to small arms and light weapons is heavily restricted.

A founding member of NATO, Portugal spends a relatively small percentage of its GDP on the military. There are fewer heavy weapons per head of population than the Nordic nations, although more than in Japan. Portuguese soldiers have participated in the UN peacekeeping mission in Angola since 1995. In 2003 the ruling Social Democratic Party (PSD) supported the US-led war in Iraq, in keeping with Portugal's Atlanticist tradition, and sent a small paramilitary force, although the decision was opposed by the Socialist Party (PS). The troops returned to Portugal in February 2005, shortly before the general election, when their mandate expired.

### **Finland: 8th position**

*Score: 1.432*

In common with the other Nordic countries surveyed, Finland is politically stable, free of civil unrest and not at war with any other country. However, the measure of political instability increased slightly in 2007. Political tensions arose subsequently amid the threat of mass resignations by health service workers over demands for higher pay for female employees. Relations with neighbouring countries remain good and the level of violent crime is very low – unchanged from last year – although the number of homicides is still slightly higher than in Norway and Sweden. Other measures of safety and security in society, such as the proportion of the population in jail and the level of distrust in other citizens are very low, while respect for human rights is high.

Since the end of the cold war Finland has professed a policy of strategic non-alignment and chosen not to apply for NATO membership, despite the fact that the three nearby Baltic States joined in 2004. The Finnish government has adopted an essentially neutral approach to the conflict in Iraq; it has refrained from sending troops and is not included in the US list of countries eligible to bid for contracts for reconstructing Iraq. However, Finland is involved in the NATO Partnership for Peace (PfP) programme and has supplied troops to the NATO-led force in Afghanistan – 85 remain in 2008, a 15% reduction on last year. The total number of armed services personnel per head of population has fallen in the past year from a relatively high level to closer to the average level for the Nordic countries. Military spending per head also fell year on year. A drop in the number of Finnish

troops deployed on the UN Interim Force in Lebanon (UNIFIL) and the increase in political instability partly explain the nation's modest fall in the rankings, notwithstanding the addition of nineteen countries in this year's index.

### **Luxembourg: 9th position**

*Score: 1.446*

Included in the GPI for the first time in 2008, Luxembourg's position in the top ten partly reflects its political stability and very good relations with neighbouring France, Germany and Belgium. Measures of safety and security in society such as the likelihood of violent demonstrations and the number of homicides per 100,000 receive the lowest possible scores. Violent crime is low, but higher than the Nordic countries and Japan, while the jailed population is notably higher than other top-ten countries. Citizens are generally trusting of each other and access to light weapons is restricted, but these scores are again higher than those recorded in the Scandinavian countries.

Luxembourg's measures of militarization clearly boost the country's score – military spending as a percentage of GDP is among the lowest in the world. The number of armed service personnel per head is also very low; the armed forces consist of just 900 regular soldiers (400 volunteers and 500 soldiers), organised into a single light infantry battalion. A part of this battalion has been integrated into the reconnaissance company of the Belgian division of Eurocorps, a body also made up of units from the French, German and Spanish armies. There is no airforce, but a transport aircraft is to be purchased to help with the army's

humanitarian work. Levels of imports and exports of major conventional weapons per 100,000 people are, not surprisingly, very low. Regarding international troop deployments, Luxembourg has 23 troops serving in the EU force in Bosnia, 23 in the NATO-led force in Kosovo (KFOR), nine in the NATO-led International Security Assistance Force (ISAF) in Afghanistan and two in Lebanon (UNIFIL).

### **Austria: 10th position**

*Score: 1.449*

Neutral since the end of Soviet occupation of part of the country in 1955, Austria is politically stable and free of civil unrest. The country continues to enjoy good relations with neighbouring states. Levels of violent crime are very low, as is the homicide rate. The number of jailed population per 100,000 is also low, although higher than that recorded in the Nordic countries and Japan.

Austria's military expenditure as a percentage of GDP is amongst the lowest of the 140 countries surveyed and it fell slightly year on year in 2007. The volume of imports of major conventional weapons per 100,000 fell considerably from the high level in 2006-07 that was linked to the (domestically) controversial procurement of 18 Typhoon interceptor aircraft from the European Aeronautic Defence and Space Company (EADS). Year-on-year reductions in the number of armed service personnel per head and the aggregate number of heavy weapons per 100,000 also contributed to the rise in Austria's rankings. Since 1995 Austria has been a member of NATO's Partnership for Peace (PfP) programme, which has led to its direct involvement in many NATO

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activities. In 2002 Austria adopted a new foreign policy doctrine, which allows for greater involvement in collective security arrangements without formally abandoning Austria's constitutionally enshrined neutrality. In recent years Austrian troops have also operated as part of UN missions in the Golan Heights, Cyprus and Afghanistan (as part of the International Security Assistance Force), although both UN and non-UN military deployments (as a percentage of total armed forces) fell in 2007.



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Globally, war-torn Iraq is classified as the least at peace out of 140 countries, followed by Somalia and Sudan. A focussed review and outlook for the bottom ten countries in the rankings provided below.

### **Iraq: 140th place**

*Score: 3.514*

The ongoing war in Iraq which, since 2005, has taken on an increasingly sectarian nature and left most of the country in turmoil, makes it the lowest-ranked nation of the 140 surveyed in the GPI. Not surprisingly, Iraq's measures of ongoing domestic and international conflict have received extremely high scores. The country's indicators show high levels of political instability, and the number of displaced persons as a percentage of the population is also very high. It has been estimated that waves of emigrants and refugees in recent decades have led to 4m Iraqis living in exile, and a survey issued in mid-2006 by the US Committee for Refugees and Immigrants (USCRI) estimated that there were 801,000 Iraqi refugees in Jordan and Syria alone. Iraq is a highly militarized country, the legacy of Saddam Hussein's steady build-up of forces from his time as head of security in the ruling Ba'ath Party in the 1970s to the overthrow of his regime by US-led forces in May 2003. The fact that small arms and light weapons are also highly accessible, partly reflects the ease with which munitions can be smuggled across Iraq's porous borders.

### **Somalia: 139th place**

*Score: 3.293*

Somalia has not had a nationally functioning state government since its descent into civil war in 1991. The UN estimates that close to 1m people out of a population estimated in 2006 as 8.5m have been displaced by the ongoing conflict – by far the largest proportion of displaced people of the 140 countries surveyed. More than a dozen peace agreements have been brokered between the warring factions since 1991, but none has brought about political stability or restored security and in April-December 2007 the capital, Mogadishu, experienced some of the most intense fighting seen for the last ten years, forcing an estimated 500,000 people to leave the city. The fighting was the result of interim-government militia, along with the Ethiopian troops that had attempted to regain control of the country in December 2006 clashing violently with an alliance of Islamic Courts (Union of Islamic Courts, UIC), which had been gaining control of much of southern Somalia.

Measures of safety and security in society such as the number of homicides, the level of violent crime, the ease of access to small arms and light weapons and the potential for terrorist acts, not surprisingly, receive the highest possible scores, although Somalia's lack of civil institutions means lower scores for indicators such as the number of internal security officers and police per head of population and the jailed population.

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### **Sudan: 138th place**

*Score: 3.189*

Sudan's lowly position reflects the continued bloodshed and deepening humanitarian crisis in the western region of Darfur, as well as rekindled tensions between the north and south of the country. The Darfur conflict began in early 2003, when the Sudan Liberation Movement (SLM) launched guerrilla attacks on government positions in the region, angered by what they saw as their political and economic marginalisation and the Sudanese government's failure to protect them from attacks by nomadic Arab militias, known as the *janjaweed*. By 2006 the brutal conflict had forced around 2m people from their homes, many of them fleeing to neighbouring Chad. An estimated 300,000 have died amid the violence and as a result of deteriorating health and the scarcity of food and water. Fighting continued in 2007 in spite of the signing of the Darfur Peace Agreement in May 2006 and the presence of the 7,000-strong African Union Mission in Sudan (AMIS). The Comprehensive Peace Agreement (CPA) that in 2005 ended 21 years of war between the north and south of the country and enabled the formation of a government of national unity has proved difficult to implement – arguments over the demarcation of the north-south boundary simmer and fighting between Arab tribal militias and the Sudan People's Liberation Army (SPLA) continued in 2007.

Measures of safety and security in society such as the level of distrust in other citizens, the number of homicides and the number of displaced people as a percentage of the population receive very high scores, unchanged from last year in the first two indicators, although the proportion of

displaced people was down slightly compared with last year. Levels of violent crime are moderate, their score unchanged from last year, while violent demonstrations are considered to have become less likely in the past year, partly as a result of the resolution of a simmering rebellion in the east of the country. In the military sphere, small arms and light weapons remain highly accessible, while military expenditure as a percentage of GDP is moderate, and fell slightly year on year.

### **Afghanistan: 137th place**

*Score: 3.126*

Embroided in conflict and instability for much of the past two decades, Afghanistan remained far from unified during 2007, with ongoing fighting between the NATO-supported Afghan National Army (ANA) and a Taliban-backed insurgency in the south and east of the country. The insurgency intensified in Helmand province in 2007, a remote province where the NATO-led International Security Assistance Force (ISAF) and the ANA have struggled to enforce security. In mid-2007 their efforts focused on the securing of the Kajaki dam – the focus of a multi-million-dollar three-year reconstruction project to provide electricity and irrigation to the region. An estimated three million Afghan refugees have returned to their country since 2002, mainly from settlements in neighbouring Pakistan, but more than a million Afghans are still displaced, in Pakistan and elsewhere, which amounts to one of the highest proportions of a population that are displaced of the 140 countries surveyed. Relations with most neighbouring countries are tense. Most of the other measures of

safety and security in society receive very high scores in the GPI, notably the number of homicides, the potential for terrorist acts and the level of distrust in other citizens. The political scene is highly unstable, with the president, Hamid Karzai, experiencing repeated assassination attempts, and human rights are accorded little respect.

Small arms and light weapons are readily available, but other measures of militarization, such as the number of armed services personnel per 100,000 people, military expenditure as a percentage of GDP and the aggregate number of heavy weapons per head receive fairly low scores. The official army, the ANA, is small, with around 35,000 members in mid-2007, and vastly understaffed relative to the security challenges it faces.

### **Israel: 136th place**

*Score: 3.052*

Despite peace treaties with Egypt in 1982 and with Jordan in 1994, Israel remains in a formal “state of war” with its northern neighbours, Syria and Lebanon, and with much of the Arab world. Both Israel and Syria have expressed interest in resuming peace negotiations, but Syria’s long-standing alliances with Iran, Hezbollah (the Lebanese Shia group that fought Israel in the 2006 war) and Hamas (the Islamist group that controls the Gaza Strip) remain sticking points.

Relations with Lebanon have been tense since the seizure by Hezbollah guerrillas of two Israeli troops on the border in July 2006, a reason why the GPI indicator measuring relations with neighbouring countries remains unchanged at a “very high” score. The level of organised conflict (internal) is high, and

unchanged from last year, reflecting continued Israeli/Palestinian tensions – the escalation of intra-Palestinian conflict and the takeover of Gaza by Hamas in mid-2007 has coincided with attacks from the Israel Defence Force (IDA) on what it considers militant targets in the Strip. Indicators of societal safety and security in Israel present a mixed picture, as last year. The level of violent crime and the number of homicides are low, violent demonstrations are unlikely to occur and the political scene is relatively stable (becoming slightly more so during 2007 compared with the year earlier). However, there is a high potential for terrorist acts, there are high levels of distrust in other citizens and human rights accord little respect, according to Gibney and Dalton’s index.

Military expenditure in Israel as a percentage of GDP fell in 2007, but at 8% it remains among the highest in the world, and the country has the largest number of armed service personnel per head of population of the 140 countries surveyed to counter the threat Israel believes it faces from its neighbours. The IDA is highly sophisticated and Israel is a major manufacturer and exporter of arms. The combination of the very high levels of militarisation and ongoing tensions with neighbouring countries puts Israel at a lowly 136th place in the index.

### **Chad: 135th place**

*Score: 3.007*

Political violence has plagued Chad for much of its 48-year history as an independent nation. The country’s very high scores in the GPI’s indicators of ongoing domestic conflict reflect escalating violence in the east of the country, close to the border with Sudan and

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the Central African Republic, that is linked to the genocide and humanitarian crisis in the Darfur region of eastern Sudan. Tens of thousands of refugees began to arrive in eastern Chad in 2003; by late 2007 the number was estimated at 280,000. A six-month state of emergency was announced by the Chadian government in November 2006, following an unsuccessful attack and coup attempt earlier that year by the Front uni pour le changement (FUC). However, the state of emergency failed to prevent an upsurge in crossborder raids by Sudanese Arab militia – *the Janjaweed* – in Chad's Salamat and Ouaddaï regions.

Against this backdrop, the GPI's indicators of safety and security in society register very high scores, notably political instability, the number of homicides per 100,000 people and the level of distrust in other citizens. The large number of displaced people as a proportion of the population also contributes to Chad's low overall rank. Small arms and light weapons are extremely easily available, but other measures of militarisation, such as the number of armed services personnel per 100,000 people, military expenditure as a percentage of GDP and military sophistication receive fairly low scores.

### **Central African Republic: 134th place** *Score: 2.857*

The Central African Republic's low rank in the 2008 GPI is mainly a reflection of the ongoing conflict and humanitarian crisis in the Darfur region of western Sudan, which since 2003 has spilled across the remote and porous borders into north-eastern CAR and eastern Chad. Relations between CAR and Sudan deteriorated in 2006 when the CAR government closed the border between the two countries after an attack on the Chadian capital, N'Djamena, by rebels who allegedly passed through north-eastern CAR en route from Sudan to Chad. Scores for measures of ongoing domestic and international conflict are very high, including the qualitative indicator of relations with neighbouring countries – tensions with Sudan rose again in late 2006 and early 2007 when rebels captured Birao and three other towns in the north-east of the CAR. The government, led by President Francois Bozize, accused Sudan of trying to destabilize the region by supporting the rebels, whom it suspected had launched their attack from rear-bases in Sudan.

Very high numbers of homicides per 100,000, a high level of violent crime, low levels of trust between citizens and little respect for human rights point to a relative lack of societal safety and security. As in Chad, small arms and light weapons are easily available, but other measures of militarization, such as the number of armed services personnel per 100,000 people, military expenditure as a percentage of GDP and military sophistication receive relatively low scores.

### North Korea: 133rd place

Score: 2.850

Included in the GPI for the first time in 2008, North Korea's low ranking partly reflects very tense relations with neighbouring countries and the wider world. Relations with South Korea have been hostile for most of the period since the armistice that followed the three-year-long Korean war in 1953 (there is still no peace treaty and the demilitarized zone, the *de facto* border between the Koreas, is still the world's most highly militarized border). Nevertheless, relations have slowly thawed since the first inter-Korean summit in the North Korean capital, Pyongyang, in June 2000. Tensions over North Korea's nuclear ambitions first flared in the early 1990s and they have rumbled on; relations with most other countries deteriorated sharply following North Korea's testing of various nuclear and conventional missiles in July and October 2006 – they prompted tough sanctions by Japan.

Although violent crime is fairly low, there are few homicides and violent demonstrations are relatively unlikely to occur, reflecting the extremely tight control exerted by the authorities over society, and the majority of North Korea's measures of societal safety and security register very high scores. There is a high level of distrust in other citizens and the proportion of the population in jail is the third-highest of the 140 countries surveyed (below the US and Russia). There is little respect for human rights. The GPI's nine indicators of militarization confirm that North Korea is one of the world's most highly militarized countries – the armed forces are 1.1m strong, plus millions more in militias, of a total population of 23.1m. Military expenditure as a percentage of GDP is one

of the highest of the 140 countries surveyed (3.4%), as is the aggregate number of heavy weapons per 100,000 people.

### Lebanon: 132nd place

Score: 2.840

Tense relations between Lebanon and its neighbours, Syria and Israel, explain the country's high scores in the indicators of ongoing domestic and international conflict, although the score has fallen slightly since 2007 as last year's score reflected Israel's military offensive in southern Lebanon during July 2006. The Israeli action, which was in retaliation for the capture of two Israeli soldiers by Hezbollah (a Shia Islamic political and paramilitary organisation based in Lebanon) caused more than 1,100 deaths in Lebanon, while Hezbollah launched a series of rocket attacks against towns in northern Israel until a ceasefire was brokered by the UN. Lebanon's scores for political instability and the likelihood of violent demonstrations have deteriorated since last year, which partly reflects the escalation of efforts by Hezbollah, which effectively operates a state within a state, to bring down the government with a general strike in early 2007. Clashes between pro- and anti-government supporters became increasingly violent, and the bombing of two buses in Christian areas further underlined the deteriorating domestic security situation. In May an uprising by Islamist militants based in a refugee camp close to the northern city of Tripoli led to a mini-war with the Lebanese army that continued through 2007.

There are high levels of distrust in other citizens and terrorist acts are highly likely to occur, although both indicators are

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unchanged from last year. Lebanon is a highly militarized country: the number of armed services personnel per 100,000 population is higher than that of any other country surveyed apart from North Korea and Israel. Military expenditure as a percentage of GDP remains fairly high (1.9%), although it has fallen from 2.1% last year, while small arms and light weapons remain highly accessible.

### **Russia: 131st place**

*Score: 2.777*

Russia remains in the bottom ten in the 2008 GPI in spite of a lower score in the measure of ongoing domestic conflict, which partly reflects increased stability in Chechnya during 2007. Relations with neighbouring countries are moderately tense, unchanged from last year. Russians continue to exhibit low levels of trust in other citizens, which is probably associated with the country's high rates of homicide and violent crime (both indicators are unchanged from last year). The International Centre for Prison Studies records that a very high proportion of the Russian population is in jail (second only to the US in the 140 countries surveyed).

Russia's military capability has shrunk greatly since the Soviet era, but it remains powerful; its active armed forces totalled just over 1m in 2007, compared with 2.7m in June 1992 and an estimated 4m at the height of the Soviet Union's power. Although military expenditure as a percentage of GDP has shrunk considerably in the past decade, including during last year, it remains relatively high at 2.3%. The number of exports of major conventional weapons is extremely high (4.5 per 100,000 population, second only to Israel), although it did fall slightly during 2007.

### **Colombia: 130th place**

*Score: 2.757*

High scores in the measures of internal conflict are one reason for Colombia's low position in the GPI. For decades parts of the country have been mired in conflict between the government and leftist guerrilla groups, many of which were formed in the mid-1960s to represent the interests of the rural poor. Since the late 1980s the Fuerzas Armadas Revolucionarias de Colombia (FARC) and the Ejército de Liberación Nacional (ELN) have been the two main guerrilla forces. Both prospered through drug-trafficking, which fed violence and corruption. Alvaro Uribe's re-election as president in 2006 has ensured the continuation of the offensive against the guerrillas. The government hopes to weaken the FARC sufficiently to eventually persuade the group to make a conclusive peace settlement. The ELN has been holding preliminary peace talks with the government since the second half of 2006 in Cuba, but the start of formal negotiations remains elusive.

Colombia's homicide rate is very high, as are the levels of violent crime and the potential for terrorist acts – all unchanged from last year. Conversely, respect for human rights is very low, according to Gibney and Dalton's index. Military expenditure as a percentage of GDP is the joint highest (with Cuba) of the Latin American countries surveyed, although it is considerably lower than some middle-eastern countries. Even though the aggregate number of heavy weapons is relatively low, small arms and light weapons are very easy to access.

## RISERS AND FALLERS

The expansion of the GPI from 121 countries to 140 does not lend itself to direct comparisons of changes in rank as the introduction of a number of countries instantly pushes various countries downwards. The normalisation of a number of our series for our index also makes direct year-on-year comparisons difficult as the normalised series essentially measure countries in direct reference to their respective differences for that given time period (maximums and minimums will differ between the 2007 GPI measurements and 2008).

Nevertheless, we have created a special comparative version of the Global Peace Index in 2008 for the original 121 countries to facilitate some comparison. The main movers in the rankings compared to last year (with their change in rank), are shown on page 26 in table 4. The table also lists the major reasons contributing to these movements in rankings by specific variable (column 3). The final column in table 4 gives the change in overall rank, if the changes in variables listed in column 3 are ignored showing the contribution these changes in scores have made overall.

## RISERS AND FALLERS

Country	Change in rank 2007 to 2008	Main reasons for overall change by change in variable	Change in rank in 2008 if variables shown on left are ignored
Angola	13	Fell in score for number of homicides per 100,000 people (-1); fall in ease of access to weapons (-1); fall in likelihood of violent demonstrations (-0.5); fall in level of violent crime (-0.5); fall in level of political instability (-0.25); fall in number of deaths from organized conflict (-1); fall in level of military capability/sophistication	-1
Indonesia	13	Fall in level of organized conflict (internal) (-1); improvement in relations with neighbours (-1)	0
India	12	Fall in likelihood of violent demonstrations (-1); improvement in political stability (-0.125); fall in number of deaths from organized conflict (internal) (-1); fall in number of deaths in organized conflict (external) (-1)	-2
Bosnia & Herzegovina	12	Fall in likelihood of violent demonstrations (-1); fall in level of violent crime (-1); fall in potential terrorist acts (-1)	-1
Uzbekistan	10	Fall in likelihood of violent demonstrations (-0.5); improvement in Political Terror Scale measure of respect of human rights (-1); fall in number of deaths from organized conflict (-1)	-1
Equatorial Guinea	10	Fall in level of organized conflict (internal) (-1); fall in level of violent crime (-0.5)	-4
Croatia	10	Fall in number of homicides per 100,000 people (-1); relative fall in number of displaced people as a percentage of the population (NORMALIZED SERIES)	1
Nicaragua	10	Fall in likelihood of violent demonstrations (-0.5); improvement in Political Terror Scale measure of respect for human rights (-1)	0
Azerbaijan	9	Improvement in Political Terror Scale measure of respect for human rights (-1); fall in number of deaths from internal conflict (-1)	-3
Latvia	9	Fall in number of internal security officers and police (-1); improvement in Political Terror Scale measure of respect for human rights (-1)	-1
Spain	-7	Increase in potential for terrorist acts (+5); increase in number of internal and external conflicts fought (+1)	-4
Venezuela	-8	Deterioration in relations with neighbouring states (+1); large relative increase in weapon exports to other countries (NORMALIZED SERIES); large relative increase in armed services personnel relative to other countries (NORMALIZED SERIES)	-1
Saudi Arabia	-8	Increase in military sophistication (+1); increase in number of internal and external conflicts fought (+1); increase in estimated number of deaths from external conflicts (+1)	1
Kazakhstan	-8	Increase in number of internal and external conflicts fought (+1)	0
Cameroon	-9	Increase in number of internal security officers and police (+1); increase in number of internal and external conflicts fought (+1)	-1
Namibia	-9	Increase in number of internal security officers and police (+1); worsening relations with neighbours (+1); increase in number of internal and external conflicts fought (+1); fall in level of distrust among citizens (-1); fall in ease of access to weapons (-1)	-3
Bahrain	-9	Deterioration in relations with neighbouring states (+1)	-1
Morocco	-11	Increase in level of organized conflict (+1); increase in potential of for terrorist acts (+0.5); increase in number of internal and external conflicts fought (+1)	-1
Turkey	-12	Increase in number of internal security officers and police (+1); rise in political instability (+0.25); fall in Political Terror Scale measure of respect for human rights (+1); increase in number of internal and external conflicts (+1)	1
Paraguay	-12	Fall in Political Terror Scale measure of respect for human rights (+1)	-4
Kenya	-16	Large increase in level of organized conflict (internal) (+2)	-2

Table 4

## THE TOP FIVE RISERS IN THE 2008 GPI

### Angola

*Change in rank: +13*

Angola's impressive rise to 110th position in the 2008 GPI is owing to improvements in the scores of seven indicators: an increasingly stable political scene, a reduction in the homicide rate, a fall in the likelihood of violent demonstrations, a reduction in the number of deaths from organised conflict, a contraction in the country's level of military capability/sophistication and a decline in the availability of small arms and light weapons. Five years after the end of the civil war, the ruling party, Movimento Popular de Libertação de Angola (MPLA), has fully consolidated its political hegemony. The president, José Eduardo dos Santos, sits at the centre of an extensive patronage network, skilfully appeasing conflicting interests both nationally and within the party while strengthening his position. Mr dos Santos' announcement in late 2007 of Angola's first legislative elections in 15 years, to be held in September 2008, underlines the country's growing political stability. Improvements in measures of societal safety and security such as the fall in the likelihood of violent demonstrations are probably linked to the more stable political climate and to the country's growing wealth from its extensive and increasingly valuable oil reserves.

### Indonesia

*Change in rank: +13*

Indonesia's significant rise into the top half of the 2008 GPI at 68th position is largely owing to a fall in the level of internal conflict and an improvement in relations with neighbouring countries. The formerly troubled province of Aceh in northern Sumatra was largely at

peace in 2007, following successful local elections in December 2006, although poor governance and a high incidence of crime could undermine stability. Relations with Australia, which have often been tempestuous, have improved since the signing of a new bilateral security treaty in November 2006, supporting closer co-operation on defence, law enforcement, counter-terrorism, maritime security and disaster emergency response. They have further improved owing to the apparently more accommodating stance towards Indonesia held by the new Australian prime minister, Kevin Rudd, compared with his predecessor, John Howard.

### India

*Change in rank: +12*

India's robust rise in the 2008 GPI ranking to 107th position largely reflects an improvement in political stability, a reduction in the number of deaths from internal conflict and a fall in the likelihood of violent demonstrations. The prime minister, Manmohan Singh, a widely respected economist has managed to hold together an unwieldy minority coalition government (the United Progressive Alliance, UPA) and has pursued a gradualist economic reform agenda over three years. Compared with 2006, which saw a spate of bomb attacks by Kashmiri militants in Varanasi, Malegaon and on a series of commuter trains in Mumbai that killed over 200 people, 2007 was a relatively peaceful year. Nevertheless, the country's rail network was hit again in February 2007, when a bomb attack on the crossborder "Friendship Express" train killed 68 people, mostly Pakistanis.

## THE TOP FIVE RISERS IN THE 2008 GPI

### **Uzbekistan**

*Change in rank: +10*

In the aftermath of Islam Karimov's comfortable victory in the December 2007 presidential election, the Uzbek authorities have made some steps to address long-standing criticism of the country's human rights record. The moves will strengthen the hand of those countries, such as Germany, which favour a more rapid re-engagement with Uzbekistan. However, the overall human rights situation in the country remains poor, and Western opinion on how to approach ties with Uzbekistan remains divided – in both the US and among EU states – suggesting that the thawing in relations will remain uneven. Karimov's re-election imposed an element of stability, and our assessments of the likelihood of violent demonstrations and deaths from internal conflicts fell correspondingly during the review period. But Uzbekistan is a country to watch, with a high risk of falling back from its current 111th place. Although Uzbekistan's opposition groups will remain too weak in 2008-09 to mobilize a mass civil movement against the authorities, popular unrest, sparked by social and economic grievances, could increase. The authorities would act swiftly, and with force when necessary, to quell any such protests.

### **Bosnia and Herzegovina**

*Change in rank: +12*

Bosnia's rise into the top half of the 2008 GPI to 66th position is broadly as a result of a fall in the levels of violent crime, violent demonstrations and the potential for terrorist acts. This partly reflects notable reforms that were pushed through in 2007, including the centralization of responsibility for BiH's defence and security. They subsequently initialled a stabilisation and association agreement (SAA) with BiH.

The reduction in violence may also be linked to the fact that in late 2006 BiH, together with Montenegro and Serbia, joined NATO's Partnership for Peace (PfP) programme.

## THE TOP FIVE FALLERS IN THE 2008 GPI

### Kenya

*Change in rank: -16*

Kenya's fall to 119th position in the 2008 GPI is broadly the result of a large two-point rise in the measure of internal conflict, which arose in late December 2007 following the very close result of the presidential and parliamentary elections. The award of a narrow presidential victory to Mr Kibaki, and his hasty, private inauguration on December 30th (in contrast to the lavish public spectacle in 2002) led to accusations of fraud. This sparked an intense bout of civil unrest by disillusioned Orange Democratic Movement (ODM) supporters, especially in opposition heartlands in the west, Mombasa and the slums of Nairobi. Approximately 600 people were killed in political violence and some 250,000 displaced, while property damage was extensive, especially in Kisumu in the west. The violence had a tribal dimension—with considerable anger being directed against Mr Kibaki's long-dominant Kikuyu tribe, especially those who had settled in western areas—but was not exclusively an ethnic problem, and looters were also active. The worst of the violence has subsided but tensions remain high, especially as the ODM is trying to push ahead with countrywide rallies in the face of a government ban on public demonstrations. Kenya was ranked 91st in the 2007 GPI, a low position that reflected high rates of homicide and violent crime and the ready availability of small arms and light weapons as well as an unstable political scene.

### Paraguay

*Change in rank: -12*

Paraguay's fall to 70th position in the GPI mainly reflects a drop in the overall level of respect for human rights during the past year. The Political Terror Scale (one of the GPI's 24 indicators) analyses the annual publications of Amnesty International and the US State Department. The former reported an upsurge in the number of attacks on journalists during the first half of 2007 as well as an increase in the number of armed civilian patrols in the north of the country. Amnesty International also reported that two community leaders were attacked by members of a government-sponsored armed civilian patrol. It was alleged that the attack appeared to be linked to the men's work raising awareness of peasants' rights. In November 2007, following a visit to Paraguay, the UN Special Rapporteur on torture criticized severe prison overcrowding and the lack of basic human rights for prisoners, including health care and the provision of clothing, food and mattresses. He also stated that detainees in police stations were widely subjected to torture during the first few days in custody.

## THE TOP FIVE FALLERS IN THE 2008 GPI

### Turkey

*Change in rank: -12*

Turkey's drop to 115th in the 2008 GPI is the result of a change in four indicators: an increase in the number of internal and external conflicts, a rise in the number of internal security officers and police, increased political instability and a reduction in the measure of respect for human rights. The former reflects ongoing attacks being carried out in south-eastern Turkey by militants of the Kurdistan Workers' Party (PKK) from bases in northern Iraq. In response to the rising number of casualties, the Turkish parliament approved a bill in October 2007 authorising for a period of up to one year the deployment of Turkish forces abroad. In December Turkish aircraft carried out raids in northern Iraq, although the Turkish government has resisted pressure to launch a major crossborder offensive. The rising score for political instability is linked to the parliamentary and presidential elections that took place in 2007, the former of which saw victory for the incumbent prime minister, Recep Tayyip Erdogan. There are fears among the secular elite and the military that Abdullah Gul's election as president will facilitate what they see as the ruling Justice and Development Party's (AKP's) pro-Islamist agenda. Tensions rose over the AKP's plan to overhaul Turkey's 1982 constitution, which could result in a lifting of the ban on women wearing Islamic-style headscarf at universities.

### Morocco

*Change in rank: -11*

Morocco's slide in the rankings to 63rd position is primarily the result of an increase in level of internal conflict and a rise in the potential for terrorist acts. These factors outweighed a year-on-year fall in the number of internal security officers and police and a slight reduction in the level of military spending.

After a period of a relative calm in Morocco, 2007 saw an increasing number of security alerts, as well as threatening statements from self-styled jihadist groups attempting to align themselves with al-Qaida, in part by mimicking the al-Qaida style of propaganda videos. Three suicide bombings occurred in the first half of 2007, causing injuries and damage. The government subsequently raised the terrorist alert level to "maximum". Various suspected Islamist militants were arrested, some allegedly recruiting volunteers to fight in Iraq. In February 2007 the Moroccan government arrested 35 people and dissolved a small Islamic political party in connection with an alleged plot to attack government ministers and Jewish Moroccans. In contrast to the profiles of those implicated in the 2003 Casablanca suicide bombings (which killed 45 people), the 35 men arrested in 2007 included several university professors, a police super-intendent and the manager of a hotel in Marrakesh. The interior ministry said that the group obtained money from robberies in Europe and laundered it through a series of investments in real estate, tourism and commercial projects in several Moroccan cities. This would suggest a far more sophisticated network than appeared to be involved in the 2003 attacks.

## Bahrain

*Change in rank: -9*

Bahrain experienced periodic angry demonstrations during 2007, including five days of riots in the capital, Manama, and surrounding areas following clashes between Shia protesters and the police after the death of a protester. However, the country's fall in the rankings to 74th position in the GPI mainly reflects a deterioration in relations with neighbouring countries, namely Iran. In July 2007, Hossein Shariatmadari, a senior advisor to the Iranian supreme leader, Ayatollah Ali Khamenei, wrote an article in an Iranian newspaper, *Kayhan*, that claimed Bahrain was a "province" of Iran, reviving a historical claim that had been negated by both the founder of the Iranian Revolution, Ayatollah Ruhollah Khomeini, and by the Shah before him. This caused a public furore in Bahrain, with one Sunni MP going so far as to call for Mr Shariatmadari's death. The Iranian government moved to cool tensions, however, and a visit by the Iranian president, Mahmoud Ahmadinejad, in November 2007 helped reassure Bahrain.

## INVESTIGATING THE SET OF POTENTIAL DETERMINANTS

The GPI is a numerical measure of how at peace a country is with itself and other countries. It is a foundation on which to establish a measure of the incidence of peace. However, it cannot on its own explain why these absences occur and whether groups of countries exhibit sufficient similar deficiencies resulting in an absence of peace.

In addition to the collation of data and scores for the 24 indicators listed above, the Economist Intelligence Unit has updated its secondary dataset to 35 indicators measuring democracy including government competence and efficacy; the strength of institutions and the political process; international openness; demographics; regional integration; religion and culture; education and material wellbeing. Full descriptions for each of these indicators are provided in Annex B.

The list of potential drivers is by no means exhaustive; it comprises indicators with data that are both available across the countries from credible sources and are comparable and consistent in their measurement. Table 5 lists each of the indicators in the two groups, the GPI and the pool of potential drivers. Correlation coefficients of the GPI scores and ranks and then the scores for the internal and external measures of peace are given against each indicator. The correlation coefficients are calculated across the full 140 countries. Values shaded in green are for values where  $x > 0.5$  and  $x < -0.5$ .

Y Value	X Value			
	OVERALL SCORE	OVERALL RANK	Internal Peace	External Peace
OVERALL SCORE	1.00	0.96	0.97	0.62
OVERALL RANK	0.96	1.00	0.95	0.53
Internal Peace	0.97	0.95	1.00	0.40
External Peace	0.62	0.53	0.40	1.00
Level of distrust in other citizens	0.73	0.70	0.73	0.37
Number of internal security officers and police per 100,000 people	0.14	0.13	0.12	0.13
Number of homicides per 100,000 people	0.65	0.64	0.73	0.09
Number of jailed population per 100,000 people	0.01	0.04	-0.03	0.14
Ease of access to weapons of minor destruction	0.71	0.71	0.77	0.17
Level of organised conflict (internal)	0.83	0.80	0.82	0.48
Likelihood of violent demonstrations	0.66	0.69	0.72	0.12
Level of violent crime	0.61	0.64	0.71	-0.01
Political instability	0.77	0.78	0.79	0.32
Respect for human rights	0.79	0.79	0.80	0.37
Volume of transfers of major conventional weapons, as recipient (imports) per 100,000 people	-0.14	-0.19	-0.21	0.13
Potential for terrorist acts	0.61	0.56	0.56	0.47
Number of deaths from organised conflict (internal)	0.63	0.50	0.56	0.53
Military expenditure as a percentage of GDP	0.18	0.18	0.06	0.49
Number of armed services personnel per 100,000 people	0.20	0.13	0.08	0.47
UN Deployments 2007-08 (percentage of total forces)	0.08	0.08	0.02	0.22
Non-UN Deployments 2007-08 (percentage of total forces)	-0.25	-0.25	-0.32	0.10
Aggregate number of heavy weapons per 100,000 people	0.10	0.05	-0.02	0.42
Volume of transfers of major conventional weapons as supplier (exports) per 100,000 people	-0.04	-0.10	-0.16	0.34
Military capability / sophistication	-0.09	-0.09	-0.23	0.39
Number of displaced people as a percentage of the population	0.36	0.26	0.30	0.36
Relations with neighbouring countries	0.69	0.63	0.60	0.66
Number of external and internal conflicts fought: 2000-05	0.62	0.58	0.50	0.71
Estimated number of deaths from organised conflict (external)	0.07	0.09	-0.04	0.39
Political Democracy Index	-0.58	-0.59	-0.59	-0.27
Electoral process	-0.41	-0.42	-0.41	-0.23
Functioning of Government	-0.66	-0.65	-0.67	-0.30
Political participation	-0.48	-0.50	-0.50	-0.17
Political culture	-0.64	-0.64	-0.68	-0.18
Civil liberties	-0.52	-0.52	-0.51	-0.29
Corruption perceptions (CPI score: 10 = highly clean, 0 = highly corrupt)	-0.71	-0.77	-0.78	-0.16
Women in parliament (as a percentage of the total number of representatives in the lower house)	-0.34	-0.37	-0.35	-0.15
Freedom of the press	0.53	0.53	0.51	0.33
Exports + Imports % of GDP	-0.27	-0.30	-0.25	-0.19
Foreign Direct Investment (flow) % of GDP	-0.14	-0.16	-0.13	-0.08
Number of visitors as % of domestic population	-0.40	-0.42	-0.41	-0.15
Net Migration (% of total population)	-0.17	-0.24	-0.21	0.02
15-34 year old males as a % of total population	0.30	0.36	0.36	-0.03
Gender ratio of population: women/men	0.00	0.00	-0.02	0.05
Gender inequality	-0.47	-0.47	-0.48	-0.15
The extent of regional integration	0.64	0.65	0.63	0.38
Current education spending (% of GDP)	-0.27	-0.28	-0.31	-0.01
Primary school enrolment ratio (% Net)	-0.51	-0.48	-0.53	-0.20
Secondary school enrolment ratio (% Net)	-0.54	-0.56	-0.61	-0.06
Higher education enrolment (% Gross)	-0.50	-0.54	-0.58	0.00
Mean years of schooling	-0.58	-0.58	-0.62	-0.16
Adult literacy rate (% of pop over 15)	-0.48	-0.47	-0.52	-0.12
Hostility to foreigners/private property	0.65	0.63	0.66	0.31
Importance of religion in national life	0.49	0.48	0.51	0.18
Willingness to fight	0.32	0.34	0.27	0.34
Nominal GDP (US\$PPP bn)	-0.05	-0.03	-0.14	0.27
Nominal GDP (US\$bn)	-0.09	-0.08	-0.19	0.27
GDP per capita	-0.57	-0.62	-0.63	-0.11
Gini index	0.40	0.43	0.46	0.00
Unemployment %	0.31	0.26	0.30	0.22
Life expectancy	-0.50	-0.53	-0.56	-0.08
Infant mortality per 1,000 live births	0.56	0.56	0.60	0.17
Total Population (millions)	0.08	0.10	0.05	0.15

Table 5

## INVESTIGATING THE SET OF POTENTIAL DETERMINANTS

With reference to changes since last year, the extension of the data to 140 countries has largely verified and endorsed our initial findings from 2007. Those series with high correlations to the GPI last time, measured against the original 121 countries, have even higher ones this year, and a few more appear to breach our threshold of significance of +/- 0.5.

Of the listed variables, the overall index continues to be strongly determined by the internal measure of peace with  $r = 0.97$ . Of the set of potential drivers, the composite measure of political democracy is now significant at  $r = -0.58$ . Unsurprisingly a number of that index's sub-components calculate as having a reasonable correlation with the overall scores and rankings.

Functioning of government – a qualitative assessment of whether freely elected representatives determine government policy and whether there is an effective system of checks and balances on the exercise of government authority – increases its correlation from  $r = -0.59$  in the GPI 2007 to  $r = -0.66$ . This is even higher against the internal measure of peace. Electoral process and political participation remain just below +/-0.5. Interestingly the external peace measure is not significantly correlated to any of our measures relating to democracy. Freedom of the press improves from  $r = 0.49$  last year across the 121 countries to  $r = 0.53$  this year.



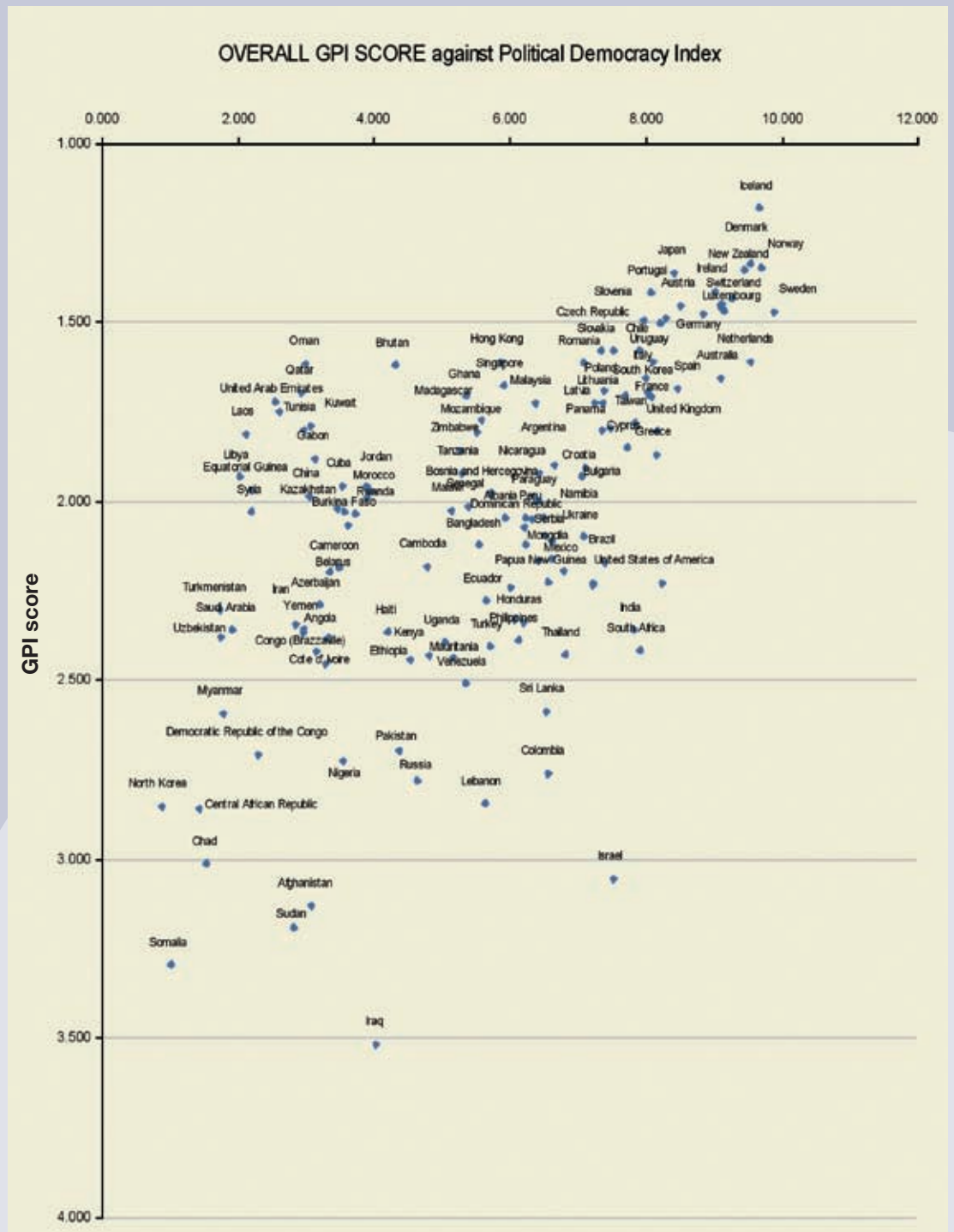


Figure 1: Democracy and overall GPI

## INVESTIGATING THE SET OF POTENTIAL DETERMINANTS

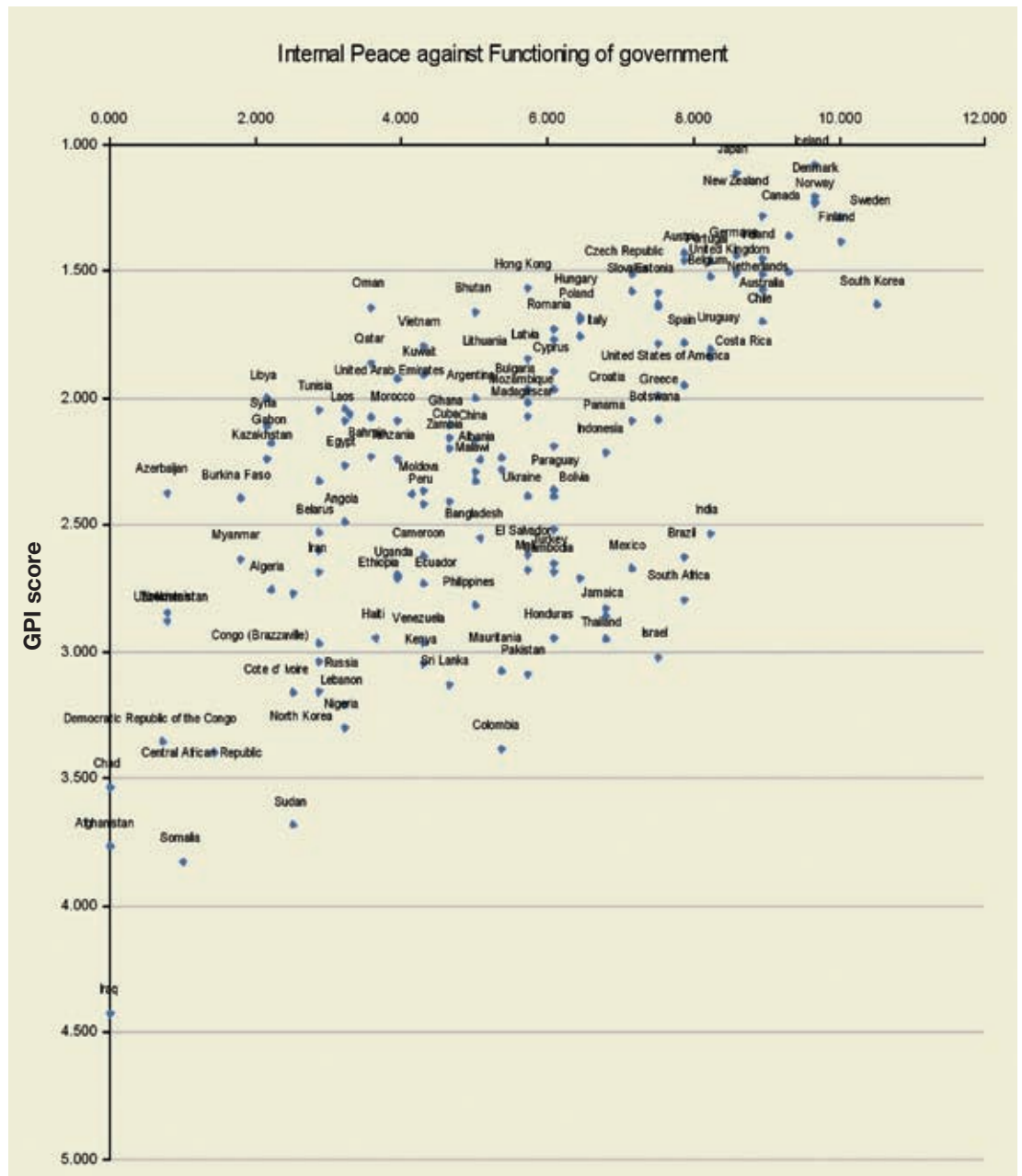


Figure 2: Functioning of government and internal peace score

The measure of corruption within a society from Transparency International has a strong correlation with the overall GPI index (the highest in fact) and the internal peace index scores. Again this correlation experiences an improvement in significance compared to last year.

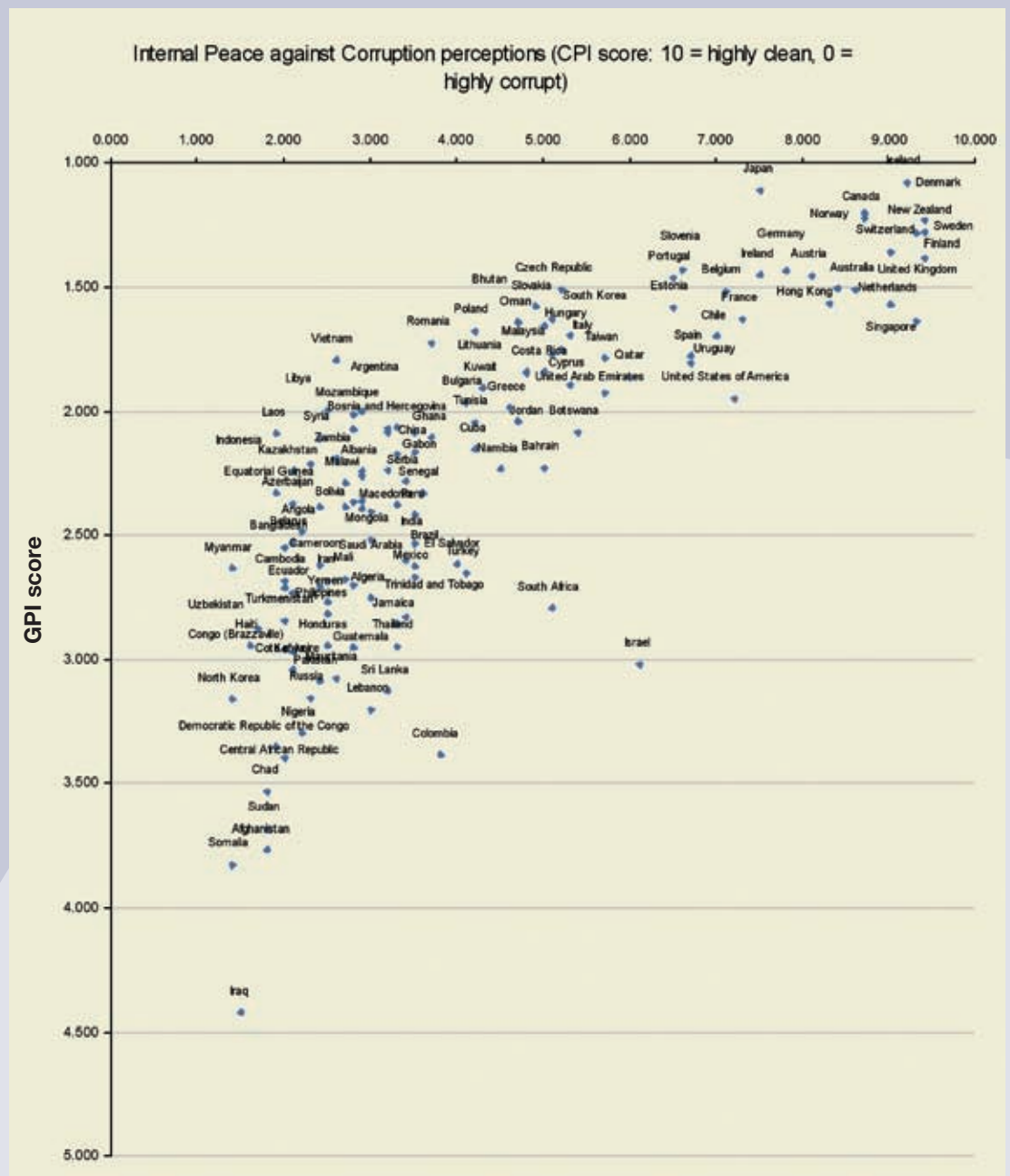


Figure 3: Corruption and internal peace score

The indicators for international openness still exhibit no significant correlations despite the expansion of the group of countries under review. Neither do the demographic indicators we used in 2007. But a newly introduced data set on projections for population growth to 2050 just misses out with an  $r = 0.45$  against our overall GPI score. Expectations of over-population and demographic pressures appear to be linked to our measure of a country's state of peace. Some commonly held metrics as potential drivers for domestic and international conflict, such as above-average shares of young men in the population and imbalances between males and females, have low correlation coefficients on the basis of our calculations.

## INVESTIGATING THE SET OF POTENTIAL DETERMINANTS

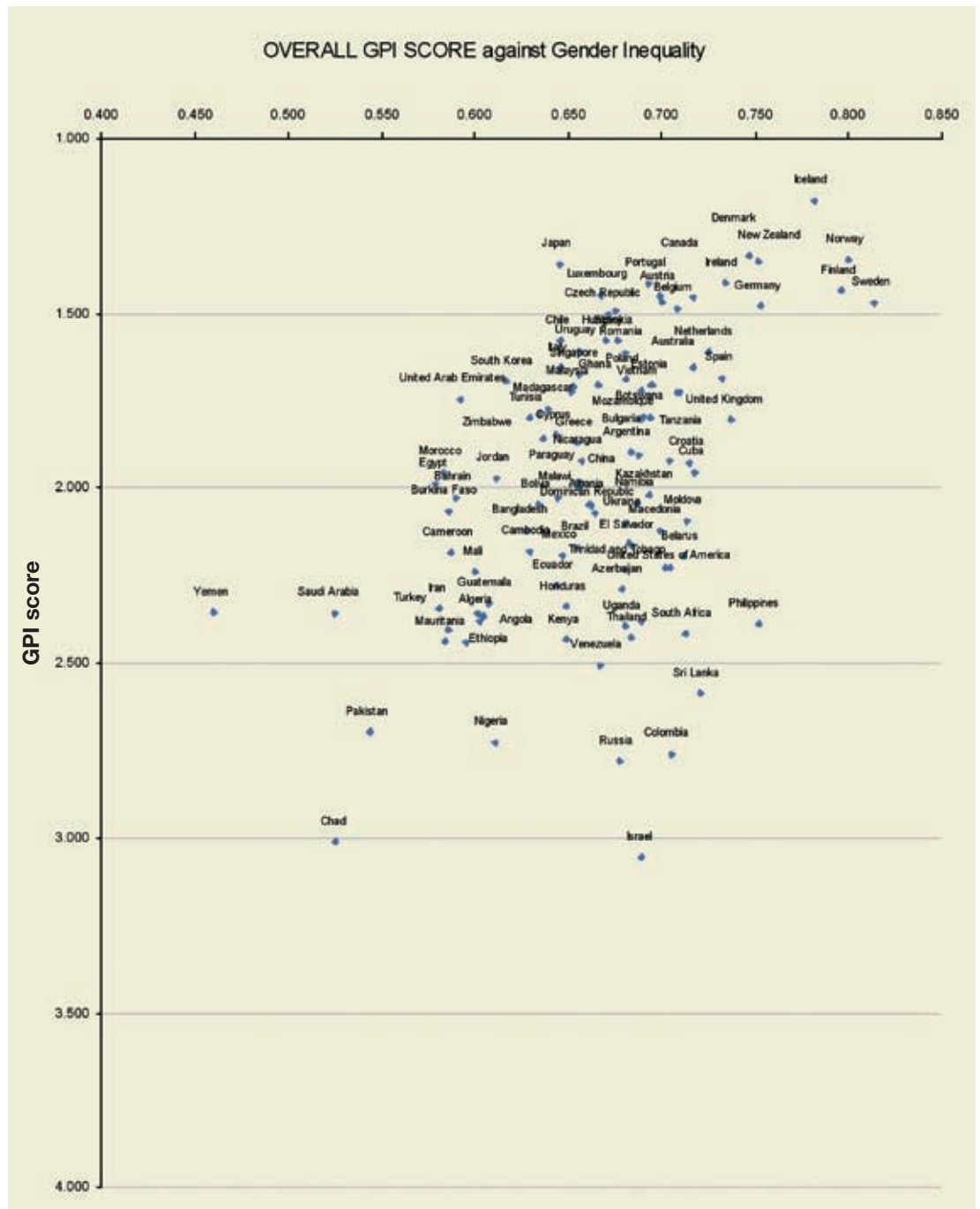


Figure 4: Gender inequality and GPI score

However, a measure of gender inequality, the Gender Gap Index (from the World Economic Forum), just misses out on our measure of significance with a  $r = -0.47$ .

The extent of regional integration is shown to have a significant correlation with the overall index, but also with the internal measure. This is surprising, as the regional integration score is a qualitative assessment of a country's relations with its neighbours, and therefore an external metric. To an extent this is explained by the high scores for regional integration in the countries of the European Union and their generally high peace scores.

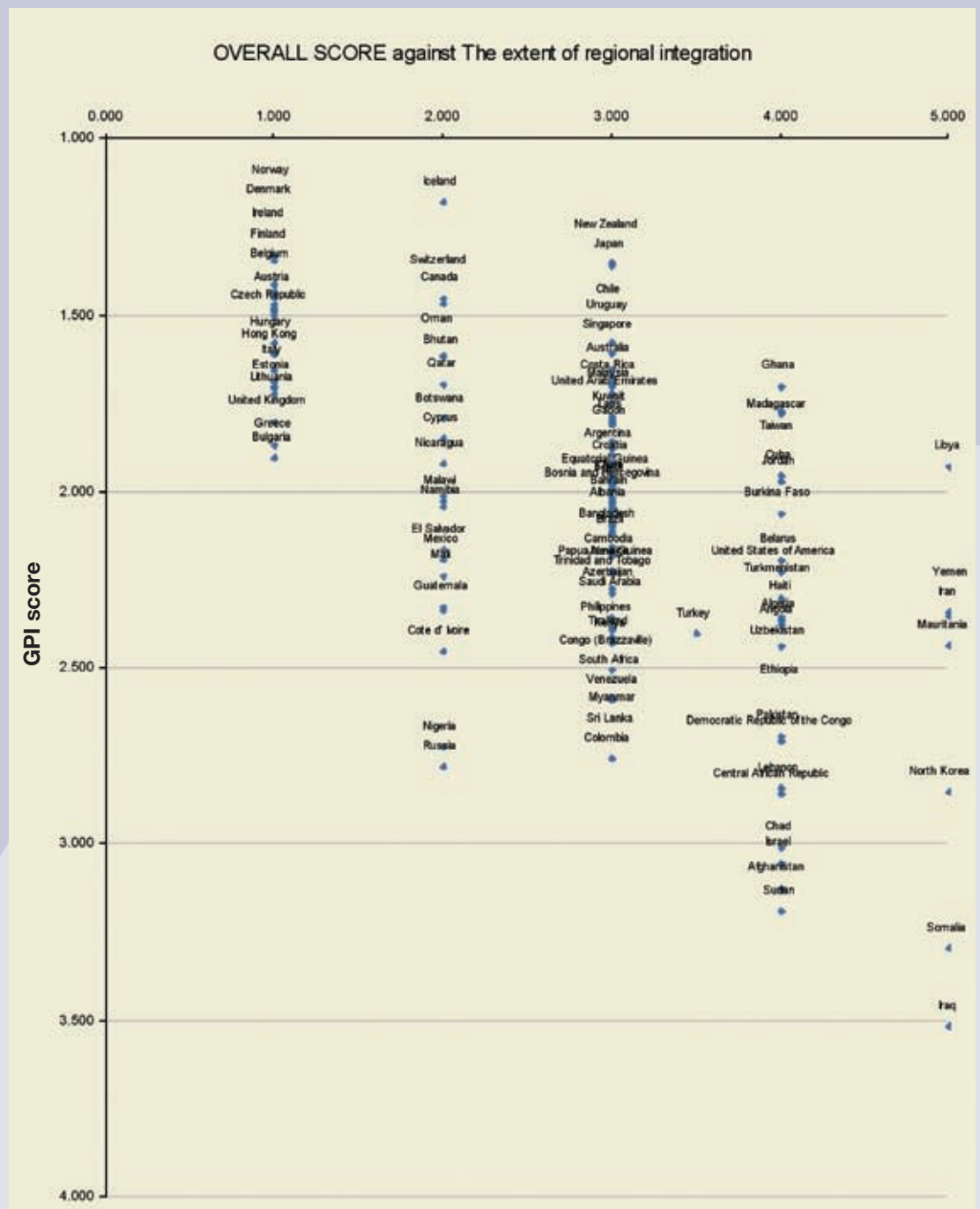


Figure 5: Regional integration and overall score

The education measures used in the index appear to have significant correlations with the overall GPI score since its expansion. A number of series measure even stronger on significance to the measure of internal peace. These are, however, likely to be strongly correlated with other measures such as good governance and material wellbeing.





Figure 7: Mean years of schooling and internal peace score

Two societal, qualitative assessments scored by the Economist Intelligence Unit’s team of analysts also appear to have a reasonable correlation to the overall score. The first indicator, hostility to foreigners and private property, attempts to measure just that, society and government’s general attitude to foreigners and their investments in any given country. The second is a measure of the importance of religion in national life, both for households and its influence on government policy. This is only significant on our measure of internal peace, however. Some caution is necessary here, as the significance of the correlation is likely influenced by the stepped nature of these scores as they proceed from 1 to 5.

## INVESTIGATING THE SET OF POTENTIAL DETERMINANTS

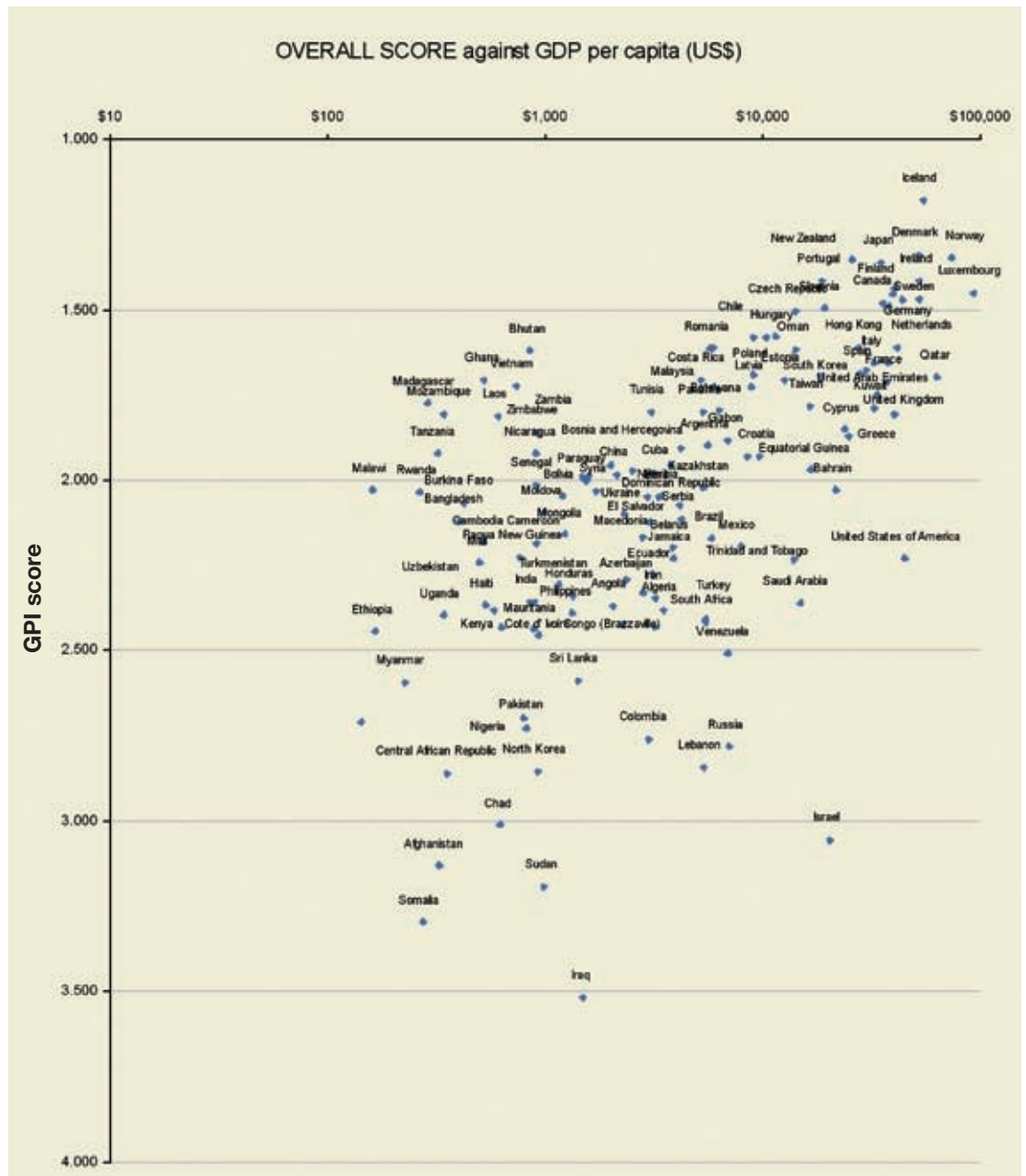


Figure 8: GDP per capita and overall GPI score

The final three indicators of significance are measures of material wellbeing and health. Their significance matches other quantitative investigations in this area of study, establishing a causal relationship with GDP per head. Broadening the range of countries beyond the 121 selected in the first cut of the Global Peace Index has strengthened this finding. The relationship is even more pronounced against the measure of internal peace. There appears to be no relationship, however, on the measure of external peace.

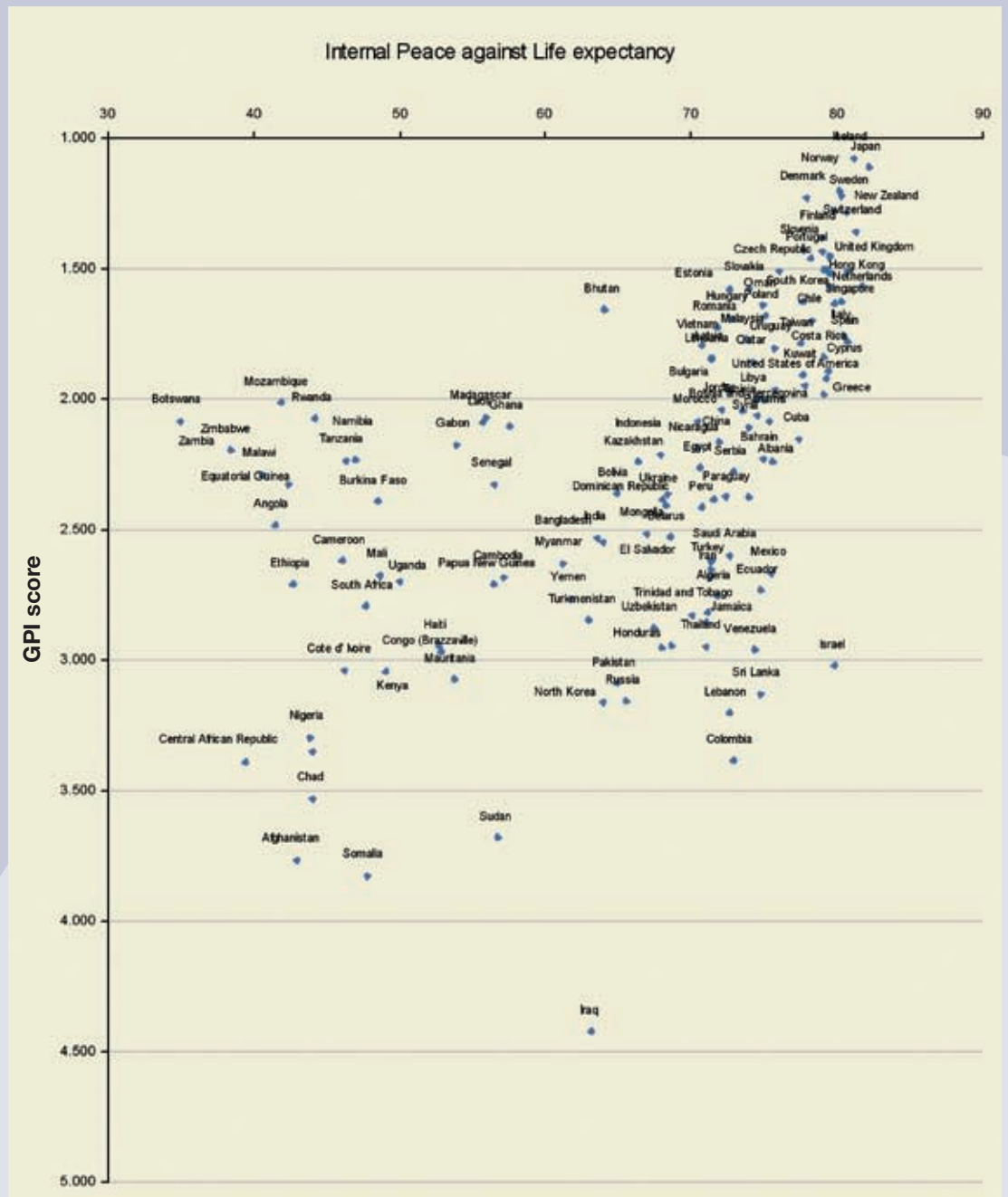


Figure 9: Life expectancy and overall internal peace score



with an extension to more countries. There are nevertheless some problems with the gini coefficient; the latest year of publication for many countries suffers from a considerable lag and the Economist Intelligence Unit had to estimate the coefficient for a sizeable number of countries out of the 140 in the Global Peace Index.

For each of the calculations carried out there are some notable outliers, some consistent with each measure. These can be seen on the scatter plots, as those countries deviating from the general trend. Frequently listed countries include Iraq, Sudan, Israel, Colombia, Lebanon and the United States. As outliers they weaken the overall results, but also appear not to be following the general trends established for other countries. There are clearly other factors relating to these countries that are not being captured by the chosen set of determinants.

It should be noted that little has been established in the way of correlations to

the measure of external peace. This is probably attributable to the previously noted observation that there have been very few interstate conflicts within this group of 140 countries during the period under review. The observable sample set of countries thus is very diverse, from the United States and the United Kingdom to Pakistan.

Based on these preliminary investigations, an ordering of influences and drivers would look like the following, strengthened from our 2007 findings.

## INVESTIGATING THE SET OF POTENTIAL DETERMINANTS

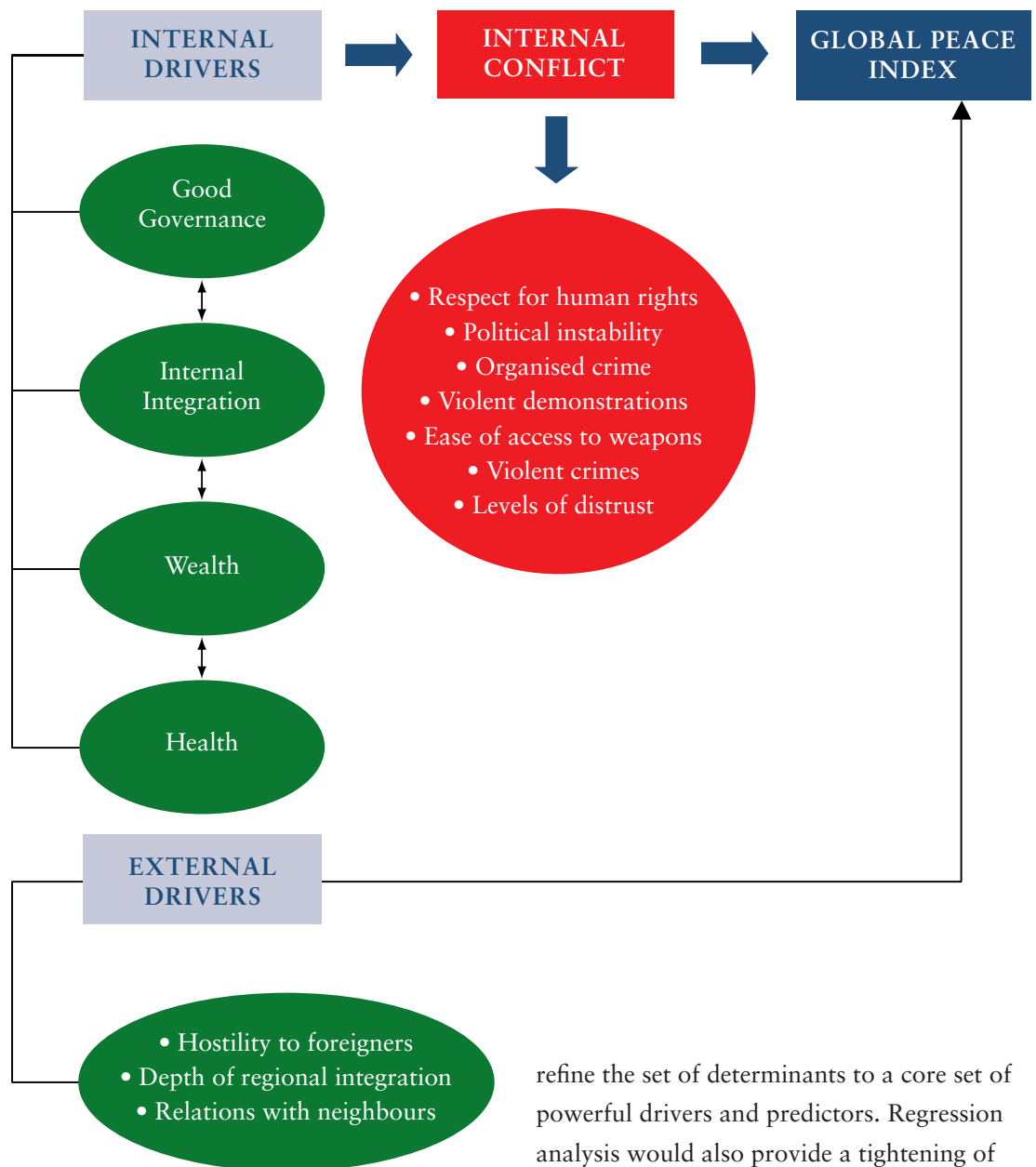


Figure 11

Based on the last two years of research carried out on the GPI against the chosen set of drivers, peaceful societies are those characterised as countries with very low levels of internal conflict with efficient, accountable governments, strong economies, cohesive/integrated populations and good relations within the international community.

Additional research is required, and factor and discriminant analysis would further

refine the set of determinants to a core set of powerful drivers and predictors. Regression analysis would also provide a tightening of the weights for future iterations of the GPI. Modelling and the building of a historical database would also test better the actual causality order; do the societal variables really drive internal conflict or does it work the other way round. For example, do rises in average incomes and wealth such as GDP per capita create more peaceful societies, or is the emergence of greater internal and external peace a prerequisite for a take-off in economic growth? Is corruption a symptom of an absence of peace or its cause?

## ANNEX A

Where the quantitative indicators have missing data, the Economist Intelligence Unit's analysts have estimated the scores.

### Measures of ongoing domestic and international conflict

	Indicator	Central Source	Year	Definition / coding
1	Number of external and internal wars fought	Uppsala Conflict Data Program (UCDP), University of Uppsala, Sweden / International Peace Research Institute, Oslo (PRIO) Armed Conflict Dataset and "The Atlas of War and Peace"—Earthscan, 2003	2001-06	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"  For more detailed explanation see notes on page 50.
2	Estimated number of deaths from organised conflict (external)	UCDP	2005 and 2006	As above
3	Number of deaths from organised conflict (internal)	UCDP/PRIO Armed Conflict Dataset	2005 and 2006	As above
4	Level of organised conflict (internal)	Economist Intelligence Unit	2007	Qualitative assessment of the intensity of conflicts within the country. Ranked 1-5 (very low-very high) by EIU analysts
5	Relations with neighbouring countries	Economist Intelligence Unit	2007	Qualitative assessment of relations with neighbouring countries. Ranked 1-5 (very low-very high) by EIU analysts

## ANNEX A

### Measures of safety and security in countries

	Indicator	Central Source	Year	Definition / coding
6	Level of distrust in other citizens	Economist Intelligence Unit	2007	Qualitative assessment of level of distrust in other citizens. Ranked 1-5 (very low-very high) by EIU analysts
7	Number of displaced people as a percentage of the population	World Bank, World Development Indicators	2005 or latest available year	Refugee population by country or territory of origin, as a percentage of the country's total population
8	Political instability	Economist Intelligence Unit	2007	Qualitative assessment of level of distrust in other citizens. Ranked 1-5 (very low-very high) by EIU analysts
9	Level of respect for human rights (Political Terror Scale)	Amnesty International / Gibney and Dalton	2006	A qualitative measure of the level of political terror through an analysis of Amnesty International's Yearbook
10	Potential for Terrorist Acts	Economist Intelligence Unit	2007	Qualitative assessment of the potential for terrorist acts. Ranked 1-5 (very low-very high) by EIU analysts
11	Number of homicides per 100,000 people	UNODC, 9th, 8th and 7th UN Surveys of Criminal Trends and Operations of Criminal Justice Systems (UNCJS)	2004 and 2002 (depending on availability)	Intentional homicide refers to death deliberately inflicted on a person by another person, including infanticide For additional information on this indicator see notes on page 50
12	Level of violent crime	Economist Intelligence Unit	2007	Qualitative assessment of the level of violent crime. Ranked 1-5 (very low-very high) by EIU analysts
13	Likelihood of violent demonstrations	Economist Intelligence Unit	2007	Qualitative assessment of the level of violent demonstrations. Ranked 1-5 (very low-very high) by EIU analysts
14	Number of jailed population per 100,000 people	International Centre for Prison Studies, King's College London, World Prison Population List	2006	For additional information on this indicator see notes on page 50
15	Number of internal security officers and police per 100,000 people	UNODC, 8th and 7th UN Surveys of Criminal Trends and Operations of Criminal Justice Systems (UNCJS)	2004 and 2002 (depending on availability)	Refers to the civil police force as distinct from national guards or local militia

## Measures of militarization

	Indicator	Central Source	Year	Definition / coding
16	Military expenditure as a percentage of GDP	The International Institute for Strategic Studies, The Military Balance, 2008	2006, 2007 (depending on availability)	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
17	Number of armed services personnel per 100,000 people	The International Institute for Strategic Studies, The Military Balance, 2008	2008	Active armed services personnel comprises 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)
18	Volume of transfers of major conventional weapons (imports) per 100,000 people	SIPRI Arms Transfers Project database	2002-06	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
19	Volume of transfers of major conventional weapons (exports) per 100,000 people	SIPRI Arms Transfers Project database	2002-06	The SIPRI Arms Transfers Database As above
20	UN Deployments (percentage of total forces)	The International Institute for Strategic Studies, The Military Balance, 2008	2007-08	Military deployments to UN peacekeeping missions worldwide 2006-07
21	Non-UN Deployments (percentage of total forces)	The International Institute for Strategic Studies, The Military Balance, 2008	2007-08	Military deployments in Non-UN missions 2006-07 – including those organised by NATO (ISAF, KFOR), US Coalition (MNF-I), EU (EUFOR, EUPOL), African Union (AMIS), OSCE
22	Aggregate number of heavy weapons per 100,000 people	Bonn International Centre for Conversion (BICC)	2003	The BICC Weapon Holdings Database contains figures for four weapon categories: armoured vehicles, artillery, combat aircraft, major fighting ships. The numbers of weapons in these categories have been indexed, with 1996 as the fixed base year. Holdings are those of government forces and do not include holdings of armed opposition groups. Weapon systems in storage are also not included. Indices for groups are directly calculated from the aggregated numbers of holdings of heavy weapons
23	Ease of access to small arms and light weapons	Economist Intelligence Unit	2007	Qualitative assessment of the ease of access to small arms and light weapons. Ranked 1-5 (very low-very high) by EIU analysts
24	Military capability / sophistication	Economist Intelligence Unit	2007	Qualitative assessment of the grade of sophistication and the extent of military research and development (R&D) Ranked 1-5 (very low-very high) by EIU analysts

## ADDITIONAL NOTES ON THE INDICATORS USED IN THE GLOBAL PEACE INDEX

### **Number of external and internal armed conflicts fought: 2001-06**

Source: the Uppsala Conflict Data Program (UCDP), Uppsala University, Sweden

The separate elements of the definition are as follows:

(1) Use of armed force: use of arms in order to promote the parties' general position in the conflict, resulting in deaths.

(1.1) Arms: any material means, e.g. manufactured weapons but also sticks, stones, fire, water, etc.

(2) 25 deaths: a minimum of 25 battle-related deaths per year and per incompatibility.

(3) Party: a government of a state or any opposition organization or alliance of opposition organizations.

(3.1) Government: the party controlling the capital of the state.

(3.2) Opposition organization: any non-governmental group of people having announced a name for their group and using armed force.

(4) State: a state is

(4.1) an internationally recognized sovereign government controlling a specified territory, or

(4.2) an internationally unrecognized government controlling a specified territory whose sovereignty is not disputed by another internationally recognized sovereign government previously controlling the same territory.

(5) Incompatibility concerning government and/or territory the incompatibility, as stated by the parties, must concern government and/or territory.

(5.1) Incompatibility: the stated generally incompatible positions.

(5.2) Incompatibility concerning government: incompatibility concerning type of political system, the replacement of the central government or the change of its composition.

(5.3) Incompatibility concerning territory: incompatibility concerning the status of a territory, e.g. the change of the state in control of a certain territory (interstate conflict), secession or autonomy (intrastate conflict).

### **Respect for Human Rights (Political Terror Scale)**

Mark Gibney and Matthew Dalton, from the University of North Carolina, have coded countries on a 1 to 5 scale according to their level of terror the previous year, based on the description provided in the Amnesty International Yearbook (in this case the 2007 Yearbook, referring to 2006 data). There is an additional index coded on a 1 to 5 scale based on a close analysis of Country Reports from the US State Department. Amnesty International scores have been used where available, with US State Department scores used to fill missing data.

- Level 1 is scored if the country operates under a secure rule of law. People are not imprisoned for their views and torture is rare or exceptional. Politically-motivated murders are extremely rare;
- Level 2 points that there is a limited amount of imprisonment for non-violent political activity. However, few persons are affected and torture and beatings are exceptional. Politically-motivated murder is rare;
- Level 3. Imprisonment for political activity is more extensive. Politically-motivated executions or other political murders and brutality are common.

Unlimited detention, with or without a trial, for political views is also commonplace;

- Level 4. The practices of level 3 affect a larger portion of the population and murders, disappearances and torture are a common part of life. In spite of its pervasiveness, on this level political terror affects those who interest themselves in politics;
- Level 5. The terrors characteristic of level 4 countries encompass the whole population at level 5. The leaders of these societies place no limits on the means or thoroughness with which they pursue personal or ideological goals.

### Number of homicides per 100,000 people

This indicator has been compiled using UNODC figures (9th, 7th and 8th Surveys of Criminal Trends) rather than Interpol data. 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. The latest Interpol figures used are for 1998/99 and the consensus among experts on the analysis of criminal justice is that the UNODC figures are more reliable – they are compiled from a standard questionnaire sent to national officials via the UN statistical office. However, the UN acknowledges that international comparisons of crime statistics are beset by methodological difficulties:

- Different definitions for specific crime types: The category in which any incident of victimization is recorded relies on the legal definition of crime in any country.

Should that definition be different, which is often the case, comparisons will not be made of exactly the same crime type. This is particularly the case in crimes that require some discretion from a police officer or relevant authority when they are identified. For example, the definitional difference between serious or common assault in different legal jurisdictions may be different, and this will be reflected in the total number of incidents recorded.

- Different levels of reporting and traditions of policing: This relates closely to levels of development in a society, most clearly reflected in accessibility to the police. Factors such as the number of police stations or telephones impact upon reporting levels. The level of insurance coverage in a community is also a key indicator of the likelihood of citizens approaching the police as their claim for compensation may require such notification. In addition, in societies where the police are or have been mistrusted by the population, most specifically during periods of authoritarian rule, reporting levels are likely to be lower than in cases where the police are regarded as important members of the community.
- Different social, economic and political contexts: Comparing crime data from societies that are fundamentally different may ignore key issues present in the society that impact upon levels of reporting. For example, different social norms in some countries may make it difficult for women to report cases of rape or sexual abuse, while in others, women are encouraged to come forward.

## ADDITIONAL NOTES ON THE INDICATORS USED IN THE GLOBAL PEACE INDEX

The International Crime Victim Survey (ICVS) is perhaps a more sensitive and accurate measure of crime – and arguably offers a picture of how the public views the criminal justice system – but is currently limited to a few, mainly industrialised, countries so these data are not included.

Where data are not present, The Economist Intelligence Unit’s analysts have estimated figures based on their deep knowledge of each country. All the figures for homicides per 100,000 people have been banded as:

1	2	3	4	5
0-1.9	2-5.9	6-9.9	10-19.9	> 20

### Level of distrust in other citizens

A qualitative assessment of the level of distrust in other citizens, ranked from 1-5 (very low to very high) by the Economist Intelligence Unit’s Country Analysis team. The lowest score (1) records that the majority of other people can be trusted and that there is an overall positive climate of trust in the country. The highest score (5) indicates that people are extremely cautious in dealing with others.

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

The original figures have been taken from UNODC, 9th, 8th and 7th UN Surveys of Criminal Trends and Operations of Criminal Justice Systems (UNCJS) and refer to the civil police force as distinct from national guards or local militia. Where there are gaps, EIU analysts have filled the gaps and clustered data in bands

1	2	3	4	5
0-199	200-399	400-599	600-799	> 800

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

Figures are from the International Centre for Prison Studies, King’s College, University of London 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. The International Centre for Prison Studies warns that because prison population rates (per 100,000 of the national population) are based on estimates of the national population they should not be regarded as precise. Comparability is compromised by different practice in different countries, for example with regard to whether all pre-trial detainees and juveniles are held under the authority of the prison administration, and also whether the prison administration is responsible for psychiatrically ill offenders and offenders being detained for treatment for alcoholism and drug addiction. People held in custody are usually omitted from national totals if they are not under the authority of the prison administration.

The data have been banded:

1	2	3	4	5
0-69	70-139	140-209	210-279	> 280

### **Ease of access to weapons of minor destruction**

A qualitative assessment of the accessibility of small arms and light weapons (SALW) is ranked 1-5 (very low–very high) by EIU analysts. Very limited access is scored if the country has developed policy instruments and best practices, such as firearm licences, strengthening of export controls, codes of conduct, firearms or ammunition marking. Very easy access, on the contrary, is characterized by the lack of regulation of civilian possession, ownership, storage, carriage and use of firearms.

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

UCDP/PRIO Armed Conflict Dataset records the number of battle deaths per conflict, defined 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”. EIU analysts, then, have clustered the figures available for 2005 and 2006 in bands:

1	2	3	4	5
0-24	25-999	1000-4999	5000-9999	> 10000

### **Aggregate number of heavy weapons per 100,000 people**

The BICC Weapon Holdings Database contains figures for four weapon categories: armoured vehicles, artillery, combat aircraft, and major fighting ships. The numbers of weapons in these categories have been indexed, with 1996 as the fixed base year. Holdings are those of government forces and do not include holdings of armed opposition groups. Weapon systems in storage are also not included. Indices for groups are directly calculated from the aggregated numbers of holdings of heavy weapons, as follows:

1	2	3	4	5
0-199	200-999	1000-2999	3000-6999	> 7000

ANNEX B  
POTENTIAL DETERMINANTS OF PEACE

Democracy and Transparency

Indicator	Central Source	Year	Definition	Coverage (% of 140 countries)
Electoral process	EIU Democracy Index	2008	Qualitative assessment of whether elections are competitive in that electors are free to vote and are offered a range of choices. Ranked 1- 10 (very low to very high)	100%
Functioning of government	EIU Democracy Index	2008	Qualitative assessment of whether freely elected representatives determine government policy? Is there an effective system of checks and balances on the exercise of government authority? Ranked 1- 10 (very low to very high)	100%
Political participation	EIU Democracy Index	2008	Qualitative assessment of voter participation/turn-out for national elections, citizens' engagement with politics. Ranked 1- 10 (very low to very high)	100%
Political culture	EIU Democracy Index	2008	Qualitative assessment of the degree of societal consensus and cohesion to underpin a stable, functioning democracy; score the level of separation of church and state. Ranked 1- 10 (very low to very high)	100%
Civil liberties	EIU Democracy Index	2008	Qualitative assessment of the prevalence of civil liberties. Is there a free electronic media? Is there a free print media? Is there freedom of expression and protest? Are citizens free to form professional organisations and trade unions? Ranked 1- 10 (very low to very high)	100%
Corruption perceptions	Transparency International, Corruption Perception Index	2007	The Index draws on multiple expert opinion surveys that poll perceptions of public sector corruption scoring countries on a scale from 0 to 10, with 0 indicating high levels of perceived corruption and 10 indicating low levels of perceived corruption	100%
Women in parliament (as a percentage of the total number of representatives in the lower house)	Inter-parliamentary Union	2007	Figures are based on information provided by national parliaments by 31st December 2006	100%
Gender inequality	Gender Gap Index, World Economic Forum	2007	A composite index that assesses countries on how well they are dividing their resources and opportunities among their male and female populations, regardless of the overall levels of these resources and opportunities	80%
Freedom of the press	Reporters without borders	2007	The index measures the state of press freedom in the world, reflecting the degree of freedom journalists and news organisations enjoy in each country, and the efforts made by the state to respect and ensure respect for this freedom	100%

## International openness

Indicator	Central Source	Year	Definition	Coverage (% of 140 countries)
Exports + Imports % of GDP	EIU	2006		100%
Foreign Direct Investment (flow) % of GDP	EIU	2006		100%
Number of visitors as % of domestic population	UNWTO Compendium of Tourism Statistics, Data 2000-2004	2001-2005 depending on availability	Arrivals data correspond to international visitors to the economic territory of the country and include both tourists and same-day non-resident visitors	100%
Net Migration (% of total population)	World Bank WDI, data refers to 1995-2000	2006	Net migration is the net average annual number of migrants during the period 1995-2000, that is the number of immigrants less the number of emigrants, including both citizen and non-citizens	100%

## Demographics

Indicator	Central Source	Year	Definition	Coverage (% of 140 countries)
15-34 year old males as a % of total population	UN World Population Prospects	2007		100%
Gender ratio of population: women/men	UN Statistics, Social Indicator	2007	Ratio Women/Men	100%
Percentage change in projected population 2004-2050	Population Reference Bureau	2007	Projected average population growth to 2050	100%

## Regional & international framework/conditions

Indicator	Central Source	Year	Definition	Coverage (% of 140 countries)
Extent of regional integration	EIU	2007	Qualitative assessment of the level of membership of trade alliances, as NAFTA, ANSEAN, etc. Ranked 1-5 (Very low-very high ) by EIU analysts	100%

ANNEX B  
POTENTIAL DETERMINANTS OF PEACE

Education

Indicator	Central Source	Year	Definition	Coverage (% of 140 countries)
Current education spending (% of GDP)	UNESCO, data refer to the UNESCO Institute for Statistics estimate, when no value is available	2001-2006 (depending on availability)	Public spending on education, total (% of GDP)	100%
Primary school enrolment ratio (% Net)	World Bank WDI	2001-2006 (depending on availability)	Net enrolment ratio is the ratio of the number of children of official school age (as defined by the national education system) who are enrolled in school to the population of the corresponding official school age	100%
Secondary school enrolment ratio (% Net)	World Bank WDI	2001-2006 (depending on availability)	Net enrolment ratio is the ratio of the number of children of official school age (as defined by the national education system) who are enrolled in school to the population of the corresponding official school age	100%
Higher education enrolment (% Gross)	World Bank WDI	2000-2006 (depending on availability)	Gross enrolment ratio is the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown	100%
Mean years of schooling	UNESCO, data refer to the UNESCO Institute for Statistics estimate, when no estimate is available	2004 and earlier years (depending on availability)	School life expectancy (years), Primary to tertiary	100%
Adult literacy rate (% of population over the age of 15)	UNDP, Human Development Report	1995-2005	Data refer to national literacy estimates from censuses or surveys conducted between 2000 and 2004	100%

## Culture

Indicator	Central Source	Year	Definition	Coverage (% of 140 countries)
Hostility to foreigners/private property	EIU Risk briefing	2007	Scored 1-5 by EIU analysts	100%
Importance of religion in national life	EIU	2007	Qualitative assessment of the level of importance of religion in politics and social life. Ranked 1-5 (very low to very high) by EIU analysts	100%
Willingness to fight	EIU	2007	Qualitative assessment of the willingness of citizens to fight in wars. Ranked 1- 5 (very low to very high) by EIU analysts	100%

## Material wellbeing

Indicator	Central Source	Year	Definition	Coverage (% of 140 countries)
Nominal GDP (US\$PPP bn)	EIU	2006	Nominal gross domestic product at 2005 US\$ purchasing power parities	100%
Nominal GDP (US\$ bn)	EIU	2006	Nominal gross domestic product US\$ market prices	100%
GDP per capita	EIU	2006	Nominal gross domestic product (US\$) per capita	100%
Average growth in GDP per capita (last ten years)	EIU	2006	Average annual change in nominal gross domestic product	100%
Gini coefficient	UN Human Development Index 2007-2008; EIU estimates	Latest available year	The Gini index measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution	100%
Unemployment %	EIU	2006	The ILO defines the unemployed as members of the economically active population who are without work but available for and seeking work, including people who have lost their jobs and those who have voluntarily left work	100%
Life expectancy	World Bank, WDI	2005	Life expectancy at birth is the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life	100%
Infant mortality per 1,000 live births	World Bank, WDI 2005	2005	Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year	100%
Population	EIU	2006	Total population	100%

## NOTES

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## NOTES



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