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, Brussels, The Hague, Mexico City and Nairobi. 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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Executive Summary

This report examines the relationship between a country’s economic performance and its level of peacefulness.

The key finding is that peace serves as a reliable predictor of a country’s future macro-economic trajectory, creating a business environment that provides superior returns to global averages. This represents a valuable insight for informing strategic investment decisions and offering a multitude of applications for businesses and fund managers, including in the design of financial investment products. For corporations it can help to guide investment decisions into markets with lower risk and stronger growth potential.

Rather than asking what businesses can do for peace, this study asks what peace can offer businesses. The Institute for Economics & Peace (IEP) sees this as an important, but missing, step in business analysis. In order for the private sector to engage with peacebuilding, investors first need to see how peace benefits their investment decisions.

In this report, two methods are employed to measure peace, with both yielding positive benefits for business. The first uses the definition the absence of violence or fear of violence and is measured by the Global Peace Index (GPI) and is a measure of the current peacefulness of countries. The second measures the attitudes, institutions and structures that create and sustain peaceful societies which is known as Positive Peace and is measured by the Positive Peace Index (PPI). It is a forward looking measure to predict future economic performance, socio-economic developmental and peacefulness.

The impact of violence on the global economy is substantial and self-evident. According to IEP estimates, in 2023, the global economic impact of violence was $17.5 trillion. This represents a 6.6 per cent increase since 2021 and is equivalent to 12.9 per cent of global GDP.

Countries that improve their underlying conditions, as gauged by IEP’s measures of peace, create the potential for a significant peace dividend for business. The following outcomes are associated with higher levels of peacefulness:

- **Better economic output**: Over the past 60 years, countries that enjoy very high levels of peace have recorded annual GDP growth rates two percentage points higher than very low peace countries.
- **Higher rates of foreign investment**: Average foreign direct investment (FDI) inflow in very high peace countries is nearly three times higher than in very low peace countries and has grown almost twice as fast since 1980.
- **More stable interest rates**: The volatility of interest rates in very low peace counties was nearly six times higher than in very high peace countries compared to low peace countries.
- **Less volatile inflation**: Inflation is more stable in high peace countries compared to low peace countries, with very low peace countries registering levels of volatility seven to 34 times higher than very high peace countries in the past two decades.
- **More access to credit**: Creditor are more likely to lend in high peace countries, with many recording levels of credit to the private sector as high as 150 per cent of GDP, compared to 50 per cent for less peaceful nations.
- **Lower risk premiums**: Risk premiums are more than 16 times higher in very low peace countries than they are in very high peace countries. High peace countries are safer destinations for international investment.
- **Increased efficiency**: Peacefulness is associated with higher levels of business and technological innovation, higher worker productivity and less administrative red tape.
- **Better sovereign debt ratings**: Countries demonstrating elevated levels of peace are considered more creditworthy, as evidenced by strong correlations (r > 0.63) between the GPI and the sovereign debt ratings produced by all the major rating agencies.
- **More stable currencies**: The volatility of exchange rates is 43 per cent higher in low peace countries than in very high peace countries.

Similarly, favourable results are found with Positive Peace. The key differentiator is that Positive Peace is more forward looking. Improvements or deteriorations in Positive Peace tend to be self-reinforcing, and work systemically, with these cycles lasting for multiple years. Therefore, Positive Peace is not only a reliable predictor of future economic performance, but also for resilience, well-being, ecological performance and peace. Systems also have tipping points and identifying them, both positively and negatively, holds significant interest for businesses and the wider community.

The following outcomes are associated with Positive Peace:

- **Better economic output**: From 2009 to 2022, both per capita and actual GDP in countries that improved in the PPI grew more than twice as fast as in countries that deteriorated in Positive Peace.
- **More robust consumption**: Household consumption in countries where Positive Peace improved grew two times faster than those where it deteriorated.
• **Higher rates of foreign direct investment:** FDI inflows grew by 2.2 per cent in countries improving in Positive Peace, while in countries that deteriorated FDI contracted by more than 0.5 per cent.

• **Lower risk premiums:** Low Positive Peace countries have risk premiums that are more than eight times higher than those in very high Positive Peace countries. Low peace countries struggle to attract foreign investment.

• **Increased trade:** Between 2009 and 2022, countries that improved in Positive Peace saw their exports grow nearly twice as fast and their imports grow more than 40 per cent faster than in countries where Positive Peace deteriorated.

• **Higher levels of new business formation:** In very high Positive Peace countries, new businesses are formed and registered at more than ten times the rate than they are in low Positive Peace countries.

The combination of Positive Peace and the GPI provides two different views on countries’ resilience and future growth prospects. Positive Peace is slow moving and a better predictor of future economic performance, while the GPI is more dynamic and is a better measure of the current and past performance. Strong performance on both indexes provides the most reliable indicator of future performance.

The results of this report can be used to tailor products which are aimed at future high growth economies or highly resilient countries with lower growth but also less risk. For example, countries that are ranked high on both the GPI and Positive Peace are highly stable, providing minimum risk, and would suit a risk adverse portfolio, while a more aggressive portfolio would target countries with middle levels of peace whose peace has improved strongly in recent years. Similarly, the results can be tailored towards specific investment products.

These results underscore the role of IEP’s measures of peace as an instrument to detect and forecast superior economic and investment performance. The reason for such superior returns lies in the relationship between the factors that create peace and those that create a robust business environment – they are the same.

The report also assesses the opportunity cost of conflict by analysing its impact on economic output, trade, and the business environment. It examines eight countries that endured prolonged hostilities in the past several decades and models how they could have fared if they had avoided conflict.

To cite just a few examples, the modelling found that, on average, avoiding conflict would have had the following results five years after each conflict’s onset:

- GDP being 25 per cent higher,
- Exports being 30 per cent higher,
- FDI being 54 per cent higher, and
- Household consumption being 23 per cent higher.

Peace is also a good predictor of future ESG performance. The world’s leading sovereign ESG measures correlate extremely strongly with Positive Peace. This is particularly helpful in identifying those emerging markets where ESG scores have the most potential for improvement.

In summary, the analysis of the links between business and peace, through the lens of Positive Peace and the GPI, offers the business community a new way of assessing the risk of investments and identifying the potentially large opportunities that may exist in often overlooked countries.
Key Findings

- The Positive Peace Index and Global Peace Index can be analysed together to predict future economic outperformance.
- In the past six decades, countries with very high levels of peace have recorded two per cent higher GDP annual growth than countries with very low peace.
- Average foreign direct investment inflow in very high peace countries is nearly three times higher than in very low peace countries and has grown almost twice as fast since 1980.
- The volatility of interest rates for countries with very low peace levels between 2000 and 2021 was nearly six times higher than in very high peace countries.
- Inflation is more stable in high peace countries compared to low peace countries, with very low peace countries registering levels of volatility seven times to 34 times higher than very high peace countries in the past two decades.
- High levels of peace are associated with more availability of credit to the private sector. In very high peace countries, levels of credit to the private sector are as high as 150 per cent of GDP.
- The international movement of goods tends to be more rapid in higher peace countries. Imports and exports take about twice as long to clear customs in lower peace countries compared to higher peace countries.
- 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.
- From 2009 to 2022, both per capita and actual GDP in countries that improved in the PPI grew more than twice as fast as in countries that deteriorated in Positive Peace.
- Since 2009, inflation rates in countries where Positive Peace deteriorated has been at least two times as volatile as those in countries where Positive Peace improved.
- The sectors to benefit the most from improvements in Positive Peace are industry and agriculture. Since 2009 the agriculture and industry sectors grew over two times faster in countries that improved in Positive Peace than those that deteriorated.
- Between 2009 and 2022, exports grew nearly twice as fast, and imports grew more than 40 per cent faster in countries improving in Positive Peace compared to countries that deteriorated.
- Household consumption in countries where Positive Peace improved since 2009 grew two times faster than those where it deteriorated.
- Low Positive Peace countries have risk premiums that are more than eight times higher than those in their very high Positive Peace counterparts, meaning the private sector in such countries would likely greatly struggle to attract foreign capital to help grow their national economies.
- Trade as a percentage of GDP for countries at peace was on average 50 per cent higher between 2008 and 2021 than in countries in conflict.
- In very high Positive Peace countries, new businesses are formed and registered at more than ten times the rate than they are in low Positive Peace countries.
- Conflict tends to lead to negative trade balances, with imports growing faster than exports. In conflict-affected countries between 2008 and 2021, imports were approximately a third higher than exports.
- Modelling carried out by IEP found that protracted armed conflict imposes an opportunity cost on economic output as well as on an array of other measures of trade and the business environment.
- The global economic impact of violence was $17.5 trillion in 2023, which is equivalent to 13 per cent of global GDP and an increase by 6.6 per cent since 2021.
- The world’s leading sovereign ESG measures correlate extremely strongly with Positive Peace, with correlation coefficients as high as 0.92.
- Given the robust links between the Positive Peace Index and ESG measures, Positive Peace is an accurate predictor of countries’ future sovereign ESG ratings.
- Positive Peace trends indicate that the ten countries most likely to improve from their current ESG standings are Armenia, Georgia, Uzbekistan, Taiwan, Ireland, Côte d’Ivoire, Japan, Bhutan, New Zealand and Malaysia.
1 Business and the Peace Dividend

Key Findings

- In the past six decades, countries with very high levels of peace have recorded two per cent higher GDP growth per annum than countries with very low peace.
- Average foreign direct investment in very high peace countries is nearly three times higher than in very low peace countries and has grown almost twice as fast since 1980.
- The volatility of interest rates for countries with very low peace levels between 2000 and 2021 was nearly six times higher than in very high peace countries.
- Inflation is more stable in high peace countries compared to low peace countries, with very low peace countries registering levels of volatility seven to 34 times higher than very high peace countries in the past two decades.
- High levels of peace are associated with more availability of credit to the private sector. In high-peace countries the levels of credit to the private sector is as high as 150 per cent of GDP.
- Starting and registering a business is much easier in highly peaceful societies, with the rate of new business registrations being more than three times higher than in medium peace countries and almost ten times higher than in very low peace countries.
- The international movement of goods tends to be more rapid in higher peace countries. Imports and exports take about twice as long to clear customs in lower peace countries compared to higher peace countries.
- The factors that lead to peace are also those that create efficient and transparent institutions. Thus, greater peacefulness is associated with more efficient regulation of the private sector and more effective enforcement of contracts.

In this report, IEP finds that countries that have higher levels of peace have better performing macro-economic environments and the business sector is stronger. The analysis finds that on average, societies that are more peaceful substantially outperform those that are less peaceful on a range of factors that underpin a robust economy and business environment. This finding is also true when analysing the socio-economic factors that build and sustain peaceful societies, known as Positive Peace.

The benefits that businesses and the economy in general enjoy in high-peace environments can be considered a “peace dividend”. This term refers to the efficiencies that accrue to businesses and the economy because of a range of factors that are associated with peace. The same factors that create peace, known as Positive Peace, also create an optimal environment for business to flourish and can be measured through IEP’s Positive Peace framework.

This chapter assesses the relationship between peacefulness and business activity from two angles. Firstly, it highlights the relationships between economic performance and peace, as measured by the Global Peace Index (GPI). Economic indicators, such as GDP, interest rates and inflation, are a reliable measure of economic success and indicators of a favourable environment for large, medium and small businesses. These findings are discussed in the subsection Links Between Peace and Favourable Business Conditions. Secondly, the subsection Peace and Business Environment directly addresses the impact of peacefulness on operational aspects, such as worker productivity, financing, innovation, regulation and obstacles to businesses as reported by enterprises.

The analysis focuses on high-income countries, using the country income classification defined by the World Bank, but it also covers emerging economies using other measures important for business success. Investors and businesses tend to see the
high-income countries as desirable investment destinations given their stable political and economic environments and high levels of technical innovation. However, opportunities also exist with less developed countries that have superior performance in Positive Peace as it is linked to better long-term performance on macro-economic indicators and as such is a good predictor of future outperformance.

**Links Between Peace and Favourable Business Conditions**

**Peace Levels and Economic Outcome**

IEP analysis shows that peacefulness is closely linked with economic output, fostering an environment conducive to prosperity and development. Nations characterised by high levels of peace tend to experience increased investor confidence, because of a variety of factors. Peaceful environments contribute to better governance and more effective institutions, promoting optimal conditions for business operations and encouraging entrepreneurship and innovation. Additionally, stability mitigates risks associated with political unrest and conflict. This confidence attracts both domestic and foreign investments, stimulating economic activities and contributing to higher GDP growth. Additionally, the absence of widespread violence and social disruptions allows for the efficient functioning of markets, leading to increased productivity and overall economic wellbeing.

Moreover, peaceful societies often allocate resources more efficiently toward infrastructure development, education, and healthcare. Reduced expenditure on defence and conflict resolution enables governments to redirect funds towards initiatives that enhance human capital and economic competitiveness. Social cohesion in peaceful societies further contributes to a skilled and motivated workforce, fostering collaboration and creativity. In essence, the association between peacefulness and economic output is grounded in the notion that a harmonious and stable environment creates the necessary foundations for sustained economic growth, benefitting both individuals and the nation as a whole.

What enables this ‘peace dividend’ is the factors that create peaceful societies are also the same factors that create a thriving business environment. Peace and business are linked systemically and described through IEP’s body of work known as Positive Peace. Factors such as the functioning of government, business regulation, the free flow of information, low levels of corruption and high levels of human capital, amongst other factors, create the background conditions for both business and peace to thrive, along with many other factors that society considers important, including better ecological performance, higher levels of happiness and wellbeing and better measures of inclusion. Therefore, these background conditions, known as Positive Peace, describe an optimal environment for both human potential and business to flourish. For a full explanation please refer to IEP’s Positive Peace report and later chapters in this report.

As shown in Figure 1.1, countries characterised by very high peace levels have exhibited the highest per capita GDP growth rates over the past six decades. These nations registered an average annual per capita GDP growth of 2.5 per cent since 1960, while countries with very low peace levels demonstrated a comparatively lower growth rate, averaging 0.5 per cent per year during the same period.

**FIGURE 1.1**

GDP per capita growth by level of peacefulness, 1960–2022

*Countries with very high levels of peace achieved on average over four times higher per capita GDP growth compared to the least peaceful countries.*

Source: World Bank; IEP Calculations

Looking at just the past decade, countries with very high and high peace levels have demonstrated relatively strong GDP per capita growth, recording annual rates of 1.1 and 1.6 per cent, respectively, despite the major contraction in the global economy in 2020 owing to the COVID-19 pandemic. In contrast, nations with very low peace levels have experienced a notable decline, with an average annual GDP per capita of -0.93 per cent. Medium peace countries have exhibited the highest rates of annual GDP per capita growth in the past decade, at two per cent, but most of them started from a lower per capita base, meaning in many cases they were in a position to achieve more rapid growth in the short term. A similar dynamic is observable for low peace countries, which showed relatively strong average levels of growth, with an annual rate of 1.3 per cent.

The volatility of interest rates for countries with very low peace levels between 2000 and 2021 was nearly six times higher than in very high peace countries.
As a concept, peace is notoriously difficult to define. IEP uses two main frameworks to measure peace:

- **Negative Peace**, or actual peace, is defined as the absence of violence or the fear of violence and is measured by the Global Peace Index (GPI). The GPI is constructed with indicators of violence such as crime rates, number of violent demonstrations, militarisation, suppression and many others.

- **Positive Peace** is defined as the attitudes, institutions and structures that create and sustain peaceful societies, and is measured by the Positive Peace Index (PPI). This is a positive aspect of peace because it highlights the necessary ingredients for stable, productive, and beneficial relationships among individuals and groups. The PPI is constructed with indicators of socio-economic, administrative, and institutional development.

The 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 and is composed of 23 qualitative and quantitative statistical indicators from respected sources. It was developed with the oversight of an independent panel of experts and encompasses 99.7 per cent of the world’s population.

The GPI comprises three domains, with each measuring a different aspect of actual peace in a country. The first domain, *Ongoing Domestic and International Conflict* assesses a nation’s involvement with external or internal conflicts and wars. *Militarisation* gauges a country’s military build-up. The *Societal Safety and Security* domain assesses the degree of harmony or discord within a country. For the GPI and for each of these domains, a score close to 1 indicates high levels of peace and scores closer to 5 indicate low levels of peace.

The PPI measures the level of Positive Peace in 163 countries. It is composed of 24 indicators grouped into eight areas known as the *Pillars of Positive Peace*. Each of the 24 indicators was selected based on the strength of its statistically significant relationship with the GPI. For a detailed explanation of the GPI and PPI results and methodologies, and to explore the interactive map of global peace, visit [www.visionofhumanity.org](http://www.visionofhumanity.org).

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**BOX 1.1**

**Measuring peace**

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**BOX 1.2**

**Definition of very high and very low peace countries**

The terms very high and very low peace countries are used extensively in the analyses in this report. To determine a very high or very low peace country the GPI was divided up into eight quadrants. The highest and lowest quadrants were then defined as very high and very low peace countries.

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**FIGURE 1.2**

**Income and safety, 2023**

The relationship between greater income per capita and higher levels of peace accelerates as countries move into high levels of peace.

The link between violence and economic prosperity is particularly evident when assessed through the relationship between per capita GDP and the GPI *Safety and Security* domain. The correlation coefficient between the two variables is -0.65, representing a statistically robust relationship (Box 1.1 and Figure 1.2). This means that high levels of peace are statistically associated with greater levels of income.

This relationship changes according to the different levels of income. Among high-income countries (those with a per capita gross national income of US$13,205 or more), the relationship is particularly robust.

Source: World Bank; IEP Calculations
Foreign Investment

Net foreign direct investment (FDI) inflows, when measured as a percentage of GDP, exhibit a substantial discrepancy between countries with higher levels of peace and those with lower peace rankings. In highly peaceful countries, FDI inflows are markedly larger, often exceeding more than twice the proportions observed in less peaceful nations. This disparity underscores the attractiveness of highly peaceful countries to international investors, signalling a greater confidence in the economic stability, security, and growth potential of these regions. The higher FDI inflows in highly peaceful countries signify a stronger appeal and confidence from global investors in those nations’ economic environments.

Between 1980 and 2021, very high peace countries attracted greater FDI inflows as a percentage of GDP in most years, as shown in Figure 1.3. From 1980 to 2021, FDI levels in very high peace countries increased approximately 20 times more than in very low peace countries. In very high peace countries, FDI rose from 1.5 per cent to 5.5 per cent of GDP, marking a four-percentage point increase over the period. Moreover, during the course of those four decades, there were times when FDI reached higher than an average of nine per cent of GDP in very high peace countries. In contrast, in very low peace countries average FDI levels grew from just 0.2 per cent of GDP in 1980 to 2.2 per cent in 2021, an increase of two percentage points. At their height, average FDI levels in very low peace countries never surpassed four per cent of GDP. The onset of the COVID-19 pandemic led to a considerable decline in FDI across all peace categories, with a subsequent recovery starting in 2021.

![FIGURE 1.3](image)

**Foreign direct investment as a percentage of GDP, 1980–2021**

While FDI inflows vary substantially year on year, long-term FDI growth in very high peace countries has been much greater than in very low peace countries.

Between 2000 and 2022, the volatility of exchange rates was 43 per cent higher in low peace countries than in very high peace countries. Countries with very low GPI scores, reflecting less favourable socio-economic conditions and institutional strength, experience a higher degree of volatility in their exchange rates. In contrast, nations with very high GPI scores demonstrate a greater level of stability in their currency values, suggesting a more robust and secure economic environment conducive to foreign investment. Since 2000, the volatility of exchange rates is 43 per cent higher in low peace countries than in very high peace countries. Countries with very low GPI scores, reflecting less favourable socio-economic conditions and institutional strength, experience a higher degree of volatility in their exchange rates. In contrast, nations with very high GPI scores demonstrate a greater level of stability in their currency values, suggesting a more robust and secure economic environment conducive to foreign investment.

Inflation and Interest Rates

Between 2000 and 2022, the volatility of exchange rates was 43 per cent higher in low peace countries than in very high peace countries. Countries with very low GPI scores, reflecting less favourable socio-economic conditions and institutional strength, experience a higher degree of volatility in their exchange rates. In contrast, nations with very high GPI scores demonstrate a greater level of stability in their currency values, suggesting a more robust and secure economic environment conducive to foreign investment.

Inflation refers to the sustained increase in the general price level of goods and services in an economy over time, leading to a decrease in the purchasing power of a currency. It is often detrimental to businesses because it lowers the purchasing power of money, diminishing the real value of assets and makes it challenging for businesses to cover costs and maintain profitability. The uncertainty associated with inflation disrupts economic planning for businesses, and central banks’ responses, such as interest rate hikes, can increase the cost of capital and hinder investments. Supply chain disruptions and effects on international trade further compound the challenges for businesses in an inflationary environment.

Levels of inflation tend to be much higher and volatile in less peaceful countries, which has often served to aggravate economic and non-economic shocks in those countries. In contrast, the more peaceful countries exhibit significantly lower and more stable levels of inflation. Figure 1.4 shows the standard deviation – a measure of variation and variability – of inflation rates since 2005 for very low and very high peace countries. The relationship between low peace levels and extreme inflation underscores the vulnerability of low peace nations to economic disturbances and shocks.

In the past two decades, the standard deviation of inflation, indicating the level of inflation volatility, has been between seven and 34 times higher in very low peace countries than in very high peace countries. In 2005, the standard deviation of inflation rates in very high peace countries was 1.4 per cent, contrasting with 9.9 per cent in very low peace countries. By 2021, this figure grew to 2.2 per cent in very high peace countries, while for very low peace countries, it surged to 74.9 per cent. Notably, in the post-COVID era, inflation has continued its upward trajectory, posing additional challenges to economic stability and resilience.

5 Inflation and Interest Rates
As with low levels of inflation, stable interest rates are beneficial for businesses, as they provide a predictable environment for planning investments and making financial decisions. When interest rates remain steady, businesses can more confidently assess the long-term costs of borrowing, while also avoiding uncertainties related to abrupt fluctuations in spending patterns. This predictability fosters a more efficient allocation of resources, supporting sustainable growth over time.

Between 2000 and 2021, interest rates have decreased in very high peace countries. Conversely, in countries with lower peace levels, interest rates fluctuate significantly, displaying a high degree of volatility, as shown in Figure 1.5. During the same period, the standard deviation of interest rates for countries with very low peace levels was nearly six times higher than in very high peace countries. The irregular nature of interest rate changes in lower peace countries reflects a degree of unpredictability and potential instability within their financial environments.

### Peacefulness and Business Environment

#### New business density

An important part of economic growth and development in a country is entrepreneurship, which encourages job growth, higher incomes, and productivity. Conflict hampers many of the communication flows and infrastructure necessary for private sector development. Conflict is costly for businesses, with operations and insurance costs increasing, which limits possibilities for the emergence of new enterprises. On average, countries with very high levels of peace have a higher average rate of new business registrations, with a rate more than three times higher than both medium and low peace countries and nearly ten times higher than in very low peace countries (Figure 1.6).

The new business registration rate, collected by World Bank, looks at the number of new limited liability corporations (or equivalent entities) registered in a calendar year. As a measure of the opportunity for entrepreneurship, it shows a relatively strong level of association with peacefulness, with a correlation coefficient of -0.4, as shown in Figure 1.7. This is likely because in peaceful settings, potential entrepreneurs can operate with reduced risks of disruption or conflict, allowing them to concentrate on developing and growing their ventures. Additionally, peaceful societies often have stable regulatory and legal conditions, which can foster a positive business culture, encouraging trust, collaboration, and investment, which are crucial elements for the successful initiation and sustainability of new businesses.
Worker productivity

Peace is essential for supporting the wellbeing and productivity of workers. Reflecting this, measures of worker productivity are correlated with the Safety and Security domain in the GPI, as per Figure 1.8. Greater levels of peacefulness are associated with higher worker productivity as gauged by the International Labour Organisation, with a correlation coefficient of -0.68.

Financing capital

The peace dividend also impacts businesses’ ability to secure funding. More peaceful countries tend to enjoy more favourable economic conditions that allow banks and other financial institutions to increase the amount of credit available to the private sector.

Violence greatly increases the economic uncertainty prevailing in society. Business owners and workers face higher probabilities of death and injury, physical assets are more frequently damaged or destroyed, and financial and physical resources are more commonly stolen or damaged. All this increases the probability that economic projects started by businesses and households will not come to fruition. When these projects fail, the credit lent against them may remain unpaid, which reduces creditors’ ability and willingness to provide funding in the future.

Figure 1.9 shows that higher levels of domestic peace are associated with greater provision of funding to the private sector. This analysis includes countries of all income levels and the correlation coefficient between credit to the private sector as a proportion of GDP and the GPI Safety and Security domain is -0.51. High-income countries, represented in blue circles in the figure, tend to have better Safety and Security scores and higher proportions of domestic credit provided to the private sector by banks.
Domestic credit and peace, all countries, 2023

Higher levels of domestic safety are associated with greater provision of credit to the private sector.

The correlation analysis demonstrates a robust and positive relationship between the Global Peace Index and major sovereign credit ratings. Specifically, the correlation coefficients for Standard & Poor’s, Fitch, and Moody’s stand at 0.671, 0.639, and 0.635, respectively. This implies that higher levels of peace, as reflected in the GPI, are associated with greater creditworthiness. The correlation analysis demonstrates a robust and positive relationship between the Global Peace Index and major sovereign credit ratings. Specifically, the correlation coefficients for Standard & Poor’s, Fitch, and Moody’s stand at 0.671, 0.639, and 0.635, respectively. This implies that higher levels of peace, as reflected in the GPI, are associated with greater creditworthiness.

Innovation

As discussed above, higher levels of peace are associated with greater worker and capital productivity. This result is due to multiple factors, including superior physical and social infrastructure supporting businesses as well as greater focus on research and innovation.

Reductions in violence generate time and resources for more productive pursuits, such as scientific and business innovation. As violence decreases and societies become more harmonious, public resources previously used to repair infrastructure and pay for a large security apparatus are liberated for investment in research and development. At the same time, greater peacefulness creates stability and predictability, which reduce risk aversion and prompts more firms to try new technologies and disruptive business models. Conversely, conflict-ridden regions tend to divert resources away from innovation, focusing instead on immediate security needs, which can impede long-term progress in science, technology, and other innovative endeavours. Consequently, the GPI demonstrates a notable correlation between peacefulness and various innovation metrics.
The World Intellectual Property Organisation's Global Innovation Index serves as a quantitative measure of countries’ capacity and readiness for innovation. It considers various factors like research and development expenditure, education quality, intellectual property rights, technology outputs, and creative outputs. This index provides a comparative analysis across countries, enabling policymakers and stakeholders to understand a nation's innovation capabilities and to identify areas for improvement. As shown in Figure 1.11, there is a high level of correlation between the Global Innovation Index and the GPI's Safety and Security domain scores (r=-0.73).

**FIGURE 1.11**

Innovation, correlation with GPI components, Safety and Security, 2023

Very high and high peace level countries can be characterised by higher capacity and readiness for innovation as measured by Innovation Index.

![Innovation, correlation with GPI components, Safety and Security, 2023](image)

**FIGURE 1.12**

Legal System, correlation with GPI components, high income countries, 2023

The higher a country’s level of peace, the easier it is to resolve disputes and the faster to settle insolvencies.

<table>
<thead>
<tr>
<th>Safety &amp; security</th>
<th>Ease of resolving insolvencies</th>
<th>Time required to resolve insolvencies</th>
<th>Efficiency of the legal system in settling disputes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.63</td>
<td>-0.43</td>
<td>-0.39</td>
</tr>
<tr>
<td>Internal peace</td>
<td>-0.60</td>
<td>-0.59</td>
<td>-0.35</td>
</tr>
</tbody>
</table>

The regulatory system is a major part of the economic infrastructure supporting business activity. While it is sometimes seen as a source of costs and delays, the proper oversight of private initiatives can promote economic demand and activity. An effective and balanced regulatory system guarantees:

- **Fair competition**: a level playing field in which unscrupulous operators will not gain undue commercial advantage by cutting corners, endangering workers and consumers or evading tax and duties.
- **Relational efficiencies**: a firm's corporate suppliers and clients, borrowers and creditors will act in a fair and predictable ways. With due diligence left to the regulator – at least partially - the firm itself has less need for monitoring supply partner conduct and counterparty risk. A firm's operational risks are reduced under effective regulation.

As discussed in the previous section, well-functioning institutions, especially a representative and transparent legal system, are more likely to produce fair and efficient regulation. They are also more likely to support and be supported by greater levels of peace.

The Heritage Foundation's 'business freedom' indicator is a widely used gauge of the efficiency of government regulation of business. It reflects the administrative burdens of starting, operating and closing businesses. Higher levels of the index – towards 100 – denote greater efficiency of the regulatory system and therefore greater levels of freedom for businesses. Lower levels of the index indicate highly cumbersome regulatory compliance. The indicator is highly correlated with the GPI Safety and Security domain by r=-0.68, illustrating a strong relationship between peacefulness and effective business oversight across countries of all levels of income (Figure 1.13).
The relationship between security and effective regulation is observed for high-, middle- and low-income countries. This result is corroborated by the relationship between the GPI and the ‘burden of government regulation’ indicator from the Global Competitiveness Index (Table 1.2). Greater values of this indicator denote a lesser burden. Of note, the correlation is weak for high-income countries, presumably because the regulatory systems in these countries are already highly efficient, so the overall impact of additional improvements in peacefulness may be small. However, in middle income countries, improvements in the GPI Safety and Security domain are strongly associated with progress towards more efficient government regulation.

The time it takes for imports and exports to get cleared through customs can have a major impact on a country’s attractiveness as an investment location. Timely cargo clearance at customs facilitates trade and can greatly benefit the economy. Delays are costly and can reduce a country’s resilience by making it difficult to deliver necessary supplies and support for a population, particularly following an emergency or disaster. These factors can contribute to a country becoming less competitive as an investment location, causing an even bigger hit to the economy.
Based on reports from business leaders from different countries, the time it takes imports to clear customs gets higher as level of peace deteriorates, with low and very low peace countries taking almost twice as long to clear imports through customs as high and very high peace countries. Interestingly, the relationship between peacefulness and customs delays is stronger for imports ($r = 0.34$) than it is for exports ($r = 0.26$). Despite the association between peacefulness and customs delays being lower for exports, there remains a demonstrable difference, with exports from very high and high peace countries taking almost half as many days as in very low peace countries.

According to business leaders, another challenge faced more commonly in lower peace countries is informality. An informal or unregistered firm in a country’s economy covers multiple dimensions, largely describing firms operating outside an economy’s legal framework and without registration. A country with a large informal sector can have major ramifications for the rest of the economy. Informal enterprises can cost governments a great deal of tax revenue and reduce the regulatory oversight a government has on the economy. Furthermore, informal enterprises can create unfair competition for formal firms as they escape regulation and taxation.

As shown in Figure 1.14, very high peace countries have a significantly lower percentage of firms competing against unregistered or informal enterprises than every other peace category, with just 26.7 per cent of businesses reporting facing informal competition. Comparatively, medium, low, and very low peace countries all have more than 50 per cent of their firms competing against unregistered or informal firms. Some common reasons firms choose to be unregistered, according to a World Bank survey carried out in Baghdad, are tax avoidance and seeing no benefit to registering. Other reasons include a lack of information and unwillingness to dedicate the time, fees, and paperwork necessary to register.8

![Figure 1.14: Percentage of firms competing against informal firms by GPI level, 2023](source: World Bank; IEP Calculations)
Positive Peace as a Predictor of Economic Outperformance

Key Findings

- Countries that score well in the Positive Peace Index (PPI) tend to have higher levels of GDP per capita, greater corporate profitability, stronger household consumption and less volatile inflation.
- 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.
- From 2009 to 2022, both per capita and actual GDP in countries that improved in the PPI grew more than twice as fast as in countries that deteriorated in Positive Peace.
- On average, a one index-point improvement in PPI score is associated with a five- to tenfold rise in GDP per capita.
- Since 2009, inflation rates in countries where Positive Peace deteriorated has been at least two times as volatile as those in countries where Positive Peace improved.
- Household consumption in countries where Positive Peace improved since 2009 grew two times faster than those where it deteriorated.
- Countries that experienced improvements in Positive Peace have also demonstrated superior growth in value added goods to key sectors of the economy, including industry, services, and agriculture.
- The sectors to benefit the most from improvements in Positive Peace are industry and agriculture.
- Since 2009 the agriculture and industry sectors grew over two times faster in countries that improved in Positive Peace than those that deteriorated.
- Between 2009 and 2022, exports grew nearly twice as fast and imports grew more than 40 per cent faster in countries improving in Positive Peace compared to countries that deteriorated.
- From 2009 to 2022, foreign direct investment (FDI) inflows grew by 2.2 per cent in countries improving in Positive Peace, while in countries that deteriorated FDI contracted by more than 0.5 per cent.
- In very high Positive Peace countries, new businesses are formed and registered at more than ten times the rate than they are in low Positive Peace countries.
- Low Positive Peace countries have risk premiums that are more than eight times higher than those in their very high Positive Peace counterparts, meaning the private sector in such countries would likely greatly struggle to attract foreign capital to help grow their national economies.
Previous IEP research has shown how high levels of Positive Peace are associated with superior economic performance. Countries that score well in the PPI tend to have higher growth in GDP per capita, greater corporate profitability, stronger household consumption, and less volatile inflation.

When a society maintains high levels of Positive Peace, characterised by strong institutions, high levels of human capital, access to information, lower corruption, and an environment supportive of human development, it creates a conducive atmosphere for business activities. Businesses thrive in environments where there is stability and predictability, fostering a sense of security among investors and entrepreneurs. These favourable conditions provide a foundation for economic growth as businesses can operate more efficiently and productively. Additionally, a peaceful environment fosters innovation and creativity, attracting investment and talent, which, in turn, fuels economic development and prosperity. Therefore, the relationship between Positive Peace and the business environment is interlinked, with Positive Peace being a catalyst for sustainable economic growth and development.

Countries that improve in the PPI outperform global averages in key macroeconomic metrics, such as GDP per capita (Figure 2.1).

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 Positive Peace Index (PPI). These self-reinforcing cycles can take place over many decades. Once a pattern or trend is established, it usually persists over time and is self-reinforcing, with systems either improving or deteriorating over time. Therefore, Positive Peace is an excellent predictor of a country’s future likelihood of economically outperforming other countries.

### Income and Economic Activity

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 years, investment analysts can build an annually rebalanced portfolio of countries which consistently outgrew the rest of the world, as shown in Figure 2.2. Real GDP growth in countries that improved their PPI scores from 2009 to 2022 grew by an average of 59 per cent over the same period, while for those whose scores deteriorated grew by only 27 per cent, meaning that PPI improvers growth rate was more than double the rate of the deteriorators.

**FIGURE 2.1**

**Positive Peace and GDP per capita, 2022**

On average, every index point improvement in the PPI is associated with a five to ten-fold increase in GDP per capita.

![Positive Peace and GDP per capita, 2022](chart)

Source: World Bank; IEP Calculations
Starting from an indexed level of 100 in 2009, the aggregated GDP of PPI improvers reached 159 by 2021 compared to Positive Peace deteriorators, who reached 127.

There is also a clear relationship between developments in Positive Peace and growth in per capita income across time. From 2009 to 2022, per capita GDP in countries that recorded improvements in the PPI rose by more than two per cent per year, as shown in Figure 2.3. This compares with less than one per cent per year for countries in which Positive Peace deteriorated.

Countries that improved in Positive Peace from 2009 to 2022 recorded an average annual growth rate in per capita GDP that was more than twice as high than countries that deteriorated in Positive Peace.

In countries where Positive Peace deteriorated, the standard deviation in inflation rates was notably higher compared to nations that experienced an improvement in the PPI. This means that the rate at which prices rise and fall is less stable and more erratic in countries deteriorating in Positive Peace. This trend often points towards economic volatility, uncertainty, and potential instabilities that accompany deteriorating conditions in Positive Peace. In contrast, countries that displayed improvements in their Positive Peace scores demonstrated a more consistent pattern in inflation rates, reflecting more stable economic conditions and better-managed price fluctuations. As shown in Figure 2.4, from 2009 to 2022, the volatility of inflation rates in countries where Positive Peace deteriorated was almost three percentage points higher than in those countries where it improved.

Since 2000, the volatility of exchange rates is 21 per cent higher in low Positive Peace countries than in very high Positive Peace countries. Countries with lower Positive Peace scores, indicating a less peaceful and stable socio-economic environment, tend to have more fluctuating and unpredictable exchange rates compared to nations with very high Positive Peace scores, which suggests a more stable and secure economic atmosphere.
**Household Consumption**

Household consumption serves as a critical indicator of economic activity. In nations where Positive Peace has improved, household consumption is more robust. The notable surge in household consumption in these countries may be attributed to the improved per capita income and stability fostered by Positive Peace. Conversely, in countries experiencing a decline in Positive Peace, household consumption has been slower to grow, because of reduced consumer confidence and spending due to lower per capita growth, uncertainties, or economic instability. Figure 2.5 shows that, on average, household consumption in countries that have improved in Positive Peace since 2009 has grown by 2.8 per cent, more than twice the rate of the countries which have deteriorated in Positive Peace, where consumption has grown by just 1.3 per cent.

**FIGURE 2.5**
Changes in household consumption by Positive Peace, 2009–2022

For countries where Positive Peace improved, household consumption rose more than twice as fast as in countries where the PPI deteriorated.

**Foreign Investment and Trade**

Nations that consistently develop their Positive Peace are more attractive to Foreign Direct Investment (FDI). This is because they tend to provide greater economic returns; improved governmental transparency and efficiency; enhanced rule of law, protection of private property and enforcement of contracts; and cheaper and less burdensome dispute, compensation and remediation procedures.

From 2009 to 2022, FDI inflows for PPI improvers rose at an annual rate of 2.2 per cent, contrasting with a decline of more than 0.5 per cent for nations where Positive Peace decreased (Figure 2.6).

Between 2009 and 2022 exports grew nearly twice as fast and imports grew more than 40 per cent faster in countries improving in Positive Peace compared to countries that deteriorated. Countries experiencing improvements in Positive Peace witnessed a three per cent growth rate in both imports and exports, whereas those with deteriorating Positive Peace had growth rates of 2.1 and 1.6 per cent, respectively.

As discussed above, nations that progressed in Positive Peace have more robust internal economic activity, which boosts demand for foreign goods and services. Accordingly, imports among Positive Peace improvers grew almost one percentage point faster than in other nations over the past decade. Positive Peace also benefits the export sector, as firms are more agile, less weighed down by inefficient regulation and are not held back by socio-political disruptions. Trade and openness to foreign investment are two critical channels through which societal resilience generates strong economic performance.

**Capital**

Productive capital is the collection of resources a business needs to produce output. In addition to labour, a firm needs a wide range of resources to preserve productivity, including:

- **Physical capital**: physical inputs, facilities, machinery and infrastructure
Positive Peace embodies social, administrative, intellectual and parts of physical economic capital that lead to stable, peaceful and productive societies.

The availability of these four types of capital determine a nation state's stock of productive capital available to support the business sector. Positive Peace is an accurate proxy of a nation's total stock of productive capital. The Pillars of Positive Peace relate back to the capital in the following ways:

- **Pillars such as Well-Functioning Government and Low Levels of Corruption** represent the administrative capital that a socio-economic system requires to function efficiently.
- **High Levels of Human Capital and Free Flow of Information** are gauges of intellectual capital – the creation, protection and cross-fertilisation of ideas to increase wellbeing and productivity.
- **Sound Business Environment and Equitable Distribution of Resources** relate in part to the concept of the physical economic capital that provides citizens with the tools and material resources to produce and thrive. *Equitable Distribution of Resources* is also an element of social capital.
- **Social capital**, for example, is embodied in the Positive Peace Pillars Acceptance of the Rights of Others and Good Relations with Neighbours.

The aforementioned four types of capital interact closely and in complex ways to support the productive capacity of a socio-economic system (Figure 2.7). As such, it is not surprising that countries that consistently and materially improve in PPI would do little to change this picture. For the service sector, the difference in GVA growth based on changes in Positive Peace is smaller but still substantial. The lower responsiveness to domestic Positive Peace by services may have a number of causes. Firstly, some areas of the service sector, such as tourism, hospitality and transport, are highly dependent on geographical and climatic factors, which are not incorporated in the PPI. Other areas, such as finance and professional services, are essentially international in nature, with most of the activity and profits concentrated in global hubs like New York, London, Frankfurt, Hong Kong and Shanghai. A domestic improvement in Positive Peace in a peripheral country would do little to change this picture.

**FIGURE 2.7 Components of productive capital**

Positive Peace embodies social, administrative, intellectual and parts of physical economic capital that lead to stable, peaceful and productive societies.

- **Social Capital**
- **Physical Capital**
- **Administrative Capital**
- **Intellectual Capital**

Source: IEP
FIGURE 2.8
Changes in gross business profits by sector and Positive Peace outcome, 2009–2022
Industry and agriculture were the sectors most responsive to improvements in Positive Peace. Their value added in countries improving in Positive Peace annually grew about twice as fast as in countries deteriorating in Positive Peace.

Source: World Bank; IEP Calculations

BOX 2.1
Lithuania – Positive Peace and manufacturing
Lithuania’s PPI score improved by 6.7 per cent from 2009 to 2022. On a per cent basis, the country posted the third highest improvement in Positive Peace in Europe over this period. All domains and Pillars of Positive Peace recorded substantial improvements in the Baltic nation in the past decade, with the exception of the Attitudes domain and the Good Relations with Neighbours Pillar. Of particular note, the Free Flow of Information and High Levels of Human Capital Pillars posted very large improvements. Lithuania also recorded substantial improvements in Low Levels of Corruption and Well-Functioning Government – two of the three Pillars that saw deteriorations globally over the decade.

This progress was accompanied by a noticeable boom in manufacturing, largely driven by foreign direct investment (FDI) inflows. Lithuania streamlined the process of obtaining construction permits, updated its urban zoning planning frameworks from the Soviet era and eased the tax burden on hiring labour. These are examples of progress in the Well-Functioning Government Pillar. In 2010, there were ten large manufacturing projects in the country. By 2018, this number had risen to 27.1 In that year, the Manufacturing Risk Index, a report by Cushman & Wakefield, placed Lithuania as the world’s second-most attractive destination for manufacturing, behind only China.2 A report by Invest Lithuania states that in 2017, 3,066 new jobs per million people were created by FDI projects. The EU average is more than three times lower: 900 jobs per million.3

Workforce Participation and Gender Gap
Positive Peace is a strong predictor of the size of the economic and social disparities between women and men in a society. Empirical evidence suggests that peace can contribute to narrowing these gaps. High Positive Peace countries tend to have more stable economies, providing increased economic opportunities for women. Women are more likely to participate in the workforce, access formal employment, and pursue entrepreneurship when there is economic stability and security.

Education plays a pivotal role in reducing gender disparities in various aspects of life. Societies enjoying high Positive Peace are more likely to invest in education, including girls’ education. The gender gap in youth unemployment is, on average, lower in societies that have made improvements in Positive Peace, as shown in Figure 2.9. This trend is also observed in labour force participation, though the differential between Positive Peace improvers and deteriorators is not as large. Overall, Positive Peace seems to serve as a reliable predictor of relative success in addressing the gender gap in employment and workforce participation across societies.

FIGURE 2.9
Gender gap in youth unemployment and Positive Peace, 2022
There is less gender disparity in terms of youth unemployment in countries with improved Positive Peace.

Source: International Labour Organisation; IEP Calculations
Positive Peace and Business Environment and Dynamics

New Business Density
Many of the Pillars of Positive Peace work systemically to encourage business growth and a favourable business environment. Some Pillars, like Sound Business Environment, may do so in direct ways, while others, such as Free Flow of Information do so more indirectly by supporting the necessary infrastructure for economic growth. Countries with very high levels of Positive Peace have significantly higher rates of new business registrations, which is used to measure entrepreneurship. These countries tend to have stronger and more stable information flows and infrastructure necessary to support business growth. In turn, entrepreneurship and private sector growth encourage higher levels of job growth, productivity, and income. As shown in Figure 2.10, the rate at which new businesses are formed and registered in very high Positive Peace countries is much higher than in all the other countries in the world.

FIGURE 2.10
Average new business density by Positive Peace level, 2022
In very high Positive Peace countries, new businesses are formed and registered at more than ten times the rate than they are in low Positive Peace countries.

Source: Word Bank; IEP Calculations

The rate of new business registrations also shows a strong level of correlation with Positive Peace ($r = -0.57$), as shown in Figure 2.11. This level of correlation with Positive Peace is substantially higher than it is with the Global Peace Index ($r = -0.4$), as outlined in Section 1. This is noteworthy as it suggests that it is the underlying societal conditions that foster peace, rather than the absence of violence itself, has the greatest impact on potential entrepreneurs’ ability create and formalise business ventures.

Business Obstacles as Reported by Enterprises
Firms operating in countries with high levels of corruption can find themselves facing both financial and administrative burdens. Corruption by public officials results in lower efficiency and higher costs for firms doing business. Bribes can significantly increase the cost of obtaining permits and licenses necessary for firms to operate. High levels of corruption will prevent new business growth and limit operations for existing businesses. Based on survey responses from business leaders across different countries, enterprises in lower Positive Peace countries face much more corruption than those in higher Positive Peace countries, as shown in Figure 2.12.

FIGURE 2.12
Percentage of firms identifying corruption as a major business constraint by PPI level, 2022
Countries with low Positive Peace find corruption over three times as challenging as high Positive Peace countries.

Source: World Bank; IEP Calculations
Low Positive Peace countries have almost triple the percentage of firms reporting corruption as a “major” or “very severe” obstacle in operations than very high Positive Peace countries. The reported prevalence of corruption correlates relatively strongly with both Global Peace Index and Positive Peace levels.

A firm’s access to credit and finance, particularly external finance sources, can play a major role in its growth and development, having an impact not only on employment and investment, but also everyday business operations. Access to credit is crucial for a business’s growth as it provides the necessary capital for expansion, technology, and innovation. Adequate financial resources enable businesses to both seize opportunities and weather economic downturns and other challenges. Moreover, access to finance enhances a company’s ability to hire skilled personnel, optimise operations, and ultimately scale its operations, contributing to sustained growth and competitiveness in the market. For these reasons, countries where finance is more accessible tend to experience better growth and have more stable economies.

**FIGURE 2.13**

**Percentage of firms identifying access to finance as a major business constraint by PPI level, 2022**

Very high Positive Peace countries have by far the lowest percentage of firms identifying access to finance as a major business restraint.

![Chart showing percentage of firms identifying access to finance as a major business constraint by PPI level, 2022](chart)

Source: World Bank; IEP Calculations

Drawn from business leader responses, Figure 2.13 shows how access to finance tends to progressively improve with increased levels of Positive Peace. The rate at which enterprises in very high Positive Peace countries identify access to finance as a major obstacle is less than half that of low Positive Peace countries. Across all countries, Positive Peace shows a moderate level of correlation with finance access issues ($r = 0.38$), slightly higher than the correlation of such issues with Global Peace Index ($r = 0.31$).

**Country Risk Premiums**

Country Risk Premiums are another investment measure that displays a strong correlation with Positive Peace. A country’s risk premium represents the additional return demanded by investors to compensate for the higher risk associated with investing in a foreign country. They are calculated using a country’s spread on sovereign debt, the annualised standard deviation of a country’s equity index, and the annualised standard deviation for a sovereign bond market to measure the perceived risk of foreign investment. Reflecting concerns about the economic and political instability, a higher country risk premium is disadvantageous to a country because it increases the cost of borrowing for that country and potentially deters foreign investment, leading to economic challenges and reduced growth prospects.

As Figure 2.14 displays, a country’s PPI score is strongly correlated with country risk premiums ($r = 0.72$). Positive Peace works systemically to encourage foreign investment by supporting economic stability, security, growth, and encouraging confidence from foreign investors. Many of the Pillars of Positive Peace encourage foreign investment, like **Good Relations with Neighbours** and **Sound Business Environment**. As with new business density, the correlation between country risk premiums and Positive Peace is stronger than their correlation with the Global Peace Index ($r = 0.61$). This is noteworthy as it suggests that the true risks to investing are less connected with outward expressions of violence than they are with the underlying societal conditions that foster peace.

The robust positive correlation observed between the Positive Peace Index and sovereign credit ratings, specifically with Standard & Poor’s, Fitch, and Moody’s (with correlation coefficients of 0.851, 0.829, and 0.830, respectively), implies that countries with higher levels of positive peace, characterised by factors such as strong institutions, low corruption levels, and social and economic well-being, are likely to be viewed more favorably in terms of their creditworthiness and ability to meet financial commitments. Positive Peace, fostering economic stability, security, and growth, encourages foreign investment and confidence from investors.

**FIGURE 2.14**

**Country risk premium vs Positive Peace score, 2022**

High Positive Peace countries find themselves with significantly lower Country Risk Premiums.

![Chart showing country risk premium vs Positive Peace score, 2022](chart)

Source: NYU STERN; IEP Calculations
On average, countries with low and medium levels of Positive Peace have substantially higher country risk premiums than those with higher levels of Positive Peace.

Source: NYU STERN; IEP Calculations

As Figure 2.15 shows, countries with very high Positive Peace levels have much lower average risk premiums, with international investors expecting only a 1.7 per cent additional return on their investments. This is a negligible amount compared to the average premium of 14.5 per cent in low Positive Peace countries, an added expense that in many cases would make the cost of returns prohibitive for potential recipients of investment. As a result, the private sector in such a country would likely struggle to attract foreign capital to help grow the national economy.
### Impact of Conflict on Trade and Business Dynamics

#### Key Findings

- Between 1960 and 2021, trade as a percentage of global GDP more than doubled, rising from 25 per cent to 57 per cent.
- Trade as a percentage of GDP on average for countries at peace was 50 per cent higher between 2008 and 2021 than in countries in conflict.
- Conflict tends to lead to negative trade balances, with imports growing faster than exports. In conflict-affected countries between 2008 and 2021, imports were approximately a third higher than exports.
- In contrast, countries at peace had healthier trade balances, with the value of exports tending to be on par with – or slightly higher than – that of imports.
- The global economic impact of violence was $17.5 trillion in 2023, which is equivalent to 13 per cent of total GDP and an increase by 6.6 per cent since 2021.
- Modelling carried out by IEP found that protracted armed conflict imposes an opportunity cost on economic output as well as on an array of other measures of trade and the business environment.
- For the eight conflict-affected countries analysed, modelling found that GDP would on average have been 25 per cent higher after five years had conflict been avoided.
- Exports in the assessed countries were on average 30 per cent lower and imports were 19 per cent lower than they would have been in the absence of conflict.
- Similarly, the study found an average opportunity cost of 54 per cent for foreign direct investment (FDI), 41 per cent for gross capital formation, 23 per cent for household consumption, and 19 per cent for overall consumption.
This section analyses the diverse impacts of conflict on macroeconomic dynamics that shape business environments. It highlights differences in economic and trade dynamics between conflict and non-conflict countries.

The relationship between armed conflict and the economy is often approached through the assessment of the actual incurred costs of hostilities. Economics and political science literature has extensively examined the impact of conflict on economic output, emphasising GDP and economic growth.\(^1\) The connection with trade is frequently approached indirectly, exploring how destruction and diminished economic activity influence trade dynamics.\(^2\) These studies highlight the challenges related to communication, infrastructure destruction, human losses, and other factors. While there are some rare exceptions, the prevailing consensus is that armed conflict generally has a negative impact on economic and trade output.\(^3\)

This section employs a modelling approach to assess the opportunity costs of conflict on economic output, trade, and other variables crucial for the business environment. It investigates the impact of conflict on eight countries where a conflict lasted a minimum of four years between 1970 and 2022. This method involves identifying the differences between actual economic and trade outputs and modelled projections of such outputs based on conflict not occurring. Additionally, by exploring the impact of armed conflict on trade, a pivotal component of a country’s GDP, the section delves into the indirect mechanisms shaping the effects of armed confrontation on economic performance.

The modelling not only reveals the immediate shocks caused by such conflicts but also sheds light on the varying speeds and degrees of recovery for different countries. It demonstrates that the trajectory of recovery differs from one country to another. These results emphasise the negative repercussions of armed conflicts, extending many years beyond the end of open hostilities, and highlighting the complexity of recovery.

Diverging Dynamics in Conflict and Non-Conflict Settings

Over the past six decades, growth in trade around the world has been sizable and broad based in both relative and absolute terms, as shown in Figure 3.1. In that time, trade as a percentage of global GDP has more than doubled, rising from 25 per cent in 1960 to 57 per cent in 2021. This increase is particularly striking when considering that global GDP has grown in constant US dollars more than eight-fold, at a rate of 12 per cent per year.

Moreover, these are patterns that have broadly held true across all regions and countries of the world. An IEP analysis of more than 200 countries and territories found that, since 1960, growth in GDP over five-year intervals occurred almost 90 per cent of the time, meaning that over any given five-year period only one in ten countries saw its GDP decline. Similar trends were observed for both exports and imports, which also increased over five-year intervals 90 and 85 per cent of the time, respectively.

From 2008 to 2021, trade as a percentage of GDP was on average 90 per cent for non-conflict countries. In contrast, for countries in conflict this figure was only 60 per cent, as shown in Figure 3.2.\(^4\) A country is considered in conflict when it experiences more than 25 battle related deaths in a year.
Peacefulness fosters stability, trust, and predictability in international interactions, resulting in increased trade volumes between countries. Peaceful countries tend to benefit from more robust relationships with trading partners, enabling freer exchanges of goods, information and people. Moreover, sustained peace encourages long-term investments, stimulates economic growth, and provides the necessary infrastructure to support expanded trade.

Peaceful countries also show significantly higher imports and exports in comparison to countries in conflict, as shown in Figure 3.3. The value of exports as a percentage of GDP in countries at peace has historically been 11 per cent higher than imports. In contrast, countries in conflict have tended to record a negative trade balance, with exports on average standing more than 20 per cent lower than imports.

Between 2008 and 2021, countries in conflict averaged a higher import-to-export ratio than countries not in conflict. Imports were 33 per cent of GDP, while exports were 27 per cent. A trade deficit of this kind can have a variety of impacts on a country’s economic stability, putting strains on its foreign exchange reserves, potentially leading to the depreciation of its currency, and affecting its ability to meet debt obligations.

![Figure 3.3](source: UCDP; World Bank; IEP Calculations)

**Figure 3.3**
Average exports and imports as percentage of GDP for countries in conflict and at peace, 2008–2022

Both exports and imports are higher in peaceful countries than in countries in conflict, by 21 per cent and nine percentage respectively.

Military expenditure in conflict and peace

Military expenditure tends to increase during armed conflict. This is driven by the need to fund the conflict by acquiring military equipment and other supplies and sustaining military operations. The scale and duration of the conflict, as well as the country’s strategic objectives and available resources, influence the size of the increase.

The analysis of military expenditure, measured as a percentage of GDP, illustrates a contrast between countries experiencing conflict and those at peace. Between 2008 and 2021, countries experiencing internal conflict allocated an average of 2.4 per cent of their GDP to military spending, while countries not experiencing conflict allocated approximately 1.6 per cent, as shown in Figure 3.4.

![Figure 3.4](source: UCDP; World Bank; IEP Calculations)

**Figure 3.4**
Military expenditure as percentage of GDP, 2008–2021

Countries at peace allocate a smaller percentage of their GDP to military expenditure.

Armed Conflict, Economic and Trade Output

Some may argue that conflict can prompt economic growth, citing the United States, which witnessed an annualised GDP growth rate of around eight per cent before World War II. During the war effort, between 1941 and 1943, this growth rate surged to 17 per cent per year. However, by the war’s end, the US gross debt exceeded 120 per cent of GDP, and household consumption and business investment also plummeted during the war, reflecting a lack of sustainability of economic growth experienced during conflict.

It has also been argued that military spending can drive technological advancements and spur economic growth, as exemplified by Israel’s military-centric economy fostering innovation and entrepreneurship, particularly in high-tech sectors. However, more systematic analyses indicate that the correlation between defence spending and economic growth is not universally applicable and is often negative.

The allocation of resources toward higher military spending can negatively impact economic diversification and competitiveness, particularly in developing countries. War can divert substantial portions of a country’s budget to military expenditures, hindering investments in productive sectors, diminishing economic diversification, and disrupting overall economic stability. Consequently, conflicts can lead to fiscal deficits, increased public debt, and inflation.
has found a positive association between military spending and external debt in sub-Saharan Africa. One study of 133 countries between 1960 and 2012 showed that a one percentage point increase in military expenditure as a percentage of GDP correlates with a 1.1 percentage point reduction in economic growth. Large conflicts are also associated with a strong and negative relationship with foreign direct investment (FDI) inflows after the onset of conflict.

Conflict results in heightened challenges in conducting trade and decreases in the value of total exports and imports. In certain cases, countries’ total levels of trade appear unaffected by conflict, as a result of trade increases with allies seeking to support combat efforts, particularly through imports of weapons and other necessary goods. Despite this, prolonged disruptions to trade flows almost inevitably bring about changes in economic structures, alterations in trade policies, and adjustments to established trade patterns, thereby influencing the positions of countries in the international trade system.

Cost of Violence to the Global Economy

Research has shown that war has an adverse impact on business. War not only results in the loss of lives and destruction of physical and human capital, but it also tends to reduce GDP per capita, production and consumption. The same rationale applies to violence caused by high levels of criminal activity or political turmoil. Physical damage is immediate and highly disruptive, but the long-term negative psychological, health and attitudinal impacts will suppress socio-economic development for generations.

IEP estimates the global economic impact of violence reached $17.5 trillion in 2023 (Figure 3.5). This represents a 6.6 per cent increase in the total economic impact of violence since 2021. The global impact of violence is defined as the expenditure and economic effect related to containing, preventing and dealing with the consequences of violence. Therefore, the estimate includes the costs of conflict, crime and expenses involved in maintaining security apparatuses around the world.

Modelling the Avoidance of Conflict

IEP utilised synthetic modelling techniques to assess the opportunity cost in economic and trade output and its impact on indicators favourable for business environment for eight countries that experienced a conflict lasting at least four years between 1970 and 2022. Specifically, this method was employed to assess what would likely have transpired in the absence of conflicts in those countries, allowing for an estimation of the opportunity cost of conflict. This approach enabled the measurement of economic setbacks that conflicts imposed on development and trade activities, ultimately providing insights into the extent of disruption to business environments. The methodology for this analysis is summarised in Box 3.1.

IEP estimates the global economic impact of violence reached $17.5 trillion in 2023.
Synthetic modelling of the avoidance of conflict

The synthetic control method entails generating simulated datasets that replicate the patterns observed in social and economic variables, forming a weighted combination of control groups for evaluating a treatment group. In this analysis, synthetic modelling was used to estimate outcomes for a country that experienced conflict based on a hypothetical scenario in which conflict was avoided. As such, the method did not observe real-world costs but rather established how the economy could have developed in the absence of conflict. It was used to investigate the relationship between conflict, trade, and other economic measures.19

Inclusion criteria

- Duration: Conflicts that lasted at least four years
- Type of conflict: Focus on internal conflicts
- Data availability: Countries with data coverage for at least eight out of the nine assessed economic indicators before, during, and after their conflicts
- Time period: 1970-2022, to include both historical and more recent cases

Analysis suggested that conflicts of shorter duration exhibited distinctive impacts on macroeconomic indicators than those that were sustained over at least four years. Countries whose conflicts lasted only a couple of years or less did not show a consistent pattern five years after conflict onset, with negative impacts registered in only about half of cases.

Opportunity cost

Opportunity cost refers to the lost benefits from a certain choice being made over another. In this analysis, it refers to the losses related to economic output, export, import, trade, consumption, foreign investments, and capital formation from a country having entered into conflict rather than avoiding it. The cost is calculated by taking the difference between actual, observed values and synthetic values (modelled based on the hypothetical avoidance of conflict) within each country. Across this analysis, costs are examined five years after the onset of conflict for each indicator.

Table 3.1

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>OPPORTUNITY COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>+10.1%</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>-19.8%</td>
</tr>
<tr>
<td>El Salvador</td>
<td>-26.3%</td>
</tr>
<tr>
<td>Libya</td>
<td>-52.4%*</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>-27.5%</td>
</tr>
<tr>
<td>Rwanda</td>
<td>-20.4%</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>-29.3%</td>
</tr>
<tr>
<td>Syria</td>
<td>-32.1%</td>
</tr>
<tr>
<td>Average</td>
<td>-24.7%</td>
</tr>
</tbody>
</table>

*Data partially imputed
Source: World Bank; IEP Calculations

In addition to the losses revealed through comparison with the modelled values, the actual economies of the eight countries also displayed a trend of decline in the years after conflict, as shown in Figure 3.6. Syria experienced the highest decline at 56 per cent, followed by Rwanda with a decrease of 36 per cent, and Sierra Leone with a decline of 25 per cent. The remaining cases showed only a very modest increase in GDP between the year of conflict onset and five years after, each recording an increase of less than five per cent.
Military Expenditure

The examination of military spending trends reveals a consistent pattern across all assessed countries, with arms expenditure increasing for all cases, by an average of 47 per cent between the year before and the year after the onset of conflict. Five years after the onset of conflict, three out of five countries recorded an increase in military spending, averaging a 30 percent rise overall.

As shown in Table 3.2, for Rwanda and Sierra Leone, military expenditure had decreased five years after the onset of conflict. For Rwanda, this may have been associated with the peace accords signed three years into its civil war. In the case of Sierra Leone, its civil war was marked by a number of phases, during which the fighting would intensify and then die down, only to flare up later. For most of the country, there was a relatively quieter period from 1994 to 1997, which was when the comparison was made.20 Algeria, Côte d’Ivoire and El Salvador, however, continued to see increased military expenditure over baseline five years after the onset of conflict.

Trade Impediments

In addition to decreases in GDP, disruptions arising from conflict lead to declines in trade. Infrastructure damage, supply chain disruptions, and heightened security measures can result in higher transportation and transaction costs, directly influencing import prices. On the export side, the depreciation of a country’s economic conditions during conflict, reduced production capacity, increased risk perception among trading partners, and the potential decline in the quality of products, can lead to a deterioration in the prices of exported goods. As depicted in Figure 3.8, the assessed countries witnessed a pronounced average decline in the actual value of trade, both exports and imports, in the first five years after the onset of conflict. However, the decline in exports was much greater than the decline in imports.
Table 3.3 shows the opportunity costs in imports, exports, and total trade volume for the assessed countries five years after the onset of conflict. The costs are measured based on trade volumes in constant US dollars. In the case of Syria, whose conflict began in 2011, the country’s imports were 60 per cent lower than they would have been in the absence of conflict, its exports were 80 per cent lower, and its overall trade volume was 72 per cent lower. Other conflict-affected countries, such as Libya and El Salvador, also had significant opportunity costs five years after their conflicts began, with their total trade volumes respectively standing 51 and 26 per cent lower than they would have been if they had avoided conflict.

The analysis shows more consistent negative impacts of conflict on exports than on imports. During conflicts, imports may not always decline as essential goods remain in demand. This leads to varying import trends across conflict-affected regions, as some essential items continue to be sought despite disruptions.

One of two countries that did not show an opportunity cost in imports was Rwanda, whose civil war lasted from 1990 to 1994. Between 1989 and 1990, the total value of the country’s imports declined from US$181 million to US$153 million. This was followed by an increase in imports during the fighting, which reached US$383 million by 1994, only to subsequently decline in 1995. This trend was influenced by military expenditure as percentage of GDP more than doubling in 1990, the year that conflict started. Subsequently, military expenditure averaged at 4.3 per cent of GDP between 1990 and 1994, before declining to 0.6 per cent in 1995, one year after the conflict concluded.

Across all assessed countries, the trends revealed an average annual opportunity cost of 19 per cent for imports and 30 per cent loss for exports. The overall average loss in total trade volume was 28 per cent, underscoring the widespread impact of conflict on international trade dynamics, with a slightly higher detrimental effect on exports.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>IMPORTS % DIFFERENCE</th>
<th>EXPORTS % DIFFERENCE</th>
<th>TOTAL TRADE VOLUME % DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>-33.7%*</td>
<td>-2.4%</td>
<td>-4.4%</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>-22.4%</td>
<td>-13.1% *</td>
<td>-16.9% *</td>
</tr>
<tr>
<td>El Salvador</td>
<td>-33.1%</td>
<td>-14.4%</td>
<td>-26.1%</td>
</tr>
<tr>
<td>Libya</td>
<td>-31.6% *</td>
<td>-64.3% *</td>
<td>-51.4% *</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>+12.1%</td>
<td>-17.2%</td>
<td>-1.6%</td>
</tr>
<tr>
<td>Rwanda</td>
<td>+45.7%</td>
<td>-25.1%</td>
<td>-33.7%</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>-26.0%</td>
<td>-23.3%</td>
<td>-17.4%</td>
</tr>
<tr>
<td>Syria</td>
<td>-59.7%</td>
<td>-79.7%</td>
<td>-72.2%</td>
</tr>
<tr>
<td>Average</td>
<td>-18.6%</td>
<td>-29.9%</td>
<td>-27.9%</td>
</tr>
</tbody>
</table>

*Data partially imputed
** Each estimation is calculated separately
Source: World Bank; IEP Calculations

### Economic Dynamics and Business Environment

In addition to modelling the opportunity cost of conflict on economic output and trade, IEP also assessed the losses in business-related indicators, including foreign investment, capital formation, consumption, and household consumption. This analysis revealed that, for each of these variables, seven out of the eight countries incurred an opportunity cost. This underscores the pervasive and substantial impact of conflict not only on traditional economic metrics but also on critical business indicators crucial for sustainable development.
TABLE 3.4
Modelled opportunity costs in business related indicators, five years after the onset of conflict

Modelling showed losses for seven out of eight countries for all identified measures of the strength of the business environment.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>FDI, % DIFFERENCE</th>
<th>GROSS CAPITAL FORMATION, % DIFFERENCE</th>
<th>CONSUMPTION, % DIFFERENCE</th>
<th>HOUSEHOLD CONSUMPTION, % DIFFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>+31.4%</td>
<td>+8.7%</td>
<td>+10.6%</td>
<td>-7.3%</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>-53.2%</td>
<td>-25.7%</td>
<td>-17.0%</td>
<td>n/a</td>
</tr>
<tr>
<td>El Salvador</td>
<td>-51.3%</td>
<td>-46.0%</td>
<td>-14.3%</td>
<td>-27.6%</td>
</tr>
<tr>
<td>Libya</td>
<td>-100%**</td>
<td>-66.9%</td>
<td>-40.9% *</td>
<td>n/a</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>-67.3%</td>
<td>-32.5%</td>
<td>-18.1%</td>
<td>-22.7%</td>
</tr>
<tr>
<td>Rwanda</td>
<td>-62.2%</td>
<td>-11.7%</td>
<td>-14.6%</td>
<td>+4.5%</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>-100%**</td>
<td>-65.5%</td>
<td>-21.8%</td>
<td>-28.6%</td>
</tr>
<tr>
<td>Syria</td>
<td>-29.1% *</td>
<td>-88.7%</td>
<td>-34.3%</td>
<td>-42.7%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>-53.9%</strong></td>
<td><strong>-41.0%</strong></td>
<td><strong>-18.8%</strong></td>
<td><strong>-22.6%</strong></td>
</tr>
</tbody>
</table>

* Data partially imputed  
** FDI potential loss is more than 100 per cent  
*** Each estimation is calculated separately  
Source: World Bank; IEP Calculations

As shown in Table 3.4, FDI inflows displayed the highest sensitivity to conflict, with an average annual loss of 54 per cent five years following the onset of conflict. The real-world indexed trends in FDI inflows across these countries are shown in Figure 3.10. Five years after the start of their respective conflicts, half of the countries showed a decline in FDI inflows.

The second most strongly impacted indicator was gross capital formation, which refers to the total value of goods and services used to create or maintain physical assets, such as infrastructure, machinery, and buildings. The opportunity cost for gross capital formation reached 41 per cent, highlighting an impact on investment in productive assets.

In addition, there was an average annual opportunity cost to household consumption of 23 per cent five years after the onset of conflict, with only one case, Rwanda, not showing a loss. Moreover, the average opportunity cost to household consumption was found to grow even greater over time, reaching 25 per cent a decade after the onset of conflict.

The real-world indexed trends in the assessed countries are shown in Figure 3.11. Five years after the start of their respective conflicts, these countries showed an average decline in household consumption of 23 per cent.

FIGURE 3.10
Average foreign direct investment inflows, countries impacted by sustained conflict

Average actual FDI inflows declined the most in first two years following the onset of conflict.

Source: World Bank; IEP Calculations

FIGURE 3.11
Average household consumption, countries impacted by sustained conflict

On average household consumption for the assessed countries decreased markedly in the first five years after the onset of conflict.

Source: World Bank; IEP Calculations
Opportunity Cost Case Studies
Beyond the initial economic shocks, protracted conflict can reshape economic and trade dynamics in ways that may reverberate for decades. Modelling suggests that this has been the case in El Salvador, whose civil war ended more than 30 years ago, and it may also prove to be the case in Syria, where a civil war that began in 2011 continues to this day. Among the eight countries assessed, the conflicts experienced in these two countries are the longest. This section highlights the enduring consequences and the complex trajectories of recovery that unfold in the aftermath of long-term conflicts.

Civil war in El Salvador
The Salvadoran Civil War was one of the most devastating conflicts in modern Latin American history. Violence emerged in El Salvador in the late 1970s and eventually escalated into a 12-year war, which officially ended in 1992. Primarily fought between the government and leftist guerrilla groups, such as the Farabundo Martí National Liberation Front (FMLN), it resulted in a considerable loss of life, with approximately 80,000 people killed and over a million internally or internationally displaced.24

During most of the 1970s, El Salvador’s GDP demonstrated strong year-to-year growth. The annual growth was about US$11 billion in 1970 and rose to almost US$15 billion in 1979.25 However, with the onset of violence, the economic landscape began to deteriorate. It was not until 1992 that El Salvador’s GDP returned to its pre-conflict levels.26

Figure 3.12 shows El Salvador’s actual GDP from 1970 to 2021 as compared to a modelled projection of its GDP based on the country avoiding conflict. Five years into the onset of the conflict, El Salvador showed an annual loss of 26 per cent against its modelled GDP, a discrepancy that expanded in subsequent decades. The model shows that if the country had avoided conflict, its GDP would have been 34 per cent higher than its actual level ten years after the onset of conflict. The figure further shows the effects persisting to the present day, highlighting the prolonged impact of the conflict on a country’s economic output.

Conflict in Syria
The civil war in Syria began in 2011 as an extension of the Arab Spring uprisings. The conflict persists to this day, marked by the involvement of various factions and external actors. It has resulted in an estimated 400,000 deaths and the displacement of large numbers of Syrians, with over 5.6 million refugees seeking shelter in other countries, and roughly 6.6 million people internally displaced within the country.27

Prior to the conflict, Syria’s GDP experienced substantial growth, rising from US$4 billion in 1970 to US$21 billion in 2000, and then to US$35 billion by 2010. However, a significant economic decline was observed following the onset of the civil war. By 2020, the country’s economic output had dropped to US$11 billion.28 Among other sectors, large declines were seen in agriculture, manufacturing, finance, housing, and energy.29 From 2010 to 2018, exports fell from US$9 billion to US$0.7 billion, a decrease of 92 per cent. The collapse in exports resulted in Syria’s trade deficit widening from 17 per cent of GDP to 35 per cent over the same period. In addition, Syria’s currency depreciated 90 per cent and inflation reached 700 per cent.30

IEP modelling revealed that in addition to these real-world losses, there was also a significant opportunity cost to GDP for Syria, estimated at 32 per cent five years after the conflict’s onset. Modelling further showed this loss amounted to 45 per cent a decade after the conflict began.

Figure 3.12
Actual and modelled GDP, El Salvador
Five years after the onset of El Salvador’s civil war, its GDP had an average annual loss of 26 per cent.
The decline in GDP in Syria was accompanied by losses in trade caused by a combination of conflict-related disruptions, reduced production and trade embargoes. Figure 3.13 shows the actual and modelled trends in exports and imports since 1980. Five years after the onset of conflict, Syria had an average annual opportunity cost for imports of 60 per cent, while the average annual cost for exports was 80 per cent. Overall, the average annual opportunity cost for trade was 72 per cent five years after the start of the civil war.

FIGURE 3.13
Actual and modelled trends in exports and imports, Syria, 1980–2020
Five years after the outbreak of civil war in Syria, there was an opportunity cost of 80 per cent for exports and of 60 per cent for imports.

Source: World Bank; IEP Calculations

Economic Effects of War in Europe
In contrast to the other countries and regions discussed above, conflict in Europe has been relatively infrequent in recent decades. Two notable exceptions are the Yugoslav wars in the 1990s and the war in Ukraine that was first initiated by Russia in 2014 and escalated significantly in 2022. Both sets of wars had substantial economic consequences for the countries involved, especially in the territories where the most fighting occurred. Analyses of historical and modelled trends in GDP per capita in these countries gives an indication of some of the opportunity costs of war, even in usually peaceful regions of the world.

GDP per capita provides insights into the average economic wellbeing of individuals within a country, considering factors such as income distribution and disparities. In the context of conflict, GDP per capita is particularly relevant as it accounts for changes in population size and allows for a more accurate assessment of the economic impact of conflict on individuals.

Ukraine
The economic impact of the conflict in Ukraine is evident in a substantial decline in GDP per capita. Several years after experiencing a sharp financial downturn in 2009 associated with the Global Financial Crisis, Ukraine's GDP per capita showed another major decline with Russia's initiation of hostilities in 2014. Between 2013 and 2015, Ukraine's GDP per capita declined by 16 per cent, dropping first from US$2,466 in 2013 to 2,346 in 2014, and then again to US$2,125 in 2015.

The adverse economic effects of the conflict are also reflected in the opportunity cost, as shown in Figure 3.14. Five years into the conflict, annual GDP per capita was 27 per cent below what it would have been if the conflict had not occurred. As data is only available up to 2021, this model does not take into account the more devastating economic impacts that have hit the country since Russia's full-scale invasion in 2022, which led to the largest displacement of people in Europe since the Second World War.

BOX 3.2
Impact Of Armed Conflict on Trade with Neighbouring and Joiner Countries
The war in Syria has been as one of the most severe humanitarian crises in recent decades. It has had varying effects on the country’s neighbours, with particularly mixed impacts on Lebanon’s trade dynamics.

Before the conflict, Saudi Arabia and Syria were major importers of Lebanese goods, and Syria served as Lebanon’s crucial land trade route to Iraq, Turkey, and the Gulf. A study by the Word Bank highlights reduced Syrian demand impacting exporters tied to the Syrian market, but there were benefits to the Lebanese export of goods like beverages, tobacco, and food, compensating for lost production. For instance, wheat exports to Syria saw a 14-fold increase between 2011 and 2013. Conversely, the crisis had an adverse effect on exporters of manufactured goods, and on mineral fuels. Additionally, the war heightened the trading costs for Lebanon, impacting the overall cost of engaging in trade with Syria. Despite these challenges, Lebanese services, especially in finance and real estate, displayed resilience, partly due to increased demand from Syrian refugees. The overall impact on Lebanon was less significant than for larger neighbours like Jordan.

While armed conflict can influence the trade of neighbouring countries, the extent of this impact is contingent on several factors. These include the pre-existing trade relationships, the degree of destruction, and a neighbour’s level of involvement in the conflict. The effects of civil wars on trade have been found to extend beyond the countries directly experiencing the conflict and their neighbours, to also impact other countries that become involved.
The initiation of the war between Russia and Ukraine in 2014 led to a substantial and ongoing opportunity cost to economic activity in Ukraine.

Source: World Bank; IEP Calculations

Yugoslav Wars

The breakup of Yugoslavia in the early 1990s and the civil wars that followed had profound economic repercussions, leading to a significant downturn in the economic fortunes of those countries. The dissolution of the unified market and the imposition of trade barriers among the newly independent states disrupted established economic ties, contributing to a sharp decline in overall economic activity. The ensuing armed conflicts, particularly in Bosnia and Herzegovina and in Croatia, further exacerbated economic challenges, causing extensive damage to infrastructure and disrupting production and trade.

In the context of the political and economic collapse of the Soviet Union and the wider Eastern Bloc, the economic fallout of the breakup varied across the former Yugoslav republics. As of 1993, which represented the height of the economic downturn for the countries, the largest GDP per capita losses occurred in two countries: Serbia and Montenegro, which at that time was a single country, and Bosnia and Herzegovina. As shown in Figure 3.15, Serbia and Montenegro and Bosnia and Herzegovina both saw their GDPs per capita cut in half between 1990 and 1993. The third largest decline occurred in Croatia, where GDP per capita fell by 33 per cent. In contrast, Slovenia and North Macedonia, while still experiencing large downturns, emerged as the least affected by these economic setbacks, with their GDPs per capita falling by 12 and 20 per cent, respectively.

While a wide array of factors played into the economic downturns of the former Yugoslav republics in the early 1990s, the intensity of the conflicts each experienced or engaged in appears to have contributed to their respective losses. For example, Bosnia and Herzegovina was the site of the Bosnian War (1992-1995), which resulted in the greatest loss of life of any of the modern wars in the Balkans.38 It is therefore unsurprising that, along with Serbia and Montenegro, the country saw the largest decline in GDP per capita. Moreover, for its direct involvement in the Bosnia conflict and the Croatian war, Serbia and Montenegro was the target of an international sanctions regime beginning in 1992, which devastated the country’s economy.39 And while not reaching the levels of brutality of the Bosnian War, Croatia’s war for independence lasted for more than four years, resulted in tens of thousands of deaths, and also ravaged the country’s economy.

In contrast, Slovenia and North Macedonia represent distinctive cases in the context of the dissolution of Yugoslavia. In 1991, North Macedonia peacefully succeeded from Yugoslavia, and Slovenia’s Ten-Day War for independence resulted in fewer than one hundred deaths. It is noteworthy, therefore, that the scale of the economic declines in these countries were markedly lower than for their more conflict-affected counterparts.
Positive Peace and Ethical Investment

Key Findings

- Ethical investment strategies – those aimed at fostering better environmental, social and governance (ESG) outcomes – have become more prominent in the financial and broader business sector.
- Positive Peace is an accurate predictor of future ESG outcomes for sovereign nation state classifications, given the robust links between the Positive Peace Index (PPI) and ESG measures.
- Multiple financial institutions' sovereign ESG ratings show very high levels of correlation with the PPI, with correlation coefficients as high as 0.92.
- Positive Peace trends indicate that the ten countries most likely to improve from their current ESG standings in the future are Armenia, Georgia, Uzbekistan, Taiwan, Ireland, Côte d'Ivoire, Japan, Bhutan, New Zealand and Malaysia.
- Some of the emerging economies with the lowest likelihood of improvement in ESG performance are Venezuela, Lebanon, Brazil, Türkiye, and Hungary.
- Some high-income countries that have deteriorated in the PPI over the past decade and as a result may also see some weakness in their future ESG ratings are the United States, Hungary, the United Kingdom, Poland, and Austria.
- Across multiple measures, superior ESG ratings are most closely linked with improvements in the following Positive Peace Pillars: Well-Functioning Government, Free Flow of Information and Low Levels of Corruption. However, all Pillars correlate strongly with ESG ratings.

This chapter assesses the links between Positive Peace and ethical investment measures. It shows that long-term trends in Positive Peace can be used to help predict future developments in ESG ratings.

The research seeks to establish the interrelationships and trends among developmental variables that will guide businesses in coming years and decades.

Environmental, Social and Governance Standards

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. 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, and
- (G) encourage accountable and transparent organisational governance.

Different ESG principles can be applied and cater for a variety of investment styles and objectives. For example, an investor pursuing ethical strategies in corporate debt or equity markets will select companies whose operations and output minimise harm to the environment, promote the wellbeing of stakeholder communities and are responsibly managed. Similarly, a participant in sovereign markets will select countries with proper environmental protection frameworks, effective social justice practices and transparent administration.
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.

Positive Peace also has a strong statistical relationship with countries that have better environmental outcomes, other than greenhouse gas emissions.1

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.

However, one of the questions often asked is: What type of societal environment leads to improvements in ESG measures? Positive Peace can be used to measure this. The impact of environmental conditions on living standards is influenced by society. Positive Peace is a proven measure of societal resilience and adaptability. As one 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 therefore Positive Peace is a measure of the conditions that allow for the best societal trade-offs.

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. However, when constructed correctly, ESG portfolios can deliver better long-term results when focused on a country whose societal structures are progressively improving.

At a superficial 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. Further, they may pre-empt and avoid future losses associated with regulation, litigation, compensation and remediation. They are also likely to be better managed than their peers, as the operational principles necessary for a company to receive favourable ESG ratings will also 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 2018.2

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.3 As a result, ESG is becoming more widespread as a useful risk management tool in the wider financial markets.

Positive Peace and ESG Ratings

Positive Peace provides a theory of change and describes the necessary background conditions for better ESG performance. Therefore, Positive Peace is a predictor of future improvements in ESG measures.

Because of the conceptual and empirical overlap between ESG and Positive Peace, the PPI can be used as a gauge of sovereign ESG performance. There is a very strong level of correlation between the PPI and Morgan Stanley Investment Management’s (MSIM) sovereign ESG ranking, with a correlation coefficient of 0.84 (Figure 4.1). A near identical relationship is observable for another major set of sovereign ESG ratings produced by BNY Mellon, though these ESG scores show an even higher level of correlation with Positive Peace ($r = 0.92$), as shown in Figure 4.1.4

FIGURE 4.1
MSIM sovereign ESG scores and the PPI, 2022

The correlation between Morgan Stanley Investment Management’s sovereign ESG rankings and the PPI is 0.84.

Source: Morgan Stanley Investment Management; IEP Calculations
These empirical results show that Positive Peace is an accurate predictor of ESG outcomes from the point of view of sovereign nation state classifications. The ESG scores of sovereign nation states are used in two ways:

1. To help investors with sovereign exposures – such as bonds, equity indices, credit default swaps and other derivatives - assess the alignment of their portfolios with ethical investment principles of their portfolio companies.
2. To inform companies with assets and operations in given countries about these countries’ commitment to ethical and sustainable development. When companies carefully assess the commitment countries have to their ESG standards they are able better to pick markets whose underlying business environment is likely to improve. This makes them more valuable for ethical investment fund managers and private investors.

Changes in Positive Peace and the associated trends are long lasting, in that they take multiple years to work themselves through. This means they are an accurate way to predict future developments in ESG scores. This opens the possibility for ethical investors and stakeholders in ESG sectors to assess which countries will improve in ESG ratings and which will deteriorate. This work can be coupled with analysis of the negative or actual peace (as measured by the Global Peace Index) of the countries to enhance the accuracy of ESG forecasts. The measures of peace and Positive Peace are intrinsically connected principles. Therefore, analysing these relationships across countries and time can add value to ESG research.

Emerging Markets

There is a strong association between Positive Peace and ESG rankings when looking exclusively at developing economies as well. For emerging markets, ESG sovereign scores computed by BNY Mellon Asset Management show a strong positive correlation with the PPI ($r = -0.80$). Analysis of the relationship between ESG and Positive Peace scores in emerging markets allows the detection of certain clusters at the poles of the trendline, thereby allowing the best and worst markets to be identified.

At favourable end of the spectrum of Lazard Emerging Markets are mostly Central and Eastern European and Latin American countries, such as Lithuania (LTU), Chile (CHL), Latvia (LVA), Slovakia (SVK), Poland (POL), Croatia (HRV), Costa Rica (CRI) and Hungary (HUN). These emerging market nations show a high level of development in ESG that is almost equivalent to that of high-income nations. Yet, their internal markets and infrastructure are still relatively underdeveloped, which presents opportunities for investment. Simultaneously, these nations show some of the highest levels of Positive Peace, which looks at attitudes, institutions and structures within a country that help assess stability and governance, economic resilience, market potential, human capital development, social inclusivity and long-term sustainability. Thus, PPI allows for refined analysis and understanding of resilient societies, which can help predict business environment and potential opportunities.

Despite this, not all these countries are necessarily those with the best prospects for an ethical investment landscape in the long-term. As discussed below in the section on Positive Peace trajectories, despite their comparatively strong scores, countries like Hungary and Poland have experienced substantial deteriorations in Positive Peace in the past decade and therefore at risk of seeing their ESG scores decline in the coming years. In contrast, countries like Latvia find themselves on an upward trajectory in Positive Peace, thus poised to continue making gains in ESG.

At the other end of the spectrum are countries such as Venezuela (VEN), Cameroon (CMR), Iraq (IRQ), the Republic of the Congo (COG), Nigeria (NGA), Ethiopia (ETH), Pakistan (PAK), Angola (AGO), Mozambique (MOZ) and Côte d’Ivoire (CIV). This grouping of countries has the farthest distance to traverse in both ESG and PPI scores to become safe and ethical destinations for investment.

However, as with the grouping above, these countries are marked by diverging trajectories. Côte d’Ivoire, for example, despite starting from a poor baseline, has made significant gains in Positive Peace in the past decade and is therefore well positioned to improve its ESG scores in the coming years. Other countries like Venezuela and Mozambique, however, have been on a trajectory of deterioration in Positive Peace and would therefore need to reverse course to improve their ESG ratings.

The largest number of emerging market countries fall in between these two poles, as reflected by the large cluster in the middle of the trendline, refer to chart 4.3. Notably, the grouping includes the five large nations that make up the BRICS group: Brazil, Russia, India, China and South Africa. Despite their middling performance in both ESG and Positive Peace, these nations have in the past decade attracted significant international investment, with China and India leading the way due to their robust economic growth, technological and infrastructural advancements, and their massive – and increasingly wealthy – consumer bases.

These countries’ long-term ability to attract investment, however, may be hampered if they fail to make improvements in Positive Peace. Of all the BRICS, this is particularly a risk for Brazil, which has experienced one of the steepest deteriorations in Positive Peace since 2009. Among other emerging economies with mid-level ESG and PPI scores, Lebanon and Türkiye have also experienced substantial Positive Peace deteriorations, potentially undermining their capacity to attract more investments, and specifically more ethical investments.
Positive Peace Pillars

Socio-economic systems operate in complex ways. Complexity stems from the fact that the behaviour of systems cannot be understood simply from the analysis of isolated components. The performance of the whole system contains features that do not stem from the combined performance of individual components themselves but from the multifaceted interactions between such components, and the whole is thus more than the sum of its parts.

One practical example of complexity comes from parsing Positive Peace systems – such as the socio-economy of a country – by their individual Pillar components. In a non-complex system, the correlation between an ESG measure and the PPI Overall Score should equal the average of the correlations between the ESG measure and each of the PPI Pillars. If the whole were a simple amalgamation of the parts, some of the Pillars would be highly correlated with ESG, others less so, and the overall correlation would reflect the average of these relationships.

However, complex systems work differently. The higher informational content of the overall scores results in it being far more closely correlated with the ESG scores than any of the Pillars. The overall score captures the operation of the socio-economic system as a whole and therefore is a more accurate reflection of the correspondence with ESG criteria than any individual Pillar.

This finding is reproduced in Figure 4.3 showing the MSIM sovereign ESG rankings. The correlation coefficient with the PPI overall score is 0.84, as discussed in Figure 4.4 below, and this correlation is greater than any of the Pillars.
As socio-economic trends tend to have long durations, countries that have posted improvements in Positive Peace in the recent past are more likely to continue doing so in the short to medium term. This indicates that future developments in the sovereign ESG scores may be deduced from historical trends in the PPI and Pillar scores.

This allows the identification of 20 countries with substantial improvements in overall Positive Peace coupled with improvements in these three specific Pillars that are highly correlated to ESG measures (Table 4.1).

### TABLE 4.1

**Twenty countries with the greatest potential for improvements in their ESG ratings**

These 20 countries recorded substantial improvement relative to the global average in the PPI Overall Score and the Pillars most correlated to ESG measures.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>WORLD BANK INDEX</th>
<th>OVERALL SCORE</th>
<th>FREE FLOW OF INFORMATION</th>
<th>WELL-FUNCTIONING GOVERNMENT</th>
<th>LOW LEVELS OF CORRUPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uzbekistan</td>
<td>Lower middle income</td>
<td>-10.7</td>
<td>-19.9</td>
<td>-14.8</td>
<td>-10.4</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>Lower middle income</td>
<td>-7.5</td>
<td>-17.7</td>
<td>-8.4</td>
<td>-10.7</td>
</tr>
<tr>
<td>Armenia</td>
<td>Upper middle income</td>
<td>-9.3</td>
<td>-17.7</td>
<td>-9.5</td>
<td>-16.1</td>
</tr>
<tr>
<td>The Gambia</td>
<td>Low income</td>
<td>-6.5</td>
<td>-29.6</td>
<td>-8.6</td>
<td>-2.3</td>
</tr>
<tr>
<td>Bhutan</td>
<td>Lower middle income</td>
<td>-7.4</td>
<td>-16.9</td>
<td>-17.6</td>
<td>-23.3</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>High income</td>
<td>-6.8</td>
<td>-17.3</td>
<td>-4.8</td>
<td>-9.9</td>
</tr>
<tr>
<td>Georgia</td>
<td>Upper middle income</td>
<td>-7.4</td>
<td>-17.7</td>
<td>-12.5</td>
<td>-9.3</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>Upper middle income</td>
<td>-6.3</td>
<td>-31.6</td>
<td>-2.9</td>
<td>-7.4</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>Upper middle income</td>
<td>-6</td>
<td>-14.6</td>
<td>-6.8</td>
<td>-7.9</td>
</tr>
<tr>
<td>Sudan</td>
<td>Low income</td>
<td>-4.7</td>
<td>-12.4</td>
<td>1.2</td>
<td>-4.3</td>
</tr>
<tr>
<td>China</td>
<td>Upper middle income</td>
<td>-6.1</td>
<td>-12.6</td>
<td>-4.5</td>
<td>-12.4</td>
</tr>
<tr>
<td>Taiwan</td>
<td>High income</td>
<td>-7.2</td>
<td>-19.9</td>
<td>-23.2</td>
<td>-17.5</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Upper middle income</td>
<td>-6.2</td>
<td>-19.7</td>
<td>-3.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Uruguay</td>
<td>High income</td>
<td>-7.3</td>
<td>-27.4</td>
<td>-19.2</td>
<td>-11.1</td>
</tr>
<tr>
<td>Angola</td>
<td>Lower middle income</td>
<td>-4.3</td>
<td>-8.1</td>
<td>-2.2</td>
<td>-13.4</td>
</tr>
<tr>
<td>Madagascar</td>
<td>Low income</td>
<td>-4.3</td>
<td>-9.8</td>
<td>-15</td>
<td>-6.3</td>
</tr>
<tr>
<td>Japan</td>
<td>High income</td>
<td>-8.2</td>
<td>-12.1</td>
<td>-19.6</td>
<td>2.8</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Lower middle income</td>
<td>-4.2</td>
<td>-7.2</td>
<td>-6.5</td>
<td>-6.2</td>
</tr>
<tr>
<td>North Macedonia</td>
<td>Upper middle income</td>
<td>-5.3</td>
<td>-12</td>
<td>-12.3</td>
<td>8.4</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Lower middle income</td>
<td>-4.2</td>
<td>-12.8</td>
<td>-4.5</td>
<td>-2.4</td>
</tr>
</tbody>
</table>

* A negative change in score is an improvement in Positive Peace.

Source: IEP
Following similar reasoning, deteriorations in Positive Peace may suggest difficulties for some countries to maintain high ESG standings. The high-income countries that recorded the largest deteriorations in the PPI since 2009 and as a result may see declines in their future ESG ratings are the United States, Hungary, the United Kingdom, Poland and Austria.

BNY Mellon calculates scores for each individual aspect of ethical investment: environmental, social and governance. As expected, the Positive Peace measures are highly correlated with all of the social and governance aspects, with the environmental scores being broadly unrelated to the Pillars.

The Positive Peace Pillar most highly correlated with the social aspect of ethical investment was *Equitable Distribution of Resources*. This highlights the benefits of higher levels of equality of opportunity in the social context. Unsurprisingly, the Pillar with the highest correlation with the governance aspect was *Well-Functioning Government, Low Levels of Corruption* and *Free Flow of Information* were also highly correlated, highlighting the important role of probity and justice as well as a strong communications environment in determining ethical investment opportunities.

### Table 4.2

**BNY Mellon sovereign ESG ratings and the PPI Pillars, 2022**

The Pillars most closely aligned with MBY ESG are Well-Functioning Government, Equitable Distribution of Resources, Free Flow of Information and Low Levels of Corruption.

<table>
<thead>
<tr>
<th>PPI SCORES</th>
<th>ENVIRONMENTAL</th>
<th>SOCIAL</th>
<th>GOVERNANCE</th>
<th>OVERALL ESG RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Levels of Human Capital</td>
<td>0.11</td>
<td>0.71</td>
<td>0.78</td>
<td>0.80</td>
</tr>
<tr>
<td>Sound Business Environment</td>
<td>0.12</td>
<td>0.67</td>
<td>0.83</td>
<td>0.83</td>
</tr>
<tr>
<td>Good Relations with Neighbours</td>
<td>0.26</td>
<td>0.60</td>
<td>0.84</td>
<td>0.85</td>
</tr>
<tr>
<td>Acceptance of the Rights of Others</td>
<td>0.11</td>
<td>0.74</td>
<td>0.81</td>
<td>0.85</td>
</tr>
<tr>
<td>Low Levels of Corruption</td>
<td>0.22</td>
<td>0.60</td>
<td>0.87</td>
<td>0.85</td>
</tr>
<tr>
<td>Free Flow of Information</td>
<td>0.18</td>
<td>0.66</td>
<td>0.85</td>
<td>0.87</td>
</tr>
<tr>
<td>Equitable Distribution of Resources</td>
<td>0.08</td>
<td>0.80</td>
<td>0.80</td>
<td>0.87</td>
</tr>
<tr>
<td>Well-Functioning Government</td>
<td>0.21</td>
<td>0.64</td>
<td>0.88</td>
<td>0.88</td>
</tr>
<tr>
<td>PPI Overall Score</td>
<td>0.17</td>
<td>0.73</td>
<td>0.90</td>
<td>0.92</td>
</tr>
</tbody>
</table>

Source: BNY Mellon; IEP Calculations

The Yale Environmental Performance Index shows high correlation with Positive Peace score (r=-0.79). This Index organises topics of issues measured around: Climate Change Mitigation, Air Quality, Sanitation & Drinking Water, Heavy Metals, Waste Management, Biodiversity & Habitat, Ecosystem Services, Fisheries, Acid Rain, Agriculture, Water Resources.* Many of the high income and upper middle-income countries perform the best in Environmental Performance and in Positive Peace. In addition, countries such as United Kingdom, Finland, United Arab Emirates, Sweden, Kuwait, Denmark and Luxembourg, recorded some of the highest improvements environmentally in the past 10 years.
Most developed countries are also those taking the most decisive steps towards reversing this picture. In recent decades, there has been substantial progress in terms of legislation, business practices and technology towards environmentally sustainable economic development. This progress has created a framework for environmental protection and preparedness that led to better social and health benefits.
End Notes

Section 1


Section 2


3. ‘The Manufacturing Landscape in Lithuania 2019 | Invest Lithuania’.

Section 3


4. Armed conflict, as defined by The Uppsala Conflict Data Program (UCDP), refers to a contested incompatibility involving a government and/or territory. It is characterized by the use of armed force between the military forces of two parties, with at least 25 battle-related deaths each year, where at least one party involved is the government of a state. Paul Collier, War and Military Spending in Developing Countries and Their Consequences for Development’, The Economics of Peace and Security Journal 1, no. 1 (January 2006), https://www.pcr.usu.edu/ research/ucdp/definitions/tocjump_794867066028607.9.


of-the-syrian-conflict-on-lebanese-trade, p.46.


36. This analysis has also been carried out by Julia Bluszcz and Marica Valente (The Economic Costs of Hybrid Wars: The Case of Ukraine, Defence and Peace Economics, 2022, DOI: 10.1080/10242694.2020.1791616).


Section 4


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