PCSITIVE PEACE PEACE REPORT 2020

ANALYSING THE FACTORS
THAT SUSTAIN PEACE





Quantifying Peace and its Benefits

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

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

IEP is headquartered in Sydney, with offices in New York, The Hague, Mexico City, Brussels and Harare. It works with a wide range of partners internationally and collaborates with intergovernmental organisations on measuring and communicating the economic value of peace.

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WHY POSITIVE PEACE IS TRANSFORMATIONAL

Positive Peace is a transformational concept. Empirically based, it shifts the focus away from the negative to the positive aspects that create the conditions for a society to flourish. Due to its systemic nature, improvements in Positive Peace not only strengthen peace, but are also associated with many other desirable outcomes for society, such as higher GDP growth, better measures of wellbeing and higher levels of resilience. Importantly, it provides a theory of social change, explaining how societies transform and evolve.

Humanity is nearing a tipping point and facing challenges unparalleled in its short history. Many of these problems are global in nature, such as climate change, ever decreasing biodiversity, depletion of the earth's freshwater, and overpopulation. Such global challenges call for global solutions and require cooperation on a scale unprecedented in human history. In a hyper-connected world, the sources of many of these challenges are multidimensional, increasingly complex and span national borders. For this reason, finding solutions requires fundamentally new ways of thinking.

Peace is the prerequisite for the survival of humanity in the 21st century. Without peace, it will not be possible to achieve the levels of trust, cooperation and inclusiveness necessary to solve these challenges, let alone empower international institutions and organisations necessary to address them. In the past, peace may have been the domain of the altruistic but in the current century it is clearly in everyone's self-interest.

Without an understanding of the factors that create and sustain peaceful societies, it will not be possible to develop the programmes, create the policies or understand the resources required to build peaceful and resilient societies.

Positive Peace provides a framework to understand and address the many complex challenges the world faces. Positive Peace is transformational in that it is a cross-cutting facilitator of progress, making it easier for businesses to sell, entrepreneurs and scientists to innovate, individuals to produce and governments to effectively regulate.

In addition to the absence of violence, Positive Peace is also associated with many other social characteristics that are considered desirable, including stronger economic outcomes, higher resilience, better measures of wellbeing, higher levels of inclusiveness and more sustainable environmental performance.

Therefore, Positive Peace can be seen as creating an optimal environment in which human potential can flourish.

Understanding what creates sustainable peace cannot be found in the study of violence alone.

A parallel can be drawn with medical science. The study of pathology has led to numerous breakthroughs in our understanding of how to treat and cure disease. However, it was only when medical science turned its focus to the study of healthy human beings that we understood what we needed to do to stay healthy: physical exercise, a good mental disposition, a sense of purpose and a balanced diet are some examples. This could only be learned by studying what was working. In the same way, the study of conflict is different from the study of peace, producing very different insights.

Positive Peace is systemic and requires new thinking to be properly understood. Systems thinking originated in the study of organisms and has been extended into sociology. It can also assist in understanding the way countries and nations function and evolve. When combined with Positive Peace, systems thinking provides new ways of conceptualising and explaining societal change. As one example — a system is more than the sum of its parts, and cannot be understood merely by breaking it down and analysing its constituent parts. Positive Peace consists of eight Pillars, but each of these Pillars does not correlate with peace as strongly as the sum of all components, highlighting that the whole is more than the simple sum of its components.

This distinctly contrasts with the notion of linear causality, which dominates decision making today: identify a problem, decide upon its cause and tackle the root. Without a fuller understanding of underlying system dynamics, the linear approach creates unintended consequences. The failure to solve some of society's fundamental challenges is a testimony to this. Systems thinking opens new ways of understanding nations and how they evolve. In systems, relationships and flows are more important than events. Events or problems represent the outcomes of the relationships and flows. This is why it is important to look at the multidimensional concept of Positive Peace as a holistic, systemic framework.

Positive Peace defines the goals that a system needs to evolve too. Interventions should nudge the system towards ever higher levels of Positive Peace, rather than creating radical change, which runs the risk of disrupting the fabric of society.

Importantly, viewing nations as systems provides a framework for understanding the relationships between humanity and the broader systems, such as the atmosphere and biosphere, which we intersect and depend upon. Systems are self-regulating and self-modifying and operate on two levels; first as a collection of interconnected subsystems and second as part of the larger systems surrounding it. Understanding these interdependencies is essential to meeting the global challenges of our age.

Different countries have different aims, or intent. Societies also have both formal and informal rules, referred to as encoded norms, which govern social behaviour and aim to maintain the system in a stable state. They regulate inputs, creating mutual feedback loops. This can be observed in many societal processes, such as when a government stimulates the economy in response to a drop in GDP or deploys more policing resources when there is a rise in crime. Each country's system will be

unique with different social norms and governance, although following the same general principles.

With differences in intent and encoded norms, any two nations may react differently to the same stimulus. Tipping points also occur within systems due to lagged and non-linear relationships. IEP's research uncovers evidence of tipping points in relation to peace and corruption, peace and per capita income, to name some examples. In the past, societies have been investigated through the lens of causality; in the future, embracing these holistic, systemic approaches will forge our ability to navigate an age of unprecedented challenges.

Seen in this light, Positive Peace and systems thinking comprise an overarching framework for understanding and achieving progress not only in the level of global peacefulness, but in many other interrelated areas, including better economic progress and social advancement.

Positive Peace provides the optimal environment for human potential to flourish.



Executive Summary

This report details the latest findings from IEP's research into Positive Peace, including country rankings and their changes over time. The report also analyses the relationship between development and Positive Peace, finding that Positive Peace acts as a catalyst for better development outcomes.

Positive Peace is defined as the attitudes, institutions and structures that create and sustain peaceful societies. The same factors that create lasting peace also lead to many other positive outcomes that societies aspire to, including:

- thriving economies
- better performance on ecological measures
- high levels of resilience and adaptability to change.

Other factors that improve with Positive Peace are measures of inclusiveness, wellbeing and happiness. Therefore, Positive Peace can be described as creating an optimal environment for human potential to flourish.

Positive Peace is conceptually and empirically linked to socio-economic resilience. Countries with high Positive Peace are more likely to maintain their stability and recover more easily from internal and external shocks. Through the modelling of the relationship between Positive Peace and the actual peace of a country, as measured through the Global Peace Index (GPI), it is possible to predict large falls in peace. A model based on Positive Peace deficits was able to predict 90 per cent of the countries that would deteriorate in peace over the past decade. Additionally, seven of the ten largest falls on the GPI were also predicted by this model.

The data used in this report covers the period from 2009 to 2019. As such, it does not include the impact of the COVID-19 pandemic, lockdowns and the global recession that ensued. It will be included in forthcoming editions of the Positive Peace Index (PPI), as well as other upcoming IEP publications such as the GPI and the Business and Peace report.

Analysis finds that Positive Peace is strongly correlated with better economic outcomes. Countries that develop high levels of Positive Peace display greater degrees of economic strength and resilience. Countries that improved in Positive Peace between 2009 and 2019 had annual per capita GDP growth almost three percentage points higher than countries that deteriorated in Positive Peace. As such, Positive Peace can be used in financial markets helping investors identify reliable and sustainable growth opportunities. In addition to improvements in GDP, Positive Peace is statistically associated with better performance in a range of other macro-economic indicators, including stronger flows of foreign direct investment, appreciating currencies and lower and more stable interest and inflation rates.

Trends in Positive Peace can be used to forecast future economic outperformance in countries. This is an invaluable tool for financial analysts seeking to complement their

traditional macroeconomic forecasting models. This analysis is discussed in this report and will be further developed in the upcoming Business and Peace publication.

Positive Peace is also conceptually and empirically linked with the notion of ethical investing, or as it is often described, environmental, social and governance (ESG) investing. Positive Peace is statistically linked to improvements in ESG measures and as such can be seen as creating the background environments where countries will perform well in such measures. Positive Peace can be used as a predictor of superior ESG performance and can be applied in the design of impacttype investment strategies or as a risk assessment and management tool.

Global levels of Positive Peace have improved since at least 2009, with 134 of the 163 countries, or 82 per cent, improving in the PPI over this period. Positive Peace improves slowly, therefore planning needs to be longitudinal. Much of the progress since 2009 is due to improvements within the Structures domain of Positive Peace, which includes measures related to economic, technological and scientific development. They tend to grow almost uninterruptedly, reflecting the continuous increase in national incomes, the constant development of new technologies and the permanent stream of new discoveries in science and health.

In contrast, factors relating to social behaviour and social relations, as measured by the Attitudes domain, have deteriorated considerably over the past decade. These factors measure social views, tensions and perceptions and have been negatively affected by a rise in corruption, greater polarisation of political views, the intensification of tensions between social groups and the dissemination of false information. Some countries have experienced steep declines in this domain, including developed countries, such as Denmark, the Netherlands, Austria, the US and the UK.

Six of the eight Pillars of Positive Peace have improved over the last decade. The Pillars with the greatest improvements were Free Flow of Information and Sound Business Environment. These developments mostly reflect the dissemination of information technologies and the growth in goods and services consumption and trade. High Levels of Human Capital also improved markedly, on the back of greater access to education and professional training. It was also influenced by increased technical and scientific research output.

However, the Pillars Low Levels of Corruption and Well-Functioning Government, deteriorated globally. Either corruption itself has become more prevalent over the last decade or perceptions of it have deteriorated. Overall, Low Levels of Corruption deteriorated in 103 of the 163 countries assessed by the PPI. In line with these developments, governments have also become less effective and reliable, with the Well-Functioning Government Pillar deteriorating in 98 countries since 2009. These are serious concerns.

The research also incorporates systems thinking, which provides a more accurate understanding of how nations operate and societies develop over time, rather than the traditional approach of cause-and-effect linear thinking. The introductory section of the report describes the fundamental concepts associated with systems thinking. Adopting this approach, IEP develops a new interdependent framework and holistic methodology to the study of peace and societal development.

When combined with systems thinking, the analysis of Positive Peace produces a new theory of social change. Developments in Positive Peace precede societal changes in peacefulness, either for better or worse. Stimuli and shocks have cascading effects, due to the feedback loops contained within national systems, pushing societies into virtuous or vicious cycles. However, these cycles can be understood, planned and moulded to produce the best social outcomes. Positive Peace provides a roadmap of the things societies need to change, to either consolidate virtuous cycles or break vicious ones.

Each Pillar of Positive Peace represents a complex set of social dynamics. Research finds that different Pillars become more important at distinct stages of development. In low-peace countries — those struggling with external wars, civil wars or internal insurgencies — improvements in the Pillars Low Levels of Corruption, Acceptance of the Rights of Others, Good Relations with Neighbours, Sound Business Environment and Well-Functioning Government are critical for the reduction of violence. As countries progress toward higher levels of peacefulness, further reductions in violence require improvements in Free Flow of Information, Equitable Distribution of Resources and High Levels of Human Capital. The eight Pillars build on one another to consolidate previously acquired successes.

Additionally, improvements in a single Pillar, without improvements in other supporting Pillars can lead to a higher likelihood of deteriorations in peace. Focusing exclusively on building stronger business environments or higher levels of education, for example, may prove to be problematic. Countries, like systems, evolve and therefore the unique factors which constitute the make-up of a country need to be understood for interventions to be successful. Radical change also creates instability and risk. The best approach is many small, progressive nudges towards virtuous cycles of greater Positive Peace. Once a cycle is underway, it tends to be self-reinforcing. This is the nature of systems.

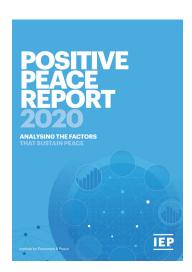
Taken together, the findings in this report have important implications for building and sustaining peace:

 There are no quick and easy solutions. Building and sustaining peace requires a large number of society-wide improvements progressing in concert with one another over long periods of time.

- Simply addressing the factors that led to violence in the
 past will not be enough to sustain peace in the future.
 Different aspects of the social system push societies
 towards or away from peace, which means that
 improvements in peace require broader and more systemic
 strategies than once thought.
- Prevention should be the priority. Recovery after violence has already occurred is difficult, expensive, and requires widespread effort to rebuild Positive Peace. Through focusing on the factors that are most critical, it is possible to build resilience in cost-effective ways.
- Stopping or averting conflict is not an end in itself. As
 Positive Peace progresses, it enables an environment where
 human potential may more easily flourish.

Positive Peace can also be applied practically through workshops and development projects on a national, state or community level. IEP has implemented workshops in all major regions of the world. Included in this report are examples of IEP programmes conducted in the Philippines, Ethiopia, Mexico, Uganda and Japan, all aimed at building Positive Peace in these countries and communities.

Without a better understanding of how societies operate, it will not be possible to solve humanity's major global challenges. Positive Peace provides a unique framework from which to manage human affairs and relate to the broader ecosystems upon which we depend. Positive Peace in many ways is a facilitator, making it easier for workers to produce, businesses to sell, entrepreneurs and scientists to innovate and governments to serve the interests of the people.



Positive Peace provides a roadmap of what societies need to change to either consolidate virtuous cycles or break vicious ones.

Key **Findings**

Positive Peace Fundamentals

- Positive Peace is defined as the attitudes, institutions and structures that create and sustain peaceful societies.
- These same factors also lead to many other positive outcomes that society feels are important, such as economic strength, social resilience and wellbeing.
- Therefore, Positive Peace creates the optimal environment for human potential to flourish.
- The most peaceful countries in the world perform strongly on all eight Pillars of Positive Peace.
- High Positive Peace countries are more likely to maintain stability, adapt and recover from shocks.
- Countries that perform well in Positive Peace are more likely to achieve and sustain high levels of

Global and Regional Trends

- More countries improved in Positive Peace 134 in total — than deteriorated — 29 countries from 2009 to 2019.
- These improvements were mainly driven by the Sound Business Environment, Free-Flow of Information, Equitable Distribution of Resources and High Levels of Human Capital Pillars.
- Positive Peace improved 3.3 per cent globally in the past decade. This is driven by improvements in six of the eight Pillars of Positive Peace since 2009.
- Eight out of the nine world regions improved in Positive Peace since 2009, with North America being the only exception.
- Russia and Eurasia, Asia Pacific, South Asia and Europe had the largest regional improvements. All countries in Russia and Eurasia recorded improvements in the PPI.
- Higher levels of Positive Peace are mainly due to improvements in the Structures domain of the PPI, while the Institutions domain was broadly steady and the Attitudes domain deteriorated markedly.

This means the world has become richer and more apt at technology, but the ways in which we treat one another have become measurably more

Positive Peace. Ethical Investment and Resilience

- Positive Peace has a high correlation with indicators of environmental, social and governance (ESG) investment. Designers of financial products and benchmarks can use this when catering for the growing demand for ethical investment.
- Positive Peace is a reliable gauge of economic resilience. As such, it can be used to select portfolios of countries that consistently outperform global GDP growth. The combined GDP of PPI improvers outgrew global averages by almost one percentage point per year since 2009.
- This outperformance is also verified for other indicators of macroeconomic activity and national governance.
- The PPI can also be used as a tool to help forecast future economic outperformance in sovereign markets.
- Inflation rates in countries where Positive Peace deteriorated were four times more volatile when compared to countries where Positive Peace improved.
- Domestic currency in countries where Positive Peace improved appreciated by over one percentage point per year more than countries where the PPI deteriorated.
- Countries that improved in Positive Peace also have a more positive outlook on credit rating as assessed by Standard & Poor's, Moody's and
- Among countries where Positive Peace improved, household consumption rose in the past decade at a rate almost twice as high as for countries where the PPI deteriorated.

Positive Peace & Changes in the Global Peace Index

- Countries that have a higher rank in negative peace than in Positive Peace are said to have a Positive Peace deficit. This is where a country records a level of peacefulness higher than can be sustained by its internal socio-economic development. Most countries found to be in deficit subsequently record increasing levels of violence.
- Sixty-nine per cent of countries with a Positive Peace deficit of 20 places or more in 2009 had substantial deteriorations in the Global Peace Index (GPI) from 2009 to 2019.
- When the threshold is raised to 50 places, the proportion of deficit countries experiencing subsequent increases in violence rises to 90 per cent.
- The ten largest deteriorations in the GPI ranking from 2009 to 2019 were recorded by Libya, Nicaragua, Burkina Faso, Egypt, Syria, Bahrain, Mozambique, Cameroon, Tunisia and Ukraine. Of these ten countries, seven had large Positive Peace deficits in 2009. This underscores the predictive power of the Positive Peace deficit model.
- On average, deficit countries that recorded increases in violence saw their GPI Internal Peace score deteriorate by 17.8 per cent from 2009 to 2019. This compares to a 0.3 per cent deterioration over the period for the median country in the GPI.
- Looking forward, 30 countries recorded substantial Positive Peace deficits in 2019, and may deteriorate further into violence in the coming years. Of particular concern, Eritrea and the Equatorial Guinea combine large Positive Peace deficits with a long trend of PPI deteriorations over the past decade.
- Other nations in deficit in 2019 such as Liberia, Zambia, Guinea-Bissau, Bangladesh, Qatar, Rwanda and Zimbabwe — have already recorded PPI deteriorations in more recent years.

- Low Levels of Corruption, Acceptance of the Rights of Others, Sound Business Environment, Well-Functioning Government and Good Relations with Neighbours are the most important Pillars requiring improvement in countries suffering from high levels of violence.
- Free Flow of Information, Equitable Distribution of Resources and High Levels of Human Capital become more important as countries move away from very low levels of peace.
- Low Levels of Corruption is the only Pillar that is strongly correlated with the GPI across all levels of peacefulness. Improvements in this Pillar are associated with reductions in violence in lowpeace, medium-peace and high-peace countries.
- Uneven improvements in the Pillars of Peace can lead to increased violence, highlighting the importance of a holistic approach to building Positive Peace.

WHAT IS POSITIVE PEACE?

NEGATIVE PEACE
... is the absence of violence or fear of violence.

The positive peace ... is the attitudes, institutions & structures that create and sustain peaceful societies.

- Positive Peace is defined as the attitudes, institutions and structures that create and sustain peaceful societies. These same factors also lead to many other positive outcomes that society feels are important. Higher levels of Positive Peace are statistically linked to higher GDP growth, better environmental outcomes, higher measures of wellbeing, better developmental outcomes and stronger resilience.
- Positive Peace has been empirically derived by IEP through the analysis of thousands of crosscountry measures of economic and social progress to determine which have statistically significant relationships with actual peace as measured by the Global Peace Index (GPI).
- Positive Peace is measured by the Positive Peace Index (PPI), which consists of eight Pillars, each containing three indicators. This provides a baseline measure of the effectiveness of a country's capabilities to build and maintain peace. It also provides a measure for policymakers, researchers and corporations to use for effective intervention design, monitoring and evaluation.
- Positive Peace can be used as the basis for empirically measuring a country's resilience

 its ability to absorb, adapt and recover from shocks, such as climate change or economic transformation. It can also be used to measure fragility and help predict the likelihood of conflict, violence and instability.

FIGURE A.2

The Pillars of Positive Peace

A visual representation of the factors comprising Positive Peace. All eight factors are highly interconnected and interact in varied and complex ways.



POSITIVE PEACE & SYSTEMS THINKING

This section describes how Positive Peace can reinforce and build the *attitudes, institutions* and *structures* that allow societies to flourish. These same factors create resilient and adaptive societies that pre-empt conflict and help societies channel disagreements productively.

Positive Peace as a term was first introduced in the 1960s and has historically been understood qualitatively, based on idealistic or moral concepts of a peaceful society. The distinguishing feature of IEP's work on Positive Peace is that it is empirically derived. Statistical analysis was used to identify the common characteristics of the world's most peaceful countries. It therefore forms an important evidence base to understand Positive Peace and avoids subjective value judgements.

To construct the Positive Peace Index, nearly 25,000 national data series, indexes and attitudinal surveys were statistically compared to the internal measures of the GPI to determine which factors had the highest statistical correlations. Indicators were then qualitatively assessed and where multiple variables measured similar phenomena, the least significant were dropped. The remaining factors were clustered using statistical techniques into the eight Pillars of Positive Peace. Three indicators were selected for each Pillar that represent distinct but complementary conceptual aspects. The index was constructed with the weights for the indicators being assigned according to the strength of the correlation coefficient to the GPI Internal Peace score. This empirical approach to the construction of the index means it is free from pre-established biases or value judgements.

BOX A.1

Measuring peace: the Positive Peace Index and the Global Peace Index

The Global Peace Index (GPI) is produced annually by IEP, and ranks 163 independent states and territories according to their level of peacefulness. It stands as the world's leading measure of global peacefulness. The GPI is composed of 23 qualitative and quantitative indicators from highly respected sources, covering 99.7 per cent of the world's population. The index measures global peace using three broad themes: the level of safety and security in society; the extent of domestic or international conflict; and the degree of militarisation. For the full 2020 report or to explore the interactive map of global peace, visit www.visionofhumanity.org.

The Positive Peace Index (PPI) measures the level of Positive Peace in 163 countries. The PPI is composed of 24 indicators that capture the eight Pillars of Positive Peace. Each indicator was selected based on the strength of its statistically significant relationship with the GPI. For more information and the latest results of the PPI, refer to Section 1 of this report.

Human beings encounter conflict regularly — whether at home, at work, among friends or on a more systemic level between ethnic, religious or political groups. But the majority of these conflicts do not result in violence. Conflict provides the opportunity to negotiate or renegotiate to improve mutual outcomes. Conflict, provided it is nonviolent, can be a constructive process.¹ There are aspects of society that enable this, such as attitudes that discourage violence or legal structures designed to reconcile grievances.

The Pillars of Positive Peace

IEP has identified eight key factors, or Pillars, that comprise Positive Peace:

- Well-functioning Government A well-functioning government delivers high-quality public and civil services, engenders trust and participation, demonstrates political stability and upholds the rule of law.
- Sound Business Environment The strength of economic conditions as well as the formal institutions that support the operation of the private sector. Business competitiveness and economic productivity are both associated with the most peaceful countries.
- Equitable Distribution of Resources Peaceful countries tend to ensure equity in access to resources such as education, health, and to a lesser extent, equity in income distribution.
- Acceptance of the Rights of Others Peaceful countries often have formal laws that guarantee basic human rights and freedoms, and the informal social and cultural norms that relate to behaviours of citizens.
- Good Relations with Neighbours Peaceful relations with other countries are as important as good relations between groups within a country. Countries with positive external relations are more peaceful and tend to be more politically stable, have better functioning governments, are regionally integrated and have lower levels of organised internal conflict.
- Free Flow of Information Free and independent media disseminates information in a way that leads to greater knowledge and helps individuals, businesses and civil society make better decisions. This leads to better outcomes and more rational responses in times of crisis.
- High Levels of Human Capital A skilled human capital base reflects the extent to which societies educate citizens and promote the development of knowledge, thereby improving economic productivity, care for the young, political participation and social capital.
- Low Levels of Corruption In societies with high levels of corruption, resources are inefficiently allocated, often leading to a lack of funding for essential services and civil unrest. Low corruption can enhance confidence and trust in institutions.

Positive Peace can be described as the attitudes, institutions and structures that create and sustain peaceful societies. IEP does not specifically set out what interventions should be done for each of the Pillars, as these will very much be dependent on cultural norms and development path of a specific country. What is appropriate in one country may not be appropriate in another.

What sets Positive Peace apart from other studies of peace is that its framework is empirically derived. The indicators chosen to measure each Pillar are based on the factors that have the strongest statistically significant with peacefulness and as such form both a holistic and empirical framework.2

Characteristics of Positive Peace

Positive Peace has the following characteristics:

- Systemic and complex: progress occurs in non-linear ways and can be better understood through relationships and communication flows rather than through a linear sequence of events.
- Virtuous or vicious: it works as a process where negative feedback loops or vicious cycles can be created and perpetuated. Alternatively, positive feedback loops and virtuous cycles can likewise be created and perpetuated.
- Preventative: though overall Positive Peace levels tend to change slowly over time, building strength in relevant Pillars can prevent violence and violent conflict.
- Underpins resilience and nonviolence: Positive Peace builds capacity for resilience and incentives for nonviolent conflict resolution. It provides an empirical framework to measure an otherwise amorphous concept: resilience.
- Informal and formal: it includes both formal and informal societal factors. This implies that societal and attitudinal factors are as important as state institutions.
- Supports development goals: Positive Peace provides an environment in which development goals are more likely to be achieved.

Systems Thinking

Systems theory first originated while attempting to better understand the workings of biological systems and organisms, such as cells or the human body. Through such studies, it became clear that understanding the individual parts of a system was inadequate to describe a system as a whole, as systems are much more than the sum of their parts. Applying systems thinking to the nation state allows us to better understand how societies work, how to better manage the challenges they face and how to improve overall wellbeing. This approach offers alternatives to the traditional understanding of change.

All systems are considered open, interacting with their sub-systems, other similar systems and the super-system within which they are contained. The nation is made up of many actors, units and organisations spanning the family, local communities and public and private sectors. As all of these both operate individually and interact with other institutions and organisations, each can be thought of as their own open system within the nation. Sub-systems may, for instance, include companies, families, civil society organisations, or public institutions such as the criminal justice system, education or health. All have differing intents and encoded

BOX A.2

The properties of systems thinking

There are four major properties associated with systems thinking:

- The system is a whole. It cannot be reduced to its parts as individually the parts will have a different pattern of behaviour.
- The system is self-regulating. It aims to maintain a steady state by stabilising itself through feedback loops. The system adjusts to create balance between inputs, outputs and internally coded requirements so as to maintain what is termed homeostasis.
- The system is self-modifying. When there is a persistent mismatch between inputs and its intent, the system searches for a new pattern by which it can function. This creates differentiation from the original system and increases complexity.
- The system does not stand on its own. It is part of a larger system but also contains its own sub-systems. It also interacts with other similar systems. This 'system of systems' adapts together.

norms. Similarly, nation states interact with other nations through trading relations, regional body membership and diplomatic exchanges, such as peace treaties or declarations of war.

Figure A.3 illustrates the different levels that are relevant to the nation or country. It shows that the nation state itself is made up of these many sub-systems, including the individual, civil society and business community. Scaling up, the nation can be seen as a sub-system of the international community, in which it builds and maintains relationships with other nations and international organisations. Finally, the international community forms a sub-system of a number of natural systems, such as the atmosphere and biosphere.

Any sub-system within the diagram can interact with a super system at any level. For example, an individual can interact with the nation they belong to, other nations, the international community or the natural environment. Therefore, the systems are not hierarchical in structure, rather they co-evolve and change together.

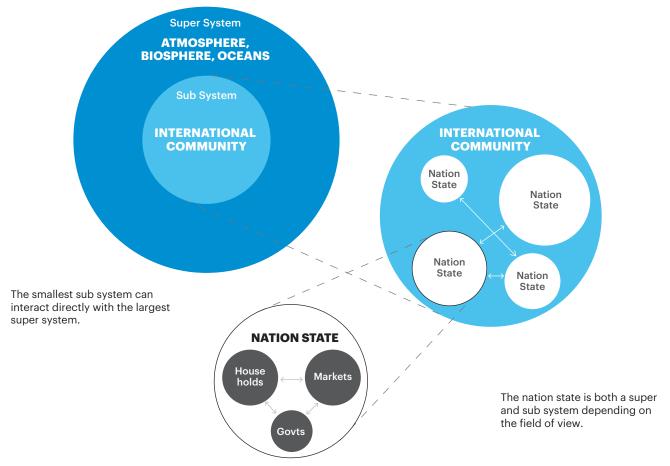
Systems thinking offers a more complex view of causality. Causal thinking is generally used in problem solving — find the cause of the problem and fix it. Such an approach is useful for explaining discrete and well-isolated physical phenomena. However, when multiple variables are involved, it becomes increasingly difficult to identify a cause. Further, such thinking has the implicit implication that all outcomes can be tracked back to a set of initial conditions. This discounts the potential for genuine novelty or innovation and is in contrast to our experience of reality.

Through the mechanics of mutual feedback loops, systems thinking blurs the separation between cause and effect. A

FIGURE A.3

Systems and Nations

The nation is both a super and sub-system depending on the field of view. The smallest sub-system can interact directly with the largest super system.



Source: IEP

mutual feedback loop is where two interacting entities modify each other through feedback. Conversations and negotiations are good examples of mutual feedback loops. A further example can be observed in the relation between the *Free Flow of Information* and *Well-Functioning Government* Pillars. Governments can regulate what information is available; however, information can also change governments. Both will respond to the action of the other. In systems thinking, a 'cause' is seen not as an independent force, but as an input into a system which then reacts, thereby producing an effect. The difference in reaction is due to different encoded norms, or values by which society self-organises. The same input can have very distinct results in different societies.

The concept of mutual feedback loops gives rise to the notion of causeless correlations and forms the basis of Positive Peace. Statistically significant correlations describe macro relationships, but the interactions within the dynamics of the system and the causal relationships will vary depending on the particular circumstances.

Furthermore, from a systems perspective, each causal factor does not need to be understood. Rather, multiple interactions that stimulate the system in a particular way negate the need to understand all the causes. Processes can also be mutually

causal. For example, as corruption increases, regulations are created, which in turn changes the way corruption is undertaken. Similarly, improved health services provide for a more productive workforce, which in turn provides the government with revenue and more money to invest in health. As conflict increases, the mechanisms to address grievances are gradually depleted increasing the likelihood of further violence.

Systems are also susceptible to tipping points in which a small action can change the structure of the whole system. The Arab Spring began when a Tunisian street vendor set himself alight because he couldn't earn enough money to support himself. The relationship between corruption and peace follows a similar pattern. IEP's research has found that increases in corruption have little effect until a certain point, after which even small increases in corruption can result in large deteriorations in peace. Similar tipping points can be seen between peace and per capita income, inflation and inequality.

Homeostasis & Self-Modification

Homeostasis is the process by which systems aim to maintain a certain state or equilibrium. An example of this is the selfregulation of the body temperature of a mammal. If the body starts to overheat, then it begins to sweat; if the body becomes cold, then the metabolism will become faster. The system attempts to make small adjustments based on the way inputs are interpreted by its encoded norms so that future inputs are within acceptable bounds. The same model of understanding can be applied to nations. Nations maintain homeostasis through their encoded norms, such as acceptable social behaviour. Even the social norms around queuing can be seen as maintaining an equilibrium. Another example would be governments raising taxes to fund services to a particular level. Tax rates are more or less kept the same, with the budgets for government departments only changing gradually. We expect the health and education systems to behave in a certain way.

One of the key differences between natural systems, such as the weather or the oceans, and biological systems is that biological systems have intent. Similarly, countries or nations also have intent. For example, when Costa Rica abolished its military in 1948, the government at the time arguably had the intent not to go to war.

Encoded norms can also create mutual feedback loops. When the input comes from another system, the response may attempt to alter future inputs to that system. Think of two groups who are continuously modifying their responses based on the actions of the other, such as two football teams who are continuously modifying their tactics based on the interactions in the game. In a democratic nation, this continual change based on the actions of the other can be observed in the interactions and adjustments between two political parties, or the shaping of news based on public sentiment. The sentiment shapes the news, but the news also shapes sentiment.

Systems have the ability to modify their behaviour based on the input that they receive from their environment. For example, the desire to seek food when hungry or the release of T-cells in response to infection are encoded reactions to inputs. For the nation state, as inflation increases, interest rates are raised to dampen demand. When an infectious disease outbreak occurs, medical resources are deployed to fix it.

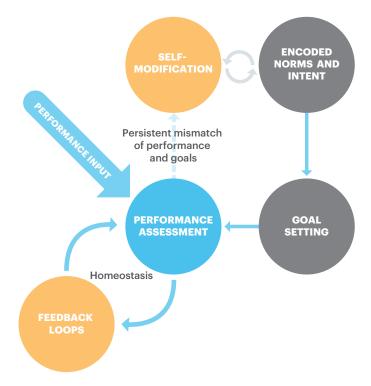
Feedback loops provide the system with knowledge of its performance or non-performance in relation to its intentions. Given this, it is possible to analyse political systems through their feedback loops to better understand how successfully they are performing. An example would be measuring how political organisations within a society respond to inputs that align or misalign with their intentions. Similarly, social values can be better recognised using the mutual feedback model. For example, the mutual feedback model can help us understand what behaviours are shunned and what behaviours are encouraged within a society and why.

When unchecked or operating in isolation, feedback loops can

FIGURE A.4

Homeostasis and self-modification

Homeostasis occurs when there is balance between a system's internal goals and its performance. If performance persistently mismatches a nation state's goals, the system will self-modify and adapt. Once this change has occurred, the nation state will redefine its goals and attempt to maintain the new homeostasis.



Source: IEP

lead to runaway growth or collapse. In cultures, their role can be constructive or destructive. However, feedback loops are fundamental in promoting self-modification, which allows the nation state to evolve to a higher level of complexity. The effect of mutual feedback loops can be the accumulation of capital, the intensification of poverty, the spread of disease or the proliferation of new ideas.

If the external or internal factors of the nation pressure the system into persistent imbalance, then a new level of complexity needs to be developed to maintain stability. Within the biosphere, it could be the mutation of a species so its offspring are better adapted to their environment. For the nation, this may take the form of major shifts within the system, such as policies to reduce carbon emissions when CO₂ emissions become too high or the implementation of an anti-corruption commission when foreign investment falters.

Successful adaptation to systemic imbalances is more likely when the nation has higher levels of Positive Peace. This is empirically demonstrated through the relationship between high Positive Peace and the reduced impact of shocks. For example, increases in the population of a country place stress on agricultural resources. The nation can respond by implementing measures that improve the yield of the available land while building an export industry to produce capital for the importation of food. Without an adequate response, the system would slowly degrade and potentially lead to collapse.

Figure A.4 shows the process for homeostasis and selfmodification. Encoded norms and intent set the goals for the nation state. The performance of the nation in relation to its intent and encoded norms is then assessed by receiving either internal or external input. When the nation state is fulfilling its intentions, the feedback loops make minor adjustments to maintain homeostasis. However, when the nation state's performance is persistently mismatched to its intent, it can begin a process of self-modification. This allows the system to adjust its encoded norms or intent so that it adapts to the new conditions. While Figure A.4 depicts this process using a simple process diagram, in reality, these mechanisms are complex and dynamic.

The relationship between the nation state and other systems, such as the biosphere and atmosphere, is key to the survival of humanity. If these systems become incapacitated, then nations are also weakened. Acknowledging the interdependence between nation states and other systems should fundamentally alter the way in which we handle these complex relationships.

When applying systems thinking to nation states, it is important not to overcomplicate the analysis. What is essential is to view the system as a set of relationships, rather than a set of events, and to understand the most important feedback loops. Positive Peace provides a framework through which we can understand and approach systemic change, moving from simple causality to holistic action

POSITIVE PEACE AS A

Positive Peace provides a process of change that explains the functioning

PROCESS OF CHANGE FRAMEWORK



MISSION

To help create a world that is more peaceful and fulfilling for the majority of the people on the planet



STATEMENT

Positive Peace creates the optimal environment for human potential to flourish

The 'process of change' framework is a tool that shows the logical steps from the inputs behind a policy or programme to the outputs and outcomes that are expected to result.

Positive Peace consists of eight Pillars that have been empirically derived. It describes the major factors that govern change within a society. These factors operate inter-dependently, mutually affecting each other, therefore making it difficult to understand the true cause of any event. Systems thinking provides a model to explain the interactions and changes within the system. This means that more emphasis is placed on the relationships and flows within the system than a single event, such as a terrorist attack or the election of a controversial leader.

When programmes or policies achieve measurable improvements in the Pillars of Positive Peace, they accelerate social progress. Immediate programme

outputs can help raise standards of living, improve information flows and can build trust and confidence. Other programmes can help resolve immediate grievances, thereby reducing the amount of conflict in society. If momentum is maintained, these successes can reinforce one another and set the stage for further progress. As successes build upon one another, the system moves to a more peaceful equilibrium. Feedback loops help the system 'reset,' so its homeostasis is at a higher level of peace and wellbeing. The system will persistently return to homeostasis through feedback loops, which is why building Positive Peace requires a number of sustained interventions. Positive Peace works slowly over time. Radical changes to systems are likely to

PROCESS OF CHANGE

of a nation or society and why highly peaceful societies thrive.

PROGRAMMES	OUTPUTS		OUTCOMES	
& POLICIES		Short term*	Medium term*	Long term*
Interventions to improve Positive Peace can take many forms, but they will be most effective if they: • Focus on all 8 Pillars • Improve many aspects of Positive Peace at once • Are locally-owned • Provide local solutions to local problems.	Measurable improvements in the Pillars of Positive Peace	Improvements in material well-being and the business environment Increased participation by citizens Reduction in grievances and improvements in perceptions of fairness	Successes are reinforced via positive feedback loops Starting of a virtuous cycle with broad based improvements across society Greater resources and pathways to solve problems	Moves the system to a higher level of peace, creating a new, more peaceful and productive homeostasis which can self-modify to create higher level of functioning Fewer grievances and conflicts arise, and those that do are resolved nonviolently
		*One to five years	*Five to ten years	*Ten to twenty years

Although it is usually applied to specific activities and interventions, the learnings from IEP's Positive Peace research can be represented in the same way.

disrupt it, therefore change is more like continually nudging the system in the right direction. The most effective systemic change is widespread and incremental.

Interventions to improve Positive Peace can be implemented by governments, businesses, civil society organisations, or others, as has been the case in IEP's Positive Peace workshops. Outputs are the measurable things that the programmes produce, such as a 30 per cent increase in school attendance and the outcomes are the social changes that result from, for example, improved High Levels of Human Capital in the community.

The diagram above presents IEP's most up-to-date understanding of how increasing levels of Positive Peace creates the optimal environment for human potential to flourish and leads to societies reducing violence. Interventions to improve Positive Peace can be implemented by governments, businesses, civil society organisations, or groups of people or volunteers, as has been the case in IEP's Positive Peace workshops.

Positive Peace Index, Results & Trends

Key Findings

- More countries improved in Positive Peace —
 134 in total than deteriorated 29 countries
 from 2009 to 2019.
- These improvements were mainly driven by Sound Business Environment, Free-Flow of Information, Equitable Distribution of Resources and High Levels of Human Capital.
- Positive Peace improved 3.3 per cent globally in the past decade. This is driven by improvements in six of the eight Pillars of Peace since 2009.
- Eight out of the nine world regions improved in Positive Peace from 2009 to 2019, with North America being the only exception.
- Russia and Eurasia, Asia Pacific, South Asia and Europe had the largest regional improvements, with all countries improving in Russia and Eurasia.

- Improvements in the PPI were mainly due to improvements in the Structures domain of the PPI, while the Institutions domain was broadly steady and the Attitudes domain deteriorated.
- The Attitudes domain deteriorated by 4.8 per cent globally from 2009 to 2019. This domain deteriorated in 110 of the total 163 countries assessed, reflecting increased polarisation of views on political and economic administration matters, as well as a deterioration in the quality of information disseminated to the public.
- The largest deteriorations in Positive Peace occurred in Syria, Yemen, Venezuela, Eritrea and Equatorial Guinea.

The Positive Peace Index (PPI) measures the Positive Peace of 163 countries, covering 99.6 per cent of the world's population. The PPI is the only known global, quantitative approach to defining and measuring Positive Peace. This body of work provides an actionable platform for development and improvements in peace. It can also help to improve social factors, governance and economic development. This body of work provides the foundation for researchers to further deepen their understanding of the empirical relationships between peace and development. It stands as one of the few holistic and empirical studies to identify the positive factors that create and sustain peaceful societies.

The Global Peace Index is an inverted measure of peace, that is, scores close to 1 indicate lower levels of violence and scores close to 5 indicating greater levels of violence. To preserve consistency with the GPI, the PPI is also constructed such that lower scores indicate more socio-economic development, and higher scores indicate less development.

Positive Peace provides a theory of change towards an optimal environment for human potential to flourish. This is important because it provides a framework to guide policy towards higher levels of peace and happiness, more robust economies and societies that are resilient and more adaptable to change.

IEP takes a systems approach to peace, drawing on recent research into systems, especially societal systems. In order to construct the PPI, IEP analysed over 24,700 different data series, indices and attitudinal survey variables in conjunction with current thinking about the drivers of violent conflict, resilience and peacefulness. The result is an eight-part taxonomy of the factors associated with peaceful societies. These eight areas, or Pillars of Positive Peace, were derived from the datasets that had the strongest correlation with internal peacefulness as measured by the Global Peace Index, an index that defines peace as "absence of violence or the fear of violence". The PPI measures the eight Pillars using three indicators for each. The indicators represent the best available globally-comparable data with the strongest statistically significant relationship to levels of peace. The 24 indicators that make up the PPI are listed in Table 1.1.

TABLE 1.1

Indicators in the Positive Peace Index

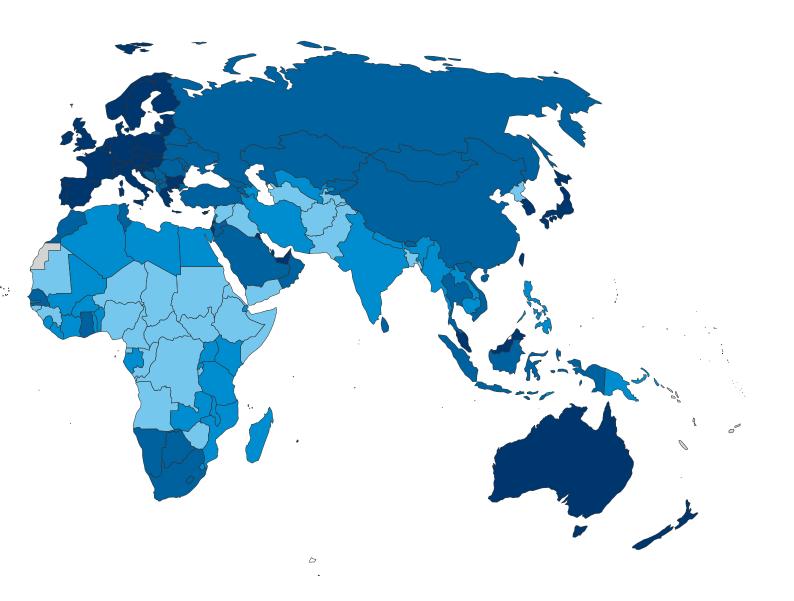
The following 24 indicators have been selected for the Positive Peace Index to show the strongest relationships with the absence of violence and the absence of fear of violence.

Pillar	Domain	Indicator	Description	Source	Correlation coefficient (to the GPI)
Acceptance of the Rights of Others	Structures	Gender Inequality Index (GII)	The Gender Inequality Index (GII) reflects women's disadvantage in three dimensions: reproductive health, political empowerment and the labour market.	United Nations Development Programme	0.67
	Attitudes	Group Grievance	The Group Grievance Indicator focuses on divisions and schisms between different groups in society – particularly divisions based on social or political characteristics – and their role in access to services or resources, and inclusion in the political process.	Fragile States Index	0.66
	Attitudes	Exclusion by Socio- Economic Group	Exclusion involves denying individuals access to services or participation in governed spaces based on their identity or belonging to a particular group.	Varieties of Democracy (V-Dem)	0.72
	Structures	Inequality-adjusted life expectancy index	Measures the overall life expectancy of a population accounting for the disparity between the average life expectancy of the rich and that of the poor. The smaller the difference the higher the equality and that is a reflection of the equality of access to the health system.	United Nations Development Programme	0.61
Equitable Distribution of Resources	Structures	Poverty headcount ratio at \$5.50 a day (2011 PPP) (% of population)	Poverty headcount ratio at \$5.50 a day is the percentage of the population living on less than \$5.50 a day at 2011 international prices.	World Bank	0.54
	Structures	Equal distribution of resources index	This component measures the equity to which tangible and intangible resources are distributed in society.	Varieties of Democracy (V-Dem)	0.68
	Attitudes	Freedom of the Press	A composite measure of the degree of print, broadcast and internet freedom.	Freedom House	0.51
Free Flow of	Attitudes	Quality of Information	Measured by Government dissemination of false information domestically: How often governments disseminate false or misleading information.	Varieties of Democracy (V-Dem)	0.61
	Structures	Individuals using the Internet (% of population)	Internet users are individuals who have used the Internet (from any location) in the last three months. The Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV etc.	International Telecommunication Union	0.60
	Attitudes	Hostility to foreigners/private property	Intensity of antagonistic attitudes towards foreigners or property held by foreigners.	The Economist Intelligence Unit	0.71
Good Relations with Neighbours	Structures	International tourism, number of arrivals (per 100,000)	Number of tourists who travel to a country (staying at least one night) other than that in which they have their usual residence.	World Tourism Organization	0.62
	Structures	Regional integration	A qualitative measure reflecting the level of regional integration as measured by a country's membership of regional trade alliances.	The Economist Intelligence Unit	0.60
High Levels of Human Capital	Structures	Share of youth not in employment, education or training (NEET) (%)	Proportion of people between 15 and 24 years of age that are not employed and are not in education or training.	International Labour Organization	0.52
	Structures	Researchers in R&D (per million people)	The number of researchers engaged in Research & Development (R&D), expressed as per one million population.	UNESCO	0.66
	Structures	Healthy life expectancy (HALE) at birth (years)	Average number of years that a newborn can expect to live in full health.	World Health Organisation	0.57

Low Levels of Corruption	Institutions	Control of Corruption	Control of Corruption captures perceptions of the extent to which public power is exercised for private gain.	World Bank	0.78
	Attitudes	Factionalised Elites	Measures the fragmentation of ruling elites and state institutions along ethnic, class, clan, racial or religious lines.	Fragile States Index	0.72
	Institutions	Irregular payments and bribes	Measuring the prevalence of undocumented extra payments or bribes by firms.	World Economic Forum	0.68
Sound Business Environment	Structures	Starting a Business	Measures the ease of forming a business within a country. Components such as obtaining permits, getting credit, property registration and utility connection are considered.	World Bank	0.59
	Structures	Maintaining a Business	Measures the ease of keeping a business venture operating within a country, includes measures of enforcement of contracts, trading across borders, and the nature of tax obligations are considered.	World Bank	0.57
	Structures	GDP per capita (current US\$)	GDP per capita is gross domestic product divided by mid-year population.	International Monetary Fund	0.66
	Institutions	Political Democracy Index	Measures whether the electoral process, civil liberties, functioning of government, political participation and culture support secular democracy.	The Economist Intelligence Unit	0.64
Well- Functioning Government	Institutions	Government Effectiveness: Estimate	Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.	World Bank	0.79
	Institutions	Rule of Law: Estimate	Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	Bertelsmann Transformation Index	0.68



RANK	COUNTRY	SCORE	RANK	COUNTRY	SCORE	RANK	COUNTRY	SCORE
1	Norway	1.17	=29	Uruguay	1.94	57	Argentina	2.63
2	Iceland	1.21	=29	Latvia	1.94	58	Tunisia	2.67
3	Finland	1.22	31	United States	1.95	59	 Trinidad and Tobago 	2.69
4	 Switzerland 	1.23	32	Poland	1.98	60	Bahrain	2.74
5	Sweden	1.26	33	Slovakia	2	61	Armenia	2.76
6	Denmark	1.27	34	United Arab Emi	rates 2.01	62	Bhutan	2.79
7	Netherlands	1.33	35	Greece	2.02	=63	Namibia	2.85
8	Ireland	1.37	36	Israel	2.12	=63	Kazakhstan	2.85
9	New Zealand	1.42	37	Costa Rica	2.13	=65	 Bosnia and Herzegovii 	na 2.9
10	Austria	1.43	38	Croatia	2.14	=65	Mongolia	2.9
11	Germany	1.46	=39	Mauritius	2.16	=65	Saudi Arabia	2.9
12	Canada	1.48	=39	Hungary	2.16	68	Thailand	2.91
13	Portugal	1.55	41	Chile	2.17	=69	Cuba	2.92
14	Singapore	1.56	42	Bulgaria	2.19	=69	Russia	2.92
15	France	1.57	43	Qatar	2.26	=71	Mexico	2.93
=16	Slovenia	1.58	44	Malaysia	2.29	=71	Moldova	2.93
=16	Australia	1.58	45	Kuwait	2.33	=73	Jordan	2.95
=16	Japan	1.58	46	Georgia	2.41	=73	Kosovo	2.95
19	Belgium	1.59	47	Jamaica	2.42	=73	Ukraine	2.95
20	Estonia	1.64	48	Belarus	2.5	76	Peru	2.96
21	Taiwan	1.67	49	Romania	2.51	77	Morocco	2.98
22	United Kingdom	1.68	50	Montenegro	2.54	=78	 Dominican Republic 	3
=23	Lithuania	1.71	51	Botswana	2.55	=78	Brazil	3
=23	 Czech Republic 	1.71	52	Albania	2.57	80	Ghana	3.02
=23	Spain	1.71	53	Oman	2.58	81	China	3.03
26	South Korea	1.72	=54	 North Macedoni 	a 2.6	=82	Colombia	3.05
27	Italy	1.8	=54	Panama	2.6	=82	Ecuador	3.05
28	Cyprus	1.92	56	Serbia	2.61	84	South Africa	3.06



RANK		COUNTRY	SCORE
=85		Senegal	3.09
=85		Turkey	3.09
87		Viet Nam	3.11
=88		Sri Lanka	3.12
=88		El Salvador	3.12
90		Indonesia	3.14
91		Guyana	3.18
92		Palestine	3.23
93	•	Azerbaijan	3.24
=94		Paraguay	3.25
=94		Lesotho	3.25
=94		Kyrgyz Republic	3.25
97	•	Rwanda	3.27
=98		Benin	3.29
=98		Lebanon	3.29
=98		Algeria	3.29
=98		India	3.29
=102		The Gambia	3.32
=102	•	Swaziland	3.32
=102		Uzbekistan	3.32
=105		Bolivia	3.33
=105		Nicaragua	3.33
107		Tanzania	3.34
108		Philippines	3.37
=109		Gabon	3.38
=109	•	Honduras	3.38
111		Guatemala	3.41
112		Kenya	3.46

RANK		COUNTRY	SCORE
=113		Burkina Faso	3.48
=113		Djibouti	3.48
115		Iran	3.51
116		Egypt	3.52
=117	•	Cote d'Ivoire	3.53
=117		Uganda	3.53
=117	•	Malawi	3.53
120		Zambia	3.54
121		Timor-Leste	3.56
122	•	Nepal	3.57
=123		Togo	3.6
=123		Mozambique	3.6
125		Laos	3.61
126		Myanmar	3.62
127	0	Cambodia	3.63
=128		Mali	3.65
=128		Papua New Guinea	3.65
=128		Sierra Leone	3.65
=128		Madagascar	3.65
=132		Liberia	3.67
=132		Libya	3.67
=132		Ethiopia	3.67
=135		Turkmenistan	3.73
=135		Venezuela	3.73
137		Niger	3.77
138		North Korea	3.82
=139		Bangladesh	3.83
=139		Tajikstan	3.83

RANK	COUNTRY	SCORE
141	Mauritania	3.84
=142	Cameroon	3.86
=142	Guinea	3.86
=144	Iraq	3.88
=144	Angola	3.88
=144	Nigeria	3.88
147	Burundi	3.89
148	Pakistan	3.90
149	Haiti	3.91
150	Republic of the Congo	3.93
=151	Afghanistan	3.96
=151	Guinea-Bissau	3.96
153	Zimbabwe	3.98
154	Sudan	4.03
155	Equatorial Guinea	4.05
156	Democratic Republic of the Congo	4.16
157	Syria	4.19
158	Chad	4.25
=159	Central African Republic	4.29
=159	Eritrea	4.29
161	South Sudan	4.47
162	Yemen	4.54
163	Somalia	4.64

GLOBAL TRENDS IN POSITIVE PEACE

The global score for the PPI has improved by 3.3 per cent since 2009, with 134 countries improving in Positive Peace and 29 countries deteriorating. The score is calculated by taking the average country score for the 163 countries included in the index.

Figure 1.1 highlights the global trend in Positive Peace. Changes in Positive Peace generally occur slowly (Figure 1.2) and may take many years for the benefits to show because institution building and changes in social norms are long-term processes. As such, global changes in the PPI Pillars happen relatively slowly, and even slight changes in global Positive Peace can be considered important.

Changes in attitudes, institutions and structures

Although the progression of Positive Peace seems to be uniform from year to year, the changes for each of the three categories vary considerably. While structures have been improving each year and by 8.1 per cent since 2009, attitudes have deteriorated each year, declining by 4.8 per cent over the decade. Institutions have remained relatively stable, deteriorating by 0.5 per cent.

Table 1.1 classifies the 24 indicators in the PPI into one of these three domains using the following typology:

- Attitudes if they measure social views, tensions or perceptions
- **Institutions** if they are directly measuring institutional operations
- Structures if they are embedded in the framework of society, such as poverty and equality, or are the result of aggregate activity, such as GDP.

Using this classification process, Figure 1.1 shows that the improvement in the PPI since 2009 is largely driven by structural improvements. GDP per capita, gender equality and poverty have generally improved over time. Globally, institutional functioning has remained largely constant over the same period, except for some fluctuations during international financial crises. However, the attitudinal indicators have been deteriorating over the period. The indicators showing the biggest deteriorations are quality of information, factionalised elites and hostility to foreigners/private property.

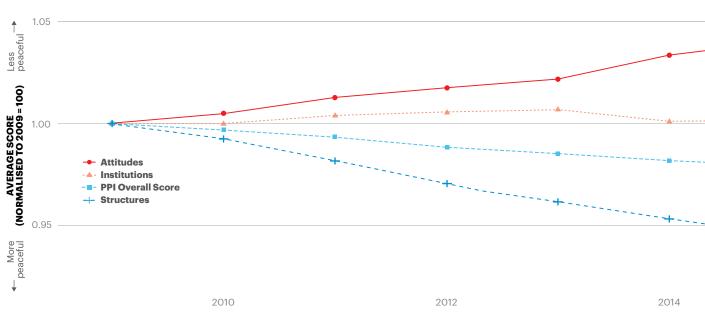
Changes in the Positive Peace Pillars

Figure 1.3 shows the percentage change from 2009 to 2019 for all eight Pillars of Positive Peace. These scores reflect gradual changes within complex social systems and typically do not fluctuate drastically year to year. As such, since 2009, the average Pillar score has changed by just 3.6 per cent, and no Pillar score has changed by more than nine per cent. The

FIGURE 1.1

Changes in the Attitudes, Institutions and Structures of Positive Peace, 2009–2019

The improvement in PPI since 2009 was largely driven by structural improvements globally. Institutional functioning has remained the same over the period while attitudes have deteriorated.



slow-moving nature of Positive Peace calls for long-term planning and sustained investment to improve the Pillars.

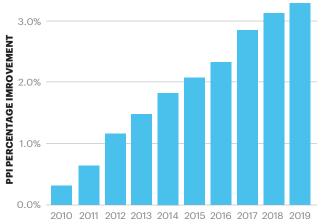
Individual indicators change more quickly, as highlighted in Figure 1.4.

Positive Peace works as a system, with each factor affecting the others. However, the speed of change differs for each factor. For example, the average score for the *individuals using the Internet* indicator has improved by 29.5 per cent since 2009, indicating a rapid increase in access to information. Along with this, the use of disinformation by governments — *quality of information* — has deteriorated with the access to technology, and as such the PPI score for this indicator has shown a deterioration of 9.8 per cent over the period.

FIGURE 1.2

Cumulative improvement in Positive Peace from 2009

By 2019, the global average Positive Peace score had improved by 3.3 per cent since 2009.



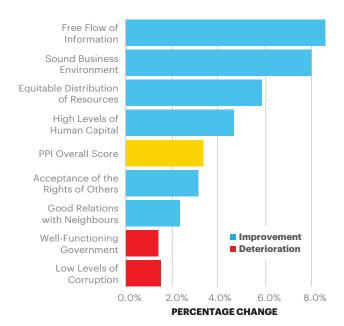
Source: IEP

The factionalised elites indicator, which is a measure in the Low Levels of Corruption Pillar, gauges "the fragmentation of state institutions along ethnic, class, clan, racial or religious lines," had one of the largest deteriorations at 6.2 per cent.

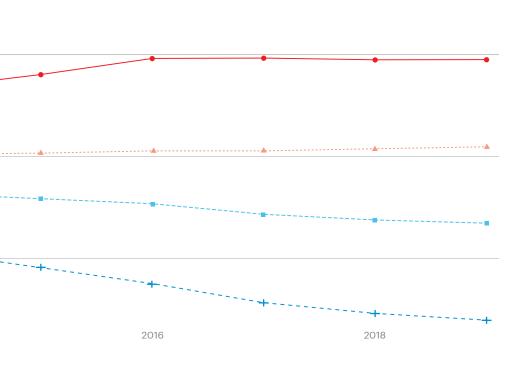
FIGURE 1.3

Changes in the Pillars of Positive Peace, 2009–2019

Six of the eight Pillars have improved since 2009. Well-Functioning Government and Low Levels of Corruption, however, both deteriorated by around 1.5 per cent over the period.



Source: IEP





3.3%

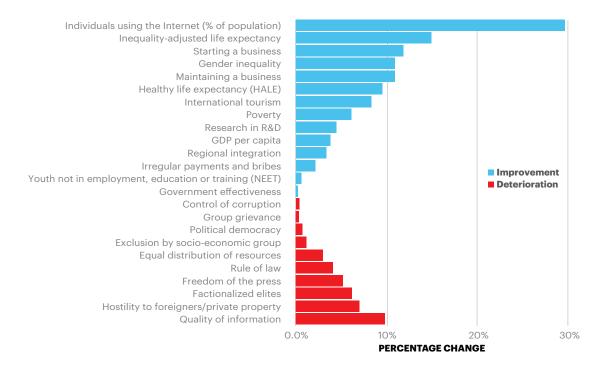
The global score for the PPI has improved by 3.3 per cent since 2009.

3.6%

Since 2009, the average Pillar score has changed by just 3.6 per cent, and no Pillar score has changed by more than nine per cent.

Percentage change in PPI indicators, 2009-2019

Individuals using the Internet recorded the largest improvement while hostility to foreigners and quality of information recorded the largest deteriorations.



Source: IEP

The only region in the world to deteriorate in the ten years to 2019 was North America, whose PPI score increased by 3.9 per cent (Figure 1.5). This region consists of only two countries Canada and the United States (US). All the other eight regions improved. The deterioration in North America was driven by the US, whereas Canada has seen a minor improvement in its Positive Peace score of 1.5%.

The largest improvements occurred in Russia and Eurasia, Asia-Pacific and Europe, improving by 9.8 per cent, 4.8 per cent and 3.4 per cent respectively. The improvement in Europe was mainly driven by improvements in Eastern European countries.

Russia and Eurasia showed the largest regional gains, improving by 9.8 per cent. All 12 countries from this region covered in the analysis improved in Positive Peace. In addition, all eight Pillars improved for the region. The largest improvements were:

- Sound Business Environment experienced the largest improvement, improving by 16 per cent, as all three indicators — starting a business, maintaining a business and GDP per capita recorded gains over the period.
- Free Flow of Information also improved by 15 per cent, driven by increases to internet access.
- Good Relations with Neighbours improved by 13 per cent due to significant increases in tourism to the region and regional integration over the past decade.

The most notable negative results were deteriorations in the region's equal distribution of resources and quality of information indicators. The equal distribution of resources

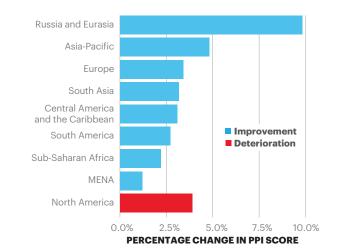
indicator deteriorated in seven of the 12 countries in the region over the past decade.

South Asia recorded improvements in six of the eight Pillars, with the region's score improving by 3.2 per cent. Good Relations with Neighbours and High Levels of Human Capital, the two

FIGURE 1.5

Change in average regional scores, 2009-2019

North America is the only region that did not improve in Positive Peace between 2009 and 2019. This was driven by a deterioration in Positive Peace in the United States.



Source: IEP

Pillars that did not improve, experienced deteriorations of less than two per cent. Sound Business Environment was the best performing Pillar, improving by 7.5 per cent. The region also improved by 6.7 per cent in its Equitable Distribution of Resources score, based on significant reductions in poverty and inequality adjusted life expectancy. This is a remarkable accomplishment given that South Asia has historically grappled with socioeconomic stratification.

North America's overall Positive Peace score has deteriorated by 3.9 per cent since 2009. This was due to a substantial increase in the Positive Peace score of the United States, whereas Canada has experienced a small decrease in their score. Low Levels of Corruption showed a distinct deterioration, a 19.2 per cent decline since 2009. North America's factionalised elites, hostility to foreigners and quality of information indicator scores also deteriorated by more than 30 per cent each, reflecting increased political polarisation, especially in the US. Simultaneous deteriorations in Low Levels of Corruption and Acceptance of the Rights of Others can be precursors to further systemic issues.

The **Middle East and North Africa** (MENA) has seen a 1.3 per cent improvement in Positive Peace since 2009. MENA experienced a small, but notable 4.5 per cent deterioration in *Low Levels of Corruption*. The region's *Well-Functioning Government* score has deteriorated by 4.2 per cent, pulled down by weaker administrative effectiveness as government resources are diverted to address ongoing armed conflicts in the region. The deterioration in these two Pillars have been partly offset by improvements in *Free Flow of Information*, which improved by almost 13 per cent.

Improvement in the MENA region's *Free Flow of Information* stems from a 43.2 per cent improvement in the region's access to internet indicator score. The region's *gender inequality* indicator score has improved by 21.5 per cent, although off a low base. The combination of improvements and deteriorations resulted in only a slight improvement being recorded.

The PPI for the **Asia-Pacific** region improved by almost five per cent. All Pillars improved with the exception of *Good Relation with Neighbours*, which recorded little change. The Pillars with the largest improvements were *Sound Business Environment* and *Free Flow of Information*, reflecting the benign economic performance of the area.

Positive Peace improved in **South America** over the past decade, with the region's PPI improving by 2.7 per cent. The region posted an 8.6 per cent improvement in the *Free Flow of Information* Pillar since 2009, as a result of greater access to information technology. South America also recorded a seven per cent improvement in the *Sound Business Environment* Pillar over the past decade. This reflects the greater economic prosperity enjoyed by many countries in the region following the period of economic turmoil of the late 1990s and early 2000s. *Equitable Distribution of Resources* also improved considerably in the region, by 2.5 per cent. In contrast, corruption worsened, with the *Low Levels of Corruption* Pillar deteriorating by over 2.3 per cent since 2009.

Sub-Saharan Africa recorded higher levels of Positive Peace over the past decade. The region's PPI improved by 2.2 per cent

since 2009. Key contributors were greater Sound Business Environment and Equitable Distribution of Resources. Free Flow of Information also posted substantial gains. Low Levels of Corruption, Well-Functioning Government and Good Relations with Neighbours were the only Pillars to record deterioration in the region.

The PPI for **Central America and the Caribbean** improved by 3.1 per cent since 2009. This result reflected substantial improvement in the *Free Flow of Information, Equitable Distribution of Resources* and *Sound Business Environment* Pillars. The *Low Levels of Corruption* and *Well-Functioning Government* Pillars were the only Pillars to record a deterioration over the past decade.

Europe's PPI improved by 3.4 per cent over the past decade with most of the improvement coming from Eastern Europe. There were substantial improvements in the Sound Business Environment, High Levels of Human Capital and Good Relations with Neighbours Pillars. Europe deteriorated in Well-Functioning Government, Low Levels of Corruption and Acceptance of the Rights of Others. A more detailed discussion on Europe can be found at the end of this section.

Results by income and government type

A country's wealth can both affect and be affected by progress in Positive Peace. Figure 1.6 shows that high-income countries have the highest level of Positive Peace on average. Positive Peace is statistically linked to higher per capita income because it underpins an environment that creates broader social and economic development.

This section uses the World Bank classification of income type, which groups countries into four tiers of per capita gross national income (GNI): high income; upper-middle income; lower-middle income; and low income. High-income countries tend to be the most peaceful and low-income countries tend to be the least peaceful.

The 30 countries at the top of the PPI are all high-income countries, illustrating a recognisable correlation between Positive Peace and economic prosperity. Positive Peace can often act as a driver of economic prosperity while economic prosperity also acts as a driver of peace, highlighting how societies develop systemically through continuous feedback loops.

Consider the relationship between three Pillars: High Levels of Human Capital, Well-Functioning Government and Sound Business Environment. High Levels of Human Capital and a Sound Business Environment bolster a country's economy. Well-Functioning Government will ensure law and order, provide stability and respond to the needs of its citizens — factors that further contribute to economic success. Prosperity leads to a larger tax take and therefore more funding for endeavours that reinforce the Positive Peace Pillars, such as educational services, unemployment programmes and health services. Under the right circumstances, Positive Peace and economics can interact in a virtuous cycle, with improvements in one driving improvements in the other.

Conversely, it can be difficult to promote Positive Peace without sufficient resources or aid. Countries with some of the lowest levels of Positive Peace often lack the funds necessary to improve their internal condition. Furthermore, once a country enters a period of conflict, it becomes more challenging and costly to rebuild the Pillars. Yet peacebuilding and peacekeeping spending account for a mere two per cent of the total global cost of conflict. More data on the relationship between peace and economics can be found in IEP's latest report on the Economic Value of Peace.

Government type has a relationship with Positive Peace as well, as shown in Figure 1.7. Globally, there are 23 full democracies, 52 flawed democracies, 35 hybrid regimes and 57 authoritarian regimes. Indicators of democracy do not measure the transparency and representativeness of elections directly, but rather nations' democratic structures, such as separation of power, effectiveness of courts and others. Full democracies tend to score better on the PPI, while authoritarian regimes record

FIGURE 1.6 Positive Peace by income group, 2019

High income countries have the highest levels of Positive Peace.

Weaker **AVG PPI SCORE** Stronger High Upper middle Lower middle Low income income income income

Source: World Bank, IEP

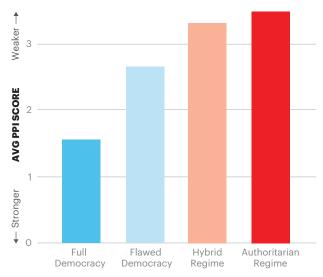
relatively poorer scores. These results reflect the important role that social and governmental structures play in social development.

It is important to note that there are exceptions to this trend. A number of authoritarian regimes, flawed democracies and hybrid regimes score well in Positive Peace. Only two authoritarian regimes are in the top 50 countries on Positive Peace, while the top ten countries are all full democracies, evidencing the strong link between peace and democracy.

High levels of democracy positively impact a variety of other Positive Peace factors. When a government is responsive to the needs and wishes of its citizens, it is more capable of supporting a Sound Business Environment, more open to the Free Flow of Information, more likely to promote High Levels of Human Capital and so forth. Statistically, the correlation between Well-Functioning Government and the PPI is very high.4

FIGURE 1.7 Positive Peace by government type, 2019

Full democracies have the highest levels of Positive Peace, as measured by the PPI.



Source: World Bank, IEP

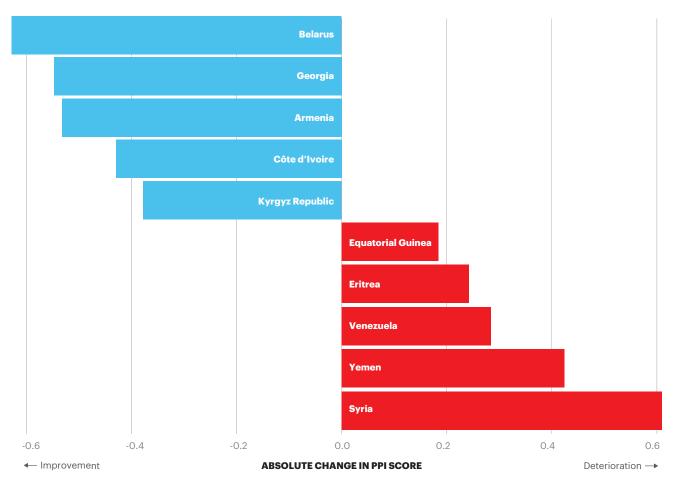
Peacebuilding and peacekeeping spending account for a mere two per cent of the total global cost of conflict.

RISERS & FALLERS IN POSITIVE PEACE

FIGURE 1.8

Largest changes in Positive Peace, 2009-2019

Belarus and Georgia recorded the largest improvements in Positive Peace, while Syria recorded the largest deterioration.



Source: IEP

The majority of countries in the PPI — 134 out of 163 countries, or 82 per cent — posted an improvement in Positive Peace from 2009 to 2019. However, this was mainly brought about by improvements in the *Structures* domain, especially reflecting the spread of technology and increase in incomes. Almost 96 per cent of countries improved in this domain. When looking at *Attitudes* the proportion that improved on this domain dropped to one-third of the countries. The countries that experienced the greatest shifts in PPI scores, either positively or negatively, were spread across many regions, income groups and initial levels of Positive Peace.

Progress in Positive Peace materialises slowly, in large part because it supports resilience, or the ability to maintain stability in the face of changes and shocks. Countries may show little change in a single year, which means that Positive Peace changes should be investigated over longer periods of time. This is important as social changes tends to be long-lasting and self-perpetuating. This section presents the countries that have demonstrated the largest changes, positively or negatively, since 2009. Note that a reduction in score indicates an improvement in Positive Peace.

The countries that experienced the largest improvements in PPI scores between 2009 and 2019 were Belarus, Georgia, Armenia, Côte d'Ivoire, the Kyrgyz Republic, as can be seen in Figure 1.8. Five of the most improved countries are from the Russia and Eurasia region and one is from sub-Saharan Africa.

Syria, Yemen, Venezuela, Eritrea, and Equatorial Guinea are the countries with the largest deteriorations. Two of the largest country deteriorations are from MENA, two are from sub-Saharan Africa and one is from South America.

Belarus

CHANGE IN OVERALL

to 2.50 from 3.16

CHANGE IN RANK,

to 48 from 78

Largest changes in Positive Peace in Belarus

Pillar	Indicator	Value in 2009	Value in 2019	Change
Good Relations with Neighbours *	International tourism, number of arrivals (per 100,000)	4.97	1	-3.97
Free Flow of Information	Individuals using the Internet (% of population)	3.83	1.45	-2.37
Low Levels of Corruption	Irregular payments and bribes	4.19	2.03	-2.17
Free Flow of Information	Quality of information	2.81	3.023	0.21
High Levels of Human Capital	Researchers in R&D (per million people)	3.78	3.94	0.16
Low Levels of Corruption	Factionalised elites	4.156	4.24	0.09

*Good relations with neighbours is expected to drop substantially in the next edition due to recent friction with the EU over democratic principles.

The data used for this analysis covers the period from 2009 to 2019. As such it does not include the events of 2020 and 2021, when Belarus experienced public protests and social turmoil. In August 2020, hundreds of thousands of Belarussians took to the streets to protest against President Alexander Lukashenko's rule. The protestors claimed that recent elections had been fraudulent and questioned the legitimacy of the regime. The European Union (EU) refused to recognise the election results. Security forces reacted with violence in some situations, which further exacerbated popular frustration. These events are likely to detract substantially from the country's Positive Peace status in the next edition of this report. While Belarus held the 48th highest rank in the PPI overall score in 2019, the country's rank in the Well-Functioning Government is a low 109th out of the 163 countries assessed.

Despite the recent deteriorations in the political situation, there has been historic progress on many of the measures of Positive Peace, although under an authoritarian leadership. The current political crisis may mark a turning point in the country's development. Future editions of the Positive Peace Index will demonstrate the impact of the current social disruption on the country's PPI.

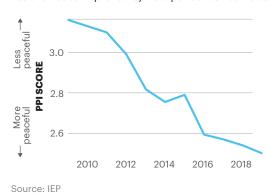
Belarus improved its Positive Peace score by 20.8 per cent from 2009 to 2019. This improvement occurred across all eight Pillars. The largest Pillar improvement was in Good Relations with Neighbours, followed by Free Flow of Information.

The Attitudes domain was broadly unchanged for Belarus over the past decade, with its PPI improvement being driven by a 30 per cent improvement in the Structures domain. Institutions also improved substantially by 20 per cent.

Belarus has developed its foreign relations over the past decade, driving improvements in its regional integration. In particular,

Trend in the PPI score, Belarus, 2009-2019

Positive Peace improved by 20.8 per cent since 2009.



ties with Russia have strengthened, leading to a surge in Russian tourists in Belarus along with more visitors from other Eastern European countries. Russia is Belarus' largest economic partner. The two countries are also culturally connected with 70 per cent of Belarussians speaking Russian.

Belarus borders the European Union, but is not a member of either the EU or the Council of Europe. The EU and Belarus have a history of political and economic tensions.5 However, given the violent conflict in neighbouring Ukraine, growing regional tensions and a struggling domestic economy, Belarus has sought closer relations with its European neighbours in recent years. In 2009, Belarus was admitted into the European Neighbourhood Policy, which seeks to build closer ties between the EU and its eastern and southern neighbours.6 In 2016, the EU and the United States lifted all economic sanctions against Belarus on the condition of continuing human rights improvements.7

Between 2005 and 2016, mobile phone subscriptions in Belarus doubled from 4.1 million to more than 11.4 million, benefiting the country's Free Flow of Information.8 Since 2015, Belarussian telecommunications companies have prioritised data infrastructure, increasing mobile high-speed internet coverage and accessibility.9 These improvements in Free Flow of Information have been partially offset by deteriorations in the quality of information indicator, which measures government use of disinformation.

Although there have been large improvements in Belarus' Positive Peace score, there have also been some areas of deterioration, including in factionalised elites. In 2017, over 700 activists, including roughly 100 journalists and both pro-Russian and anti-Russia bloggers, were arrested by Belarussian authorities 10

Georgia

CHANGE IN OVERALL SCORE, 2009-2019:

to 2.41 from 2.99

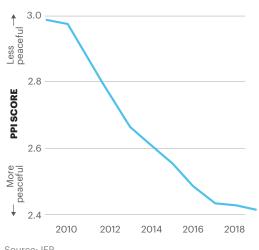
CHANGE IN RANK, to 46 from 61

Largest changes in Positive Peace in Georgia

Pillar	Indicator	Value in 2009	Value in 2019	Change
Good Relations with Neighbours	International tourism, number of arrivals (per 100,000)	4	1	-3
Free Flow of Information	Individuals using the Internet (% of population)	4.14	2.05	-2.09
Good Relations with Neighbours	Regional integration	4	2	-2
Low Levels of Corruption	Factionalised elites	4.51	4.6	0.09
Free Flow of Information	Quality of information	2.71	3.58	0.87

Trend in the PPI score, Georgia, 2009-2019

Positive Peace improved by 19.2 per cent since 2009.



Source: IEP

Georgia achieved a 19.2 per cent improvement in Positive Peace from 2009 to 2019, propelling it to the top third of the global ranking. Improvements were largely driven by Good Relations with Neighbours, High Levels of Human Capital and Equitable Distribution of Resources Pillars. No Pillar of Positive Peace deteriorated in the county over the decade.

The Attitudes indicators deteriorated for Georgia over the past decade, contrasting to a 27.8 per cent improvement in the Structures indicators and a 16.7 per cent improvement in Institutions.

At the intersection of Europe and Eurasia, Georgia has recently been a site of geopolitical conflict. Georgia fought a five-day war with Russia in 2008 over the disputed territories of Abkhazia South Ossetia. Despite a history of regional tensions, Georgia has boosted its Positive Peace rankings by substantially improving in *Good Relations with Neighbours*. The number of visitors arriving in Georgia has risen dramatically. In 2017, the Georgian National Tourism Administration reported a record number of 7.9 million international traveller trips, representing an annual growth of 17.6 per cent. Of all the country's visitors, 78.5 per cent were from the neighbouring countries of Azerbaijan, Armenia, Russia and Turkey.11

These rising figures complement Georgia's improved score in regional integration. Over the past decade, the former soviet nation has cultivated a strong trade relationship with China, established the EU-Georgia Association Agreement, joined the EU's Deep and Comprehensive Free Trade Area and committed itself to the NATO Response Force.12 However, Georgia's

relations with neighbouring Russia remain complicated in the aftermath of the 2008 armed conflict, partly due to Russia's continued occupation of Abkhazia and South Ossetia.¹³

Georgia's internet use has also improved its Positive Peace score. Internet freedom and access in the country has steadily improved.¹⁴ The country's second largest indicator improvement was in individuals using the Internet.

Improved internet access can yield improvements across Pillars. E-procurement became widespread in Georgia in 2015 as part of a partnership with the World Bank. It is considered one of the most important technological improvements the country has made in decades, resulting in increased transparency within government and a boost in efficiency for the Georgian business sector.15

Deteriorations in some Positive Peace indicators within Georgia, though lesser in magnitude than improvements, have had a negative impact on its score. The quality of information indicator deteriorated 32 per cent from 2009 to 2019, indicating that government use of disinformation has increased. Factionalised elites deteriorated by five per cent, in part reflecting the steady rise of ethnonationalism and far-right political views in the country.

Armenia

CHANGE IN OVERALL SCORE, 2009-2019:

to 2.76 from 3.32

2009-2019:

CHANGE IN RANK,

to 61 from 90

Largest changes in Positive Peace in Armenia

Pillar	Indicator	Value in 2009	Value in 2019	Change
Free Flow of Information	Individuals using the Internet (% of population)	4.34	2.23	-2.12
High Levels of Human Capital	Researchers in R&D (per million people)	4.84	3.40	-1.44
Good Relations with Neighbours	International tourism	4.29	3	-1.29
Low Levels of Corruption	Factionalised elites	3.62	3.84	0.22
Equitable Distribution of Resources	Equal distribution of resources index	1.41	1.54	0.13
Well-Functioning Government	Political democracy index	3.57	3.66	0.09

2.8

Source: IEP

Positive Peace in Armenia has progressed significantly since 2009, improving by 16.8 per cent, based on improvements in 19 out of 24 indicators. The Structures domain improved by 19.6 per cent and the Attitudes domain, by 17.4 per cent, while the Institutions domain improved by 10.2 per cent over the decade.

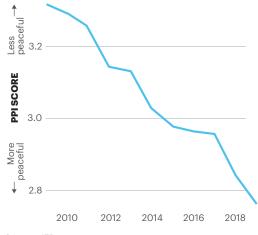
The largest Pillar improvements occurred in Free Flow of Information, followed by High Levels of Human Capital and Good Relations with Neighbours. However, results for the Low Levels of Corruption Pillar were mixed. While the indicator score for irregular payments and bribes improved significantly, division amongst the country's elites has risen relative to 2009 levels

The largest indicator improvement was in internet access, with the score for the number of people using the internet improving by 48.7 per cent since 2009. This, coupled with a 27.4 per cent improvement in the quality of information indicator resulted in the subsequent overall improvement in the Free Flow of Information. Freedom House reports that "there were no major restrictions on press freedom during the 2018 parliamentary election campaign," and that independent media outlets provide a diversity of perspectives.16

The 2018 elections came amidst major political changes over the course of recent years, including the adoption of a new constitution in 2015 that established the country as a parliamentary republic and reduced the powers of the presidency. Some of the reforms were controversial; while supporters touted them as a step toward democracy, critics saw the new rules as a means for the incumbent two-term president to maintain power by transitioning to the prime ministership.17 Former President Serzh Sargsyan was appointed Prime Minister after his term ended in April of 2018, but

Trend in the PPI score, Armenia, 2009-2019

Positive Peace improved by 16.8 per cent since 2009.



stepped down quickly in the face of protests.18

Tourism in the country has been increasing, at the same time that Armenia has strengthened its ties with the EU. Tourist arrivals in the first quarter of 2018 were up 14 per cent over the same period of the prior year, 19 contributing to the 30 per cent improvement seen in the international tourism indicator from 2009 to 2019. Armenia's score for hostility to foreigners has also improved substantially since 2009, showing a 33 per cent increase. These two indicators lead the improvement in Good Relations with Neighbours Pillar over the last decade. The third indicator in this pillar - regional integration - remains weak, but may be poised for an upgrade in the near future. The Comprehensive and Enhanced Partnership Agreement (CEPA) signed between Armenia and the EU, which provides financial assistance and trade opportunities for the country, is expected to have a positive effect on both domestic and international politics and policy.20

Côte d'Ivoire

CHANGE IN OVERALL

to 3.53 from 3.98

2009-2019

CHANGE IN RANK,

to 117 from 150

Largest changes in Positive Peace in Côte d'Ivoire

Pillar	Indicator	Value in 2009	Value in 2019	Change
Good Relations with Neighbours	Hostility to foreigners/private property	5	2	-3
Free Flow of Information	Individuals using the Internet (% of population)	4.91	3.44	-1.48
Low Levels of Corruption	Irregular payments and bribes	4.75	3.42	-1.33
Low Levels of Corruption	Factionalised elites	4.33	4.6	0.27
Acceptance of the Rights of Others	Exclusion by socio-economic Group	2.76	3.03	0.28
High Levels of Human Capital	Share of youth not in employment, education or training (NEET) (%)	1.96	3.67	1.71

Computer, One Internet Connection.'27 In addition, more than a quarter of adults in Côte d'Ivoire now use mobile money - the highest penetration rate in West Africa and the fifth highest in the world.28

Côte d'Ivoire is also significantly investing in its Positive Peace. In December 2015, the country adopted a National Development Plan (NDP 2016 - 2020), a US\$50 billion endeavour with the following goals:

- enhance governance and institutions
- develop human capital and social welfare
- diversify the economy
- improve the standard of living
- strengthen regional and international cooperation.²⁹

The objectives of NDP 2016-2020 will be accomplished through steps such as the modernisation and improvement of public administration, better education and social services, a healthier business climate, access to credit for small and medium-sized businesses and major road and energy infrastructure projects.30

However, Ivorian society faces challenges to progress in Positive Peace. Côte d'Ivoire's two civil wars led to an increase in poverty and setbacks to education. 31,32 The country also has one of the world's highest levels of gender inequality, ranked 171st on the United Nations Gender Equality Index in 2018.33 These issues have hindered some Pillars, partly offsetting other developments in Positive Peace.

Although conditions for the press have improved since the end of the first civil war, there have still been incidents of police detaining both journalists and opposition supporters.34 Another challenge faced by Côte d'Ivoire is the provision of basic services and security for refugee returnees.35 Between 2011 and 2016, over 260,000 Ivorian refugees have been repatriated to Côte d'Ivoire from across Africa, Europe and Asia.36

Côte d'Ivoire has improved its Positive Peace score by 11.3 per cent since 2009, based on improvements in seven out of eight Pillars. Although off a low base, improvement was recorded in all Pillars with the exception of High Levels of Human Capital, which deteriorated markedly in the period.

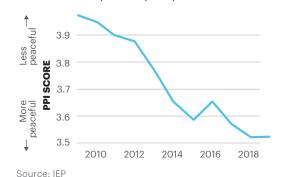
The country recorded substantial improvements in the Attitudes and Institutions domains over the decade, both improving by 15 per cent. Structures also improved, albeit at a milder pace of 7.6 per cent.

The country has recently endured two ethnic and racially charged civil wars spanning from 2002 to 2007 and 2011 to 2012. Key to both conflicts were tensions between native-born nationals of Côte d'Ivoire and the country's large immigrant population, mainly from Burkina Faso, Mali, Guinea and Senegal. Before the escalation of violence the immigrant population was estimated to be up to 50 per cent of the total population.21

The first civil war resulted in over 4,000 people killed. At the end of 2003, the number of internally displaced persons was estimated to be between 700,000 and 1,000,000, or four to six per cent of the population.²² The second civil war broke out in 2011 following a disputed election between long-standing Ivorian President Gbagbo and newly elected President Alassane Ouattara.23 Though the post-electoral crisis lasted less than a year, the resulting violence caused over 3,000 deaths.²⁴ Since 2011, the political situation in Côte d'Ivoire has become more stable, though violent protests and strikes still arise occasionally. 25

Since the cessation of violence, hostility to foreigners has been estimated by the Economist Intelligence Unit to have improved significantly. Access to Internet has increased, illustrating a trend towards modernisation and more efficient communication.²⁶ The Ivorian government has also proactively promoted internet democratisation through programmes such as 'One Citizen, One

Positive Peace improved by 11.3 per cent since 2009.



Kyrgyz Republic

CHANGE IN OVERALL

to 3.25 from 3.65

CHANGE IN RANK,

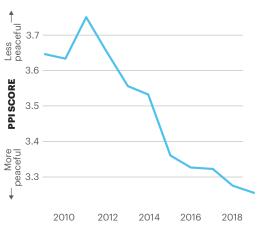
to 96 from 122

Largest changes in Positive Peace in Kyrgyz Republic

Pillar	Indicator	Value in 2009	Value in 2019	Change
Good Relations with Neighbours	Regional integration	5	2	-3
Acceptance of the Rights of Others	Gender inequality	4.32	2.25	-1.52
Sound Business Environment	Maintaining a business	3.29	2.25	-1.04
Acceptance of the Rights of Others	Group grievance	3.76	5.16	0.4
Low Levels of Corruption	Factionalised elites	3.8	4.11	0.31
High Levels of Human Capital	Share of youth not in employment, education or training (NEET)(%)	2.36	2.57	0.21

Trend in the PPI score, Kyrgyz Republic, 2009-2019

Positive Peace improved by 10.8 per cent since 2009.



The Kyrgyz Republic, also referred to as Kyrgyzstan, has improved 10.8 per cent in Positive Peace since 2009, largely as a result of significant gains in regional integration, gender equality, maintaining a business and starting a business, although the measures were coming off a low base.

The Structures domain improved by 17.5 per cent over the period, while the *Institutions* domain improved by 6.9 per cent. Attitudes, deteriorated by 1.2 per cent.

In 2010, following the ousting of then president Kurmanbek Bakiyev, a national referendum was held in Kyrgyzstan and a new constitution was passed. This constitution transferred much of the authority previously held by the president to an expanded parliament, and created limits to prevent a single party overwhelming the political system. Marred by ethnic clashes and political turmoil, Kyrgyzstan suffered its worst level of Positive Peace in 2011. However, that year was a turning point for Kyrgyzstan, when a number of governmental actions likely led to the significant improvement in Positive Peace over the past decade. In 2011, then-president Almazbek Atambayev expanded cross-border trade and regional integration with Turkey, signing an agreement that would result in the increase of trade with Turkey from \$300 million in 2011 to \$1 billion in 2015. The Turkish government also promised to attract Turkish investment to Kyrgyzstan of \$450 million over the next few years.

In 2013, the Kyrgyzstan government focussed on improving inter-ethnic and inter-communal relations within the country, signing The Concept of National Unity and Inter-Ethnics Relations in the Kyrgyz Republic.37 Despite facing initial and

ongoing challenges with implementation, this strategy may have supported the 60 per cent increase in the regional integration indicator. Ethnic clashes are still a considerable and growing issue in Kyrgyzstan, evident in the deterioration of group grievance by 10.7 per cent since 2009.

A notable contribution to the progress in the PPI is a rising gender equality from 2013. In February 2013, Kyrgyzstan adopted an action plan supporting the UN security Council Resolution 1325 - a key aspect of the UN commitments to women's rights.³⁸ As such, the implementation of this plan likely contributed to the 35.4 per cent improvement to gender inequality since 2009.

In 2017, newly elected president Jeenbekov signed 77 bilateral agreements and 414 multilateral documents. Further, diplomatic relations were established with four countries. This significant international expansion too is reflected in the significant improvement to Good Relations with Neighbours Pillar, which improved by 22.6 per cent over the past decade; notably driven by the regional integration indicator.

FIVE LARGEST DETERIORATIONS IN POSITIVE PEACE



CHANGE IN OVERALL SCORE, 2009-2019:

+0.64 to 4.19 from 3.55

CHANGE IN RANK, 2009-2019:

-43

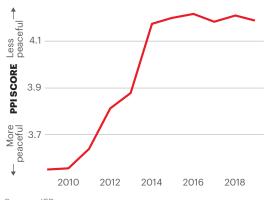
to 157 from 114

Largest changes in Positive Peace in Syria

Pillar	Indicator	Value in 2009	Value in 2019	Change
Good Relations with Neighbours	Hostility to foreigners/private property	2	5	3
High Levels of Human Capital	Share of youth not in employment, education or training (NEET)(%)	1.70	3.74	2.04
Free Flow of Information	Quality of information	3.41	5	1.59
Free Flow of Information	Individuals using the Internet (% of population)	4.26	3.53	-0.73
Free Flow of Information	Freedom of the press	4.34	4.17	-0.17
Low Levels of Corruption	Irregular payments and bribes	4.19	4.06	-0.14

Trend in the PPI score, Syria, 2009–2019

Positive Peace deteriorated by 18 per cent since 2009.



Source: IEP

Syria has shown the largest deterioration in Positive Peace of any country in the index. Eighteen out of 24 indicators have deteriorated since 2009. War has devastated much of the previous development and diminished social and economic capital, all of which impact its Positive Peace and post-war recovery.

The Syrian PPI score deteriorated by 18 per cent since 2009. This was on the back of a 43 per cent deterioration in the *Attitudes* domain; a nine per cent deterioration in *Institutions* and a 13.2 per cent deterioration in the *Structures* domain.

In 2011, Syrian security forces under President Bashar al-Assad clashed with protestors demanding the release of political prisoners.³⁹ This was the catalyst for a group of dynamics that plunged the state into civil war. Although the war was set off by political demonstrations, the domestic tensions underlying the conflict stem from decades of weak Positive Peace. The involvement of regional and international powers has added to the conflict's duration and severity.

The country's *Good Relations with Neighbours* Pillar has deteriorated the most significantly of any Pillar of Peace. This is partly a result of the involvement of Syria's neighbours in the Syrian civil war. The Syrian government has also come under pressure for the illegal use of cluster munitions, incendiary weapons and chemical weapons, which are prohibited under international law.⁴⁰ Furthermore, thousands of foreign fighters have flocked to Syria to take up arms against the Assad regime. In 2013, the number of foreign fighters in Syria exceeded that of any previous conflict in the modern history of the Muslim world.⁴¹

The widespread conflict has forced millions of Syrians to flee into neighbouring countries. The United Nations High

Commissioner for Refugees (UNHCR) reports that 5.6 million Syrians have sought safety as refugees, mostly in Turkey, Lebanon and Jordan, while 6.6 million have been internally displaced. In total, an estimated 13.1 million Syrians have been displaced since the conflict began.⁴²

The Well-Functioning Government Pillar in Syria has been severely negatively affected by the armed conflict. The government effectiveness indicator deteriorated by 28.2 per cent over the past decade. Prior to the civil war, the country's rule of law indicator score was already poor due to arbitrary arrests, police discrimination against Kurds, and unfair trials under special courts. Between 2011 and 2013, as many as 1,000 armed opposition groups, cumulatively composed of 100,000 fighters, fought against the Assad regime. By 2019, the Assad government had regained control of much of the country, including the military defeat of ISIL forces. However, all three indicators of Well-Functioning Government remain considerably worse off than 2009 levels.

Syria did improve on some indicators. At least two thirds of the population had mobile internet access as of 2017.⁴⁵ According to UNHCR, refugees say mobile phones and internet access are as important to their security as food, shelter and water.⁴⁶ Mobile internet access among Syrian refugees also helps them connect with aid organisations.⁴⁷

While some of Syria's Positive Peace scores have nominally improved, a major caveat to many of these indicators is that they may depend on pre-civil war calculations. It will only be possible to properly measure Positive Peace developments in Syria if the civil war ends and stability is achieved.

FIVE LARGEST DETERIORATIONS IN POSITIVE PEACE

Yemen

CHANGE IN OVERALL SCORE, 2009-2019:

to 4.54 from 4.09

CHANGE IN RANK, 2009-2019:

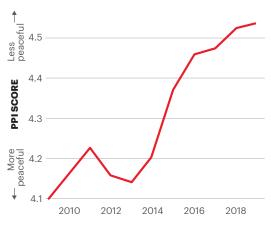
to 162 from 156

Largest changes in Positive Peace in Yemen

Pillar	Indicator	Value in 2009	Value in 2019	Change
Sound Business Environment	Starting a business	1.77	4.57	2.8
Free Flow of Information	Quality of information	3.3	4.68	1.38
Well-Functioning Government	Rule of law	3.67	4.72	1.06
Low Levels of Corruption	Irregular payments and bribes	4.89	4.69	-0.19
Equitable Distribution of Resources	Inequality-adjusted life expectancy index	3.49	3.21	-0.29
Free Flow of Information	Individuals using the Internet (% of population)	4.57	3.86	-0.72

Trend in the PPI score, Yemen, 2009-2019

Positive Peace deteriorated by 10.8 per cent



Source: IEP

The Yemeni PPI deteriorated by 10.8 per cent since 2009, largely reflecting a 19.9 per cent deterioration in Attitudes and a 13.7 per cent deterioration in the Institutions domain. The Structuresdomain deteriorated a comparatively moderate 5.9 per cent.

Yemen's deterioration in Positive Peace was largely caused by the prolonged civil war. The country has been split by an intense north-south divide that led to a civil war in 1994, and then subsequently to another armed conflict between the government and Houthi rebels in 2009, which culminated in the outbreak of all-out civil war in 2014. These conflicts are the result of decades of broken agreements and dispute between the southern government and the competing government of the Houthis northern tribes.48

The country remains in an extremely unstable political state. While Yemeni President Abdrabbuh Mansour Hadi is in exile, the Houthis have overtaken Sana'a, the country's capital, and established a transitional revolutionary council.⁴⁹ In 2015, President Hadi established a temporary capital in Aden, but his coalition splintered in early 2019 and violence broke out between Hadi's forces and the anti-Houthi separatists who had previously supported him.⁵⁰ According to Chatham House, the political vacuum in the country has given rise to a "chaos state" wherein many groups fight for and control territory.⁵¹ The impact on the country's central government is reflected in a deteriorating government effectiveness score. It would appear that no group is capable of controlling the country and without a political accord, the conflict will be long and protracted.

The United Nations, the United States and the Gulf Co-Operation Council view the Houthi leadership as illegitimate, and a Saudi-led military coalition has continuously launched air strikes on Houthi-controlled territory. 52 According to the Yemen Data Project, more than a third of airstrikes executed by this coalition have targeted non-military targets.⁵³ Houthi rebels have also responded to Saudi Arabia with counterattacks, firing missiles at Riyadh and Saudi oil tankers in the Red Sea.^{54,55} Hundreds of foreign nationals living in the country have been forced to flee due to the civil war.⁵⁶ Internal and external conflict have increased Yemen's hostility to foreigners.

UNHCR estimates that 24.1 million Yemenis, or 75 per cent of the population, are in need of humanitarian assistance.⁵⁷ Roughly 15 million people, or more than half of Yemen's population, are food insecure and 400,000 children are suffering from severe malnutrition.58 Over 3.65 million Yemenis have been internally displaced, 12 per cent of the overall population, and more than 80 per cent of those people have been displaced for more than a year.59

Roughly 1.1 million Yemenis have been infected with cholera in one of the world's worst epidemics. 60 Such developments are reflective of a number of breakdowns in Positive Peace, including a 21.6 per cent deterioration in Well-functioning Government.

No pillars registered an improvement over their 2009 levels.

Venezuela

CHANGE IN OVERALL

to 3.73 from 3.43

CHANGE IN RANK,

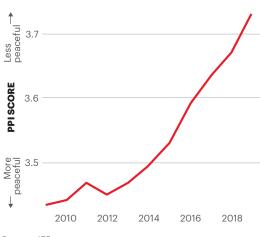
to 136 from 104

Largest changes in Positive Peace in Venezuela

Pillar	Indicator	Value in 2009	Value in 2019	Change
Equitable Distribution of Resources	Equal distribution of resources index	3.07	4.64	1.57
Free Flow of Information	Quality of information	3.93	5	1.08
Good Relations with Neighbours	Regional integration	3	4	1
Sound Business Environment	Maintaining a business	3.79	3.5	-0.29
Sound Business Environment	GDP per capita	3.54	3	-0.54
Free Flow of Information	Individuals using the Internet (% of population)	3.6	1.92	-1.68

Trend in the PPI score, Venezuela, 2009-2019

Positive Peace deteriorated by 8.7 per cent since 2009.



Source: IEP

The Venezuelan PPI deteriorated by 8.7 per cent since 2009. The Attitudes domain deteriorated by 15.6 per cent, the Institutions domain deteriorated by 9.6 per cent, while the Structures domain deteriorated by 5.4 per cent.

Amidst both political and economic crisis, Positive Peace in Venezuela has worsened since 2009, based on deteriorations in 18 out of 24 indicators. The only Pillars to improve are Free Flow of Information, based on expanded internet access, and Sound Business Environment, predominately driven by increases to GDP per capita. Equitable Distribution of Resources showed the largest deterioration, followed by Well-Functioning Government and Acceptance of the Rights of Others.

After years of shortages and hyperinflation, President Nicolás Maduro's legitimacy was directly challenged in January of 2019 when the head of the National Assembly Juan Guaidó declared himself president. Despite international support for Guaidó, Maduro has retained power, with the backing of the military.

The country's government effectiveness and rule of law indicators deteriorated by 15.3 and 15.7 per cent respectively. In the wake of both economic and political turmoil and US sanctions against the Maduro government, services have been affected and security has collapsed. The country experienced at least four major blackouts in the first seven months of 2019.61 During these power outages, it was difficult to obtain freshwater and hospitals, already strained from a lack of equipment and proper medication, could not adequately treat patients.⁶² Prior to March 2019, Caracas had generally been shielded from blackouts, as power was diverted from rural towns to fuel the

city. In late March 2019, Maduro ordered power rationing in Caracas.63

Venezuela ranks poorly for international tourism and has seen a 33 per cent decline in regional integration, an indicator of Good Relations with Neighbours. Venezuelan migrants have been fleeing economic collapse, putting pressure on their neighbours, especially post-conflict Colombia. Roughly four million people had fled, with 1.3 million seeking refuge in Colombia.64

FIVE LARGEST DETERIORATIONS IN POSITIVE PEACE

Eritrea

CHANGE IN OVERALL SCORE, 2009-2019:

to 4.27 from 4.03

CHANGE IN RANK, 2009-2019:

to 160 from 152

Largest changes in Positive Peace in Eritrea

Pillar	Indicator	Value in 2009	Value in 2019	Change
Low Levels of Corruption	Control of corruption	3.79	4.66	0.88
Sound Business Environment	Starting a business	4.11	5	0.9
Acceptance of the Rights of Others	Group grievance	3.13	3.98	0.84
Free Flow of Information	Freedom of press	5	4.78	-0.22
High Levels of Human Capital	Healthy life expectancy (HALE)	2.54	2.81	-0.28
Equitable Distribution of Resources	Inequality-adjusted life expectancy index	3.09	3.49	-0.4

Positive Peace in Eritrea has deteriorated by 6.3 per cent since 2009, with a mix of some improvements, but larger deteriorations. There was a 7.1 per cent deterioration in the Attitudes domain over the period, while the Institutions domain deteriorated by almost 10.7 per cent. Indicators of the Structures domain also deteriorated, but only slightly by 3.7 per cent.

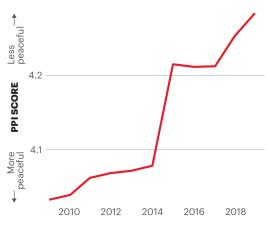
High Levels of Human Capital and Free Flow of Information showed modest improvements from 2009 to 2019. The former was driven by a rise in life expectancy and the number of youth not in employment, education or training, while the latter was based on modest increases in freedom of the press and individuals using the Internet. Good Relations with Neighbours also posted a small improvement on the back of somewhat more benign tourism numbers.

Low Levels of Corruption and Acceptance of the Rights of Others were the Pillars with the largest deteriorations. This closely aligns with the findings of the UN Commission of Inquiry on Human Rights in Eritrea report released in 2016 highlighting systematic, widespread, and gross violations of human rights.

On a positive note, in July of 2018 Eritrea and Ethiopia signed a peace treaty, and formally ended the Eritrean-Ethiopian border conflict.

Trend in the PPI score, Eritrea, 2009-2019

Positive Peace deteriorated by 6.3 per cent since 2009.



Source: IEP

The UN Commission of Inquiry on Human Rights Report found systematic, widespread violations of human rights in Eritrea.

FIVE LARGEST DETERIORATIONS IN POSITIVE PEACE

Equatorial Guinea

CHANGE IN OVERALL

to 4.05 from 3.85

CHANGE IN RANK,

to 155 from 140

Largest changes in Positive Peace in Equatorial Guinea

Pillar	Indicator	Value in 2009	Value in 2019	Change
Good Relations with Neighbours	Hostility to foreigners/private property	2	3.75	1.75
Free Flow of Information	Quality of information	3.65	3.94	0.29
Acceptance of the Rights of Others	Exclusion by socio-economic group	3.95	3.99	0.04
Good Relations with Neighbours	Regional integration	3	4	1
Free Flow of Information	Freedom of the press	4.03	3.65	-0.38
Acceptance of the Rights of Others	Group grievance	3.58	3.36	-0.22

Equatorial Guinea deteriorated in five out of eight Pillars from 2009 to 2019, amounting to a five per cent deterioration overall. There was a 9.6 per cent deterioration in the Attitudes domain and a 5.3 per cent deterioration in the Structures domain. Institutions indicators also deteriorated, albeit less steeply at 1.6

Only nine out of 24 indicators improved over that period. However, from 2016 Positive Peace has been improving moderately.

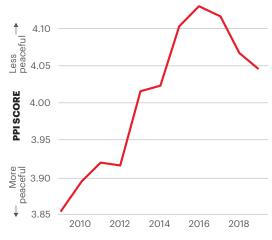
per cent.

Sub-Saharan Equatorial Guinea had a five per cent deterioration in Positive Peace from 2009 to 2019. The country has been ruled by President Teodoro Obiang Nguema Mbasogo since a military coup overthrew the country's last president in 1979. President Obiang is the longest sitting president in the world, and in a largely uncontested election in 2016, he was re-elected for another seven-year term. 65 Obiang's 39-year presidency has been associated with corruption scandals, mishandling of national income from rich oil deposits and repression of media outlets and opposition groups.66

The large deterioration in Good Relations with Neighbours is due to tenuous relationships with the country's two neighbours, Gabon and Cameroon, as well as minimal participation in regional cooperative efforts such as the Communauté Économique et Monétaire de l'Afrique Centrale (CEMAC). On a more positive note, in 2017, Equatorial Guinea signed the CEMAC Free Movement Act, waiving visa requirements for CEMAC countries' citizens.⁶⁷ Although Equatorial Guinea and Cameroon have organised eight different agreements in the past decade, tension remains over border control and immigration.⁶⁸

Trend in the PPI score, Equatorial Guinea, 2009-2019

Positive Peace deteriorated by 5 per cent since 2009.



Source: IEP

For example in late 2017, the border between the two countries was temporarily closed due to fears of an alleged coup attempt against President Obiang.⁶⁹ The Equatorial Guinean government maintains a hard-line stance against illegal immigration.

Furthermore, Equatorial Guinea has clashed with neighbouring Gabon over possibly oil-rich territory in the Gulf of Guinea. UN began mediation of this issue in 2008, and in 2017, the two countries elected to submit the conflict to the International Court of Justice for arbitration.70

Some improvements in Equatorial Guinea's Positive Peace derive from the country's growing access to mobile phones, likely spurring increased access to the internet.71 Another modest improvement in Positive Peace comes from the country's rising inequality-adjusted life expectancy. The improvement can be traced back to the 1995 discovery of large oil deposits. Equatorial Guinea is now one of Southern Africa's largest oil producers, being admitted to Organization of the Petroleum Exporting Countries (OPEC) in 2017.72

Although the Low Levels of Corruption Pillar has deteriorated 2.1 per cent since 2009, the negative trend appears to be stabilising. In 2018, Equatorial Guinea ratified the UN Convention Against Corruption, which was a precondition to receive an IMF loan.⁷³ Further, they also became part of the UN Security Council. As such, actions like this may explain the improvement in Positive Peace between 2016 to 2019.

US, CHINA, EU AND UK

United States

The US experienced a slow and steady decline in its PPI score since 2009. However this trend has accelerated since 2015 as seen in Figure 1.9. The country has now recorded the 9th largest deterioration on the PPI from 2009 to 2019. Over the period, the country's PPI Overall Score deteriorated by 8.4 per cent.

This was driven by deteriorations in the Attitudes and Institutions domains of Positive Peace. The other domain, Structures, recorded a mild improvement. The biggest deterioration was in the quality of information indicator — the perceived quality of information disseminated by members of society, the media and authorities. This contributed to the Free Flow of Information Pillar deteriorating by 18.4 per cent over the past decade, a large change for a developed nation.

Figure 1.10 shows that two other indicators - factionalised elites and group grievances — also deteriorated markedly. These findings reflect the widening gap between dissenting political groups and the radicalisation of views on economic management, personal freedoms, immigration and foreign relations. Deteriorations in these three indicators have been disproportionately large relative to movements recorded for all other indicators of Positive Peace for the country.

FIGURE 1.9

Changes in the Attitudes, Institutions and Structures in the PPI, United States, 2009-2019

Positive Peace deteriorated in the US from 2015 on the back of poorer scores for institutional and attitude indicators.

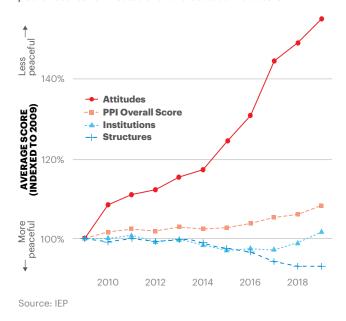
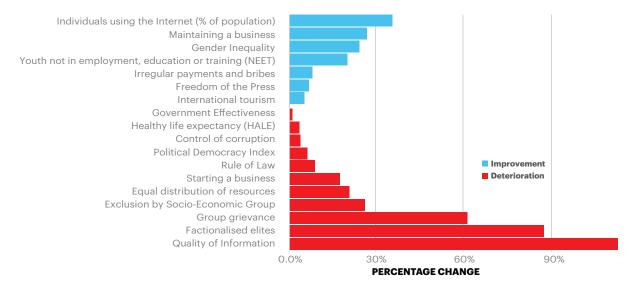


FIGURE 1.10

Percentage change in Positive Peace indicators, United States, 2009-2019

Positive Peace deteriorated in the US from 2015 on the back to worsening institutional and attitude indicators.



China

China has improved its PPI score by 7.4 per cent over the past decade, broadly in line with other developing countries. To a large extent this has reflected advances in economic, health and physical infrastructure gauges, which comprise the *Structures* domain of Positive Peace indicators (Figure 1.11). Accordingly, China has posted strong improvements in its *Sound Business Environment* and the *Equitable Distribution of Resources* Pillars of Positive Peace. This contrasts with the deterioration in the *Free Flow of Information* on the back of worse *freedom of the press* and *quality of information* results.

In 2013, the *Attitudes* domain deteriorated markedly. This coincided with the Chinese Banking Liquidity Crisis, which saw an end to easy credit and had a negative impact on gold and stock markets. The indicators for the *Attitudes* domain, such as *exclusion by socio-economic group* and *hostility to foreigners* were affected the most.

There has been moderate improvement in *government* effectiveness and control of corruption, which led to the *Institutions* sub-category to improve over the decade (Figure 1.12).

FIGURE 1.11

Change in Attitudes, Institutions and Structures in the PPI, China, 2009-2019

Improvements in indicators of social structures – economic, health and physical infrastructure gauges – have offset deteriorations caused by worsening scores for *Attitude* indicators.

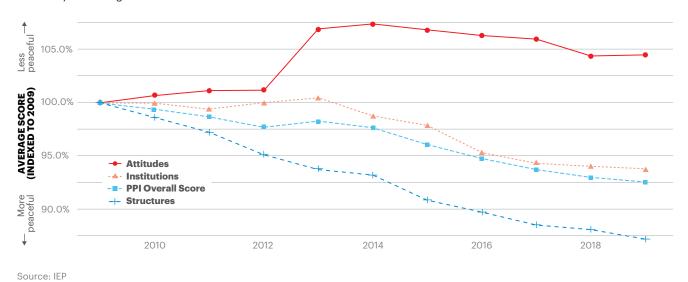
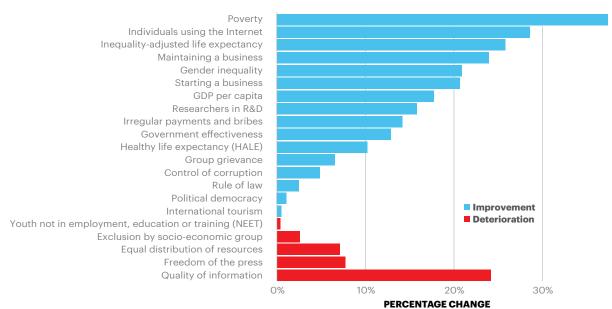


FIGURE 1.12 Percentage change in Positive Peace indicators, China, 2009–2019

Improvements reflecting economic prosperity and physical infrastructure development contrast with the worsening quality of information disseminated within the country.



Europe

Positive Peace in Europe has recorded a minor improvement over the past decade as shown in Figure 1.13. This reflects improvements in the Structures category of indicators. This was influenced by continued economic development, especially in some southern and eastern nations, following the European debt crisis of the early 2010s. There has been substantial growth in internet usage and in cross-border tourism visitation — both within the continent and from outside (Figure 1.14). Business conditions and health outcomes have also improved. The European PPI overall score improved by 3.4 per cent from 2009 to 2019. However, this improvement was largely a result of the development of eastern European economies, with the average improvement in the western European scores being less than one per cent (Table 1.2).

In contrast, the Attitudes domain deteriorated noticeably. In line with global trends, the *quality of information* has worsened among European nations, particularly as some political groups took to the internet to disseminate radical views of both rightwing and left-wing persuasions. Freedom of the press has also been curtailed in some nations, which further contributed to a perceived deterioration of informed debate. Economic inequality has increased, albeit at rates below those recorded in other regions of the world.74 This has contributed to greater social tensions and a radicalisation of the political debate - as captured by the factionalised elites indicator.

FIGURE 1.13

Change in Attitudes, Institutions and Structures in the PPI, Europe, 2009-2019

Improvements in the economy of southern and eastern European nations have contributed to benign structural outcomes for the region. In contrast, Attitudes deteriorated markedly.

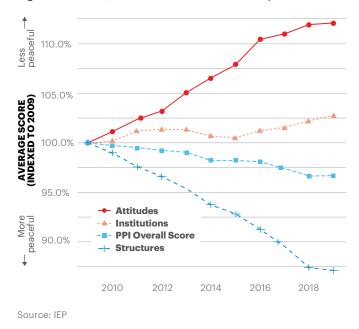


FIGURE 1.14

Percentage change in Positive Peace indicators, Europe, 2009-2019

Substantial improvements in economic and health indicators were partially offset by worsening political radicalisation and quality of informed debate.

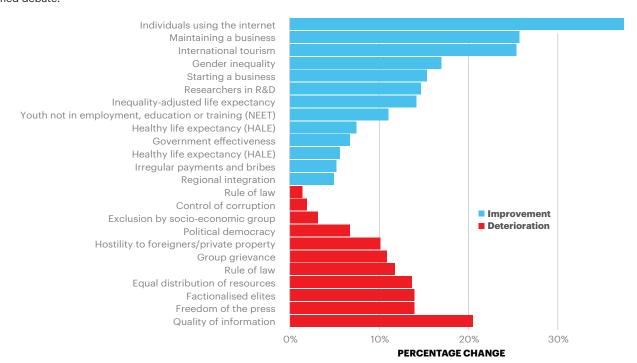


TABLE 1.2

Changes in the PPI for European countries, 2009-2019

Lithuania, Portugal, Estonia, Latvia and Serbia were the top PPI improvers in Europe over the past decade. A negative change is an improvement in Positive Peace.

Country	2009	2019	Change from 2009 to 2019 (%)
Lithuania	1.99	1.71	-13.9%
Albania	2.86	2.57	-10.1%
Portugal	1.72	1.55	-9.7%
Serbia	2.88	2.61	-9.5%
Latvia	2.14	1.94	-9.3%
Italy	1.97	1.80	-8.5%
Croatia	2.29	2.14	-6.3%
Estonia	1.75	1.64	-6.3%
Macedonia	2.78	2.60	-6.2%
Slovenia	1.68	1.58	-6.1%
Kosovo	3.12	2.95	-5.5%
Poland	2.07	1.98	-4.7%
Iceland	1.26	1.21	-4.6%
Bosnia and Herzegovina	3.03	2.90	-4.4%
Bulgaria	2.29	2.19	-4.3%
Czech Republic	1.78	1.71	-3.8%
Switzerland	1.27	1.23	-3.0%
Slovakia	2.06	2.00	-2.9%
Cyprus	1.97	1.92	-2.2%
Spain	1.75	1.71	-2.2%
Germany	1.49	1.46	-2.1%
Belgium	1.63	1.59	-2.1%
Norway	1.20	1.17	-2.1%
Finland	1.25	1.22	-2.0%
Netherlands	1.35	1.33	-1.3%
Montenegro	2.57	2.54	-1.0%
France	1.59	1.57	-0.8%
Romania	2.52	2.51	-0.6%
Ireland	1.37	1.37	-0.4%
Sweden	1.25	1.26	1.0%
Turkey	3.06	3.09	1.1%
Austria	1.40	1.43	2.7%
United Kingdom	1.61	1.68	4.4%
Greece	1.92	2.02	5.2%
Hungary	2.02	2.16	7.2%
Denmark	1.14	1.26	10.9%
Europe	1.94	1.88	-3.4%

United Kingdom

The UK had one of the poorest performances of any European nations in the last decade, deteriorating by 4.4 per cent in its Positive Peace score (Figure 1.15).

The UK elected to leave the European Union in a 2016 referendum. That initiated a period of economic and political uncertainty. In the wider public, the antagonism intensified between those who elected to leave and those who wanted to stay within the EU. Businesses delayed investment decisions as a result of the uncertainty, which has affected economic growth and in the COVID era and are continuing to delay.

After the UK officially left the EU at the end of 2020, some border checks were introduced between Northern Ireland and the Republic of Ireland. This risks exacerbating sectarian tensions in Northern Ireland and may result in further deteriorations in Positive Peace in the UK in coming years.

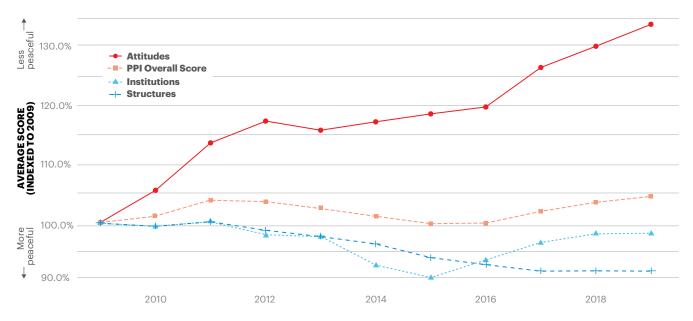
This tension has manifested as a deterioration in the UK PPI score from 2016 onwards, reversing the improving trend of the previous five years. Both the Attitudes and Institutions domains deteriorated in the past few years, more than offsetting gains in Structures indicators. British Attitudes deteriorated sharply in 2011, interestingly this corresponded with the rise of Islamic State of Iraq and the Levant. Another sharp deterioration took place from 2016 corresponding with the Brexit debate.

Over the past decade, three indicators deteriorated markedly: factionalised elites, hostility to foreigners and group grievance. These underline tensions between 'Brexiteers' and 'Remainers' as well as a more adverse view on immigration. It is possible for the UK to reverse these trends in the years ahead. But it will require clarity and resolution from authorities, as well as policies that promote the inclusion of different societal views.

FIGURE 1.15

Change in Attitudes, Institutions and Structures in the PPI, United Kingdom, 2009-2019

The Attitudes domain deteriorated substantially over the past decade. This has somewhat been offset by better outcomes for the Institutions and Structures domains



Source: IEP

Over the past decade in the UK, three indicators deteriorated markedly: factionalised elites, hostility to foreigners and group grievance.

Positive Peace, Ethical Investment and Resilience

Key Findings

- Positive Peace is highly correlated with indicators of environmental, social and governance (ESG) investment. Designers of financial products and benchmarks can use this comparison when catering for the growing demand for ethical investment
- Positive Peace is a reliable gauge of economic resilience. As such, it can be used to select portfolios of countries that consistently outperform global GDP growth.
- Countries that improved in Positive Peace from 2009 to 2019 recorded an average annual growth rate in per capita GDP almost three percentage points above nations in which the Positive Peace had deteriorated.
- Inflation rates in countries where Positive Peace deteriorated were four times more volatile when compared to countries where Positive Peace improved.
- Domestic currency in countries where Positive Peace improved appreciated by over one percentage points per year more than in countries where it deteriorated.
- Among countries where Positive Peace improved, household consumption rose in the past decade at a rate almost twice as high as for countries where the PPI deteriorated.

- Growth in business activity in countries where Positive Peace improved is up to 2.6 times higher than in countries where Positive Peace deteriorated.
- Countries seeing Positive Peace improvements are more attractive to foreign investors, with Foreign Direct Investment (FDI) growing strongly over the last decade, similarly to import and export levels. This contrasts with stagnant FDI in countries where Positive Peace deteriorates.
- Countries in which the PPI improves are less prone to political shocks, social tensions and natural disasters, an obvious benefit for investors seeking to protect their capital from non-economic disruptions.
- Countries that improved in Positive Peace also have a more positive outlook on credit rating as assessed by Standard & Poor's, Moody's and Fitch.
- This outperformance is also verified for other indicators of macroeconomic activity and national governance.

High Positive Peace countries tend to be more economically developed than low Positive Peace ones. This is also true across time: countries that improve in Positive Peace tend to develop faster economically than comparable countries. This is true because the conditions that create peace are inter-linked to the conditions that create a superior business environment.

Nations that improve in Positive Peace consistently outperform comparable countries in real GDP growth. By choosing countries that advance in Positive Peace in a given year and

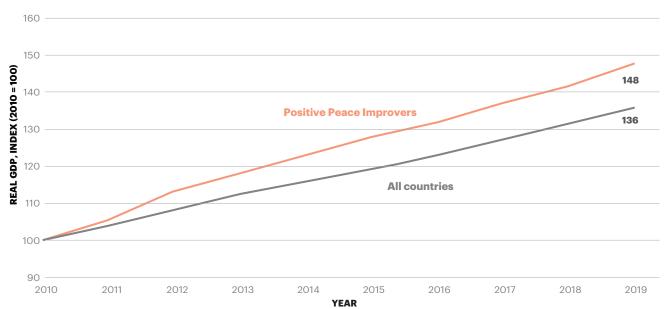
mapping their real GDP growth in the subsequent year, investment analysts can build an annually rebalanced portfolio of countries which outgrows the global average by almost one percentage point per year, as shown in Figure 2.1.

Other macroeconomic gauges such as consumption, business value added and capital expenditure, also perform better in countries with improving Positive Peace.1 Using financial market instruments that mirror domestic economic performance, one could generate above global average returns for investors interested in promoting Positive Peace.

FIGURE 2.1

GDP in countries that improve in Positive Peace outgrows the global average

Growth in real GDP of a portfolio of countries that improve in Positive Peace exceeds an equally weighted global average by almost one percentage point per year.



Source: IEP, World Bank

This result reflects Positive Peace's ability to promote economic and social resilience, as discussed in more detail throughout this section. Positive Peace can also help financial services providers cater for the growing demand in international markets for ethical investment instruments and benchmarks.

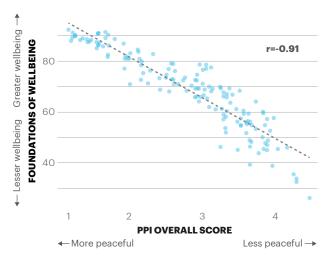
In addition to economic prosperity, Positive Peace is also associated with social wellbeing, as evidenced by the close relationship between the Social Progress Imperative's (SPI) Foundations of Wellbeing scores and the PPI (Figure 2.2).

> Countries that improved in Positive Peace from 2009 to 2019 recorded an average annual growth rate in per capita GDP almost three percentage points above nations in which Positive Peace had deteriorated.

FIGURE 2.2

Social wellbeing and Positive Peace, 2019

The absolute correlation between the Social Progress Imperative's Foundations of Wellbeing scores and scores from the PPI nears unity.



Source: Social Progress Imperative, IEP

POSITIVE PEACE & ETHICAL INVESTMENT

A growing number of financial market participants are motivated by principles of ethical investment and strategies that seek financial returns while promoting social wellbeing and sustainable development (Box 2.1). To cater for this demand, financial service providers have increasingly added ethical considerations to the process of selecting the underlying assets of investment portfolios and financial benchmarks. These considerations fall in three areas: environmental, social and governance (ESG). These are factors that:

- (E) lead to environmental sustainability
- (S) promote social justice, wellbeing and development
- (G) encourage accountable and transparent organisational

ESG measures are good in themselves, but they do not explain why one country will perform well on ESG measures and others do not. Positive Peace provides a theory of change and describes the necessary background conditions that lead to improvements in ESG measures. Therefore, progress in Positive Peace is a predictor of future improvements in ESG measures.

When applied to a country, ESG principles overlap substantially with IEP's pillars of Positive Peace. This is because the social and governance components, the 'S' and the 'G', directly relate to the attitudes, institutions and structures that create and sustain peaceful and prosperous societies, as Positive Peace is characterised.

In addition, most analysts gauge the environmental component, the 'E', through the impact of environmental conditions on human activity and living standards. For example, instead of

assessing a country only by the amount of carbon dioxide emitted or the number of animal species threatened, analysts use indicators such as the proportion of the population with access to clean water, or the level of outdoor air pollution affecting citizens.

But what type of societal environment leads to improvements in ESG measures? Positive Peace can be used to answer this. The impact of environmental conditions on living standards is influenced by the attitudes, institutions and structures of Positive Peace. For example, urban air quality is affected by economic activity, but also by society's ability to design and enforce pollution control measures. This means that in most financial analyses, all environmental, social and governance indicators are interdependent and related to some extent, and are therefore conceptually linked to Positive Peace.

Frequently used indicators of ESG performance correlate strongly with the PPI (Table 2.1). The correlation coefficient, in absolute value, between common ESG indicators and the PPI is high and in some cases nears unity.

TABLE 2.1

Correlation between ESG indicators and the PPI, 2019

Most commonly used indicators of ethical investment are highly correlated with the PPI. Correlation coefficients are calculated across all countries covered in the PPI and absolute values above 0.5 are highlighted.

	Indicator name	Correlation Coefficient	Source
Social infrastructure factor	ors commonly classified as 'environmental' by investment professionals		
	Access to at least basic drinking water	-0.70	Social Progress Imperative
	Water coverage	-0.74	CEDLAS and the World Bank
	Household air pollution attributable deaths	0.68	Social Progress Imperative
	Outdoor air pollution attributable deaths	0.75	Social Progress Imperative
	Population using improved drinking-water sources	-0.70	UN Development Programme
	Population using safely managed drinking-water	-0.74	World Health Organization
	Natural hazard risk index	0.25	INFORM
	Environmental health: air quality	-0.58	Yale Environment Performance Index
	Environmental health: water & sanitation	-0.88	Yale Environment Performance Index
	Environmental health: heavy metals	-0.78	Yale Environment Performance Index

	Indicator name	Correlation Coefficient	Source
	Ecosystem vitality: forests tree cover loss	0.08	Yale Environment Performance Index
	Ecosystem vitality: water resources	-0.74	Yale Environment Performance Index
	Ecosystem vitality: biodiversity & habitat	-0.37	Yale Environment Performance Index
Factors commonly class	sified as 'social' by investment professionals		
	Access to electricity (% of population)	-0.62	World Bank
	Gender inequality index	0.88	UN Development Programme
	GINI index	0.39	World Bank
	Infant mortality rate	-0.87	Global State of Democracy
C	Life expectancy at age 60 (years)	-0.81	World Health Organisation
	Life expectancy at birth (years)	-0.81	UN Development Programme
	School enrolment, primary (% gross)	-0.11	UNESCO Institute for Statistics
	School enrolment, secondary (% gross)	-0.82	UNESCO Institute for Statistics
	Time required to get electricity (days)	0.25	World Bank
Factors commonly class	sified as 'governance' by investment professionals		
	Control of corruption (estimate)	-0.91	World Bank
	Corruption perceptions	-0.92	The Economist Intelligence Unit
	Ease of doing business index	0.86	World Bank
	Governance (prosperity index)	-0.88	Legatum
G	Legal rights index	0.24	World Economic Forum
	Regulatory governance score	-0.75	World Bank
	World press freedom index	0.62	Reporters Without Borders

Source: IEP, others included in table

Because of the conceptual and empirical overlap between ESG and Positive Peace, the PPI can be used as a gauge of sovereign ESG performance. The correlation coefficient between the PPI and sovereign ESG scores computed by BNY Mellon's Insight Investment for 186 countries in 2018 is 0.91. For emerging markets, ESG sovereign scores computed by Aberdeen Standard Investments match the PPI with a correlation coefficient close to one in absolute value (Figure 2.3).3 Lazard Asset Management's emerging markets debt team have computed sovereign ESG scores whose absolute value correlation coefficient against the PPI Score is 0.87.4

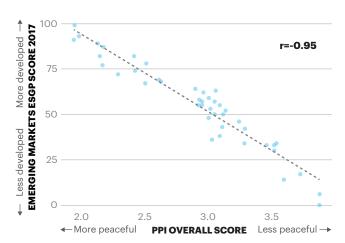
Positive Peace is also a reliable predictor of benign outcomes in social infrastructure factors commonly seen as representing environmental performance. The correlation coefficient between the Yale Environmental Performance Index and the PPI is -0.78 (Figure 2.4).

Positive Peace is highly correlated with indicators of environmental, social and governance (ESG) investment.

FIGURE 2.3

ESG scores and Positive Peace

Countries that score well in ESG criteria tend to record more favourable Positive Peace outcomes.

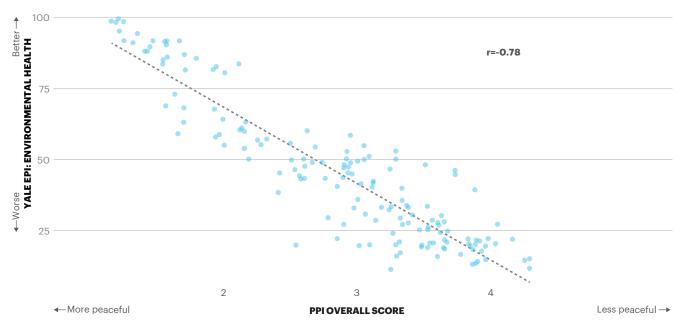


Source: Aberdeen Standard, IEP

FIGURE 2.4

Environmental performance scores and Positive Peace, 2019

Countries with high environmental performance tend to record stronger Positive Peace outcomes.



Source: Yale Environmental Performance Index, IEP

BOX 2.1

Why invest ethically?

ESG investors may be individuals seeking personal fulfilment by contributing to worthy causes or organisations with a mandate to promote social development and sustainability.

At first glance, ESG strategies may seem less profitable than conventional investments. This would reflect the added cost of implementing socially responsible initiatives or complying with more stringent operational standards. In addition, by excluding non-compliant companies or countries, an ESG portfolio would theoretically be less diversified than a standard counterpart.

However, ESG investing can be more advantageous than conventional strategies, especially in the medium to long-term. Companies that adhere to ethical principles tend to be more transparent and responsibly managed than their peers. In addition, they may pre-empt and avoid future losses associated with regulation, litigation, compensation and remediation. They are also likely to be better managed, as responsible and transparent principles will be adopted throughout the company and an ESG approach will lead to a long-term view on a sustainable business.

Governments that embrace ethical principles are more likely to produce effective policies and minimise losses from corruption and inefficiency. These institutions are usually more resilient and adaptable than their counterparts. Reflecting all these factors, the ESG version of the widely used financial benchmark MSCI World outperformed its non-ESG equivalent between 2007 and 2018.⁵

Fund managers can also use ESG principles to assess the resilience and business model sustainability of companies in which they invest. Increasingly, this is happening even when the funds they manage are not necessarily targeted at ethical investors.⁶ As a result, ESG is becoming more widespread as a useful risk management tool in the wider financial markets.

Positive Peace provides a theory of change and describes the necessary background conditions that lead to improving ESG measures. Therefore, Positive Peace is a predictor of future improvements in ESG measures.

POSITIVE PEACE & ECONOMIC RESILIENCE

Countries that improve in the PPI outperform global averages in different macroeconomic metrics, even after high-income countries from the Organisation for Economic Cooperation and Development (OECD) and the Brazil, Russia, India and China (BRIC) group are excluded from the analysis. Using a systems approach, IEP has shown how Positive Peace indicators interact with macro-economic outcomes in a complex and mutually reinforcing way. Improvements in Positive Peace such as higher levels of education or effective control of corruption will lift an economy's productivity and output. In turn, these outcomes will facilitate further improvements in a nation's socio-economic infrastructure, as measured by the PPI. These self-reinforcing cycles take place over many years. Once a pattern or trend is established, it usually persists for some time - a statistical phenomenon known as autocorrelation. By recording developments and trends in the PPI and macroeconomic indicators up to a given year, one may project future economic outcomes in the short to medium term. This explains why it is possible to forecast economic outperformance using PPI data in exercises such as the one illustrated in Figure 2.1.

The interrelationship between the PPI and macro-economic outcomes can be visualised through a number of macroeconomic gauges, as discussed below.

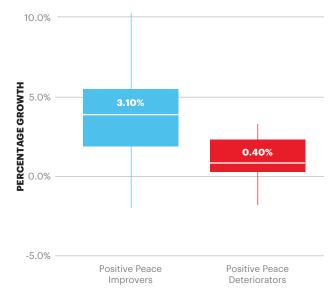
Economic growth

Per capita GDP is highly correlated with the PPI Score, as shown in Figure 2.5. Data for 2019 shows that for every one index point improvement in Positive Peace GDP per capita increases tenfold.

There is also a clear relationship between developments in Positive Peace and growth in per capita income across time. From 2009 to 2019, per capita GDP in countries that recorded improvements in the PPI rose by 3.1 per cent per year as shown in Figure 2.6. This compares with 0.4 per cent per year for countries in which Positive Peace deteriorated.

Positive Peace and growth in GDP per capita, 2009-2019

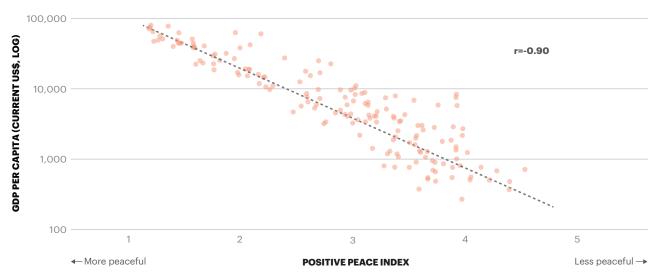
Countries that improved in Positive Peace from 2009 to 2019 recorded an average annual growth rate in per capita GDP almost three percentage points above nations in which the PPI had deteriorated.



Source: World Bank, IEP

Positive Peace and GDP per capita, 2019

On average, across all country income levels, every one index point improvement in the PPI is associated with a tenfold rise in GDP per capita.



Source: IEP, IMF

Inflation

Throughout history, inflation has proven to be a barrier to economic growth, but development is not hampered by high inflation rates *per se.* Rather, it is the uncertainty about future prices that detracts from economic activity. Uncertainty is greatest when inflation rates are high. For example, consider a hypothetical economy in which annual inflation is high, say ten per cent, but constant. If such an economic state were possible, all economic agents would adjust their expectations according to the predictable future change in prices. Workers would demand and get a ten per cent wage increase in the next year, firms would lift their prices by ten per cent in the next year, and the government would collect ten per cent more tax in the next year. This pattern would be repeated continuously without any stakeholder becoming worse off over time.

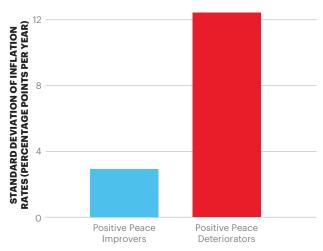
However, real life is never this smooth. No one can be certain that their income will rise perfectly in line with their costs over the next year or two. If next year's inflation is predicted to be around ten per cent, some economic agents would adjust their prices at twice that rate, just to be safe. Others would only manage to raise their prices or wages by five per cent or so, given competition, regulatory restrictions or other factors. Thus, some economic agents would gain and others would lose. And an atmosphere of uncertainty would prevail in this economy. In response to insecurity, firms would cut production, households would reduce spending, the government would curtail infrastructure investment and an economic contraction would ensue.

Countries that improved in Positive Peace from 2009 to 2019 experienced substantially lower volatility of inflation over this time, as shown in Figure 2.7. Between 2009 and 2019, the volatility of inflation rates in countries that deteriorated in Positive Peace was over four times higher than in those countries that improved.

FIGURE 2.7

Volatility of inflation rates by Positive Peace outcome, 2009–2019

Countries in which Positive Peace deteriorated recorded a standard deviation of inflation rates much greater than those countries where the PPI improved.



Source: World Bank, IEP

Exchange Rate

Countries that recorded PPI improvements from 2009 to 2019 saw their local currencies appreciate by 1.4 per cent relative to the US dollar over the period. This contrasts with countries where the index deteriorated, where almost no change was observed. However, it needs to be noted that exchange rate markets are very volatile and subject to many influences other than the strength and integrity of the domestic socio-economic system.

Credit Ratings

Over 75 per cent of countries that improved in Positive Peace from 2009 to 2019 have a stable or positive credit rating outlook as assessed by Standard & Poor's, Moody's and Fitch, as shown in Figure 2.8. This compares to approximately 65 per cent for countries that deteriorated in Positive Peace.

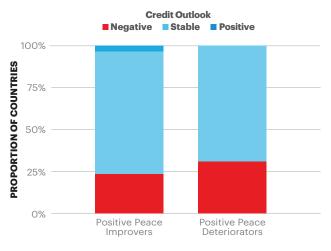
Sovereign credit ratings are assessments of a country's ability to repay its debt. When evaluating the creditworthiness of nations, credit ratings agencies (CRA) take into consideration many factors. These include the amount, duration and currency of dues, the resilience of the economy and consequently its ability to garner enough foreign reserves to repay creditors, and the transparency and efficiency of the administration. The two latter factors can be gauged by Positive Peace, which suggests the PPI can also be helpful in assessing sovereign creditworthiness.

Observers have commented that assessments made by CRAs are lagging indicators of an organisation's ability to repay dues. This appears to have been confirmed during the global financial crisis (GFC) of 2008. On that occasion, many struggling debtors held benign ratings until shortly before they were declared insolvent. This is due to a number of technical and commercial considerations governing credit ratings processes that are still present today. The Positive Peace framework can be used by investors as a predictive auxiliary tool to better assess sovereign creditworthiness in a manner that is transparent, timely, consistent across time, and auditable.

FIGURE 2.8

Credit ratings and Positive Peace, 2009–2019

Credit ratings for countries improving in Positive Peace are more likely to change positively or remain stable than for countries in which the PPI deteriorates.



Source: Standard & Poor's, Fitch, Moody's, IEP

Domestic Activity

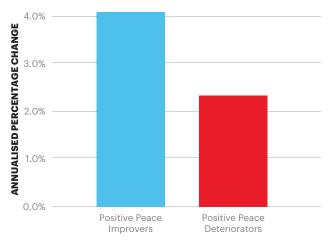
Household consumption is particularly responsive to improvements in Positive Peace. Among countries that recorded PPI improvements, the average annual growth in household consumption from 2009 to 2019 was 4.2 per cent, as shown in Figure 2.9, around twice the rate for countries in which Positive Peace deteriorated. This result confirms previous IEP findings that consumption is a key component of how socio-economic systems respond to improvements in peacefulness.9

The business sector is responsible for almost all of the production of goods and services in most economies. A gauge of activity in this sector is gross value added (GVA), which measures the value of all goods and services produced minus the variable cost of producing them. Thus, firms' profits equal GVA minus fixed costs.

FIGURE 2.9

Changes in household consumption by Positive Peace, 2009-2019

Among countries where Positive Peace improved, household consumption rose from 2009 to 2019 at a rate much higher than in countries where the PPI deteriorated.



Source: World Bank, IEP

Previous research has already established that GVA grows with Positive Peace and that this relationship varies in strength according to different types of business activity.¹⁰ The business sector can be broadly encapsulated into four subsectors: agriculture including the extraction of natural resources, construction, manufacturing, and services.

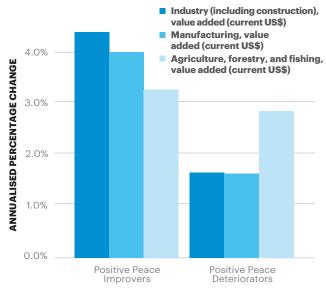
Construction is the subsector most responsive to changes in the PPI, with the GVA of PPI improvers recording annual growth of 4.5 per cent over the decade, as shown in Figure 2.10. This contrasts with less than two per cent per year for countries where Positive Peace contracted. Many countries that have experienced improvements in their socio-economic systems in the past decade have experienced construction booms. For instance, Lao recorded strong growth in construction on the back of new electricity production projects in the Mekong tributaries and from renewed investment in real estate.¹¹ Panama's construction activity has been buoyed by a government capital investment programme that helped build a public metro system in Panama City.¹² Azerbaijan experienced

a construction boom that saw rapid urban expansion in and around the capital Baku.¹³ All these countries recorded substantial improvements in the PPI over the past ten years. The manufacturing GVA of PPI improvers grew at an annual rate of four per cent in contrast to the small growth for countries with PPI deteriorations. The service subsector has also experienced strong growth on the back of Positive Peace improvements. Some of this growth has been domestically oriented, as in Bhutan's fast growing health, education and asset ownership services.¹⁴ But there has also been a growing presence in global service markets, as per Ethiopia's fast development in international air travel and telecommunications.15

FIGURE 2.10

Changes in business value added by Positive Peace outcome, 2009-2019

Construction is the sector most responsive to improvements in Positive Peace, with the GVA in countries improving in Positive Peace growing at over four per cent per year.



Source: World Bank, IEP

Trade and Openness

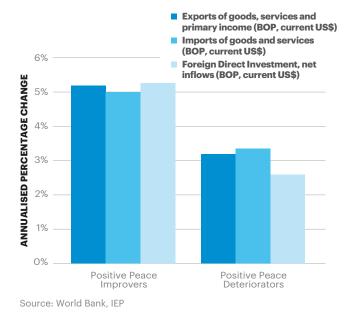
When a country advances the attitudes, institutions and structures that underpin social development, it also fosters economic vigour and resilience. In turn, this creates opportunities that attract investors from global capital markets. Foreign direct investment (FDI) is a flow of capital from external investors to acquire direct stakes in domestic companies, assets or projects. It contrasts with financial market investment, or 'portfolio' investment, which gives exposure to a country indirectly through financial market instruments such as shares, bonds or derivatives.

Nations that consistently develop in Positive Peace are more attractive to FDI investors because of: 1) greater economic returns; 2) improved governmental transparency and efficiency; 3) enhanced rule of law, protection of private property and enforcement of contracts; and 4) cheaper and less burdensome dispute, compensation and remediation procedures. From 2009 to 2019, FDI for PPI improvers rose at an annual rate of approximately five per cent, contrasting with an increase of 3.3 per cent for nations in which Positive Peace retreated, as shown in Figure 2.11.

FIGURE 2.11

Changes in FDI and trade by Positive Peace outcome, 2009-2019

FDI flows towards countries that improved in Positive Peace grew strongly over the decade, while countries where Positive Peace declined became less attractive in global capital markets.



There is evidence that cross border trade is also buoyed by improvements in Positive Peace. Countries in which the PPI improved over the past decade recorded average trade growth rates around five per cent per year, versus around three per cent for non-improvers. Improvements in the PPI have been shown to accompany rises in domestic demand, which buttresses imports. Similarly, improvements in Positive Peace — especially when linked to the soundness of the business sector and quality of policymaking — render local firms more efficient and competitive in export markets.

Governance

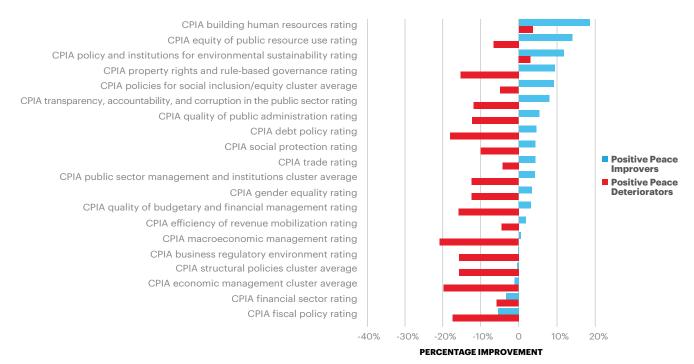
There is a conceptual link between the quality of governance exercised by authorities and the level of peacefulness enjoyed by a society. Empirically, the nexus between the PPI and governance measures, as proxied by the World Bank's Country Policy and Institutional Assessment (CPIA), is particularly strong. Nations that improve in the PPI also advance their CPIA ratings, especially in the areas of education, equity, quality of administration and business regulation, as shown in Figure 2.12. This is in stark contrast to countries where Positive Peace deteriorated over the past decade, which were downgraded in almost all CPIA criteria.

There are some CPIA indicators where on average PPI improvers have deteriorated, including fiscal policy, financial sector and macroeconomic management ratings. However, countries that improved in Positive Peace on average had smaller deteriorations than countries that deteriorated in Positive Peace.

FIGURE 2.12

Governance ratings by Positive Peace outcome, 2009–2019

Countries that improve in Positive Peace tend to fare better in the CPIA assessment by the World Bank.



Source: World Bank, IEP

POSITIVE PEACE & SOCIAL RESILIENCE

Positive Peace provides a framework for assessing a country's levels of resilience. It can be used as a proxy for a country's ability to plan, absorb and respond to shocks. A key reason for this is the mutually reinforcing nature of the societal structures underpinning the Positive Peace Pillars. For instance, when a country has strong formal institutions, such as a wellfunctioning legal system, in combination with strong informal institutions, such as cohesive communities, it will tend to respond or adapt to specific shocks more effectively.

This section explains the key concepts associated with resilience and adaptability through exploring the interaction between changes in the Global Peace Index (GPI) score and Positive Peace. High Positive Peace countries can be shown to be more stable than other countries in a number of different ways.

Figure 2.13 shows change in internal peace from 2009 to 2018 for three equal groups of countries based on PPI scores. This shows that countries with high levels of Positive Peace are by far the most stable, with only 11 per cent experiencing a deterioration of greater than 0.1 in the GPI Internal Peace score compared to 28 per cent for the group with low levels of peace.

Stability in response to shocks

The term 'shock' is used to describe a sudden change in some aspect of a system. In terms of a nation, shocks are sudden onset events that have the potential to "cause significant fatalities, injuries, property damage, infrastructure damage, and agricultural loss, damage to the environment, interruption of business, or other types of harm or loss."16 Examples may be tsunamis, hurricanes, drought, earthquakes, civil war, violent changes of political power, or epidemics.

Shocks can be catastrophic events that directly cause loss of life and/or events that trigger the outbreak of violence. Some shocks can be positive events, such as peace negotiations, the introduction of a new technology or the discovery of a new mineral resource deposit. This study does not include the impact of positive shocks.

The nation as a system has a number of feedback loops that allow countries to respond in the aftermath of shocks. The strength of the feedback loops determines resilience. Shocks affect many aspects of an otherwise stable society and their flow-on effects can be long-term and unpredictable. Shocks can, therefore, create tense situations that can lead to violence.

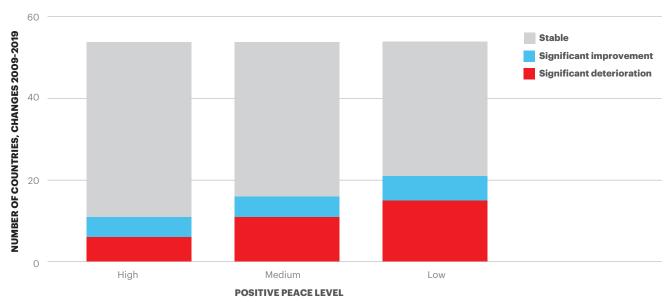
The 2010 earthquake in Port-au-Prince, Haiti is an example of a shock that triggered violence. During the earthquake, the National Penitentiary in Port-au-Prince was severely damaged, allowing over 5,000 prisoners to escape.¹⁷ At the same time, police officers were immediately engaged in disaster response, reducing their capacity to respond to crime and violence, and police resources were also damaged in the earthquake.¹⁸ Chaotic conditions facilitated the regrouping of formerly dispersed or imprisoned gang members, and combined with general postdisaster lawlessness, the city saw an escalation of turf wars and a rise in homicide, assault and rape.¹⁹ The intersection of a severe shock and existing vulnerabilities in the system, such as weak infrastructure and an under-resourced police force, led to a deterioration in peacefulness.

However, not all shocks trigger violence. Countries with high levels of Positive Peace have the attitudes, institutions and structures that allow for better adaptation and cooperation. These can be understood as drivers of nonviolent change. The social characteristics that make up Positive Peace give people

FIGURE 2.13

Positive Peace and changes in GPI, 2009-2019

High Positive Peace enables countries to maintain high levels of peacefulness.



access to methods of resolving conflicts and addressing change without falling into violence.

Shocks are commonly categorised as being either exogenous or endogenous. Exogenous shocks originate from outside the national system while endogenous shocks result from internal mechanisms.

Endogenous Shocks

Endogenous shocks are sudden onset events that arise from conditions inside society (Box 2.2). Particular conditions may change rapidly or build over time and result in unexpected events that have the potential to spark violence. Civil unrest is an example, when nations quickly turn violent because of a sudden, destabilising event. Economic shocks are similar. Economic conditions can be misaligned for a long time before resulting in a sudden crash or crisis that has the potential to spark riots or other types of violence.

Although these shocks originate from within the system, endogenous shocks are still difficult to predict, but the data shows that more internal shocks take place in low Positive Peace countries and the types of shocks differ depending on the levels of Positive Peace. Therefore, it is possible to reduce the impact of shocks by proactively building resilience through Positive Peace. Additionally, countries with high levels of Positive Peace are less likely to deteriorate in their GPI score post-shock.

BOX 2.2

Endogenous Shocks Data

IEP has sourced the following data for creating a database of endogenous shocks:

- · Infrastructure accidents are from EM-DAT and include transport, industrial and technological
- Economic shocks and crises are from Reinhart and Rogoff (2010) and include incidence of crises in banking, currency, inflation crises, sovereign debt, and stock markets.
- Political shocks are from Polity IV and include regime changes, coups d'état and revolutions.
- Violent conflict is from the UCDP battle deaths dataset
- Civil Resistance Campaigns are from the Nonviolent and Violent Campaigns and Outcomes (NAVCO) Data Project from the University of Denver.

Civil resistance campaigns

Episodes of social unrest are more frequent than other types of political shocks and their characteristics vary distinctly according to the level of Positive Peace in the country where they occur. One way in which Positive Peace helps to build resilience is by creating an environment conducive to nonviolent alternatives for conflict resolution. This sub-section explores the link between Positive Peace and whether civil resistance movements are violent or nonviolent in attempting to address their grievances.

Countries with higher Positive Peace have historically had fewer civil resistance movements, whether violent or nonviolent (Figure 2.14 and Table 2.2).

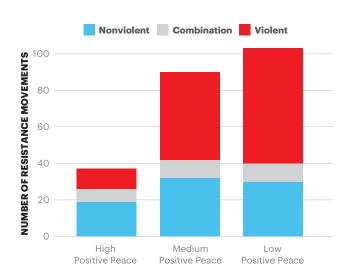
IEP used the Nonviolent and Violent Campaigns and Outcomes (NAVCO) Data Project for the analysis, a multi-level data collection effort that catalogues major violent and nonviolent resistance campaigns around the world between 1947 and 2006. NAVCO was compared to Positive Peace to determine the breakdown of conflicts by their Positive Peace profile. The database only includes movements of more than 1,000 participants. It should be noted that the majority of these resistance movements have been violent.20

Positive Peace translates into more opportunities for nonviolent conflict resolution.

FIGURE 2.14

Prevalence and nature of resistance campaigns

Most violent resistance campaigns have occurred in countries with weaker Positive Peace, data from 1974 to 2006 shows.



Source: University of Denver, IEP

Characteristics of resistance campaigns by levels of Positive Peace

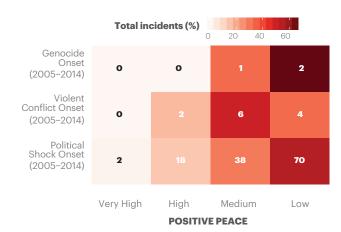
Violent civil resistance movements only occur in extreme circumstances in countries with stronger Positive Peace.

	Weaker Positive Peace	Stronger Positive Peace
GOAL OF THE CAMPAIGN	Goals are typically major structural or regime change.	Goals are typically aimed at policy or in some circumstances territorial independence.
SIZE	Weaker Positive Peace countries tend to have larger violent campaigns, but smaller nonviolent campaigns.	Stronger Positive Peace countries tend to have smaller violent but larger nonviolent campaigns.
PROPENSITY FOR VIOLENCE	Campaigns tend to use violence more often.	Campaigns have more of a tendency to use nonviolence.
PROGRESS	On average, violent and nonviolent campaigns can achieve some gains but fall short of major concessions without regime change.	Violent campaigns are less successful. Nonviolent campaigns tend to achieve more concessions.
STATE RESPONSE	Repression occurs. In nonviolent cases, state repression aims to demobilise the movement.	Repression of nonviolent campaigns tends to be condemned.
INTERNATIONAL RESPONSE	State repression of nonviolent campaigns is more likely to result in international condemnation and sanctions.	There is generally stronger overt international support for the state. Diasporas living overseas tend to be more supportive of the campaign.

FIGURE 2.15

Distribution of Endogenous Shocks, 2009-2019

Lower Positive Peace countries experience more shocks.



Source: INSCR, UCDP, IEP

Violent Shocks

Violent shocks such as regime changes, coups d'état and revolutions are prevalent in countries with lower Positive Peace, with 84 per cent occurring in medium to low Positive Peace countries. Genocide, being a jus cogens principle of international law, is the largest endogenous systemic breakdown. The data used in this analysis registers genocide events in three countries between 2005 and 2016. Offensives by the state during the Sri Lankan civil war in 2008 have been classified as genocide against the Tamils. In the Central African Republic, following the forcible displacement of the President Bozizé regime on 24 March 2013, the government engaged in predatory actions against the population.²¹ The Sunni extremists organised under the banner of the Islamic State in Iraq since 2014 have targeted Yazidis and Christians in their controlled

territories. It is estimated that these operations have killed around 5,000 people.22 Figure 2.15 shows the distribution of violent shocks by levels of Positive Peace.

Economic shocks are most prevalent in very high Positive Peace countries. Although this may seem counter-intuitive, the risk of financial shocks increases as financial institutions proliferate and become more integral to a country's economy. High Positive Peace countries tend to have more sophisticated economies.

Exogenous Shocks

Natural disasters are the most prevalent type of exogenous shock. Between 2005 and 2015, there were over 2,400 natural disasters in 196 countries affecting more than 1.8 billion people.²³ They occur all over the world, and their frequency and intensity are outside the control of policymakers. However, they do have control over their preparedness and responses. Importantly, as the effect of ecological degradation and climate change accelerate, so too may the frequency and impact of natural disasters.

Figure 2.16 shows that natural disasters kill 13 times more people in low Positive Peace countries despite the frequency of events being approximately equal. Societies' attitudes, institutions and structures, such as social cohesion, economic conditions and the quality of infrastructure will impact the outcome of these disasters, especially in terms of lives lost.24

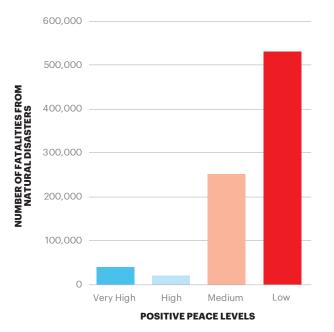
To explore the link between Positive Peace and the varying impacts of natural disasters, it is necessary to account for the distributions of frequency, severity and population density across different levels of Positive Peace (Box 2.3). While there will undoubtedly be other factors that determine the impact of a natural disaster in a country, for brevity this report will look at these three major areas.

Figure 2.16 shows that countries at lower levels of Positive Peace experience far more fatalities because of natural disasters, despite a similar number of events. Countries with weak

FIGURE 216

Total number of deaths from natural disasters. 2009-2019

Natural disasters are only slightly more frequent in low Positive Peace countries, yet they have many more fatalities when compared to high Positive Peace environments.



Source: EMDAT, IEP

BOX 2.3

Emergency Events Database

IEP used data from the Emergency Events Database (EM-DAT) to explore the relationship between resilience and Positive Peace. EM-DAT captures basic data on the occurrence and effects of natural and technological disasters for the years 1900 to 2015. Events are included in the database if they meet one of the following criteria:

- 10 or more people reported killed
- 100 or more people reported affected
- · declaration of a state of emergency
- · call for international assistance.

Information on events is collated from a variety of sources, with preference given to data from UN agencies and country governments.25

Positive Peace have a fatality ratio of 13:1 compared to high Positive Peace environments, while the frequency of natural disasters is much closer at 6:5. Figure 2.17 shows the frequency of natural disasters by level of Positive Peace, showing that these types of shocks occur roughly as often across the different groups of countries.

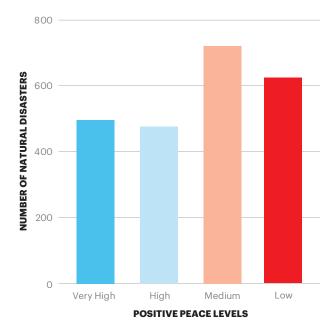
Resilience Systems Map

These observations highlight two important aspects of resilience. The first is that building resilience does not have

FIGURE 2.17

Frequency of natural disasters, 2009-2019

Natural disasters occur almost as often in low Positive Peace countries as in high Positive Peace ones.



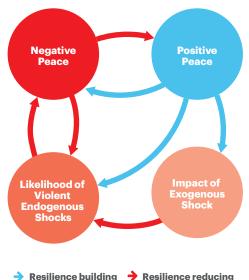
Source: EMDAT, IEP

to be direct. Using systems thinking, it is easy to see how improvements in one area can strengthen resilience in another. Secondly, by building Positive Peace a country can shift the types of shocks it is vulnerable to from violent ones, such as revolutions and regime changes, to non-violent ones, such nonviolent action groups. These dynamics are shown in Figure 2.18. By reducing the risk of internal threats, a country will be able to maintain stability more easily.

FIGURE 2.18

Resilience building in a Positive Peace system

Positive Peace can be used not only to build resilience but also to help transform society's response to a shock from violent to nonviolent.



Positive Peace & Changes in GPI Scores

Key Findings

- Countries that have a higher rank in negative peace (GPI) than in Positive Peace (PPI) are said to have a Positive Peace deficit. This is where a country records a higher level of peacefulness than can be sustained by its level of socioeconomic development. Most countries found to be in deficit subsequently record increasing levels of violence.
- Sixty-nine per cent of countries with a Positive Peace deficit of 20 places or more in 2009 had substantial deteriorations in peace between 2009 and 2019.
- When the threshold is raised to 50 places this percentage increases to 90 per cent.
- The ten largest deteriorations in the GPI ranking from 2009 to 2019 were recorded by Libya, Nicaragua, Burkina Faso, Egypt, Syria, Bahrain, Mozambique, Cameroon, Tunisia and Ukraine. Of these countries, seven had large Positive Peace deficits in 2009. This underscores the predictive power of the Positive Peace deficit model.
- On average, deficit countries that recorded increases in violence saw their GPI Internal Peace score deteriorate by 17.8 per cent from 2009 to 2019. This is compared to a 0.3 per cent deterioration for the median country on the GPI
- Looking forward, 30 countries recorded substantial Positive Peace deficits in 2019, and may deteriorate further into violence in the coming years. Of particular concern, Eritrea and Equatorial Guinea combine large

- Positive Peace deficits with a long trend of PPI deteriorations over the past decade.
- Other nations in deficit in 2019 such as Liberia, Zambia, Guinea-Bissau, Bangladesh, Qatar, Rwanda and Zimbabwe – have already recorded PPI deteriorations in recent years.
- Countries IEP identified as having a Positive Peace surplus in 2009 on average improved in the GPI by 1.9 per cent over the past decade.
- Low Levels of Corruption, Acceptance of the Rights of Others, Sound Business Environment, Well-Functioning Government and Good Relations with Neighbours are the most important Pillars requiring improvement in countries suffering from high levels of violence.
- Free Flow of Information, Equitable Distribution of Resources and High Levels of Human Capital become more important as countries move away from very low levels of peace.
- Low Levels of Corruption is the only Pillar that is strongly correlated with the GPI across all levels of peacefulness. Improvements in this Pillar are associated with reductions in violence in low-peace, medium-peace and high-peace countries.
- Uneven improvements in the Pillars of Peace can lead to increased violence, highlighting the importance of a holistic, systemic approach to building Positive Peace. This is especially true for premature development in Pillars such as High Levels of Human Capital, Sound Business Environment and Free Flow of Information.

This section of the report analyses the Positive Peace factors associated with transitions in peace. The research highlights the most important factors, which vary depending on the prevailing state of peace and the country's level of development. It uses systems thinking to describe the dynamics of how countries operate and how Positive Peace affects their Global Peace Index (GPI) scores and trends.

A central question behind understanding national systems is what makes nations transition from one level of development

and peace to another. To answer this, IEP assesses both the GPI and the Positive Peace Index (PPI) to identify different characteristics of national systems and how they operate at varying levels of peacefulness.

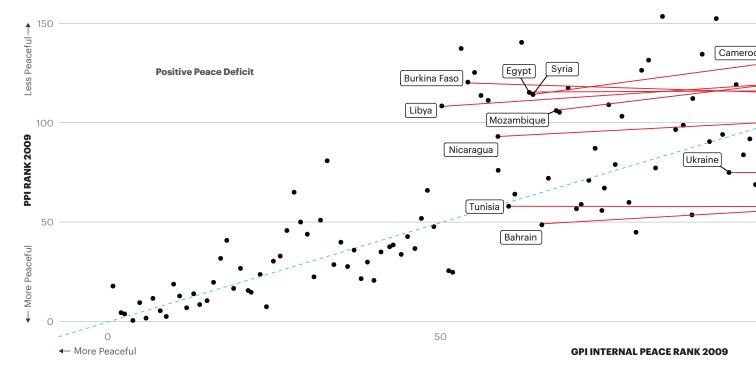
The analysis in this section focuses explicitly on peacefulness, as gauged by the GPI. However, similar dynamics apply to social and economic development. Indeed, countries that develop in the PPI and the GPI tend to progress also in economic prosperity, well-being and development.

POSITIVE PEACE DEFICIT AS A PREDICTOR OF VIOLENCE

FIGURE 3.1

Largest deteriorations in the Global Peace Index, 2009-2019

The higher the GPI Internal Peace rank is in relation to Positive Peace, the more likely a deterioration in peace will occur. A Positive Peace deficit is where the GPI rank is much higher than the PPI rank.



Source: IEP

Comparing changes in the PPI with the GPI over time highlights that improvements in Positive Peace may precede improvements on the GPI and vice versa.

Figure 3.1 compares the ranks of the PPI and the GPI in 2009. When countries rank higher in the GPI than in the PPI they have what is termed a Positive Peace deficit. This indicates that the country's peacefulness is higher than its underlying social structures would indicate it should be. It also means that a country is comparatively more vulnerable to internal or external shocks and runs a higher risk of increased levels of violence.

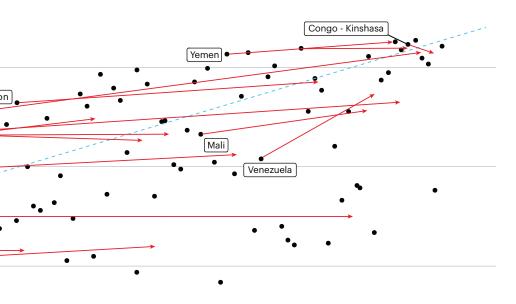
Conversely, when a country ranks higher in the PPI than in the GPI it is said to have a Positive Peace surplus. This indicates the institutional capacity to support lower levels of violence than the country currently experiences. Figure 3.1 shows that most countries with large deteriorations in the GPI from 2009 to 2019 had Positive Peace deficits. The diagram in the figure plots the changes in the position of countries on both the PPI and GPI from 2009 to 2019. The red arrows represent the changes in countries that deteriorated on the GPI. Note that nearly all countries that deteriorated on the GPI also deteriorated on the PPI. Countries high in both Positive Peace and negative peace cluster towards the bottom left hand side of the graphic, while countries that are poor in Positive Peace and negative peace

cluster towards the top right hand side of the graphic.

Expanding on Figure 3.1, countries can be grouped into three categories below:

- **Positive Peace deficit**: when countries rank at least 20 places higher on the GPI than the PPI.
- Positive Peace surplus: when countries rank at least 20 places lower on the GPI than the PPI.
- Stable: countries have a rank difference between the GPI and PPI of less than 20 places.

Countries in Positive Peace deficit are those with a level of socio-economic resilience that is inferior to and incompatible with the country's actual peacefulness. Sometimes, Positive Peace deficit countries may be ruled by strict regimes that suppress individual freedoms and socio-economic development, but which maintain artificially high levels of peace by forcefully imposing social order. This state of peacefulness is fragile because the underlying social tensions and grievances are simply smothered instead of being heard and resolved. Once there is any weakness in the government or security apparatus, the situation will often deteriorate into violence as a result of protests, civil unrest or inter-group tensions.



Positive Peace Surplus

Less Peaceful →

100 150

One illustration of this process is Egypt, which in 2009 held a

PPI rank of 115, or 52 places behind its GPI placing of 63. At that

time, Egyptian security forces responding to the then President Hosni Mubarak repressed demonstrations, prevented strikes and restricted the press. The suppressed social tensions eventually erupted in the so-called Egyptian Revolution of 2011, when Mubarak's health deteriorated and the Arab Spring erupted in other countries in the region. Country-wide protests and violent unrest led to the fall of the Egyptian government. This episode was one of the high-profile events of the Arab Spring. Similar events were taking place in many other nations in the Middle East and North Africa. Grievances within Egypt fuelled the rise of groups such as the Muslim Brotherhood, a transnational organisation whose Egyptian branch eventually took the power

of Egypt, the Popular Resistance Movement and others vied for power. From 2009 to 2019, Egypt's GPI Internal Peace score deteriorated by 30.5 per cent – one of the steepest deteriorations recorded in the GPI.

country as groups such as the Muslim Brotherhood, the Soldiers

in that country in 2012. Violent protests continued in the

It is also possible that in some unusual cases, countries may have Positive Peace deficits because their societies are homogenous and non-violent, but still lack a greater degree of economic and technological development. Nations such as



Positive Peace Deficit

د%69

Sixty-nine per cent of countries with a Positive Peace deficit of 20 places or more in 2009 had deteriorations in peace between 2009 and 2019.

لا%17.8

On average, deficit countries that recorded increases in violence saw their GPI Internal Peace score deteriorate by 17.8 per cent from 2009 to 2019.

Bhutan, Nepal and Timor-Leste are possible examples for this category. Despite substantial deficits in 2009, Bhutan's and Nepal's GPI Internal Peace scores improved over the subsequent decade and Timor-Leste's was broadly unchanged.

However, in most cases the peacefulness enjoyed by countries in Positive Peace deficit will deteriorate over time. Like Egypt, these countries lack the socio-economic resilience that would allow them to absorb negative shocks without falling back into turmoil and violence. These countries generally lack the social infrastructure – such as representative governments, transparent and accessible legal systems, free press and other factors – that would allow internal groups to resolve their grievances through non-violent means.

Of the 39 countries with Positive Peace deficits in 2009, 27 – or 69 per cent – had recorded deteriorations in the GPI Internal Peace score by 2019. This is shown in Table 3.1. Many of the most extreme examples of collapse into violence over the past decade – countries such as Syria, Libya, Yemen, Nicaragua, Egypt, Burkina Faso and others – were deficit countries one decade ago.

TABLE 3.1

Positive Peace deficits in 2009 and changes in the GPI from 2009 to 2019

Of the 39 nations in Positive Peace deficit in 2009, 27 – or 69 per cent – recorded deteriorations in peace in the subsequent decade.

Siern Lonone 137 53 84 -2.2 Improvement Lound Guinea 140 623 78 6.99 Deterioration Deterioration Immortants 125 55 70 0.70 Deterioration Deterioration Burkins Passo 120 54 66 30.0 Deterioration Deterioration Eitrea 152 91 61 15 Deterioration Deterioration Eitrea 152 91 61 15 Deterioration Deterioration Elby 131 63 57 64 65 Deterioration Deterioration Tanzania 111 67 54 65 Deterioration Deterioration Elberia 151 31 31 30 62 10 Deterioration Deterioration Elward 151 34 40 62 10 Deterioration Deterioration Elward 171 69 48 62 10 Deterioration Deterioration Elward 172 69 48 <t< th=""><th>COUNTRY</th><th>PPI RANK 2009</th><th>GPI INTERNAL PEACE RANK 2009</th><th>POSITIVE PEACE DEFICIT 2009</th><th>CHANGE IN GPI INTERNAL PEACE 2009-2019 (%)</th><th>CHANGE IN GPI INTERNAL PEACE 2009-2019 (%)</th></t<>	COUNTRY	PPI RANK 2009	GPI INTERNAL PEACE RANK 2009	POSITIVE PEACE DEFICIT 2009	CHANGE IN GPI INTERNAL PEACE 2009-2019 (%)	CHANGE IN GPI INTERNAL PEACE 2009-2019 (%)
Timor-Lester 125	Sierra Leone	137	53	84	-2.2	Improvement
Angola 153 83 70 7.0 Deterioration Burkina Faso 120 54 66 30.0 Deterioration Eritrea 152 91 61 11.5 Deterioration Liby 108 50 58 27 5.4 Deterioration Zambiu 113 56 57 5.4 Deterioration Tanzania 111 57 5.4 6.5 Deterioration Egypt 115 63 92 30.5 Deterioration Stria 114 64 50 4.6 5 Deterioration Mallwi 117 69 48 4.2 Deterioration Morandique 117 69 48 4.4 Deterioration Dibbout 126 80 46 9.2 Deterioration Rosa 129 84 45 9.6 Improvement Togo 134 89 45 8.7 <t< td=""><td>Equatorial Guinea</td><td>140</td><td>62</td><td>78</td><td>6.9</td><td>Deterioration</td></t<>	Equatorial Guinea	140	62	78	6.9	Deterioration
Burkina Faso 120 54 66 30.0 Deterioration Entree Eitree 152 91 61 11.5 Deterioration Deterioration Libya 108 50 58 92.7 Deterioration Deterioration Tambils 113 56 57 54 6.5 Deterioration Egypt 115 63 52 30.5 Deterioration Liberia 131 81 50 2.1 Improvement Syria 114 69 48 2.5 Improvement Viet Nam 81 33 48 4.4 Deterioration Nalewin 17 69 48 4.4 Deterioration Viet Nam 81 33 48 4.4 Deterioration Dibout 128 80 46 9.2 Deterioration Mozambique 106 67 39 8.7 10 Deterioration Robridus 105 68 <t< td=""><td>Timor-Leste</td><td>125</td><td>55</td><td>70</td><td>0.7</td><td>Deterioration</td></t<>	Timor-Leste	125	55	70	0.7	Deterioration
Eritres 152 91 61 11.5 Deterioration Libya 108 50 58 92.7 Deterioration Zambia 113 56 57 5.4 Deterioration Expyre 115 63 52 30.5 Deterioration Elberia 131 61 50 2.1 Improvement Syria 114 64 50 8.6 Deterioration Malawi 117 69 48 2.5 Improvement Vet Nam 81 33 48 4.4 Deterioration Lacs 126 80 46 9.2 Deterioration Lacs 129 84 45 9.6 Improvement Topo 134 89 45 8.7 Deterioration Indonesia 105 68 37 9.6 Improvement Moraribique 106 67 39 9.2 1.2 Improvement	Angola	153	83	70	7.0	Deterioration
Libya 108 50 58 92.7 Deterioration Zambia 113 56 57 5.4 Deterioration Tanzania 111 57 54 6.5 Deterioration Egypt 115 63 52 3.0.5 Deterioration Liberia 131 81 50 -2.1 Improvement Syria 114 64 50 84.6 Deterioration Malawi 117 69 48 -2.5 Improvement Viet Nam 81 33 48 4.4 Deterioration Djibouti 126 80 46 9.25 Improvement Losa 129 84 45 9.6 Improvement Togo 134 89 45 8.7 Deterioration Mozambiue 106 67 39 211 Deterioration Nicargua 93 58 37 22.0 Improvement	Burkina Faso	120	54	66	30.0	Deterioration
Zambia 113 56 57 5.4 Deterioration Tonzania 111 57 54 6.5 Deterioration Egypt 115 63 52 30.5 Deterioration Liberia 131 81 50 2.1 Improvement Syria 114 64 50 84.6 Deterioration Malawi 117 69 48 2.5 Improvement Viet Nam 81 33 48 4.4 Deterioration Dibouti 126 80 46 9.2 Deterioration Laos 129 84 45 9.6 Improvement Togo 134 89 45 9.6 Improvement Indonesia 105 68 37 -5.9 Improvement Bhutan 65 28 37 -5.9 Improvement Tibe Sambia 109 75 34 -5.2 Improvement <t< td=""><td>Eritrea</td><td>152</td><td>91</td><td>61</td><td>11.5</td><td>Deterioration</td></t<>	Eritrea	152	91	61	11.5	Deterioration
Tanzania 111 57 54 6.5 Deterioration Egypt 115 63 52 30.5 Deterioration Liberia 131 81 50 -2.1 Improvement Syria 114 64 50 84.6 Deterioration Nalewi 117 69 48 -2.5 Improvement Viet Nam 81 33 48 4.4 Deterioration Djibouti 126 80 46 9.2 Deterioration Laos 129 84 45 9.6 Improvement Togo 134 89 45 9.6 Improvement Rozambique 106 67 39 21 Deterioration Indonesia 105 68 37 4120 Improvement Micaragua 93 58 35 39.0 Deterioration Tajikata 146 112 34 40.5 Improvement	Libya	108	50	58	92.7	Deterioration
Egypt 115 63 52 30.5 Deterioration Liberia 131 81 50 -2.1 Improvement Syria 114 64 50 84.6 Deterioration Malawi 117 69 48 -2.5 Improvement Viet Nam 81 33 48 4.4 Deterioration Liaos 129 84 45 -9.6 Improvement Togo 134 89 45 8.7 Deterioration Mozambique 106 67 39 211 Deterioration Indonesia 105 68 37 5.9 Improvement Bhutan 65 28 37 12.0 Improvement Tajikistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -0.5 Improvement Republic of the Congo 18 117 31 8.7 Deterioration <	Zambia	113	56	57	5.4	Deterioration
Liberia 131 81 50 2.1 Improvement Syria 114 64 50 84.6 Deterioration Malawi 117 69 48 2.5 Improvement Viet Nam 81 33 48 4.4 Deterioration Djibouti 126 80 46 9.2 Deterioration Liberia 129 84 45 9.6 Improvement Togo 134 89 45 8.7 Deterioration Mozambique 106 67 39 21.1 Deterioration Indonesia 105 68 37 5.9 Improvement Bhutan 65 28 37 12.0 Improvement Tigistan 146 112 34 9.0 5.2 Improvement The Gambia 109 75 34 5.5 Improvement The Gambia 109 75 34 5.5 Improvement Teameroon 132 99 33 277 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Turkmenistan 139 114 25 1.8 Deterioration Turkmenistan 139 114 25 6.6 Deterioration Turkmenistan 139 134 25 6.6 Deterioration Turkmenistan	Tanzania	111	57	54	6.5	Deterioration
Syria 114 64 50 84.6 Deterioration Malawi 117 69 48 -2.5 Improvement Viet Nam 81 33 48 4.4 Deterioration Djibouti 126 80 46 9.2 Deterioration Laos 129 84 45 -9.6 Improvement Los 129 84 45 -9.6 Improvement Roganibique 106 67 39 21.1 Deterioration Indonesia 105 68 37 -5.9 Improvement Bhutan 65 28 37 -12.0 Improvement Teijkistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -0.5 Improvement Cameroon 132 99 33 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration	Egypt	115	63	52	30.5	Deterioration
Malawi 117 69 48 -2.5 Improvement Viet Nam 81 33 48 4.4 Deterioration Dijbouti 126 80 46 9.2 Deterioration Laos 129 84 45 -9.6 Improvement Togo 134 89 45 8.7 Deterioration Mczambique 106 67 39 21.1 Deterioration Indonesia 105 68 37 5.9 Improvement Nicaragua 93 58 35 39.0 Deterioration Tajikistan 146 112 34 -0.5 Improvement Cameroon 132 99 33 27.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 136 109 27 -0.8<	Liberia	131	81	50	-2.1	Improvement
Viet Nam 81 33 48 4.4 Deterioration Dijibouti 126 80 46 9.2 Deterioration Laos 129 84 45 9.6 Improvement Togo 134 89 45 8.7 Deterioration Mozambique 106 67 39 21.1 Deterioration Indoesia 105 68 37 5.9 Improvement Bhutan 65 28 37 12.0 Improvement Nicaragua 93 58 35 39.0 Deterioration Tajikistan 146 112 34 -0.5 Improvement Cameroon 132 99 33 227 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Revanda 133 77 26 1.6 Deterioration Rwanda 133 77 26 1.6 Deterioration	Syria	114	64	50	84.6	Deterioration
Djibouti 126 80 46 9.2 Deterioration Laos 129 84 45 -9.6 Improvement Togo 134 89 45 8.7 Deterioration Mozambique 106 67 39 21.1 Deterioration Indonesia 105 68 37 -5.9 Improvement Bhutan 65 28 37 -12.0 Improvement Nicaragua 93 58 35 39.0 Deterioration Tajikistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -0.5 Improvement Cameroon 132 99 33 27.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Rwanda 136 109 27 -0.8 Improvement Rwanda 133 77 26 1.6 Deterioration	Malawi	117	69	48	-2.5	Improvement
Loos 129 84 45 -9.6 Improvement Togo 134 89 45 8.7 Deterioration Mozambique 106 67 39 21.1 Deterioration Indonesia 105 68 37 -5.9 Improvement Bhutan 65 28 37 -12.0 Improvement Nicaragua 93 58 35 39.0 Deterioration Tajikistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -5.2 Improvement Cameroon 132 99 33 277 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Rewarda 136 109 27 -0.8 Improvement Rwanda 103 77 26 1.6 Deterioration Azerbaijan 119 94 25 6.7 Deteriorati	Viet Nam	81	33	48	4.4	Deterioration
Togo 134 89 45 8.7 Deterioration Mozambique 106 67 39 21.1 Deterioration Indonesia 105 68 37 5.9 Improvement Bhutan 65 28 37 -12.0 Improvement Nicaragua 93 58 35 39.0 Deterioration Tajikistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -5.2 Improvement Cameroon 132 99 33 277 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Reyanda 136 109 27 -0.8 Improvement Revanda 103 77 26 1	Djibouti	126	80	46	9.2	Deterioration
Mozambique 106 67 39 21.1 Deterioration Indonesia 105 68 37 -5.9 Improvement Bhutan 65 28 37 -12.0 Improvement Nicaragua 93 58 35 39.0 Deterioration Tajikistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -5.2 Improvement Cameroon 132 99 33 277 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 119 26 1.6 Deterioration Reyarda 159 114 <td>Laos</td> <td>129</td> <td>84</td> <td>45</td> <td>-9.6</td> <td>Improvement</td>	Laos	129	84	45	-9.6	Improvement
Indonesia 105 68 37 -5.9 Improvement Bhutan 65 28 37 -12.0 Improvement Nicaragua 93 58 35 39.0 Deterioration Tajikistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -5.2 Improvement Cameroon 132 99 33 27.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 119 25 1.8 Deterioration Republic of the Congo 11	Togo	134	89	45	8.7	Deterioration
Bhutan 65 28 37 1:2.0 Improvement Nicaragua 93 58 35 39.0 Deterioration Tajikistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -5.2 Improvement Cameroon 132 99 33 27.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Republic of the Congo 148 119 26 1.6 Deterioration Republic of the Congo 139 114 25 1.8 Deterioration Reparl at Mandal at Congo </td <td>Mozambique</td> <td>106</td> <td>67</td> <td>39</td> <td>21.1</td> <td>Deterioration</td>	Mozambique	106	67	39	21.1	Deterioration
Nicaragua 93 58 35 39.0 Deterioration Tajikistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -5.2 Improvement Cameroon 132 99 33 27.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Bangladesh 136 109 27 -0.8 Improvement Rwanda 103 77 26 1.6 Deterioration Turkmenistan 139 114 25 1.8 Deterioration Azerbaijan 119 94 25 6.7 Deterioration Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Guinea 157 134 23 8.0	Indonesia	105	68	37	-5.9	Improvement
Tajikistan 146 112 34 -0.5 Improvement The Gambia 109 75 34 -5.2 Improvement Cameroon 132 99 33 27.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Bangladesh 136 109 27 -0.8 Improvement Rwanda 103 77 26 1.6 Deterioration Turkmenistan 139 114 25 1.8 Deterioration Azerbaijan 119 94 25 6.7 Deterioration Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Guinea 157 134 23 8.0 Deterioration Niger 141 119 22 14.3	Bhutan	65	28	37	-12.0	Improvement
The Gambia 109 75 34 -5.2 Improvement Cameroon 132 99 33 27.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Bangladesh 136 109 27 -0.8 Improvement Rwanda 103 77 26 1.6 Deterioration Turkmenistan 139 114 25 1.8 Deterioration Azerbaijan 119 94 25 6.7 Deterioration Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Guinea 157 134 23 -13.3 Improvement Qatar 41 18 23 8.0 Deterioration Myanmar 149 128 21 7.6	Nicaragua	93	58	35	39.0	Deterioration
Cameroon 132 99 33 27.7 Deterioration Republic of the Congo 148 117 31 8.7 Deterioration Bangladesh 136 109 27 -0.8 Improvement Rwanda 103 77 26 1.6 Deterioration Turkmenistan 139 114 25 1.8 Deterioration Azerbaijan 119 94 25 6.7 Deterioration Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Quinea 157 134 23 -13.3 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Kuwait 50 29 21 10.1 Dete	Tajikistan	146	112	34	-0.5	Improvement
Republic of the Congo 148 117 31 8.7 Deterioration Bangladesh 136 109 27 -0.8 Improvement Rwanda 103 77 26 1.6 Deterioration Turkmenistan 139 114 25 1.8 Deterioration Azerbaijan 119 94 25 6.7 Deterioration Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Quinea 157 134 23 -8.2 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deteri	The Gambia	109	75	34	-5.2	Improvement
Congo 148 117 31 8.7 Deterioration Bangladesh 136 109 27 -0.8 Improvement Rwanda 103 77 26 1.6 Deterioration Turkmenistan 139 114 25 1.8 Deterioration Azerbaijan 119 94 25 6.7 Deterioration Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Quinea 157 134 23 -8.2 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration	Cameroon	132	99	33	27.7	Deterioration
Rwanda 103 77 26 1.6 Deterioration Turkmenistan 139 114 25 1.8 Deterioration Azerbaijan 119 94 25 6.7 Deterioration Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Guinea 157 134 23 -13.3 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement		148	117	31	8.7	Deterioration
Turkmenistan 139 114 25 1.8 Deterioration Azerbaijan 119 94 25 6.7 Deterioration Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Guinea 157 134 23 -13.3 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Bangladesh	136	109	27	-0.8	Improvement
Azerbaijan 119 94 25 6.7 Deterioration Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Guinea 157 134 23 -13.3 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Rwanda	103	77	26	1.6	Deterioration
Swaziland 112 87 25 0.6 Deterioration Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Guinea 157 134 23 -13.3 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Turkmenistan	139	114	25	1.8	Deterioration
Yemen 156 131 25 34.4 Deterioration Madagascar 121 98 23 -8.2 Improvement Guinea 157 134 23 -13.3 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Azerbaijan	119	94	25	6.7	Deterioration
Madagascar 121 98 23 -8.2 Improvement Guinea 157 134 23 -13.3 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Swaziland	112	87	25	0.6	Deterioration
Guinea 157 134 23 -13.3 Improvement Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Yemen	156	131	25	34.4	Deterioration
Qatar 41 18 23 8.0 Deterioration Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Madagascar	121	98	23	-8.2	Improvement
Niger 141 119 22 14.3 Deterioration Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Guinea	157	134	23	-13.3	Improvement
Myanmar 149 128 21 7.6 Deterioration Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Qatar	41	18	23	8.0	Deterioration
Kuwait 50 29 21 10.1 Deterioration Nepal 124 104 20 -11.2 Improvement	Niger	141	119	22	14.3	Deterioration
Nepal 124 104 20 -11.2 Improvement	Myanmar	149	128	21	7.6	Deterioration
	Kuwait	50	29	21	10.1	Deterioration
	Nepal	124	104	20	-11.2	Improvement
Papua New Guinea 130 110 20 1.1 Deterioration	Papua New Guinea	130	110	20	1.1	Deterioration

The ten largest deteriorations in the GPI ranking from 2009 to 2019 were recorded by Libya (-78 places), Nicaragua (-65), Burkina Faso (-60), Egypt (-57), Syria (-56), Bahrain (-54), Mozambique (-54), Cameroon (-45), Tunisia (-45) and Ukraine (-40). Of these countries, seven had large Positive Peace deficits in 2009, as can be seen in Table 3.1. Bahrain, Tunisia and Ukraine did not have deficits at the minimum 20-rank place level. This underscores the predictive power of the Positive Peace deficit model.

As seen above, 69 per cent of countries with a PPI deficit in 2009 deteriorated in the GPI by 2019. This is a higher proportion than for surplus and stable countries. For countries with a surplus in 2009, half had deteriorated in peace in the subsequent ten years (Figure 3.2). This suggests that countries in Positive Peace deficit are more likely to fall into a vicious cycle of violence than the other categories.

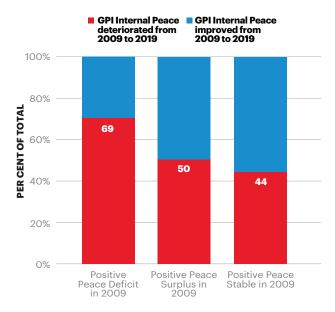
It is not just the proportion of deteriorations that is higher among deficit countries. The extent of such deteriorations is also materially greater for deficit countries than any other category. Deficit countries that fell into further violence from 2009 to 2019 saw their GPI Internal Peace scores deteriorate by 17.8 per cent (Figure 3.3). This compares with 9.4 per cent for stable countries and 6 per cent for surplus countries.

Taken together, the proportion of deteriorations among deficit countries and the size of such deteriorations show that the Positive Peace deficit model is a good predictor of future deteriorations in peace. If the threshold of materiality is increased to a 50 place difference between the GPI and the PPI ranks, then the model has a 90 per cent predictive rate of large deteriorations in peace. The model is not as accurate in predicting large improvements in peace. To predict countries that will improve in peace mapping improvements in the PPI provides a better approach, please refer to section 'Positive Peace at Different Levels of the GPI' below.

FIGURE 3.2

Positive Peace deficits and deteriorations in peace, 2009-2019

Sixty-nine per cent of countries in Positive Peace deficit in 2009 deteriorated into further violence in the subsequent decade.

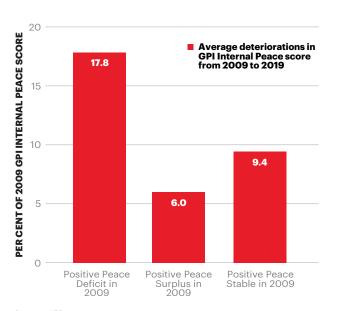


Source: IEP

FIGURE 3.3

Positive Peace deficits and the size of deteriorations in peace, 2009-2019

For deficit countries that deteriorated from 2009 to 2019, the average GPI Internal Peace score change was 17.8 per cent substantially higher than for surplus and stable countries.



Source: IEP

Countries identified as having a Positive Peace surplus in 2009 on average improved in the GPI by 1.9 per cent over the past decade.

The Positive Peace deficit model can be seen as one tool, among others, that stakeholders and supranational agencies could use to anticipate and prepare for possible increases in violence in the future. Table 3.2 displays the 30 countries in Positive Peace deficit in 2019. It is possible that most of these countries will experience higher levels of violence over the next decade or so.

Of particular concern, Eritrea and Equatorial Guinea combine large Positive Peace deficits with a long-deteriorating trend in the PPI since at least 2009. These countries saw their PPI overall score deteriorate by 6.3 per cent and 5 per cent respectively over the past decade and recorded deteriorations in five out of the eight Pillars of Positive Peace in the period. More recently, other nations recoded substantial PPI deteriorations over the past five years, which unwound previous gains earlier in the decade. This is the case of Liberia, Zambia, Guinea-Bissau, Bangladesh, Qatar, Rwanda and Zimbabwe. These countries are also at higher risks of increases in violence.

TABLE 3.2

Countries in Positive Peace deficit in 2019

Countries in this list are more likely to experience increasing levels of violence over the next decade.

COUNTRY	PPI RANK 2019	GPI INTERNAL PEACE RANK 2019	POSITIVE PEACE DEFICIT 2019
Equatorial Guinea	155	73	82
Sierra Leone	129	48	81
Laos	125	55	70
Timor-Leste	121	53	68
Malawi	119	54	65
Liberia	132	69	63
Madagascar	131	70	61
Zambia	120	63	57
Nepal	122	67	55
Angola	145	95	50
Vietnam	87	41	46
Eritrea	160	115	45
Bhutan	62	18	44
Haiti	149	105	44
The Gambia	102	59	43
Cambodia	127	85	42
Guinea-Bissau	152	110	42
Guinea	143	102	41
Indonesia	90	49	41
Tanzania	107	66	41
Bangladesh	139	100	39
Ghana	80	46	34
Tajikistan	140	107	33
Senegal	85	60	25
Bolivia	105	84	21
Qatar	43	22	21
Papua New Guinea	129	109	20
Romania	49	29	20
Rwanda	97	77	20
Zimbabwe	153	133	20

Source: IEP

ROBUSTNESS OF THE POSITIVE PEACE DEFICIT MODEL

The results above are consistent across different time windows. For example, the Positive Peace deficit model can be used to help predict which countries will deteriorate into higher levels of violence within the following five years. Of the countries that were in deficit in 2014, 68 per cent recorded deteriorations in their GPI Internal Peace score from 2014 to 2019. This compares with 49 per cent for stable countries and 31 per cent for surplus countries.

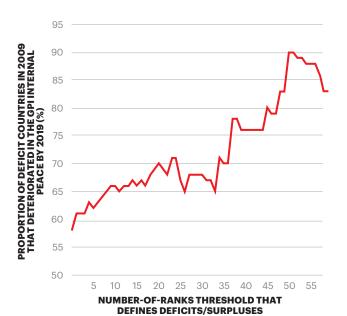
The Positive Peace deficit model is also robust for changes in the threshold used to calculate whether a deficit country is considered at risk. As seen above, when deficits are calculated based on a minimum rank difference of 20 places, the proportion of deficit countries that deteriorated in the GPI from 2009 to 2019 is 69 per cent. This proportion increases as the rank threshold is raised (Figure 3.4). If the set of countries in deficit is calculated using PPI scores 50 rank places below the GPI, the proportion of deficit countries that deteriorate in peace rises to 90 per cent.

However, although increasing the threshold boosts predictive power, it also reduces the overall number of countries that can be assessed as having deficits. When the threshold is raised to a 50-place difference between the GPI and the PPI, then 10 countries are rated as high risk.

FIGURE 3.4

Positive Peace deficit thresholds

Higher rank difference thresholds boost the predictive power of the model but reduce the overall number of countries that can be assessed as being in deficit.



Positive and Negative Peace Systems Dynamics Model

These findings indicate that the future levels of peace in any country depend on the interplay between the levels of Positive Peace and negative peace. Certain combinations of Positive and negative peace appear to be more stable than others, while some specific configurations have historically been unstable. Countries that rank near the boundaries between stability and instability are susceptible to tipping points where small disturbances can lead to radically different peace trajectories.

The eight Pillars of Peace represent a system of factors that interact to create and sustain peaceful societies. However, the efficacy of these Pillars depends on the context of violence in which they operate. For example, Europe – currently the most peaceful region in the world – has highly evolved and effective Positive Peace mechanisms to address grievances. However, this is the result of centuries of intense conflict in which the nature of violence continuously shifted. Violence and Positive Peace co-evolve and as such operate as a system.

By tracking changes in the GPI and the PPI for all countries over the past decade, it is possible to build a dynamical systems model of peace transitions. Figure 3.5 shows the outputs of this model.

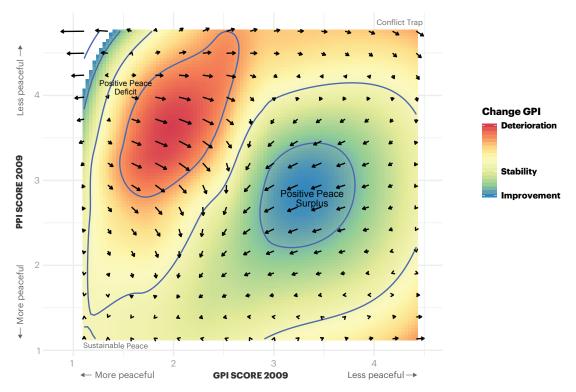
The diagram has areas of red and blue. The arrows highlight the likely shifts over time based on the historical performance of the last decade. Red areas represent combinations of Positive and negative peace that have been historically unstable leading to large future deteriorations in the GPI score. In 2009, Syria, Libya, Nicaragua and Egypt were all in this region and have since had large deteriorations in the GPI. Countries in the region colored blue on a given year have tended to have subsequent improvements in the GPI. Areas of yellow have shown relatively little movement over the period. The large yellow area in the bottom-left of the figure represent states where the combinations of high Positive Peace and negative peace tend to be more stable. In systems theory there is a concept known as attractor basins, where a country arrives at a position from which it is hard to change. Both the combinations of high PPI with high GPI scores and low PPI with low GPI scores are attractor basins.

The bottom-left area could be seen as a 'Sustainable Peace' region, characterised by institutional stability and social wellbeing.¹ Conversely, the top-right corner represents states of low levels of both negative and Positive Peace. This region can be called the 'Conflict Trap'.

This graphic is commonly known as a *phase plane* and is a representation of potential transitions between states of a system. There are areas of stability where the system operates with little change over the period. These are represented by the yellow areas with very short arrows and are the attractor basins. As countries approach these regions they tend towards periods of stability. Areas of rapid change – represented by long arrows – are referred to as transition regions. Points on the boundary between attractor basins and transition regions are highly sensitive, small fluctuations can lead to widely different development paths.

FIGURE 3.5 **IEP systems dynamics of GPI and PPI trajectories**

Based on empirical evidence, Positive and negative peace change more rapidly depending on starting levels in the PPI and GPI.



In the phase plane above, the regions labelled Sustainable Peace and Conflict Trap act as attractor basins for countries. Countries can fall into the Conflict Trap region rapidly. The historical data however suggests that through strengthening Positive Peace, countries over time tend towards the Sustainable Peace region. In the decade of data analysed, no country in the Sustainable Peace region has seen a large deterioration in the GPI. There are also large areas, coloured yellow, where change is gradual. These are large areas reflecting that change of countries in these regions has been small in the last decade. If the analysis were repeated for multiple decades or even centuries, the areas with the least change would likely concentrate around the Sustainable Peace and Conflict Trap regions.

By using historical data to build this phase-plane model, IEP's approach is empirically derived and does not need to make assumptions about how individual components of the system behave.

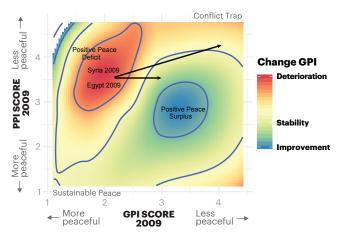
Standard dynamical systems modelling relies on assumptions on how individual components of the system behave. This approach to modelling is very useful in the study of engineering or biological systems, where researchers can isolate individual components and understand how they behave. Unfortunately, this approach is impossible in the study of social systems because individual components cannot be analysed in isolation without arbitrary assumptions on how different components interact with each other.

TIPPING POINTS IN THE POSITIVE AND NEGATIVE PEACE SYSTEMS DYNAMICS MODEL

IEP's dynamical model highlights the non-linear behavior of complex systems. Small differences in the initial conditions of two countries can have large impacts on a country's future pathway towards peace.

Tipping points in the Positive Peace deficit region

Tipping points in the Positive and negative peace system can result in countries that are relatively close to each other on the PPI and GPI experiencing widely diverging trajectories.



Source: IEP

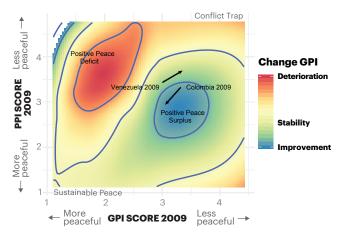
Countries in the Positive Peace deficit region can work towards sustainable peace by improving Positive Peace. However, they are also at risk of deteriorating into a Conflict Trap. Countries that improve in Positive Peace at different rates in this region may have large divergences from each other. This is highlighted in Figure 3.6, which shows the divergence in the actual historical paths of Egypt and Syria. While both countries were very close in both PPI and GPI in 2009, their trajectories since have been very different. In this case Syria could be thought of in 2009 as on the verge of a tipping point towards a Conflict Trap. In 2009, Egypt scored much stronger than Syria in Well-Functioning Government, Low Levels of Corruption and Sound Business Environment.

Tipping points can also be beneficial to a country. Figure 3.7 shows how countries can overtake peers in developing in peacefulness and wellbeing. In 2009, Venezuela was more peaceful than Colombia. However, Colombia had stronger Positive Peace. The larger reserves of Positive Peace placed Colombia closer to the region of the phase plane map in which improvements in the GPI are generally produced. By 2019, Venezuela had deteriorated in the GPI while Colombia had improved. In the Global Peace Index Report 2019, Colombia had overtaken Venezuela in the GPI, with ranks of 143 and 144 respectively.

This also highlights the significance of shocks to a country. A shock can push a country from one trajectory into another region of the phase plane. If any country experienced a shock that pushed it closer to the Positive Peace deficit region, it could alter the path from one that was directed to sustainable peace, to one that tends toward a Conflict Trap.

Tipping points in the Positive Peace surplus region

Despite starting at a lower level of peacefulness in 2009, by 2019 Colombia had overtaken Venezuela in the GPI.



Source: IEP

Positive Peace at Different Levels of GPI

IEP's research finds that building peace in fragile and less peaceful contexts requires a specific emphasis on:

- Low Levels of Corruption
- Acceptance of the Rights of Others
- Sound Business Environment
- Well-Functioning Government
- Good Relations with Neighbours

Building strength in other areas of Positive Peace is also important as all Pillars work as a system.

Figure 3.8 highlights the correlations for each of the eight Pillars of Positive Peace at each level of peace. A correlation coefficient of greater than r=0.4 is considered strongly significant, and above r=0.3 is considered moderately significant. The transition to high Positive Peace is gradual; as countries improve in peace, the correlations become stronger, highlighting the need to focus on all Pillars.

By contrast, Free Flow of Information, Equitable Distribution of Resources and High Levels of Human Capital are not as strongly associated with peace in low-peace countries, as indicated by the low correlation coefficients in Figure 3.8.

Some of the world's least peaceful countries struggle with issues of resource equity or low human capital, but it is not a consistent feature of all countries facing low levels of peacefulness.

The core requirement of governments in low-peace environments is to provide security to its citizens, without which a country cannot develop. In order for governments to function well and be trusted, corruption needs to be controlled. Poor relations with neighbours can lead to other countries attempting to interfere through direct interventions or funding militias, while group grievances (Acceptance of the Rights of Others) can create the identity basis for conflict.

However, this is not to say that improvements in the other Pillars are not important in improving peacefulness. As can be seen in Table 3.3, as countries become more peaceful, the

strength of the correlation of each Pillar increases, highlighting the importance of building these Pillars. Due to the systemic nature of societies, successes are likely to positively compound as countries progress, so building strength in the other four Pillars will also help to progress peace.

Mid-peace countries have a different profile. Correlations tend to be weaker for this group, but more Pillars are moderately correlated, suggesting that to make progress at moderate levels of peacefulness it is important to understand the strength of the individual Pillars before developing a strategy.

Low Levels of Corruption is the only Pillar to maintain a strong statistical correlation across all levels of peace.

To better understand how different aspects of Positive Peace may be more important at different levels of peace the 163 countries were broken up into overlapping groups of sixty and then correlated to determine at what stage of peace the various PPI indicators start to contribute to GPI improvements.

Table 3.3 shows the progression of the correlations between the PPI indicators and the internal peace scores of the GPI. It shows that the indicators that comprise Positive Peace correlate with peace more strongly in nations that have already achieved a minimum level of peacefulness (e.g. GPI rank 110 or higher).

Free Flow of Information, Sound Business Environment, Good Relations with Neighbours and High Levels of Human Capital only correlate with internal peace for nations that rank highly in the GPI - rank 90 and above. This suggests that a nation must have achieved a minimum level of internal security for equity and education to make meaningful contributions to further peacefulness. In contrast, Acceptance of the Rights of Others, Well-Functioning Government, Equitable Distribution of Resources and Low Levels of Corruption start making meaningful contributions at earlier stages of development - at rank 110 and above. This suggests that depending on a nation's negative peace status, authorities would have different menus of policy options to foster social development.

FIGURE 3.8

Correlation coefficients between Positive Peace and internal GPI score in High, Mid, and Low Peace countries 2019

Low Levels of Corruption is the only Pillar that is significant across all three levels of peacefulness.

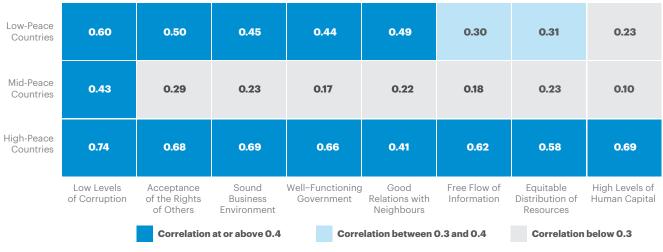


TABLE 3.3

Correlations between the GPI Internal Peace scores and Positive Peace Indicators scores (r>0.3 highlighted)

Indicators within Acceptance of the Rights of Others, Low Levels of Corruption, Sound Business Environment, Good Relations with Neighbours and Well-Functioning Government correlate for the most peaceful countries and the least peaceful countries, but not for the mid-range countries.

	Ranks in the GPI internal score										
POSITIVE PEACE FACTORS*	1-60	10-70	21-80	31-90	41-100	51-110	61-120	71-130	81-140	91-150	101-162
1. Acceptance of the Rights of Others	0.71	0.73	0.64	0.5	0.41	0.37	0.2	0.41	0.35	0.14	0.47
Exclusion by Socio-Economic Group	0.59	0.65	0.55	0.51	0.45	0.37	0.19	0.28	0.16	0	0.31
Gender Inequality Index (GII)	0.68	0.67	0.55	0.3	0.14	0.16	0.15	0.3	0.21	-0.11	0.26
Group Grievance	0.4	0.34	0.25	0.2	0.22	0.19	0.01	0.23	0.34	0.39	0.48
2. Equitable Distribution of Resources	0.62	0.65	0.6	0.38	0.21	0.3	0.11	0.21	0.13	-0.08	0.24
Equal distribution of resources index	0.56	0.61	0.52	0.38	0.28	0.35	0.11	0.29	0.19	0.03	0.25
Inequality-adjusted life expectancy index	0.62	0.61	0.54	0.34	0.19	0.26	0.14	0.08	0.06	-0.08	0.22
Poverty headcount ratio at \$5.50 a day (2011 PPP) (% of population)	0.57	0.62	0.6	0.33	0.09	0.15	0.05	0.12	0.08	-0.14	0.16
3. Free Flow of Information	0.65	0.68	0.57	0.48	0.24	0.27	0.2	0.2	0.23	0.15	0.3
Freedom of the Press	0.44	0.45	0.31	0.4	0.2	0.11	0.18	0.05	0.03	0.08	0.2
Government dissemination of false information domestically	0.46	0.46	0.24	0.34	0.23	0.26	0.16	0.16	0.18	0.25	0.2
Individuals using the Internet (% of pop)	0.59	0.62	0.6	0.33	0.09	0.17	0.1	0.17	0.22	0.01	0.2
4. Good Relations with Neighbours	0.47	0.56	0.64	0.58	0.3	0.22	0.19	0.27	0.36	0.31	0.5
Hostility to foreigners/private property	0.36	0.4	0.39	0.46	0.33	0.18	0.18	0.18	0.34	0.43	0.53
International tourism, number of arrivals (per 100,000)	0.39	0.45	0.6	0.47	0.21	0.23	0.03	0.21	0.34	0.11	0.18
The extent of regional integration	0.35	0.51	0.51	0.5	0.15	0.02	0.25	0.21	0.11	0.1	0.33
5. High Levels of Human Capital	0.75	0.73	0.67	0.5	0.22	0.18	0.21	0.17	0.09	-0.16	0.19
Researchers in R&D (per million people)	0.73	0.7	0.64	0.54	0.27	0.15	0.17	0.05	-0.11	-0.17	0.1
Healthy life expectancy (HALE) at birth (years)	0.62	0.59	0.49	0.32	0.2	0.22	0.1	0.06	0.03	-0.08	0.23
Share of youth not in employment, education or training (NEET) (%)	0.65	0.57	0.52	0.23	-0.01	0.06	0.16	0.25	0.26	-0.09	0.12
6. Low Levels of Corruption	0.76	0.73	0.6	0.58	0.39	0.46	0.18	0.16	0.11	0.16	0.53
Irregular payments and bribes	0.68	0.64	0.45	0.4	0.29	0.37	0.09	0.03	0	0.05	0.36
Control of Corruption: Estimate	0.77	0.75	0.56	0.56	0.35	0.43	0.22	0.2	0.1	0.09	0.48
Factionalized Elites	0.63	0.59	0.54	0.54	0.3	0.31	0.12	0.15	0.16	0.21	0.4
7. Sound Business Environment	0.73	0.69	0.63	0.52	0.23	0.21	0.15	0.13	0.02	-0.05	0.41
Business Environment	0.52	0.44	0.31	0.23	0.08	0.17	0.2	0.13	-0.03	-0.07	0.44
GDP per capita (current US\$)	0.7	0.69	0.65	0.57	0.32	0.2	-0.1	0	0.04	0.05	0.18
Prosperity Index Score	0.61	0.51	0.39	0.26	0.03	0.1	0.3	0.15	0.03	-0.11	0.31
8. Well-Functioning Government	0.72	0.72	0.59	0.61	0.37	0.32	0.25	0.14	0.03	0.02	0.41
Political Democracy Index	0.57	0.56	0.45	0.5	0.29	0.23	0.23	0.06	0.03	0.02	0.29
Government Effectiveness: Estimate	0.8	0.77	0.63	0.57	0.33	0.35	0.19	0.15	0.04	-0.05	0.51
Rule of Law: Estimate	0.58	0.61	0.49	0.55	0.33	0.24	0.22	0.15	0.02	0.07	0.31

^{*}All indicators have been banded and their directions harmonized: lower levels mean higher development and peacefulness; higher levels mean lower development and peacefulness.

Low Hanging Fruit

As a nation improves enough in peacefulness to reach a rank in the GPI Internal Peace of 110 and higher, policies that improve the four areas below will most likely create the first steps towards a virtuous cycle of improving peacefulness (the low-hanging fruit):

- Acceptance of the Rights of Others: improving relations between different ethnicities and social groups.
- **Well-Functioning Government**: enhancing administrative effectiveness and the inclusivity of legislature.
- Low Levels of Corruption: boosting administrative transparency and accountability.
- **Equitable Distribution of Resources**: reducing socioeconomic disparities, improving access to services such as health and education.

Building on Strengths

As a nation progresses in peacefulness and reaches a GPI Internal Peace score of 90 and higher, the focus of policymakers can turn to the next steps necessary to maintain forward transformational momentum. They should continue improving in the Pillars described above, but create initiatives in the remaining Pillars.

- High Levels of Human Capital: investing in education and professional training, creating the infrastructure needed for development of technical and scientific research.
- Free Flow of Information: fostering a free press and improving citizens' access to information.
- **Sound Business Environment**: facilitating entrepreneurship, allowing the creation of jobs, unburdening the business sector, creating a transparent, fair and efficient regulatory system.
- Good Relations with Neighbours: creating external partnerships, participating in multilateral initiatives, strengthening trade links and cross-border exchange of technologies and ideas.

Implementing Positive Peace

This section focuses on the practical application of Positive Peace, highlighting some of the successful policies and programmes that have been implemented around the world. It includes three case studies of countries that have strongly improved in Positive Peace, discussing some of the actions that these countries have taken.

This section also describes some recent IEP Positive Peace workshops. These descriptions can act as a guide for countries, communities, organisations and individuals seeking to improve their levels of peacefulness.

COUNTRY CASE STUDIES

IEP has selected three countries as case studies to highlight how improvements in Positive Peace have helped them overcome challenges to their peacefulness. This is reflected in their Positive Peace scores, which have improved over the last decade. These improvements have resulted in greater resilience, which means that they are less likely to fall back into conflict. The GPI scores for these countries also reflect these improvements in peace.

Using the Pillars of Positive Peace as a framework, this section illustrates the policy challenges and successes of Bhutan, Peru and Timor-Leste. These countries differ in culture, history and level of economic development. However, they have each implemented unique solutions that have produced tangible economic, political and social benefits. Although each country still faces domestic and international challenges, their successes can help guide other countries seeking to improve in Positive Peace. Both Bhutan and Timor-Leste recorded Positive Peace deficits in 2009, as discussed in the section 'Positive Peace and Changes in the GPI score' above. However, the two countries had comparatively favourable results in terms of violence in the decade after 2009. While most deficit countries recorded large deteriorations in the GPI Internal Peace score, Timor-Leste's deterioration was a muted 0.7 per cent, as shown in Table 3.1. Bhutan recorded an improvement in the GPI from 2009 to 2019.

Bhutan

Located between Nepal, India and China, the Kingdom of Bhutan leads South Asia in Positive Peace.

It has a population of nearly 800,000 and its total land area is 38,117 square kilometres. The country is ranked 62^{nd} in the 2020 Positive Peace Report, climbing five places over the past decade. During the period from 2009 to 2019 Bhutan recorded a strong improvement in its Positive Peace scores, increasing by 8.2 per cent. All three domains improved, while all of the Pillars improved, except for Sound Business Environment and High Levels of Human Capital.

Bhutan is internationally renowned for conceiving and then

measuring Gross National Happiness, a metric that has been codified as a national priority in the country's constitution.¹ Bhutan elected its National Assembly for the first time in 2008, successfully transitioning from an absolute monarchy to a constitutional monarchy.

In recent years, socioeconomic development programmes, funded by hydroelectricity exports and foreign aid, have enabled Bhutan to improve its poverty and education rates. Bhutan's per capita income grew from US\$564 in 1990 to US\$3,316 in 2019, evidencing the country's development success.2 Targeted government programmes such as the Rural Economy Advancement Programme (REAP) and National Rehabilitation Program (NRP) have provided financial and infrastructural aid to marginalised communities.3

Bhutan has faced challenges. For example, the country had been under scrutiny for the displacement of over 100,000 Lhotshampas, an ethnic group in southern Bhutan, between 1988 and 1993.4 However, consistent improvements in the GPI and the PPI scores have established Bhutan as a regional and international reference in terms of peace and development policy.

Notable Successes by Pillar

- Good Relations with Neighbours: Bhutan is collaborating with India and Bangladesh on hydropower projects that continue to expand its capacity to generate and export energy, which comprises 25 per cent of government revenue.5 These international collaborations strengthen Bhutan's Good Relations with Neighbours Pillar, and provide an example of policies in one Pillar that also help to strengthen others, namely the Sound Business Environment Pillar and Well-functioning Government Pillar. Bhutan's progress in international relations has seen the country improve 59 places in the Good Relations with Neighbours Pillar over the past decade to rank 65th in 2019 - a notable improvement in a relatively short period.
- Free Flow of Information: In 1999, the Bhutanese government lifted a ban on television and internet. In 2014,

the Bhutan Power Corporation and Ministry of Information and Communications established fibre optic infrastructure throughout the country that reaches all 20 of the country's districts. To lower prices, telecom providers are allowed to use the fibres for free. The country rose 21 places in the Free *Flow of Information* Pillar ranking in the past ten years, standing at 65^{th} in 2019.

- Low Levels of Corruption: Established in 2006 under the Anti-Corruption Act, Bhutan's fully-independent Anti-Corruption Commission (ACC) promotes the prevention, detection, and punishment of corruption in the public sector. It also educates the general public about the role of the ACC and what constitutes corruption. Bhutan improved 14 places in the *Low Levels of Corruption* ranking since 2009. By 2019, the country featured as the 34th least corrupt among the 163 countries assessed in this Pillar. This is a remarkable standing for a developing nation.
- Well-Functioning Government: In 2007, a royal decree legalised political parties in order to improve the country's political culture. Bhutan democratically elected its National Assembly for the first time in 2008.⁸
- Equitable Distribution of Resources: The Common Minimum Program, established as part of the country's 10th Five-Year Plan, ensures that all gewogs or groups of villages, have access to basic infrastructure and services, such as healthcare, schooling, water supplies, sanitation systems, electricity, telecommunication facilities and roads to *gewog* centres.
- Acceptance of the Rights of Others: Policies passed by the
 national parliament, such as the Child Care and Protection
 Act of Bhutan 2011, the Child Adoption Act of Bhutan 2012
 and the Domestic Violence Prevention Act of Bhutan 2013,
 show movements toward greater acceptance of people's
 rights within the country.

Peru

Peru has emerged as one of Latin America's most prosperous countries following decades of military coups, violent insurgencies, social unrest and macroeconomic gyrations. With a population of 33 million people and covering an area of 1.3 million square kilometres, the country is the third largest in South America. Peru's Positive Peace improved by four per cent over the last decade and the country is now ranked 76^{th} in the PPI. It recorded especially large increases for the Pillars of Equitable Distribution of Resources, Free Flow of Information, Good Relations with Neighbours. This is the fourth highest rank within South America, after Uruguay, Chile and Argentina. Much of the improvement in Peru's Positive Peace scores occurred prior to 2011. In recent decades, prudent monetary, exchange rate and investment policies have allowed Peru to weather international economic crises and commodity price declines.9 Peru's National Electoral Board (Jurado Nacional de Elecciones, JNE) and National Office of Electoral Processes (Oficina Nacional de Procesos Electorales, ONPE) have helped ensure fair and peaceful elections.10

Peru has undergone six consecutive peaceful and democratic changes of power, and remains politically stable today. The

country's economy grew at an average annual rate of 6.1 per cent between 2002 and 2013, increasing per-capita income levels and reducing poverty. Reductions in economic inequality and poverty have also been helped by *Juntos* (Together), the government's monthly monetary stipend programme for socioeconomically vulnerable Peruvians. Access to the internet has increased due to privatisation of the telecommunications sector and government subsidies for telecom developments in rural areas, improving interconnectivity even in historically underserved parts of the country. Scholarships are making higher education attainable for low-income Peruvians.

In 2001, a Commission of Truth and Reconciliation (*Comisión de la Verdad y Reconciliación*, CVR) was set up to establish justice surrounding the country's internal conflict during the 1990s. ¹⁵ In 2011, the Peruvian Congress passed a law requiring the consultation of indigenous and rural communities before developments or projects involving their ancestral territories, which in the past had been a source of much social conflict. ¹⁶

Although Peru still faces challenges, its low homicide rate compared to its neighbours, consistent economic performance, amicable regional relations and impressive GPI and PPI scores have made it a global success story.¹⁷

Notable Successes by Pillar

- Good Relations with Neighbours: In 2004, after decades of border disputes, Peru and Chile signed a statement expressing their intent to forge closer ties and develop bilateral relations. Peru is a member of Mercosur, the Pacific Alliance, the Community of Andean Nations, the Asia-Pacific Economic Cooperation, the Commission of Latin American and Caribbean States and the Forum for East Asia-Latin America Cooperation, among other international bodies. Over the past decade, Peru improved 32 places in the Good Relations with Neighbours Pillar ranking to reach rank 79 in 2019.
- Well-Functioning Government: Peru created the *Acuerdo Nacional*, a consultative body comprised of representatives from various sectors that defines long-term government reform objectives and policies.¹⁹ Meetings of the body are attended by high-ranking members of the country's political parties, the workers' union, business and professional associations.²⁰ It is the country's highest-level policymaking body and a critical mechanism for the creation of both policies and political consensus.²¹ The country's standing improved considerably since 2009, with its *Well-Functioning Government* ranking rising by 5 places to 60th in 2019.
- Sound Business Environment: Macroeconomic reforms halted hyperinflation in the 1990s and opened Peru to international trade and investment. From 1990, President Alberto Fujimori implemented a series of deregulation and privatisation measures that unencumbered the local business sector and facilitated international trade and cross-border capital flows. Since then, Peru has been one of the region's fastest growing economies, with an annual growth rate of 5.9 per cent and low inflation, averaging 2.9 per cent.²²
- Equitable Distribution of Resources: In 2005, Peru's Ministry of Development and Social Inclusion (*Ministerio de*

Desarrollo e Inclusión Social, MIDIS) implemented Juntos, a conditional cash transfer programme that provides monthly support to poor families.

- High Levels of Human Capital: To improve access to higher education, Peru's Ministry of Education created the Beca 18 programme, which offers government-sponsored scholarships to impoverished or vulnerable youth.²³
- Free Flow of Information: The Peruvian government's Telecommunications Investment Fund (Fondo de Inversión en Telecomunicaciones, FITEL) subsidises telecom services in rural areas and other places where returns for private providers are marginal.²⁴
- Low Levels of Corruption: Peru's High-Level Anti-Corruption Commission (Comisión de Alto Nivel Anticorrupcion, CAN) seeks to prevent and combat corruption by coordinating government anti-corruption efforts and proposing policy solutions.²⁵ For example, CAN helped with drafting and ultimately approved, Peru's National Policy on Integrity and the Fight Against Corruption (Política Nacional de Integridad y Lucha contra la Corrupción) in 2017.²⁶ The Peruvian Justice System conducted many high-profile prosecutions, including those of former presidents, Ollanta Humala, Alejandro Toledo and Pedro Pablo Kuczynski who were placed in pre-trial detention in recent years. In May 2019, Alan García, another former president, committed suicide to avoid being arrested as a result of a corruption scandal.
- Acceptance of the Rights of Others: In 2001, the Commission of Truth and Reconciliation (*Comisión de la Verdad y Reconciliación*, CVR) was set up with the goal of seeking justice in the aftermath of violence in the 1990s. Proceedings of the CVR allowed the conviction of former president Alberto Fujimori and other human rights violators.^{27,28}

Timor-Leste

Timor-Leste is one of the youngest countries in the world, having gained formal independence in 2002. It is situated in South-East Asia and currently has a population of around 1.3 million.

Timor-Leste's Positive Peace rank in 2019 was 121st, a seven-place improvement from a decade ago. Timor-Leste's progress in Positive Peace is all the more remarkable given its recent history. After being controlled by Indonesia since 1975, Timor-Leste held a UN-organised independence referendum in 1999. Violent conflict with the Indonesian military and pro-Indonesia militias led to a peacekeeping and institution-building UN intervention that lasted until 2012. A Commission for Reception, Truth and Reconciliation enabled Timorese communities to heal following years of violence.

Timor-Leste established a legislative Constituent Assembly in 2001, elected its first president in 2002 and successfully executed peaceful transfers of power since. Revenue from petroleum exports and international aid funded development programmes and economic diversification.³² For example, in 2016, Timor-Leste's Ministry of Agriculture and Fisheries and the World Bank launched a US\$21 million project aimed at increasing smallholder agricultural productivity.³³

Between 2009 and 2019, Timor-Leste's Positive Peace improved by 3.3 per cent. It improved in all domains and in all Pillars except *Sounds Business Environment*. It also experienced one of the Asia-Pacific region's largest improvements in *Equitable Distribution of Resources*, illustrating the country's development gains.

Timor-Leste liberalised its telecommunications sector in 2011, allowing more telecom operators to enter the market and driving a 7.7 per cent improvement in its *Free Flow of Information* score since 2009. The UN General Assembly plans on graduating Timor-Leste from Least Developed Countries (LDC) status in December 2021, reflecting the nation's past successes and future potential for development.³⁴

Notable Successes by Pillar

- Acceptance of the Rights of Others: Following the violence resulting from Timor-Leste's 1999 independence referendum, the UN mission in Timor-Leste established a Commission for Acceptance, Truth and Reconciliation (Comissão de Acolhimento, Verdade e Reconciliação, CAVR). CAVR enabled Timor-Leste to receive and reintegrate individuals who had caused harm, restore the dignity of victims, and formulate recommendations to prevent recurrence of human rights violations.³⁵ Timor-Leste's ranking on this Pillar improved by 8 places over the decade to reach 134th by 2019.
- Equitable Distribution of Resources: Although almost half of Timorese live below the national poverty line, the government is committed to improving the socioeconomic prospects of subsistence farmers. For example, in 2016 the Ministry of Agriculture and Fisheries' introduced a US\$21 million project aimed at increasing smallholder agricultural productivity. The country's ranking in this Pillar improved seven places since 2009 and currently stands at 127th.
- Well-Functioning Government: Timor-Leste's National Election Commission (CNE) and Technical Secretariat for Electoral Administration (TSAE) collectively ensures lawful elections, registers voters and administers civic education, among other mandates.
- Free Flow of Information: In 2011, the National Communications Authority of Timor-Leste liberalised the country's telecommunications sector by renegotiating its exclusion concession contract with Timor Telecom. This allowed more companies to enter the market and more than doubled cellular connections between 2011 and 2017.
- **Sound Business Environment:** In 2012, Timor-Leste's Ministry of Finance established a Registry and Verification of Enterprises Service (SERVE) as a one-stop shop for the registration of businesses, encouraging entrepreneurship and foreign investment.
- Good Relations with Neighbours: In 2005, Timor-Leste and Indonesia formed a Commission for Truth and Friendship (CTF), strengthening relations between the two countries.³⁶
- Low Levels of Corruption: In 2010, Timor-Leste's National Parliament established the Anti-Corruption Commission (CAC) in an attempt to reduce the prevalence of corruption in the country, leading to an increased number of corruption

convictions and a three per cent improvement in the country's *Low Levels of Corruption* score from 2009.

High Levels of Human Capital: A partnership between
 Timor-Leste's Ministry of Education and the World Bank, the
 Education Sector Support Project (ESSP) built and renovated
 2,100 classrooms. This added capacity for more than 65,000
 students and contributed to a ten per cent increase in primary
 school completion rates between 2009 and 2012.

IEP'S POSITIVE PEACE PROGRAMMES

IEP currently has over 42 partner organisations that have implemented or are implementing Positive Peace programmes. These institutions range from governments, to developmental aid organisations, communities, businesses to religious bodies. Numerous government actors have also held Positive Peace workshops or have conducted training programmes for their members. These workshops have now been held in the Middle East, Asia, Africa, Europe, North and South America with the participants ranging from government employees, to university students to business leaders to grass root community members. Positive Peace can guide governments, businesses and communities on investments in the eight Pillars of Positive Peace, strengthening the attitudes, institutions and social structures that create better developmental outcomes. The framework is non-political, culturally sensitive and impartial, and provides a neutral baseline from which recipients can create their own practical approaches to development.

In developing the workshops, emphasis has been placed on designing a process that is culturally sensitive and can therefore be used anywhere in the world. A theory of change based on systems thinking underpins the workshops. Change will stem from the community's current state of development and must be incremental, but constant, not revolutionary. The design of the interventions must come from the local community, not parachuted in from other projects or developed outside of the local context. By focusing on strengths and not deficits, the Positive Peace approach differs from traditional peacebuilding approaches that often begin with conflict analysis or community analysis.

POSITIVE PEACE WORKSHOPS

The primary goal of the Positive Peace workshops is to support local communities and individuals to develop practical and concrete actions to strengthen peace by enhancing the *attitudes, institutions and structures* associated with Positive Peace at the sub-national and community level. Positive Peace workshops also educate participants on the eight Pillars of the Positive Peace framework, how to implement it in their societies, and how to involve an ever-widening network of people in understanding and pursuing Positive Peace.

Essential to a Positive Peace project is the use of the strength based approach, using local facilitators, ensuring cultural understanding and allowing for long-term, sustainable relationships and continued programming. IEP works with partner organisations to develop projects based on their needs. IEP has developed projects for peace leadership development, preventing violent extremism, improving community cohesion,

community development and resilience building. The empirically derived Positive Peace framework is always at the core of our programme development.

A common way to identify community strengths is by undertaking a Positive Peace Pillar mapping exercise. This is achieved by engaging community participants in identifying the existing strengths within a community. The participants undertake this process using the project, plan, or vision to frame the discussion for each Pillar. It is critical that this thinking occurs for all the Pillars to identify existing strengths within a community.

These Positive Peace workshops have the following working principles:

- They are guided by a participatory and locally-focused strategy. The approach for the Positive Peace workshops is based on fundamental concepts such as local ownership, local leadership and multi-stakeholder partnership, which fits with a systems perspective. Systems need to evolve, not change dramatically over a short period of time. The community best understands what is important in their societal system.
- Workshops are sensitive to the intricacies of local dynamics. By letting communities define what the interventions should be, workshops ensure that the activities are culturally sensitive, viable and appropriate in the local context.
- They are designed to complement and not disrupt other more formal or technocratic peacebuilding approaches.
- They are evolutionary, rather than revolutionary. From a
 systems perspective all systems are on their own unique
 path, therefore gradual changes should occur to nudge the
 system towards the desired outcomes. The steady and
 regular method of using many nudges from many directions
 and covering the eight Pillars is considered the best
 approach.

PROCESS OF CHANGE UNDERPINNING THE POSITIVE PEACE WORKSHOPS

IEP has developed the Positive Peace framework using empirical research techniques to understand what factors create and sustain peaceful societies. The Positive Peace workshops are designed to assist local communities to understand Positive Peace and create systemic change.

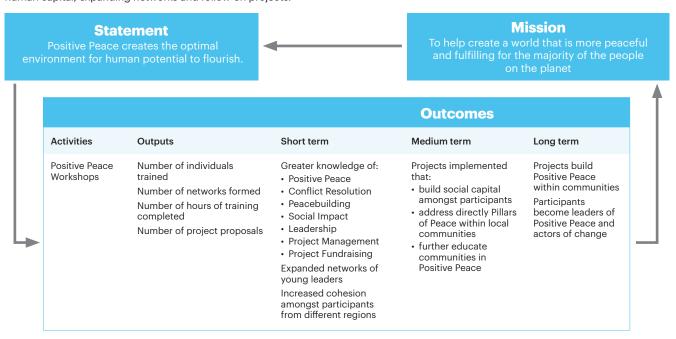
Figure 4.1 shows IEP's process of change for Positive Peace workshops. The workshops provide training, build networks and inform project proposals. In the short term, participants gain knowledge and skills useful in building peace. In the medium term, participants will use these skills to build their own projects, which are intended to directly improve Positive Peace. The long-term goal is for local communities to develop new ways of further improving Positive Peace in their countries. This will lead to better economic development outcomes, higher resilience and more peaceful societies.

Specifically, Positive Peace workshops create change by:

• Teaching participants that Positive Peace is systemic and that sustainable peace is achieved through ensuring all

Positive Peace workshop process of change

Workshops help improve Positive Peace directly by educating participants and implementing projects, and indirectly through building human capital, expanding networks and follow-on projects.



Source: IEP

eight Pillars are strong and developing in tandem. Many development projects focus on only some of the Pillars. On their own, these are useful projects but systemic change only happens when the focus is on the whole system. The eight Pillars of Positive Peace provide a good framework to describe systems of peace.

- Following this process broadens the participant's awareness that many aspects interact to create positive development and peace. Strengthening only one of the Pillars can sometimes increase the likelihood of conflict. Thinking systemically allows participants to better describe the issues they face and identify broader solutions. The Positive Peace workshops are consistent with the 'do no harm' approach.³⁷
- Fostering bottom-up approaches that assist in building better societies. Participants are given time to develop projects and apply the theory and language of Positive Peace to real world projects. Participants are instilled with ownership of the project throughout the workshop. Participants are first asked to describe the issue they wish to address and then how it could be addressed through the eight Pillars. The skills and knowledge gained in the workshops assist participants in gaining community support for future Positive Peace endeavours.
- Reducing the likelihood of future conflicts. The causes of
 conflicts are complex and intertwined. Describing the full
 scope of any conflict situation is challenging. Because IEP's
 Positive Peace framework is easily understood, it is easier for
 participants to see the importance of each of the Pillars. The
 simple language of the Pillars also presents a neutral
 baseline language acceptable in all cultural contexts of the
 workshops to date.
- **Offering the opportunity for participants** to meet, discuss and collaborate with people from other parts of the country that they ordinarily may not have contact with. In some

workshops, participants have come from groups that were hostile and violent toward each other, yet were able to utilise the opportunity and constructively work towards peace. As the workshops are designed to be forward looking, it allows parties to describe problems and solutions without falling into accusatory or inflammatory language, which can happen when looking to the causes of problems.

MONITORING & EVALUATION

There are countless established evaluation approaches to choose from in the Monitoring and Evaluation (M&E) field. It is important to adapt the M&E approach based on the context of the initiative being evaluated. Throughout the evaluation process — particularly during the planning phase — it is important for the community or organisation in charge of M&E to communicate and collaborate with the implementing organisations as much as possible.

It is important to note the difference between evaluation of outputs and evaluation of outcomes. Outputs are the immediate metrics of a programme or initiative, such as the number of people that attended a seminar or how their views on peacebuilding changed as a result of a workshop. Outcomes are the medium to long-term consequences to the community of a programme or initiative, such as a reduction in crime or greater integration of ethnic minorities. Outcomes are difficult to measure because in peacebuilding many different factors can affect the outcomes beyond the scope of the project. Additionally, success can only be assessed over long periods of time. Most of the discussion below refers to the evaluation of outputs rather than outcomes.

EXAMPLE OF THE EFFECTIVENESS OF A WORKSHOP

A good example of the impact of a workshop on its
participants' knowledge of peace is from a workshop
conducted in Melton, Victoria in conjunction with Melton
City Council. It provides a clear example of the changes in
knowledge that can occur. This workshop was attended by up
to 25 individuals in the local government area of Melton.
Generally, the data gleaned from the surveys reflected that
participants gained a broad understanding of Positive Peace
and found the workshop highly applicable to their daily lives.

Pre-workshop survey metrics:

- 30 per cent of participants felt either "familiar" or "very familiar" with the topic of Positive Peace before the workshop.
- 60 per cent of participants felt either "confident" or "very confident" to organise and facilitate a workshop.
- 60 per cent of participants felt either "confident" or "very confident" to communicate and negotiate peacefully.
- 70 per cent of participants felt either "confident" or "very confident" in organising a peacebuilding organisation

Post-workshop survey metrics:

- After the workshop over 90 per cent of participants felt either "familiar" or "very familiar" with the topic of Positive Peace. There was an increase from 30 per cent before the workshop to over 90 per cent after the workshop.
- Confidence in organising a peace building organisation increased from around 70 per cent to 100 per cent following the workshop.
- Participant's ability to communicate and negotiate peacefully increased from around 60 per cent to over 90 per cent.
- Regarding organising and facilitating a workshop, around 60 per cent stated in the pre-workshop survey that they would feel either confident or very confident in undertaking this task. This increased to 80 per cent in the post-workshop survey.

At the end of both surveys, each of the participants were asked to highlight an idea for a project which would work to enhance Positive Peace. In comparison to nine participants who brought forward ideas in the pre-workshop survey, all of the participants (15) contributed ideas following the workshop.

WORKSHOP FORMATS

The format of Positive Peace workshops can be customised for different contexts and cultures. The workshops carried out thus far have had considerable variety. Five examples of participant groups are set out below:

- Members of Government and Civil Society. This format brings together relevant leaders in government, business and academia. IEP conducted this type of workshop in Belfast, Northern Ireland in 2019 and Mexico in 2018 and 2019.
- **2. Rival Groups in a Conflict Setting.** This type of workshop brings together different conflicting groups, such as from rival ethnicities. The structure of the Positive Peace workshops allows participants to see common problems and

- issues without creating blame. This tends to pull the participants together, thereby fostering understanding. IEP conducted this type of workshop in Tunisia with participants from seven Libyan cities in 2018, in Zimbabwe in 2016 and Ethiopia in 2021.
- 3. Local Community Leaders and Youth. This format brings together local community leaders and motivated youth who want to improve development and enhance peace in their communities. IEP has conducted many of these types of workshops, including Cambodia, Uganda, Thailand, Mexico, Colombia, Ethiopia and more.
- **4. Diaspora communities.** This format brings together participants that are connected through a common interest. The group may not be geographically bound, and their workshop participation is to further their common goals. An example was the workshop with the South Sudanese diaspora community from across Australia, who had a common interest in peace leadership.
- 5. Pastoral communities: This type of workshop format focuses on the needs of pastoralist communities. They are usually designed around livestock farming and often address the issues these pastoral farmers face. They then come up with the projects that best align with their needs. An example of this IEP's work with pastoral communities in the Lake Turkana region of Kenya. The focus of the workshop was cohesive living amongst fractious groups in the region.

ANTICIPATED OUTCOMES OF THE WORKSHOPS

The following outcomes can be expected from the workshops:

- Equip individuals with foundational knowledge about the mechanisms that create societal development and peace.³⁸
- Provide practical examples and motivation that positively influence individual behaviours towards achieving Positive Peace.
- Participants identify additional stakeholders to be involved and a process for doing so, including future workshops.
- 4. Identify practical, concrete steps that participants can take to build Positive Peace in their local communities, activities and actions.
- Positively reinforce and build other important behaviours and skills linked to Positive Peace, including communication, conflict resolution, inclusivity, cooperation, empathy and civic engagement.
- 6. Participants will be able to identify which Pillars of the Positive Peace framework is the weakest in their communities and how it is affecting the sustainability of the other Pillars, as well as, how best to resolve this issue.

EXAMPLES OF POSITIVE PEACE PROGRAMMES & PROJECTS

Philippines

Peace 911

This case study covered the district of Paquibato in Davao City, the regional capital of Mindanao, where Irene Santiago describes the successful application of the Pillars model in the innovative project called Peace 911. Paquibato covers almost a third of the area of Davao City. Many adults talk about not knowing anything else but violent conflict since the 60s under the Marcos martial law, which saw atrocities committed by both the military and the New People's Army (NPA). Due to concerns about lives and

opportunities lost, the Mayor formed the Davao City Advisory Committee on Peace and Development (DC PEACE-DEV) to engage in local peacebuilding.

Consultations called *Panag-ambit* were held in all the 14 barangays to listen to the concerns of the community. Fear and hunger were the immediate concerns that people expressed in the consultations. An emergency response was needed. Thus the term Peace 911 was chosen for the Paquibato peacebuilding process.

Peace 911 addressed the hunger by bringing in basic services that the people of Davao City have long been deprived from, due to the violence. Officials sent a caravan of services twice a month to each of the 14 barangays. The caravan was composed of city agencies responsible for health, agriculture, legal services, social services, education, cooperatives, civil registry, land transportation, etc. These city agencies worked actively with the local officials to provide services for the community. The youth were also involved in sports, arts and blogging activities. This led to higher levels of human capital and a sound business environment

The creation of a hotline for local residents to call for assistance or information led to 92 men and women calling in to surrender and bring down their arms. Within nine months, the military declared Paquibato clear of the communist insurgency.

The women in the community were trained in container gardening, which enabled them to have organic vegetables for their families and provided a small income by selling to their neighbours.

In early 2019, the Mayor of Davao City, Sara Duterte, declared an end to the emergency in Paquibato district, an area that for more than 40 years had been wracked by violent conflict. The eight Pillars of Positive Peace were translated into the local language Cebauno/Bisaya and are used as the framework through which projects are conceptualised.

At the first anniversary programme, representatives of the different sectors and groups took turns to describe the eight Pillars of Peace, the framework that would continue to guide their initiatives for the next three years.

All barangay halls will display the Walo Ka Haligi sa Kalinaw (the 8 Pillars of Peace) prominently. Using a whole-of-city approach, businesses, academic institutions, cooperatives, social enterprises, civic and professional clubs, and public campaigns are pitching in to engage in peacebuilding. In the meantime, Mayor Sara announced that Peace 911 will now expand to another 18 barangays in five districts of the city, bringing the total to 32 barangays.

Ethiopia

An online programme organised by the Institute of Economics and Peace with support from the Rotary Club of Addis Ababa West attracted nearly 800 applicants. The Ethiopian Positive Peace Ambassadors Programme provided participants with an opportunity to gain concrete knowledge and resources to foster peace in their communities. The workshop was implemented at a time when Ethiopia had experienced an outbreak of violence in the Tigray region of the country. The conflict between federal and regional forces that began in November 2020 has pushed more than 50,000 refugees into neighbouring Sudan and developed into a humanitarian crisis.

A cost-free programme provided in collaboration with the local Rotary Club of Addis Ababa West attracted local Rotarians, business people, artists and entrepreneurs, and members of the Ethiopian Reconciliation Commission. The programme was an introduction to Positive Peace including the IEP-devised model for practical implementation or peacebuilding, known as the Pillars of Positive Peace. This programme was delivered through a series of three webinars, the ambassadors learnt about IEP's data and methodology, while gaining an understanding of how to communicate peace research.

The programme is ongoing and is at the project implementation phase. To complete the programme, participants will put their knowledge to use by implementing projects that applies Positive Peace in their communities.

Uganda

Another example is from Uganda, where a project to improve schooling used the Positive Peace framework as the frame of analysis, resulting in improved academic performance and higher attendance rates over a two-year period.

Jude Kukuba, a Rotarian from Uganda had been trying to improve levels of literacy in a school in Kampala for two years, with little success. After attending a Positive Peace workshop, Jude decided to look at his own project through the lens of Positive Peace. He identified a number of ways in which to address his project in a systemic way and engaged his local Rotary club in supporting a new initiative focusing on activating all the Pillars of Positive Peace. The original objective of was to improve student conditions, enrolment rates and academic performance. The project was later expanded to include enhancing community resilience by increasing levels of Positive Peace in and around the school system.

The outputs were favourable. In two years, pupil enrolment more than doubled and literacy levels significantly improved. The number of students attending the school jumped from 327 to 805. Furthermore, the percentage of students earning top grades increased from 30 per cent to 62 per cent.

The project implemented the following interventions representing each Pillar:

- Well-Functioning Government: The involvement of local community leaders in the planning and implementation of the project encouraged community members to participate fully in all activities. Local stakeholders were invited to form a committee to oversee the project.
- Equitable Distribution of Resources: School supplies were distributed equally, unrelated to a student's ability to pay or perform in class. An example of this was the supply of sanitary pads to school girls, which improved attendance
- · Good Relations with Neighbours: Fruit trees and vegetables were planted to reduce student pilfering from neighbouring orchards and fields because they were hungry. More

importantly, this was accompanied by a porridge project, which provided porridge for pupils at lunchtime. This is what mainly contributed to improved academic performance; better nutrients provided kids with the energy to concentrate in the afternoons. It also led to higher attendances as parents knew that the kids would get fed and didn't have to look for their own food.

- High Levels of Human Capital: The provision of educational
 materials has served as a driving force to attract more
 students and has also improved creativity and practical
 learning. The provision of medical services also ensure that
 members of the community were at a low risk of falling ill.
 This improved productivity and punctuality amongst pupils
 in school.
- Acceptance of the Rights of Others: After identifying monthly
 drops in attendance by girls, sanitary pads were provided on
 a monthly basis. The provision of sanitary products as well
 as hygiene training further supported higher enrolment
 rates of girls into school.
- Low Levels of Corruption: A separate committee on transparency was formed to monitor funds, donated items, as well as requests for accountability on how funds are used. All donated materials were branded as a gift to the community, increasing the sense of ownership and accountability. This has helped the community keep regular stock of items and improving accessibility to donated items at no cost.
- Sound Business Environment: New classrooms were constructed exclusively using local materials and skills. This increased household income in the community.
- Free Flow of Information: The project partnered with a local radio station that used the local language to spread news of the project and provide the community with regular

updates. This made it easier to disseminate information amongst members of the community concerning projects. It also helped with proper monitoring and supervision of project activities by relaying information in a timely manner.

While all the credit must go to those who led, participated in and funded this project, IEP's conceptual Positive Peace framework was one of the success factors for this project. To Jude's further credit, this was the first time the Positive Peace Framework had ever been operationalised in this way. His idea significantly influenced IEP's work at the time and informed the outline of the workshop formula the organisation uses today. This shows how real-life examples feedback into the conceptual understanding of the systemic nature of Positive Peace.

Table 4.1 shows the immediate impact of the Positive Peace programme on school attendance.

TABLE 4.1

Kampala school project: inputs and outputs

The intervention based on Positive Peace produced substantial improvements in enrolment metrics.

Pupil enrolment before and after implementation of project								
Enrolment	Before implementation of project	After implementation of project	Increase (%)					
Boys	126	356	182.5					
Girls	201	449	123.4					
Total	327	805	146.2					

Source: Rotary International

Positive Peace Index Methodology

The Positive Peace Index (PPI) is the first statistically derived index measuring Positive Peace according to the definition "the attitudes, institutions and structures that create and sustain peaceful societies," The PPI is similar to the Global Peace Index (GPI) in that it is a composite index built to gauge a multidimensional concept. It covers the same set of 163 countries included in the GPI, covering over 99 per cent of the world's population. The key objective is to devise a measurement system that is simple, intuitive, auditable, comparable across countries and consistent over time.

IEP takes a systems approach to peace, drawing on recent body of research on the topic. In order to construct the PPI, IEP analysed over 24,700 different data series, indices and attitudinal surveys in conjunction with current thinking about the drivers of violent conflict, resilience and peacefulness. The result is an eight-part taxonomy of the factors associated with peaceful societies. The eight domains, or Pillars of Positive Peace, were derived from the data series that had the strongest correlation with internal peacefulness as measured by the GPI, an index that defines peace as "absence of violence or the fear of violence". Each of the eight PPI Pillars is measured by three indicators. These represent the best available globallycomparable data with the strongest statistically significant relationship to levels of peace within a country. The 24 indicators that make up the PPI are listed in Table A.1.

PPI indicators are further classified in three groups: Attitudes, Institutions and Structures.

- · Attitudes indicators measure social views, tensions or perceptions.
- · Institutions indicators represent the impact that formal and informal institutions of a society exert on peacefulness, social wellbeing and the economy.
- Structures indicators assess the underpinnings of the socio-economic system, such as poverty and equality, or are the result of aggregate activity, such as GDP. Usually, these are the indicators that measure infrastructure or socioeconomic development.

The 2020 PPI uses a set of indicators that has been updated from previous reports. This new set provides a more representative picture of recent social dynamics. In addition, it was chosen to reduce missing data, both over time and by country. To maximise conceptual relevance and data completeness, the period of analysis was restricted to 2009 - 2019. Remaining instances of missing data were resolved through statistical imputation methods. The indicators are weighted proportionally to their correlation coefficient against the GPI.

TABLE A.1

Indicators in the Positive Peace Index

The following 24 indicators have been selected in the Positive Peace Index to show the strongest relationships with the absence of violence and the absence of fear of violence.

Pillar	Domain	Indicator	Description	Source	Correlation coefficient (to the GPI)
Acceptance of the Rights of Others	Structures	Gender Inequality Index (GII)	The Gender Inequality Index (GII) reflects women's disadvantage in three dimensions: reproductive health, political empowerment and the labour market.	United Nations Development Programme	0.67
	Attitudes	Group Grievance	The Group Grievance Indicator focuses on divisions and schisms between different groups in society – particularly divisions based on social or political characteristics – and their role in access to services or resources, and inclusion in the political process.	Fragile States Index	0.66
	Attitudes	Exclusion by Socio- Economic Group	Exclusion involves denying individuals access to services or participation in governed spaces based on their identity or belonging to a particular group.	Varieties of Democracy (V-Dem)	0.72
Equitable Distribution of Resources	Structures	Inequality-adjusted life expectancy index	Measures the overall life expectancy of a population accounting for the disparity between the average life expectancy of the rich and that of the poor. The smaller the difference the higher the equality and that is a reflection of the equality of access to the health system.	United Nations Development Programme	0.61
	Structures	Poverty headcount ratio at \$5.50 a day (2011 PPP) (% of population)	Poverty headcount ratio at \$5.50 a day is the percentage of the population living on less than \$5.50 a day at 2011 international prices.	World Bank	0.54
	Structures	Equal distribution of resources index	This component measures the equity to which tangible and intangible resources are distributed in society.	Varieties of Democracy (V-Dem)	0.68
	Attitudes	Freedom of the Press	A composite measure of the degree of print, broadcast and internet freedom.	Freedom House	0.51
Free Flow of Information	Attitudes	Quality of Information	Measured by Government dissemination of false information domestically: How often governments disseminate false or misleading information.	Varieties of Democracy (V-Dem)	0.61
	Structures	Individuals using the Internet (% of population)	Internet users are individuals who have used the Internet (from any location) in the last three months. The Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV etc.	International Telecommunication Union	0.60
	Attitudes	Hostility to foreigners/private property	Intensity of antagonistic attitudes towards foreigners or property held by foreigners.	The Economist Intelligence Unit	0.71
Good Relations with Neighbours	Structures	International tourism, number of arrivals (per 100,000)	Number of tourists who travel to a country (staying at least one night) other than that in which they have their usual residence.	World Tourism Organization	0.62
	Structures	Regional integration	A qualitative measure reflecting the level of regional integration as measured by a country's membership of regional trade alliances.	The Economist Intelligence Unit	0.60
	Structures	Share of youth not in employment, education or training (NEET) (%)	Proportion of people between 15 and 24 years of age that are not employed and are not in education or training.	International Labour Organization	0.52
High Levels of Human Capital	Structures	Researchers in R&D (per million people)	The number of researchers engaged in Research & Development (R&D), expressed as per one million population.	UNESCO	0.66
	Structures	Healthy life expectancy (HALE) at birth (years)	Average number of years that a newborn can expect to live in full health.	World Health Organisation	0.57

	Institutions	Control of Corruption	Control of Corruption captures perceptions of the extent to which public power is exercised for private gain.	World Bank	0.78
Low Levels of Corruption	Attitudes	Factionalised Elites	Measures the fragmentation of ruling elites and state institutions along ethnic, class, clan, racial or religious lines.	Fragile States Index	0.72
	Institutions	Irregular payments and bribes	Measuring the prevalence of undocumented extra payments or bribes by firms.	World Economic Forum	0.68
Sound Business Environment	Structures	Starting a Business	Measures the ease of forming a business within a country. Components such as obtaining permits, getting credit, property registration and utility connection are considered.	World Bank	0.59
	Structures	Maintaining a Business	Measures the ease of keeping a business venture operating within a country, includes measures of enforcement of contracts, trading across borders, and the nature of tax obligations are considered.	World Bank	0.57
	Structures	GDP per capita (current US\$)	GDP per capita is gross domestic product divided by mid-year population.	International Monetary Fund	0.66
	Institutions	Political Democracy Index	Measures whether the electoral process, civil liberties, functioning of government, political participation and culture support secular democracy.	The Economist Intelligence Unit	0.64
Well- Functioning Government	Institutions	Government Effectiveness: Estimate	Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.	World Bank	0.79
	Institutions	Rule of Law: Estimate	Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	Bertelsmann Transformation Index	0.68

B Positive Peace Index rankings

TABLE B.1

Results of the 2019 Positive Peace Index

Country	Rank	PP overall score	Well- Functioning Government	Low Levels of Corruption	Sound Business Environment	Equitable Distribution of Resources	Acceptance of the Rights of Others	Free Flow of Information	High Levels of Human Capital	Good Relations with Neighbours
Norway	1	1.17	1.14	1.19	1.03	1.03	1.34	1.43	1.15	1.06
Iceland	2	1.21	1.37	1.37	1.07	1.03	1.04	1.28	1.13	1.31
Finland	3	1.22	1.22	1.13	1.16	1.24	1.04	1.14	1.24	1.62
Switzerland	4	1.23	1.24	1.19	1.28	1.05	1.37	1.23	1.15	1.31
Sweden	5	1.26	1.24	1.35	1.03	1.10	1.15	1.20	1.15	1.82
Denmark	6	1.26	1.23	1.20	1.00	1.11	1.47	1.10	1.23	1.74
Netherlands	7	1.33	1.36	1.58	1.29	1.10	1.49	1.18	1.14	1.40
Ireland	8	1.37	1.60	1.50	1.26	1.20	1.19	1.49	1.28	1.37
New Zealand	9	1.42	1.32	1.13	1.20	1.28	1.79	1.25	1.34	2.04
Austria	10	1.43	1.49	1.77	1.23	1.09	1.59	1.63	1.22	1.37
Germany	11	1.46	1.51	1.64	1.14	1.14	1.54	1.28	1.19	2.12
Canada	12	1.48	1.35	1.58	1.38	1.12	1.37	1.35	1.33	2.31
Portugal	13	1.55	1.89	2.07	1.62	1.17	1.34	1.62	1.24	1.37
Singapore	14	1.56	2.09	1.53	1.19	1.10	1.18	2.25	1.09	1.99
France	15	1.57	1.73	1.72	1.44	1.09	2.06	1.81	1.26	1.37
Slovenia	16	1.58	1.83	1.96	1.54	1.18	1.63	1.77	1.22	1.37
Australia	17	1.58	1.43	1.39	1.22	1.24	1.43	1.84	1.26	2.85
Japan	17	1.58	1.62	1.67	1.22	1.03	1.39	1.97	1.07	2.63
Belgium	19	1.59	1.88	1.96	1.57	1.11	1.61	1.43	1.28	1.74
Estonia	20	1.64	1.63	2.14	1.73	1.18	2.08	1.61	1.26	1.37
Taiwan	21	1.67	1.55	1.67	1.08	1.08	1.51	1.89	1.28	3.20
United Kingdom	22	1.68	1.60	2.00	1.13	1.24	2.20	1.75	1.32	2.03
Lithuania	23	1.71	1.78	2.19	2.08	1.41	1.60	1.63	1.38	1.50
Czech Republic	24	1.71	1.86	2.67	1.68	1.13	1.68	2.11	1.25	1.14
Spain	25	1.71	1.93	2.81	1.48	1.15	1.93	1.44	1.30	1.37
South Korea	26	1.72	1.79	2.37	1.07	1.09	1.33	1.53	1.07	3.30
Italy	27	1.80	2.35	2.75	1.29	1.10	1.67	2.15	1.78	1.12
Cyprus	28	1.92	2.08	3.03	1.76	1.09	1.99	1.71	2.20	1.31
Uruguay	29	1.94	1.75	1.87	2.53	1.32	1.60	1.65	2.75	2.12
Latvia	30	1.94	1.98	2.60	2.11	1.42	2.33	1.45	1.98	1.50
United States	31	1.95	1.67	2.39	1.11	1.83	2.30	1.98	1.50	2.69
Poland	32	1.98	2.34	2.42	2.00	1.28	1.91	2.15	1.31	2.25

Country	Rank	PP overall score	Well- Functioning Government	Low Levels of Corruption	Sound Business Environment	Equitable Distribution of Resources	Acceptance of the Rights of Others	Free Flow of Information	High Levels of Human Capital	Good Relations with Neighbours
Slovakia	33	2.00	2.16	2.97	1.99	1.53	2.14	1.76	1.36	1.81
United Arab Emirates	34	2.01	3.09	1.86	1.40	1.32	1.99	2.54	1.78	1.99
Greece	35	2.02	2.50	2.84	2.31	1.21	1.75	2.23	1.34	1.74
Israel	36	2.12	1.86	2.78	1.57	1.27	2.60	1.95	2.32	2.43
Costa Rica	37	2.13	1.95	2.45	2.70	1.37	1.96	1.46	2.82	2.27
Croatia	38	2.14	2.38	2.94	2.45	1.36	2.02	2.17	1.93	1.74
Mauritius	39	2.16	1.93	2.44	2.18	1.57	2.06	2.50	3.00	1.70
Hungary	40	2.16	2.60	2.96	2.48	1.70	2.04	2.57	1.42	1.37
Chile	41	2.17	1.75	1.85	2.21	1.83	2.31	2.21	2.73	2.62
Bulgaria	42	2.19	2.37	3.25	2.80	1.80	1.98	2.38	1.83	1.00
Qatar	43	2.26	3.31	2.20	1.69	1.20	2.38	2.33	2.60	2.22
Malaysia	44	2.29	2.62	2.92	2.27	1.48	2.66	1.96	1.79	2.34
Kuwait	45	2.33	3.31	3.42	1.98	1.34	2.13	2.25	2.60	1.31
Georgia	46	2.41	2.53	3.03	2.56	1.97	2.61	2.62	2.60	1.31
Jamaica	47	2.42	2.32	2.82	2.83	1.81	2.27	1.96	3.03	2.31
Belarus	48	2.50	3.53	3.24	2.61	1.33	1.92	2.56	2.59	2.05
Romania	49	2.51	2.65	3.12	2.74	2.13	2.65	2.09	2.58	1.96
Montenegro	50	2.54	2.71	3.21	2.71	1.61	2.52	2.69	2.71	2.05
Botswana	51	2.55	2.19	2.34	2.76	2.66	2.31	2.42	3.78	2.12
Albania	52	2.57	2.97	3.36	2.89	1.92	2.22	2.47	2.86	1.77
Oman	53	2.58	3.75	2.77	2.45	1.40	2.11	2.40	2.89	2.73
Macedonia	54	2.60	2.92	3.21	2.51	1.84	2.30	2.21	2.72	2.94
Panama	54	2.60	2.68	2.83	2.49	1.87	2.95	2.09	3.00	2.79
Serbia	56	2.61	2.71	3.61	2.54	1.86	2.44	2.84	1.98	2.68
Argentina	57	2.63	2.57	2.95	3.09	1.78	2.48	2.03	2.52	3.47
Tunisia	58	2.67	2.88	3.60	2.93	2.12	2.42	2.30	2.36	2.51
Trinidad and Tobago	59	2.69	2.49	3.38	2.48	2.34	2.11	2.05	3.64	2.97
Bahrain	60	2.74	3.65	3.01	1.86	1.66	3.36	3.06	2.75	2.36
Armenia	61	2.74	3.26	3.35	2.83	2.01	2.40	2.34	2.79	2.95
Bhutan	62	2.79	2.71	2.54	3.61	2.08	2.40	2.45	3.13	2.86
Namibia	63	2.85	2.67		3.24	3.37	2.90			
				2.57				2.27	3.65	2.25
Kazakhstan	64	2.85	3.60	3.53	2.43	1.73	3.13	2.93	2.62	2.60
Bosnia and Herzegovina	65 66	2.90	3.18	3.94	2.99	1.55	2.80	2.56	2.92	2.97
Mongolia Saudi Arabia		2.90	2.80	3.33	3.22	2.15	2.20	2.45	2.83	4.13
Saudi Arabia Thailand	67	2.90	3.83	3.09	2.52	1.75	3.12	3.15	2.77	2.81
	68	2.91	3.29	3.82	2.35	2.03	3.27	2.87	2.30	3.01
Cuba	69	2.92	3.64	3.62	2.81	1.55	1.94	3.63	2.56	3.48
Russia	70	2.92	3.44	3.81	2.36	1.83	2.99	3.15	1.63	3.82
Mexico	71	2.93	2.98	3.66	2.64	2.62	3.11	2.70	2.98	2.59
Moldova	72	2.93	3.12	4.07	3.02	2.10	2.44	2.15	3.05	3.27
Jordan	73	2.95	3.32	3.00	3.14	2.00	3.22	2.92	2.76	3.11
Kosovo	73	2.95	3.09	3.87	2.75	2.04	2.68	1.92	3.15	3.84
Ukraine	75	2.95	2.95	4.01	3.26	1.90	2.72	2.62	2.64	3.28
Peru	76	2.96	2.73	3.61	2.81	2.55	3.39	2.28	2.97	3.18
Morocco	77	2.98	3.45	3.41	2.95	2.47	3.25	2.42	2.79	2.85
Dominican Republic	78	3.00	2.99	3.85	2.99	2.67	3.45	2.40	3.22	2.26
Brazil	79	3.01	2.56	3.62	2.94	2.54	3.02	2.84	2.82	3.61
Ghana	80	3.02	2.68	3.31	3.46	3.09	2.48	2.33	3.60	3.24

Country	Rank	PP overall score	Well- Functioning Government	Low Levels of Corruption	Sound Business Environment	Equitable Distribution of Resources	Acceptance of the Rights of Others	Free Flow of Information	High Levels of Human Capital	Good Relations with Neighbours
China	81	3.03	3.58	3.26	2.73	2.40	2.77	4.01	2.19	3.23
Colombia	82	3.05	2.68	3.70	2.61	2.59	3.31	3.06	3.13	3.24
Ecuador	82	3.05	3.06	3.89	3.25	2.17	3.20	2.28	2.84	3.47
South Africa	84	3.06	2.34	3.40	2.86	3.55	3.05	2.39	3.48	3.44
Senegal	85	3.09	2.82	3.39	3.40	3.28	2.82	2.40	3.45	3.18
Turkey	85	3.09	3.27	3.52	2.81	2.20	3.39	3.08	2.54	3.74
Viet Nam	87	3.11	3.64	3.81	3.07	2.01	2.60	3.44	2.71	3.46
Sri Lanka	88	3.12	2.79	3.86	3.08	2.06	3.17	3.17	3.19	3.52
El Salvador	89	3.12	2.92	3.39	3.11	2.86	3.49	2.74	3.35	3.03
Indonesia	90	3.14	2.64	3.51	2.76	2.92	3.49	2.98	3.17	3.58
Guyana	91	3.18	3.07	3.48	3.35	2.99	3.16	2.97	3.55	2.85
Palestine	92	3.23	3.45	3.74	3.84	1.88	3.10	2.69	3.15	3.80
Azerbaijan	93	3.24	3.78	3.68	2.83	3.09	2.94	3.36	2.80	3.28
Paraguay	94	3.25	3.05	4.17	2.93	2.90	3.35	2.44	3.06	3.82
Lesotho	95	3.25	3.16	3.85	3.42	3.23	2.90	3.05	3.67	2.69
Kyrgyz Republic	96	3.25	3.35	4.23	3.04	2.57	3.30	2.96	3.08	3.26
Rwanda	97	3.27	3.50	2.83	2.97	3.16	3.86	3.34	3.63	2.87
Benin	98	3.29	2.97	3.89	3.40	3.48	2.91	2.94	3.39	3.25
Lebanon	99	3.29	3.46	4.53	3.22	1.94	3.40	2.62	2.74	3.99
Algeria	100	3.29	3.60	3.73	3.30	2.19	3.07	3.15	2.77	4.31
India	101	3.29	2.40	3.26	3.24	3.77	3.43	3.32	3.45	3.57
The Gambia	102	3.32	3.55	3.38	3.38	3.26	2.87	3.04	4.08	3.00
Swaziland	103	3.32	3.98	3.22	3.26	3.83	2.90	3.00	3.91	2.49
Uzbekistan	103	3.32	4.03	4.04	3.24	1.99	2.98	3.45	2.82	3.77
Bolivia	105	3.33	3.21	4.19	3.31	2.91	2.76	3.31	2.94	3.90
Nicaragua	106	3.33	3.68	4.09	3.38	2.77	3.42	3.32	2.67	3.11
Tanzania	107	3.34	3.28	3.51	3.45	3.44	3.20	3.25	3.26	3.31
Philippines	107	3.37	2.83	4.07	2.94	3.16	3.37	3.35	3.21	3.94
Gabon	109	3.38	3.78	4.00	3.30	2.87	3.01	2.84	3.69	3.40
Honduras	110	3.38	3.35	3.83	3.34	3.18	3.24	3.39	3.43	3.23
Guatemala	111	3.41	3.37	3.72	3.24	3.05	4.17	2.93	3.44	3.21
Kenya	112	3.46	3.14	4.09	3.00	3.54	3.62	3.43	3.16	3.61
Burkina Faso	113	3.48	3.50	3.93	3.57	4.03	2.67	2.93	3.95	3.27
Djibouti	114	3.48	3.95	3.49	3.08	3.65	3.55	3.49	3.40	3.20
Iran	115	3.51	4.07	4.16	3.11	2.05	3.72	3.36	2.74	4.53
Egypt	116	3.52	3.75	3.73	3.15	3.52	3.84	3.48	3.07	3.51
Cote d'Ivoire	117	3.53	3.63	3.95	3.32	3.79	3.71	3.00	3.82	2.88
Uganda	118	3.53	3.23	4.38	3.52	3.96	3.39	3.09	3.61	2.93
Malawi	119	3.53	3.22	4.07	3.52	4.04	3.40	3.02	3.70	3.22
Zambia	120	3.54	3.27	3.71	3.24	3.99	3.18	3.43	4.01	3.57
Timor-Leste	121	3.56	2.84	3.98	4.10	3.65	3.74	3.04	3.25	3.83
Nepal	122	3.57	3.55	4.21	3.19	3.46	3.32	3.09	3.60	3.96
Togo	123	3.60	3.79	3.74	3.49	3.55	3.48	3.61	3.55	3.56
Mozambique	124	3.60	3.82	3.95	3.21	4.01	3.32	3.32	3.56	3.54
Laos	125	3.61	4.16	3.79	3.61	3.68	3.23	3.77	3.58	3.03
Myanmar	126	3.62	3.93	4.21	3.53	3.47	3.86	2.97	3.19	3.57
Myanmar Cambodia		3.62 3.63	3.93 3.85	4.21 4.37	3.53 3.42	3.47 3.85	3.86 3.57	2.97 3.62	3.19 2.97	3.57 3.21

Country	Rank	PP overall score	Well- Functioning Government	Low Levels of Corruption	Sound Business Environment	Equitable Distribution of Resources	Acceptance of the Rights of Others	Free Flow of Information	High Levels of Human Capital	Good Relations with Neighbours
Papua New Guinea	129	3.65	3.15	4.02	3.24	4.13	4.08	2.88	3.59	3.99
Sierra Leone	129	3.65	3.60	4.04	4.00	4.16	3.44	3.33	3.30	3.27
Madagascar	131	3.65	3.61	4.28	3.95	4.23	3.43	3.22	3.10	3.26
Liberia	132	3.67	3.49	3.93	3.87	4.09	3.66	3.32	3.32	3.62
Libya	132	3.67	4.54	4.71	4.26	2.25	2.79	3.73	2.72	4.06
Ethiopia	134	3.67	3.82	3.85	3.52	3.54	3.89	3.73	3.08	3.85
Turkmenistan	135	3.73	4.37	4.02	3.09	2.71	3.17	4.56	3.24	4.57
Venezuela	136	3.73	4.14	4.63	3.28	3.35	3.42	3.38	3.06	4.31
Niger	137	3.77	3.43	3.96	3.44	3.69	3.47	3.64	4.20	4.37
North Korea	138	3.82	4.68	4.19	3.10	2.11	3.31	4.98	3.11	4.93
Bangladesh	139	3.83	3.48	4.52	3.97	3.78	4.09	3.83	3.17	3.64
Tajikistan	140	3.83	4.33	3.87	3.64	3.35	3.68	4.10	3.49	4.14
Mauritania	141	3.84	3.58	4.43	3.75	3.64	4.15	3.24	3.54	4.18
Cameroon	142	3.86	3.82	4.54	3.53	3.65	4.13	3.29	3.39	4.27
Guinea	143	3.86	3.66	4.57	3.43	4.27	4.09	3.45	3.28	3.95
Iraq	144	3.88	3.88	4.32	3.45	3.07	4.12	3.32	3.69	4.97
Angola	145	3.88	3.95	4.27	3.86	4.21	4.05	3.35	3.26	3.95
Nigeria	146	3.88	3.53	4.58	3.88	4.24	4.07	2.96	3.67	3.98
Burundi	147	3.89	4.25	4.31	3.66	3.99	3.94	4.42	3.14	3.30
Pakistan	148	3.90	3.70	4.21	3.46	4.10	3.80	3.60	3.52	4.68
Haiti	149	3.91	4.22	4.65	4.06	4.25	4.05	3.18	3.42	3.23
Republic of the Congo	150	3.93	4.23	4.19	3.64	3.76	4.12	3.84	3.57	3.92
Afghanistan	151	3.96	4.27	4.28	3.72	3.60	3.83	3.29	3.95	4.53
Guinea-Bissau	152	3.96	4.04	4.49	4.15	4.51	3.49	3.23	4.05	3.62
Zimbabwe	153	3.98	4.08	4.43	3.62	3.94	3.51	3.57	4.06	4.49
Sudan	154	4.03	4.55	4.16	3.45	4.05	4.27	3.98	3.31	4.30
Equatorial Guinea	155	4.05	4.49	4.63	3.54	3.84	3.94	3.83	3.68	4.23
Democratic Republic of the Congo	156	4.16	4.41	4.75	4.10	4.18	4.55	3.95	3.54	3.58
Syria	157	4.19	4.69	4.67	3.97	3.79	3.99	4.24	3.58	4.41
Chad	158	4.25	4.56	4.79	3.85	4.38	4.51	3.79	3.94	3.95
Central African Republic	159	4.29	4.39	4.43	3.98	4.51	4.48	3.99	3.71	4.66
Eritrea	160	4.29	4.61	4.39	4.74	3.59	3.95	4.91	3.47	4.60
South Sudan	161	4.47	4.67	4.86	4.58	4.57	4.72	4.29	3.69	4.17
Yemen	162	4.54	4.75	4.89	4.26	4.19	4.94	4.11	3.96	4.99
Somalia	163	4.64	4.98	4.89	4.74	4.57	4.68	4.25	3.80	5.00

ENDNOTES

SECTION 1

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