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August 10, 2015

**By E-Mail:**

Chair Mary Jo White  
Commissioner Luis Aguilar  
Commissioner Daniel Gallagher  
Commissioner Michael Piwowar  
Commissioner Kara Stein

Securities and Exchange Commission  
100 F Street, NE  
Washington, DC 20549-1090

**Re: Rulemaking for Section 1504 of the Dodd-Frank Wall Street Reform  
and Consumer Protection Act – Institute for Economics and Peace finds a  
statistically significant relationship between corruption and violence**

Dear Chair White and Commissioners:

As you continue work on an implementing rule for Section 1504 of the  
Dodd-Frank Act, please consider a recent study released by Institute for  
Economics and Peace (IEP) that shows a statistically significant relationship  
between corruption and violence – both civil and international.

Institute for Economics and Peace is a research institute that studies the  
relationship between economics and peace. In particular, IEP develops  
metrics to analyze peace and measure its economic contributions.  
Consumers of IEP's research include governments, academic institutions,  
think tanks, and institutions such as the OECD, the World Bank, and the  
United Nations.<sup>1</sup>

In its recent report, *Peace and Corruption 2015*, IEP employed multivariate  
regression and found that a decline in corruption is strongly related to a  
rise in both internal and international peace.<sup>2</sup> Put differently, as corruption  
increases, the prospects for peace deteriorate.

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<sup>1</sup> <http://economicsandpeace.org/about/>

<sup>2</sup> Results were highly significant at the  $p < .01$  level. See Models 2-5, which show  
that a 1-unit increase in the CPI (that is, as countries become *less* corrupt) is  
associated with a .014 decrease in the Internal GPI, and a .021 decrease in the  
overall GPI (that is, countries become *more* peaceful).  
<http://economicsandpeace.org/wp-content/uploads/2015/06/Peace-and-Corruption.pdf>, pp. 22-24.

To measure peacefulness, IEP relied on the renowned Global Peace Index (GPI), a basket of indicators aimed at measuring levels of domestic and international conflict in and between countries. Each country is assigned a score between 1 – 5, with lower scores representing greater peacefulness. Included in the GPI are measures of intensity of internal conflict; violent demonstrations; political instability; political terror; terrorism; deaths from internal conflict; displaced people; external conflicts fought; deaths from external conflict; and neighboring country relations.<sup>3</sup>

Degree of corruption was measured by Transparency International’s Corruption Perceptions Index (CPI), a dataset released annually since 1995. The CPI ranks 175 countries on a scale of 0-100 based on how corrupt their public sectors are perceived to be. A score of 1 = very high corruption, and a score of 100 = almost no corruption. Among the factors considered in constructing each country’s CPI score are: the extent to which public officials are permitted to exploit their offices for private gain without fear of legal consequences or adverse publicity; extent to which the government is perceived to successfully contain corruption; perception of the existence of clear procedures and accountability governing the allocation and use of public funds; perception of the extent to which the government has implemented effective anti-corruption initiatives; degree to which civil society has access to information on public affairs; and frequency with which businesses make undocumented payments or bribes.<sup>4</sup>

IEP’s research illuminating the relationship between corruption and violence is not only relevant to countries with long records of endemic corruption, but to the United States as well. Among the “enduring national interests” cited in the White House’s 2015 *National Security Strategy* document is “a strong, innovative, and growing U.S. economy in an open international economic system that promotes opportunity and prosperity.”<sup>5</sup> Yet, in its *Global Peace Index 2015* report, Institute for Economics and Peace calculated that the impact of violence on the global economy in 2014 amounted to \$14.3 trillion, or 13.4 percent of world GDP.<sup>6</sup>

Further, the 2015 *National Security Strategy* classifies a “rules-based international order...that promotes peace, security, and opportunity through stronger cooperation to meet global challenges” as an enduring national interest, while including “significant security consequences associated with weak or failing states (including mass atrocities, regional spillover, and transnational organized crime)” among the top *risks* to U.S. interests.<sup>7</sup>

Section 1504 of Dodd-Frank, if properly implemented, will help reduce corruption in resource-rich countries. Project-level reporting of payments is especially crucial to the fight against corruption, as only this level of granularity provides citizens with the degree of transparency they need to monitor financial flows in their countries’ extractives sectors, while also helping to prevent distrust and dissent between government and its citizens.<sup>8</sup>

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<sup>3</sup> <http://www.visionofhumanity.org/#/page/indexes/global-peace-index>

<sup>4</sup> [http://www.transparency.org/cpi2014/in\\_detail](http://www.transparency.org/cpi2014/in_detail)

<sup>5</sup> [https://www.whitehouse.gov/sites/default/files/docs/2015\\_national\\_security\\_strategy.pdf](https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf) p.2.

<sup>6</sup> [http://static.visionofhumanity.org/sites/default/files/Global%20Peace%20Index%20Report%202015\\_0.pdf](http://static.visionofhumanity.org/sites/default/files/Global%20Peace%20Index%20Report%202015_0.pdf) p. 3.

<sup>7</sup> [https://www.whitehouse.gov/sites/default/files/docs/2015\\_national\\_security\\_strategy.pdf](https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf) p.2.

<sup>8</sup> For example, in countries where law mandates revenue sharing between national and subnational governments.

Particularly in light of IEP's recent study on the impact of corruption on peace, Publish What You Pay urges the Securities and Exchange Commission to promptly re-issue a rule for Section 1504 that is in line with the 2012 rule and the global transparency standard. Please find attached the Institute for Economics and Peace's *Peace and Corruption 2015* report, and do not hesitate to contact me if I can provide additional information.

Regards,

A handwritten signature in black ink that reads "Jana L. Morgan". The signature is written in a cursive, flowing style.

Jana L. Morgan

Director

Publish What You Pay – United States

Enclosures (1)

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# PEACE AND CORRUPTION

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2015



LOWERING CORRUPTION  
— A TRANSFORMATIVE FACTOR FOR PEACE

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INSTITUTE FOR  
ECONOMICS  
& PEACE

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# Executive summary

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This report explores the connections between peace and corruption, focusing on the empirical trends between the most authoritative measures of peace and corruption. It fills an important gap as the linkages between peace and corruption are still being deeply studied.

The analysis finds that there is a statistically significant relationship between peace and corruption. The most striking aspect of this relationship is the presence of a ‘tipping point’. If a country has low levels of corruption then increases in corruption will have little effect on peace. However, once a certain threshold is reached then small increases in corruption can result in large decreases in peace.

The study finds that changes in corruption drive changes in peace, whereas changes in peace do not appear to influence corruption. Several multivariate statistical models were developed to isolate which factors influence peace and to determine whether peace influences corruption.

**The main findings are:**

- Corruption is the only explanatory variable used in every model which shows consistent and significant correlations with a variety of key peace and violence indicators.
- Peace is not statistically significant in influencing corruption; this highlights the one-way nature of the relationship.

Further analysis highlights that corruption within the police, judiciary and government are the most statistically significant forms of corruption associated with falling levels of peace. The relationship between the ‘tipping point’ and peace can be explained by high levels of corruption in these institutions.

Increases in police and judicial corruption directly undermine the rule of law, thereby increasing political instability and can lead to the collapse of those institutions which were designed to prevent violence and conflict. This occurs in many fragile and low capacity contexts whereby once corruption reaches a certain point, police forces no longer perform a useful function in controlling crime, but rather become part of the problem. This situation is common in contexts where the police are synonymous with criminal

gangs, can act with impunity or are completely ineffective at solving crime unless bribed to do so.

There are 64 countries that could be considered at or near the 'tipping point'. To better understand the likelihood of a country's corruption propelling it through the 'tipping point' a simple model was developed using changes in democratic indicators as a predictor of changes in corruption. Multivariate analysis also isolated changes in democracy as being the most important factor. It should be noted however that there are hybrid regimes with low levels of corruption such as the U.A.E or Singapore. The multivariate analysis contained in Appendix A of this report details the findings supporting the statistical importance of democracy to peace and corruption.

Although this study has focused specifically on the relationship between peace and corruption and possible causality, the best way to understand the development of peace is through a systemic approach. IEP has derived an empirical framework of eight interdependent factors which create and sustain peaceful societies. These factors are known as the Pillars of Peace and describe what creates a peaceful and resilient society. 'Low levels of corruption' is one of eight Pillars of Peace. The aforementioned multivariate analysis can complement a systemic approach to understanding peace. These eight Pillars, or factors, all interact together, and also create an environment to not only address peace but corruption as well.

## KEY FINDINGS

Countries with the strongest democratic institutions tend to be both the most peaceful and least corrupt.

- There is an empirical link between corruption and peace. Once countries reach a certain level of corruption there is a threshold or 'tipping point'. At the 'tipping point' countries which experience small increases in corruption can experience large decreases in peace.
- Corruption is a key explanatory variable in assessing low levels of peace. While it is a key factor, other key factors in the Pillars of Peace are also important and work together to increase levels of resilience and peace as well as creating a conducive environment for lowering corruption.
- Perceived corruption in the police and judiciary is much lower in countries above the 'tipping point' compared to those countries near or below the 'tipping point'.
- Multivariate analysis provides evidence that improvements in peace are dependent on improvements in corruption; however improvements in corruption do not necessarily depend on improvements in peace.
- Countries with the strongest democratic institutions tend to be both the most peaceful and the least corrupt. There are no full democracies below the 'tipping point'. However, some authoritarian regimes are both low in violence and low in corruption. Most of the countries below the 'tipping point' are developing nations.
- The police and the judiciary are seen as some of the most corrupt institutions based on global polling. Eliminating police and judicial corruption is critical for improving the peacefulness of societies.
- Eight internal indicators from the Global Peace Index deteriorate dramatically once a country moves through the 'tipping point'. These indicators are political terror, political instability, the violent crime rate, violent demonstrations, organised conflict, access to small arms and light weapons, the homicide rate and level of perceived criminality in society.

# Introduction

There is little doubt that high levels of corruption have a detrimental effect on society. Corruption is most commonly thought of as the ‘abuse of entrusted power for private gain’, encompassing such acts as bribery, fraud, extortion, embezzlement and kickbacks. Corruption affects the way governing institutions work and operate, supporting illegal trade and business, promoting personal political motivations before the national benefit and supporting an environment whereby immoral actions go unpunished.

The link between peace and corruption is the key focus of this report, which aims to deepen the understanding of corruption as one of the key factors that constrains economic development and peace. It presents new cross-country statistical analysis of the Global Peace Index and various corruption measures.

Intuitively, low levels of peace and high levels of corruption seem to be strongly related to each other. Countries engaged in conflict or civil unrest harbour high levels of perceived corruption, a relationship which may stem from a number of factors. Unregulated government institutions and a lack of development facilitate an environment for illegal rent seeking behaviour, while cultural norms can be accepting of corrupt behaviour.

This report also sheds light on the causal relationship and mechanisms that operate between peace and corruption through multivariate analyses. The approach described in this paper attempts to identify if there are any generalised casual patterns between peace and corruption. The findings support the hypothesis that corruption is an instrumental factor in decreasing peacefulness and increasing levels of violence in societies. However the inverse is not necessarily true, improvements in peace do not necessarily lead to decreases in corruption.

The report identifies police and judicial corruption as having the most significant relationship with lower levels of peace. As these two institutions represent the rule of law, increases

in corruption within these institutions will lead to inefficiencies, impunity and the undermining of justice, thereby driving negative processes ultimately leading to less peace. This relationship is most profound when focusing on countries at the ‘tipping point’; police and judiciary corruption increases dramatically as does decreases in peace once this level is reached.

## THE REPORT IS DIVIDED INTO FOUR MAIN PARTS:

- 1 A methodology section describing how peace and corruption are measured and what particular aspects are assessed in this study.*
- 2 A macro-view of the non-linear link between peace and corruption.*
- 3 An analysis of institutional corruption which focuses on police and judicial corruption, demonstrating how they are closely related to violence within society.*
- 4 An analysis of countries and trends at the tipping point’.*

# Methodology

## Measuring Peace and Corruption

### MEASURING PEACE: THE GLOBAL PEACE INDEX

Peace is a complex concept; but also a concept which is universally recognised as important to define and measure. The Global Peace Index (GPI) is the world's preeminent measure of national peacefulness. It is comprised of 22 indicators and uses 'the absence of violence or the fear of violence' as its definition of peace. Essentially, the GPI is a measure of what is termed 'negative peace'.

The indicators were originally selected with the guidance of an international panel of independent experts in 2007 and have been reviewed and improved by the GPI expert panel each year since. All the scores for each indicator are normalised on a scale whereby qualitative indicators are banded into five groupings and quantitative ones are banded into ten groupings. The Economist Intelligence Unit's team of country analysts scores seven of the eight qualitative indicators and also provides estimates where there are gaps in the quantitative data.

The GPI measures three domains; the extent to which countries are involved in ongoing domestic and international conflicts, the level of societal safety and security and the extent to which a country is militarised.

Five indicators measure the level of domestic and international conflicts. They include the number of deaths from conflict and the number of conflicts a country is involved in. The level of societal safety and security is captured by ten indicators. They include violent crime rate, homicide rate, terrorist activity, violent demonstrations, political instability and the proportion of the displaced population. Seven indicators measure countries' military capacities and activities, reflecting the level of militarisation within the country, percentage of GDP spent on the military, heavy weapons capability and weapons imports and exports.

### POSITIVE PEACE: THE PILLARS OF PEACE

IEP's definition of positive peace is 'the attitudes, institutions and structures which create and sustain peaceful societies'. IEP's work on positive peace aims to explicitly link positive peace to negative peace through statistical techniques. IEP's Positive Peace Index (PPI) is based on eight domains known as the Pillars of Peace.

This body of work is unique as it uses statistical techniques to derive factors that create and sustain peaceful environments. Over 4,700 different indexes, datasets and attitudinal surveys have been analysed to arrive at this framework.

The Pillars of Peace are a set of factors which have been found to work together to systematically shape the environments that lead to peace; low levels of corruption is one of the eight Pillars. This framework is not aimed at deriving causality between any of the Pillars, rather it highlights how the Pillars work as an inter-dependent set of factors where causality can run in either direction and the strength of the relationships between them will change depending on the specific circumstances in a particular country. Therefore strengthening all of the eight Pillars is essential to improving peace.

The concept of positive peace is usually thought of encompassing intangible qualities, such as justice, fairness and equity, which go beyond simple measures of direct violence. This makes sense intuitively, as it allows for a broader conceptualisation of peace.

#### THE EIGHT PILLARS ARE:

 Sound business environment	 Low levels of corruption
 High levels of human capital	 Free flow of information
 Good relations with neighbours	 Well-functioning government
 Acceptance of the rights of others	 Equitable distribution of resources

If ignored, it would mean that societies which prevent conflict and violence only through the use of state repression would be considered peaceful. However, the problem with defining positive peace in this manner is that considerations of such intangible matters are value judgments. By adopting an empirical approach to defining positive peace, the Pillars of Peace avoid subjective judgement.

## MEASURING CORRUPTION

Corruption is most commonly defined as the ‘abuse of entrusted power for private gain’, encompassing such acts as bribery, fraud, extortion, embezzlement, kickbacks and so on. Sometimes, the exact boundaries of what constitutes corruption are unclear. For example, it can be difficult to determine whether gift giving in a certain situation is an act of corruption or simply a cultural practice. In spite of this, there is universal agreement that bribery, however defined, is a corrupt act.

Corruption is not necessarily as overt and petty as the acceptance of a bribe. Corruption may also be systematic. Systematic corruption occurs when the nature of governance and governing institutions makes paying a bribe a prerequisite to interact with these institutions and to engage in economic activity with them.

Because corruption is not usually directly observed or recorded, measuring corruption is particularly difficult. There is no way to directly capture the full extent of corruption within a country.

As measuring corruption directly is difficult, measuring perceptions of corruption is the best possible proxy for actual corruption. This may take the form of surveys of individuals,

business leaders or corruption experts, in an attempt to gauge how widespread corruption is within a country. The most reputable corruption perceptions surveys are described below.

### CORRUPTION PERCEPTIONS INDEX

Transparency International’s Corruption Perceptions Index (CPI) is a highly regarded national level measure of the perceptions of corruption. It has been released annually since 1995. During this time the methodology has changed as improvements were made to the index. The most recent iteration of the CPI uses surveys of expert international institutions, such as the EIU, Freedom House, business leaders and others in an attempt to gauge the level of corruption within a given country. Countries are ranked from 1 to 100, where 1 = *very high corruption* and 100 = *almost no corruption*.

### WORLD BANK: CONTROL OF CORRUPTION

The World Bank Control of Corruption (WBC) measure uses a wide variety of survey data, other composite measures and expert perceptions of corruption. It also uses other public surveys such as the Afro-Barometer and the Latino-Barometer. Like the other World Bank World Governance Indicators (WGI), the index is designed to have a mean score of zero, with an approximate maximum of 2.5 (*very low corruption*) and an approximate minimum of -2.5 (*very high corruption*).

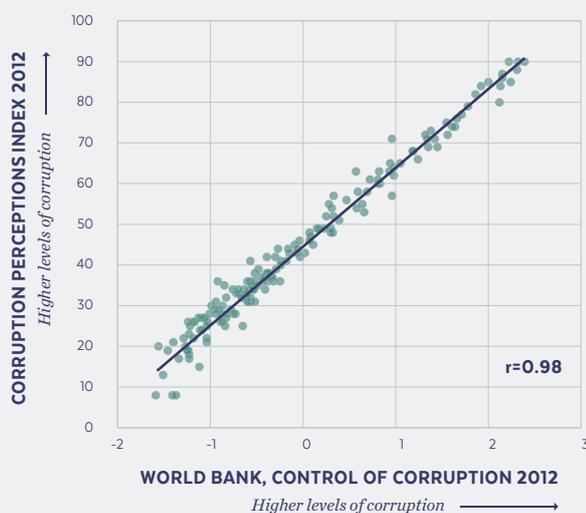
### HOW SIMILAR ARE THE TWO MAJOR CORRUPTION INDICES?

It is important to note that there is a very strong correlation between the CPI and WBC ( $r=0.998$ ) as shown in *Figure 1*. The WBC and CPI use many of the same sources, however, the WBC draws on broader range of sources, including surveys and public opinion polls. The WBC was deliberately constructed to be of use in looking at long term trends between countries. This report uses the two sources more or less interchangeably as they correlate almost identically with the GPI, however, the WBC is preferred for time series analysis because of the multiple methodological changes in that have been applied to the CPI over time.

### GLOBAL CORRUPTION BAROMETER

The Global Corruption Barometer (GCB) has been released sporadically since 2003. It relies on survey data from the Gallup World Poll to assess respondents’ attitudes towards both petty and systematic corruption. Although the questions taken from the Gallup World Poll have varied year to year, the questions have now been standardised and should thus be directly comparable from 2009 onwards. The GCB focuses on perceptions of corruption in specific institutions, such as police, military, judiciary etc., as well as asking respondents whether they have paid a bribe in the last year.

**FIGURE 1** Corruption Perceptions Index vs. the Control of Corruption Indicator, 2012



Source: Transparency International, World Bank

# The Statistical Link between Peace and Corruption

There is a strong statistical association between peace and corruption. This correlation is even stronger when looking specifically at the levels of internal peace of a country.

The analysis uncovered a ‘tipping point’ between the level of peace and corruption, which is a non-linear relationship. Once a certain degree of corruption is reached, small additional increases in corruption are associated with large decreases in the levels of peace. Corruption can increase in a country resulting in a minor impact on peace, but once it reaches the ‘tipping point’, small increases in corruption result in large decreases in peace.

Countries with CPI scores lower than 40 are either near the ‘tipping point’ or below it.

*Figure 2* highlights the countries at the ‘tipping point’. Although there is no strict empirical definition of what constitutes the ‘tipping point’, there are 64 countries clustered around this area, more than a third of the total countries measured in the GPI. When the same countries are plotted against the ‘Internal GPI scores’, there is a closer relationship between levels of internal peace and corruption. This suggests, as would be expected, that corruption impacts internal peace more than external peace. As corruption is essentially an internal problem, those institutions which are most affected are political parties, judicial institutions, police forces and government bodies.

The data in *Figure 2* is from the CPI 2013 and GPI 2014, as the Global Peace Index is lagged by one year. The correlation highlights that corruption and peace do not have a linear relationship, rather, after a certain threshold the degeneration of the governing institutions from corruption, nurtures violent behaviour.

## BOX 1

### IDENTIFYING DRIVERS OF PEACE AND CORRUPTION

Multivariate analysis

There is a strong statistical relationship between peace and corruption, whether looking at negative peace, as measured by the GPI, or at measures of positive peace. Over the long term, keeping corruption under control is essential for building and maintaining peaceful societies. However, this analysis sheds no light on the causal relationship between peace and corruption.

A multivariate regression analysis was run to test the relationship between peace, corruption and a range of other explanatory variables, see Appendix. The results indicate that corruption has a major influence over decreased levels of peace, including violent crime and the homicide rate. However the inverse is not true, peace does not influence corruption.

Corruption is significantly statistically related to decreased levels of peace and increased levels of violence in eight different models at a 99 percent confidence level. Higher than any other variable used in the models, these variables included the stage of development, geographic location and democratic level of governance.

## FIGURE 2

### Corruption Perceptions Index vs Global Peace Index

*'Tipping point' countries are highlighted in red. None of these 'tipping point' countries are full democracies.*



Source: IEP; Transparency International

“ There is a strong statistical link between peace and corruption. As corruption decreases prospects for peace improve.

## TRENDS IN PEACE AND CORRUPTION

This section examines the trends in both peacefulness and corruption over the last fifteen years. The analysis is based on the World Bank Control of Corruption measure and the GPI.

The world has become slightly less peaceful over the last seven years with the Global Peace Index average score deteriorating by approximately five percent. However, this is the global average figure, and there have been large variations from the global average at the regional and national level.

Large deteriorations in peace have been seen in Central, East and West Africa, Middle East and North Africa countries. Meanwhile notable improvements have been seen in Haiti, Chad, Serbia and Mongolia. The diversity of geographic locations of these countries emphasises that both improvements and deteriorations are not necessarily set to a specific location.

At a regional level, three regions have become less corrupt since 1996, with six regions experiencing increases in corruption. The increases were greatest in South and Central America, with significant increases in Sub-Saharan Africa and the Middle East and North Africa as well, as shown in *Figure 6*.

The World Bank records corruption data going back to 1996, which shows that corruption has been increasing since then for the 162 countries that are covered by the GPI. *Figure 4* shows this trend and also clearly highlights that corruption has been increasing every year since 2008.

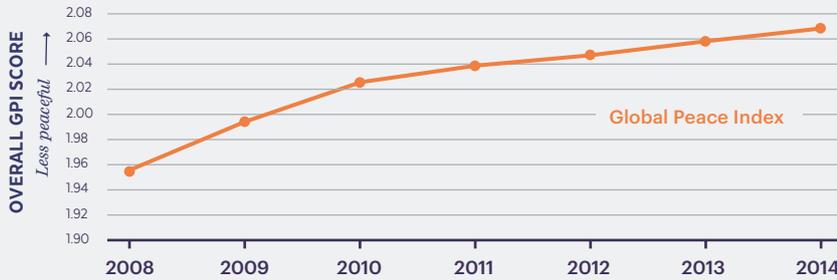
As peace has been decreasing, corruption has been increasing, which indicates that the two factors are broadly moving in the same direction over the time period. *Figure 5* shows the two factors on the same plot demonstrating the close link at the global level.

While peace has been decreasing, corruption has been increasing, which is expected given the statistical link between the two factors. At an institutional level, democracies have seen higher levels of increase in perceived corruption over the past five years than other forms of government. Most of this increase has occurred since the global financial crisis. Hybrid regimes have shown the greatest improvement in corruption perceptions over the past five years. However, it must be emphasised that democracies still show the lowest levels of perceived corruption out of any governing institution.

**FIGURE 3**

Global Peace Index Score, Global Average (2008-2014)

*The world has become 5 percent less peaceful in the last seven years.*

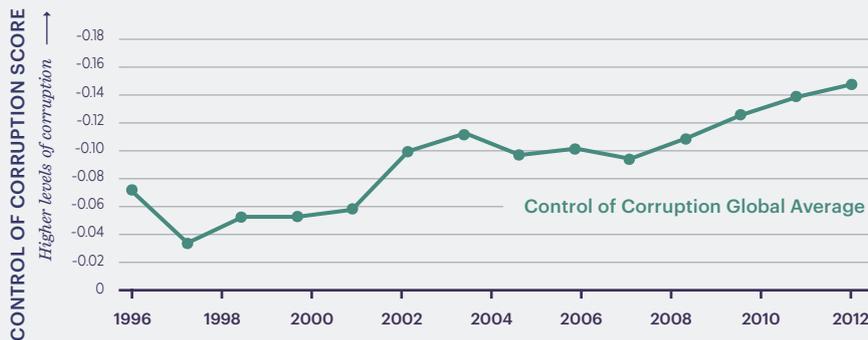


Source: IEP

“ The level of corruption has been on the increase globally, whilst at the same time the average level of peacefulness has been decreasing.

**FIGURE 4** Control of Corruption Indicator Score, Global Average (1996-2012)

*Corruption has been on the increase in the last 15 years, with the global average score deteriorating every year since 2008.*



Source: World Bank

**FIGURE 5** Trends in Peace 2008–2014 (GPI) and Corruption 2007–2013 (WBC)

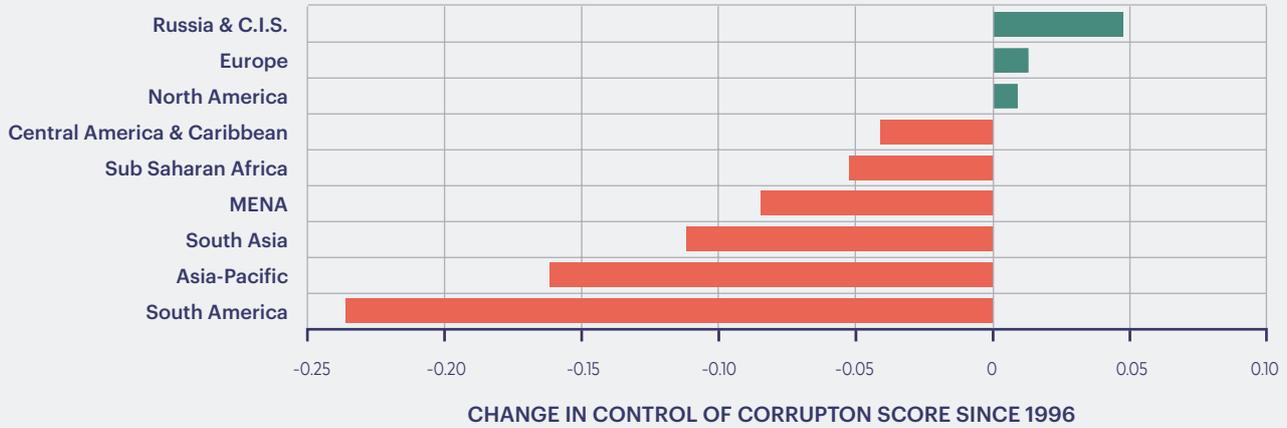
*The level of corruption has been on the increase globally, whilst at the same time the average level of peacefulness has been decreasing.*



Source: World Bank; IEP

**FIGURE 6** Change in Control of Corruption Score by region (1996–2013)

*Corruption has increased across most regions of the world over the last 15 years. Only three regions saw improvements in their Control of Corruption indicator scores.*



Sources: IEP, World Bank

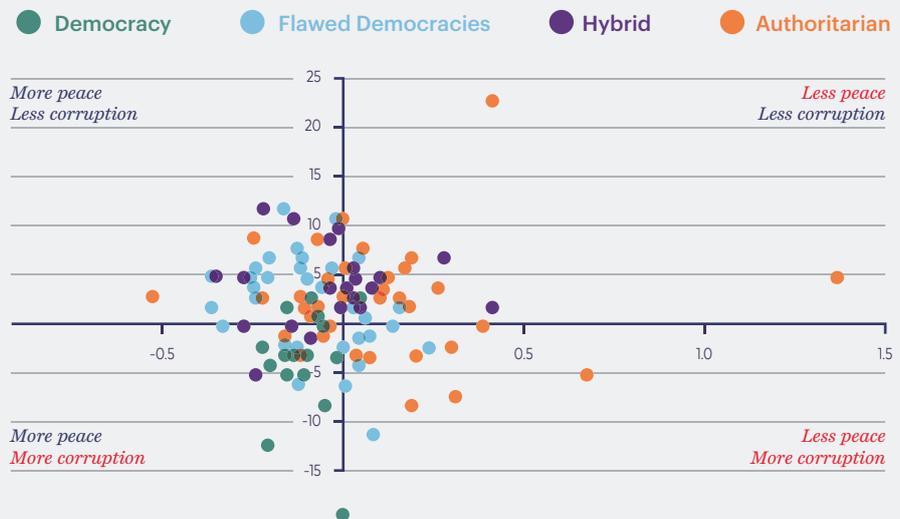
“ *At an institutional level, democracies have seen higher levels of increase in perceived corruption over the past five years than other forms of government.* ”

A more complicated story emerges when this trend is examined at the national level. *Figure 7* shows the correlation between changes in GPI score and WGI score over a five year period. We would expect to see countries become both more peaceful and less corrupt, and vice versa. However, there are a number of countries that became less peaceful and less corrupt, as well as a small handful of countries that became more peaceful and more corrupt.

**FIGURE 7**

Correlation between Changes in GPI Score (2008–2013) and Changes in Control of Corruption Indicator Score (2008–2012)

*While over the long run it is expected peace and corruption will generally move together, over the last five years some countries have deviated from this rule.*



Sources: IEP, World Bank

# Institutional Corruption

The most critical institutional factor that underpins the link between peace and corruption is the degree to which the police and judicial functions of the state are perceived as corrupt. The Global Corruption Barometer (GCB) has been used for the analysis, which includes questions about perceptions of corruption within specific institutions, thereby allowing identification of the connections between peace and institutional corruption.

The GCB is useful because the major indices of corruption don't reveal anything about which types of corruption are most closely associated with or likely to lead to violence. Out of the 12 GCB indicators police, political parties, judiciary and parliament/legislature have the highest perceived levels of corruption, while NGOs, religious bodies and the media have the lowest.

## POLICE AND JUDICIAL CORRUPTION

The two major institutions that are closely linked to violence and peace are the police and the judiciary. These institutions are critical to peace as they govern and underpin the rule of law. Higher levels of corruption within the police and judiciary create inefficiencies by disabling sound legal frameworks and formal and informal codes of conduct. This leads to increased levels of crime and violence within society.

Research by IEP on violence in Mexico highlights the high levels of corruption with perceived police and judicial corruption levels of 90 percent and 80 percent respectively. Similar patterns are seen in countries such as Venezuela, Cote d'Ivoire and Jamaica where high police corruption levels correlate directly with the highest homicide rates within their region. As the perceptions of police and judicial corruption increase, the trust in these institutions decreases. The level of safety decreases as criminal elements are able to operate with impunity.

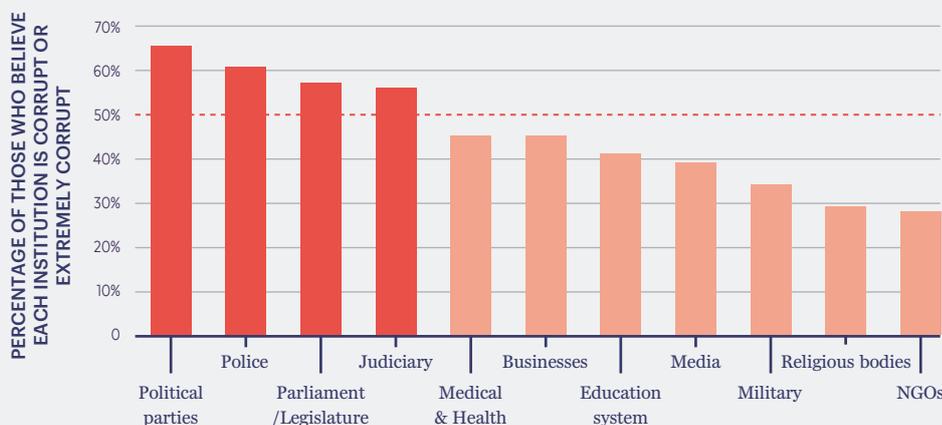
Globally, 60 percent of those interviewed believe that the police are highly corrupt. This is highest in African countries such as Malawi (95 percent) and Liberia (94 percent) as well as Latin American and Caribbean countries such as Mexico (90 percent), Jamaica (86 percent) and Venezuela (83 percent), all of which have extremely high levels of homicide and violent crime. Perceived police corruption is the lowest in European countries such as Finland (5 percent), Denmark (9 percent) and Switzerland (13 percent), countries with high levels of peace.

Perceptions of police corruption are highest in flawed democracies, hybrid regimes and authoritarian regimes. As countries become more open and more peaceful, there is a marked positive shift in the perceptions of police and judicial corruption.

“ *Perceptions of police corruption are highest in flawed democracies, hybrid regimes and authoritarian regimes. As countries become more open and more peaceful, there is a marked positive shift in the perceptions of police and judicial corruption.* ”

**FIGURE 8** The percentage of the global population who believe their institutions are corrupt, according to Transparency International's 2013 Corruption Barometer

*Police and judiciary are perceived as the second and fourth most corrupt institutions globally, just behind political parties and parliament. These are the four institutions to have more than 50 percent of the population believe they are corrupt or extremely corrupt.*



Source: Transparency International's 2013 Corruption Barometer

**TABLE 1**

Correlations between perceived police corruption, judiciary corruption and the internal GPI indicators

*Those highlighted have a moderate correlation with internal peace measures. There is an association with perceived police corruption and a range of violence indicators, most notably the level of violent crime and political terror.*

	PERCEIVED POLICE CORRUPTION	PERCEIVED JUDICIARY CORRUPTION
Perceptions of Criminality in Society	0.253	0.166
Police per 100,000 People	-0.145	-0.003
Homicide Rate	0.261	0.17
Incarceration Rate	0.052	-0.088
Access to Small Arms and Light Weapons	0.302	0.28
Level of Organised Conflict	0.36	0.14
Likelihood of Violent Demonstration	0.31	0.308
Level of Violent Crime	0.34	0.307
Political Instability	0.20	0.13
Political Terror Scale	0.37	0.106

Judicial corruption also affects the level of peace, having a moderate correlation of  $r=0.3$  with internal peace. Judicial corruption increases the opportunity for violent offences to go unpunished. This may have two effects on society. It may increase the incentives for violent offences by decreasing the fear of being charged for crimes committed and it may increase the number of violent offenders within society as they are not incarcerated.

The hypothesis linking the two perceptions of corruption measures to violence is supported by the strong relationship to the internal GPI indicators.

Police corruption has a moderate correlation with violent crime, access to small arms, organised conflict, violent demonstrations and political terror. This shows that higher levels of perceived police corruption are related to higher levels of violence. Perceived judiciary corruption also has a moderate correlation with violent demonstrations as well as violent crime. This supports the hypothesis that corruption within these two institutions provides the framework for violent activity to prosper within a nation.

**FIGURE 9**

GPI Internal Peace vs. Perceived Police Corruption (data from 2010 and 2013 combined)

*Corruption in the police is more strongly associated with low levels of peace.*



\* The trend line on the figure highlights the non-linear relationship between peace and corruption.

Source: GCB; IEP

## BOX 2

### WHY A LACK OF TRUST IN LEGAL INSTITUTIONS AFFECTS SOCIETY

An example from Mexico

A lack of trust in the police or legal system can have detrimental effects on how citizens report crime and how safe they feel. One potential proxy for police corruption from survey data is whether or not people feel that the police are helpful. For instance, within Mexico there is a large underreporting rate for offenses due to the mistrust in the police force (IEP, Mexico Peace Index, 2015).

There is also a notable correlation between the trust in police and the justice efficiency indicator showing that where the percentage of crimes solved increases, the trust in police also increases. As police forces improve their capacity to prosecute crimes that have been committed, it is expected that levels of trust will subsequently improve. This has the potential to generate a virtuous cycle: as trust in police forces increase, justice efficiency will also increase and vice versa.

The results in *Table 1* (see page 13) show an inverse relationship between perceived corruption in the judiciary and the incarceration rate. This indicates that as perceived corruption in the judicial system increases less people are jailed and under-reporting of crime increases.

The lack of trust within the legal frameworks leads to citizens having a low perception of safety and altering their activities as a result. Not only does this affect a citizen's wellbeing but also has a negative effect on the economy. The figure below highlights the relationship in Mexico between those who do not feel safe in their state correlated against those who have stopped going out at night. The change in behaviour is apparent and underscores the flow-on effect on economic activity and the level of social activity.

**FIGURE 10** Those who do not feel safe vs. those who do not go out at night, Mexican States

*There is a very close link between feeling unsafe and the willingness to go out at night. This demonstrates the effect of poor rule of law on behaviours and the importance of reducing corruption in the police.*



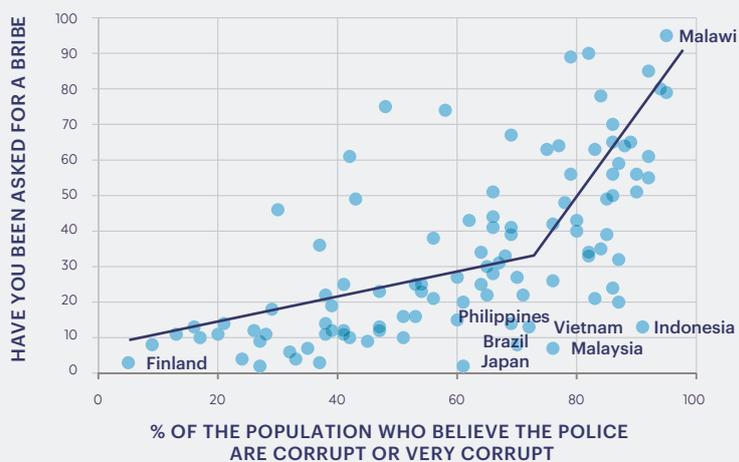
Source: ENVIPE 2012

### BOX 3

## PERCEIVED POLICE CORRUPTION, BRIBES AND HOMICIDE

**FIGURE 11** Perceptions of Police Corruption vs Having Been Asked For a Bribe

*There is a strong link between the perception of corruption within the police and the percentage of the population that have been asked for a bribe.*

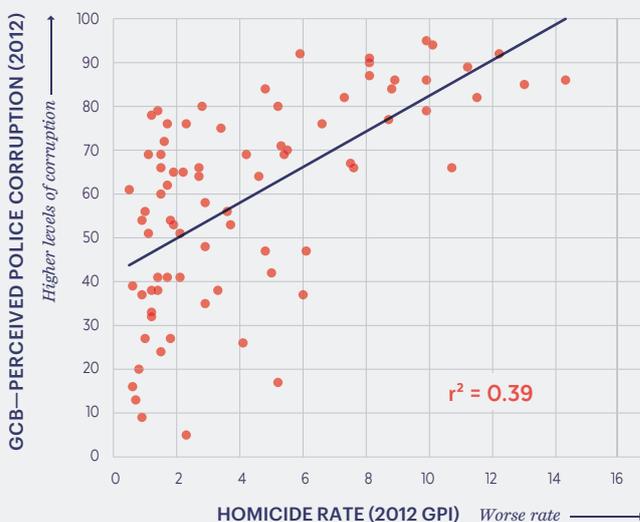


Source: Transparency International Global Corruption Barometer 2013

Figures 11 and 12 show that as perceptions of police corruption increase so does the number of people reporting bribes as well as the homicide rate. The fact that police corruption has notable correlations with indicators of direct violence is evidence that increased levels of police corruption may be one of the driving forces of increased violence. By contrast, levels of perceived business, political party and military corruption do not have such notable correlations with bribery rates or indicators of direct violence such as homicide.

**FIGURE 12** Perceptions of Police Corruption vs the Homicide Rate (80 countries, outliers removed)

*The homicide rate is notably correlated to perceptions of police corruption, underlying an important direct mechanism between corruption and violence.*



Source: Transparency International Global Corruption Barometer 2013; UNODC

# Trends at the ‘Tipping Point’

As noted earlier in this report, there is a relationship between corruption and peace which shows a ‘tipping point’ whereby the level of corruption can increase while having little impact on peace until a certain level, after which small increases in corruption are associated with large decreases in peace.

Among the group of countries near the ‘tipping point’, 31 percent of their surveyed citizens who had had contact with an official in the judiciary stated that they had bribed the official and 45 percent stated that they have been asked for a bribe, according to Transparency International’s GCB for the year 2013. Of those surveyed in countries near the ‘tipping point’, 76 percent believed that the police are ‘corrupt’ or ‘extremely corrupt’.

The level of perceived political corruption is universal. It is only marginally different between fully developed and developing countries. Of those in developed countries, 68 percent believe their political parties are extremely corrupt while 65 percent of those in developing nations also believe their parties are extremely corrupt.

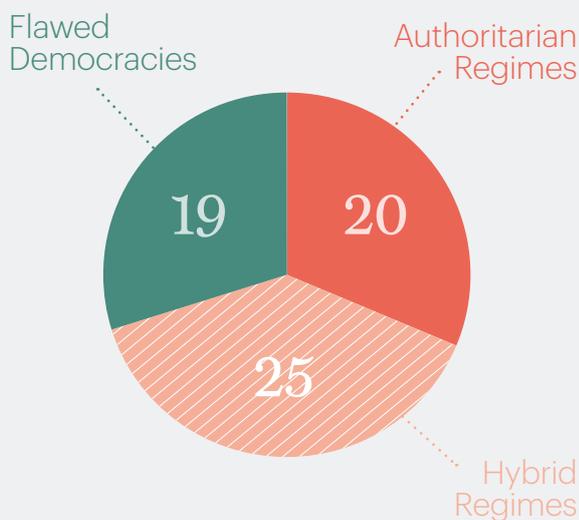
Eight indicators of the GPI deteriorate dramatically once a country transitions from above the ‘tipping point’ to below the ‘tipping point’. The indicators are political terror, political instability, violent crime, violent demonstrations, organized conflict, access to small arms, homicides per 100,000 people and level of perceived criminality in society. Conversely, as countries transition out of the ‘tipping point’ to lower levels of corruption they become more peaceful as measured by these indicators. Almost all of the countries below the tipping point are developing countries and all have shown decreased levels of peace in the last five years.

### GOVERNMENT TYPE AT THE ‘TIPPING POINT’

Figure 13 shows the distribution of ‘tipping point’ countries by government type. There are no full democracies within or below the ‘tipping point’, although there are a number of European full democracies that are near it. There is almost an even split between the three remaining government types amongst ‘tipping point’ countries, with 20 authoritarian regimes, 25 hybrid regimes (authoritarian regimes with some democratic processes) and 19 flawed democracies. This reflects the fact that nations are at different stages of transition both away and towards democratic institutions.

**FIGURE 13** Countries at ‘tipping point’ by governance type

*There are no full democracies amongst the ‘tipping point’ countries, with a relatively even split of Hybrid, Flawed democracies and Authoritarian regimes.*



Source: IEP

“ There are 64 countries that are identified at being near the ‘tipping point’ of peace and corruption.

**TABLE 2** Countries at ‘tipping point’ by governance type

*There are 64 nations at the ‘tipping point’ of peace and corruption, reviewing their progress in developing democratic institutions indicates their potential for transitioning through the ‘tipping point’ to lower corruption and higher peace.*

Countries ranked by the progress in their democracy index score over the six year period of 2006–2012. Grey denotes progress in democracy scores, orange denotes regress in democracy scores.

AUTHORITARIAN REGIMES AT ‘TIPPING POINT’	HYBRID REGIMES AT ‘TIPPING POINT’	FLAWED DEMOCRACIES AT ‘TIPPING POINT’
Togo	Sierra Leone	Malawi
Angola	Mauritania	Zambia
Gabon	Nepal	Timor-Leste
Guinea	Tanzania	Dominican Republic
Algeria	Niger	Peru
Myanmar	Cambodia	Indonesia
Djibouti	Morocco	El Salvador
Swaziland	Ecuador	Mexico
Laos	Uganda	Argentina
Cameroon	Armenia	Paraguay
Vietnam	Nicaragua	Jamaica
Eritrea	Bolivia	Guyana
Tajikistan	Benin	Moldova
China	Guatemala	Philippines
Azerbaijan	Burkina Faso	Trinidad and Tobago
Belarus	Albania	Papua New Guinea
Kazakhstan	Bangladesh	Mongolia
Burundi	Liberia	Panama
Iran	Venezuela	Greece
The Gambia	Kenya	
	Mozambique	
	Honduras	
	Sri Lanka	
	Mali	
	Madagascar	

There are 64 countries that are identified at being near the ‘tipping point’ of peace and corruption. As noted, they range from authoritarian regimes, hybrid regimes to flawed democracies and there are no full democracies.

The multivariate analysis detailed in the Appendix of this report finds that democracy is a statistically significant variable for peace and is also closely linked to corruption. This reinforces the fact that other factors of governance such as service delivery and electoral process are critical in determining whether a nation will be able to address corruption in the long term. As is shown in *Figure 13*, the fact that no full democracies have high levels of corruption or medium to low levels of peace underlines the important link between government type and peace and corruption.

**TABLE 3**

Non-full democracy countries making most notable improvement in the EIU Democracy Index 2006–2012

‘TIPPING POINT’ COUNTRIES	GOVERNMENT TYPE	2006 TO 2012 RAW IMPROVEMENT IN DEMOCRACY SCORE (out of 10)
Togo	Authoritarian Regime	1.7
Sierra Leone	Hybrid Regime	1.14
Malawi	Flawed Democracy	1.11
Mauritania	Hybrid Regime	1.05
Zambia	Flawed Democracy	1.01
Angola	Authoritarian Regime	0.94
Gabon	Authoritarian Regime	0.84
Guinea	Authoritarian Regime	0.77
Timor-Leste	Flawed Democracy	0.75
Nepal	Hybrid Regime	0.74
Tanzania	Hybrid Regime	0.7
Algeria	Authoritarian Regime	0.66
Niger	Hybrid Regime	0.62
Myanmar	Authoritarian Regime	0.58

*Table 2* shows the 64 countries that lie near the ‘tipping point’ of peace and corruption. While they are a mix of authoritarian, hybrid or flawed democracies, countries closer to full democracy have the greatest long term capacity to address corruption.

There are a number of countries such as Singapore, the U.A.E. and Qatar which are authoritarian and score well on both peace and corruption. Furthermore, countries that are progressing in governance and are flawed democracies can still have high levels of corruption.

A key factor for transitioning out of the ‘tipping point’ towards lower corruption and high peace is the speed of democratic reform. *Table 3* shows there are a variety of authoritarian, hybrid and flawed democracies making progress. However, many authoritarian regimes and hybrid regimes are progressing off low bases of democracy which mean they have a long way to go in reforming.

**TABLE 4**

Flawed democracies with positive momentum in improving democratic institutions

FLAWED DEMOCRACIES AT ‘TIPPING POINT’	2006 TO 2012 RAW IMPROVEMENT IN DEMOCRACY SCORE (out of 10)
Malawi	1.11
Zambia	1.01
Timor-Leste	0.75
Dominican Republic	0.36
Peru	0.36
Indonesia	0.35
El Salvador	0.25
Mexico	0.23
Argentina	0.21
Paraguay	0.10
Jamaica	0.05

“ There are a number of countries such as Singapore, the U.A.E. and Qatar which are authoritarian and score well on both peace and corruption. A key factor for transitioning out of the tipping point towards lower corruption and higher peace is the speed of democratic reform.

**TABLE 5**

Countries making negative progress on democracy and governance that could see notable increases in corruption and falls in peace

'TIPPING POINT' COUNTRIES	CURRENT REGIME TYPE	CHANGE IN DEMOCRACY INDEX SCORE
Madagascar	Hybrid Regime	-1.89
The Gambia	Authoritarian Regime	-1.08
Iran	Authoritarian Regime	-0.95
Burundi	Authoritarian Regime	-0.91
Mali	Hybrid Regime	-0.87
Sri Lanka	Hybrid Regime	-0.83
Kazakhstan	Authoritarian Regime	-0.67
Greece	Flawed Democracy	-0.48
Honduras	Hybrid Regime	-0.41
Mozambique	Hybrid Regime	-0.4
Kenya	Hybrid Regime	-0.37
Belarus	Authoritarian Regime	-0.3
Panama	Flawed Democracy	-0.27
Liberia	Hybrid Regime	-0.27
Venezuela	Hybrid Regime	-0.27

Nonetheless this could represent progress that has the potential to result in key reforms to address and lower corruption over the longer term.

Conversely, while there are flawed democracies that are making progress toward full democratic systems, there are some hybrid regimes and flawed democracies moving towards authoritarianism. Also, there are authoritarian regimes moving further away from democratic norms into more authoritarian models of governance. Table 5 shows a mix of 15 hybrid, flawed democracies and authoritarian regimes that have made notable moves backwards in democracy from 2006 to 2012. This is suggestive of deteriorating governance and potential future increases in corruption.

The country which saw the largest negative jump over the period is Madagascar which went through a political crisis in 2009 and a failed coup d'état attempt in 2010.

## BOX 4

### HOW DOES IEP CLASSIFY GOVERNMENT TYPES?

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

<b>Full democracies</b> .....	Scores of 8–10
<b>Flawed democracies</b> .....	Scores of 6–7.9
<b>Hybrid regime</b> .....	Scores of 4–5.9
<b>Authoritarian regimes</b> .....	Scores of 0–3.9

# Conclusion

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There is a definitive link between corruption and peace. Specifically, corrupt police and judicial systems are a key factor in undermining prospects for long term peace within a society. These two institutions are therefore critical in mitigating the level of violence within society and improving peace.

A culture of general corruption leads to individual attempts to exploit formal institutions for personal gain. This provides opportunities for the state's control of the rule of law to be undermined, circumvented or granted to others, thereby leading to opportunities for violence and conflict. Evidence of this is seen in countries which hold high levels of corruption and low levels of peace relative to their geographic neighbours.

It should be noted that the way in which individuals see corruption is greatly influenced by social norms and what citizens believe to constitute corrupt behaviour may differ drastically across cultures and societies. This is suggested in the reported differences between perceptions of corruption and observed corruption as measured by reports of bribe-paying across many countries.

There are clear flow-on effects from increases in violence and corruption. As evidenced in Mexico over the past ten years, many citizens have been forced to alter their day-to-day lives as a result of increased violence and corruption. The large increases in violence are directly linked to corruption in the police and judicial systems and encourage a vicious cycle of low trust, low crime reporting and increased incentive by criminal elements to further erode the rule of law.

Subsequent lack of trust infects other institutions with corrupt behaviour undermining future prospects for peace.

While measures of both corruption and peace can be volatile with various time lagging effects, important evidence suggests there is a clear one-way relationship between a nation's peace and its degree of corruption. These findings show, in the long term, improvements in peace are ultimately dependent on decreases in corruption. Efforts aimed at tackling corruption are thus critically important for building sustainable peace and resilience.

The drivers of peace are multi-faceted, complex and systemic. Although this report focuses on the direct relationship between peace and corruption the best way to improve both is through improving the underlying structures of the overall societal system. This can be understood through the statistically derived Pillars of Peace where IEP has identified key multidimensional factors that sustain peaceful and resilient societies.

# Appendix

## Multivariate Regression Analysis

While individual relationships between various socio-economic variables and corruption may give us some insight into casual relationships, it is important to attempt to understand how these variables work together and what is the cause and effect.

This appendix presents a multivariate regression analysis to enable understanding of the relative influence of particular variables amongst a group of indicators which may explain the phenomena. These are known as ‘independent variables’. For example, while it can be observed that corruption is related to a decrease in levels of peace, it is important to understand the relative effect that corruption, developmental stage and governance may have on peace.

A multivariate regression analysis indicates which particular variable has the closest relationship with a single dependent variable (peace) as well as being able to assess what particular variables together may contribute to increased levels of violence and low levels of peace.

This is not to say that corruption is the main influencing variable on peace. Out of the eight Pillars of Peace, this study solely aims to test the relationship corruption has with explanatory variables of corruption, development and governance.

Four indicators have been used as the dependent variables for peace: increases in the internal GPI; the overall GPI; the homicide rate and the violent crime rate. The list of explanatory variables used is police corruption, judicial corruption, the CPI, how developed a country is and whether a country is a democracy or autocracy.

It must be stressed that the results do not state that one variable directly causes a rise or fall in the other. However, they do indicate that there is evidence that a variable is highly related to a rise or fall in another.

### CAUSES OF CORRUPTION

The goal of the multivariate analysis is to test whether corruption leads to peace or vice versa. For this the models were set up in two ways. One group used corruption as the dependent variable, to see what group of variables may relate to an increase or decrease in corruption. The second group used peace as the dependent variable to determine if improvements in peace lead to lower corruption.

### INTERPRETING THE RESULTS

Only indicators that are noted with an ‘\*’ are considered significant. For example in Model 1 the only significant variable is Political Instability. The ‘p-value’ identifies the level of significance of each of these relationships, this is represented by \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ . \*\*\*\*  $p < 0.01$  represents the highest level of significance. For example in Model 2 the corruption indicator resulted in  $-0.014^{***}$  showing that a one unit change in the CPI correlates with a  $-0.14$  change in the Internal GPI with a p-value of 0.01. This means that this relationship is highly significant.

The r square represents how much of the total variability of the dependent variable can be attributed to the variables used in the model. An r square over 0.5 is considered to be sound, which would represent 50 percent of the variability in the dependent variable being attributed to the independent variables used in the model.

## MODEL 1

### DOES PEACE CHANGE CORRUPTION?

**TABLE 6**

Multivariate analysis to determine if peace influences corruption

	CORRUPTION PERCEPTIONS INDEX
Intercept	10.19
Perceptions of criminality in society	-0.69
Police per 100.000 people	-0.016
Homicide Rate per 100.000 people	-0.339
Incarceration Rate per 100.000 people	-0.009
Access to Small Arms and Light Weapons	-0.079
Level of organised conflict internal	-3.12
Likelihood of violent demonstrations	8.71
Level of violent crime	7.7
Political Instability	-0.507*
Political Terror Scale	7.81
Weapons Imports per 100.000 people	-0.235
Terrorist Acts	5.59
Deaths from Conflict internal	-0.0002
Military expenditure of GDP	-0.654
Armed Services Personnel per 100.000 people	-0.003
Internally Displaced People Population	-0.977
r squared	0.24

\*\*\* p<0.01, \*\*p<0.05, \*p<0.1

Model 1 is a multi-regression analysis to determine if peace influences corruption. Peacefulness and corruption are linked as shown in *Figure 2* on page 8. The relationship is even stronger when internal peace is plotted against corruption. Interestingly enough, not a single variable came back with a strong significant relationship. This does not mean that there is not a relationship between the dependent variable (internal peace) and the list of explanatory variables, however, as the results confirm that there is no significant relationship to support the theory that a lack of peace is the driving cause of corruption.

This may explain why we see the ‘tipping point’ effect between peace and corruption. Therefore it is suggested that improvements in peace do not cause reductions in corruption. The next seven models explore the influence that corruption has on peace.

## MODEL 2-5

### DOES CORRUPTION CHANGE PEACE?

**TABLE 7**

Multivariate analysis of corruption, development status, democracy and peace variables

MODEL	2	3	4	5
DEPENDENT VARIABLE	INTERNAL GPI	OVERALL GPI	HOMICIDE	VIOLENT CRIME
Corruption	-0.014***	-0.021***	-0.249**	-0.046***
Developing	0.031	0.163	6.81*	0.498*
Democracy Index	-0.044**	-0.033	1.38*	0.2***
r squared	0.56	0.65	0.18	0.508

Models 2 to 5 use a range of variables to test what has the most significant relationship with the GPI and other violence indicators. The four dependent variables tested are; the internal GPI, the overall GPI, the homicide rate and the rate of violent crime, shown in the dependent variable row in *Table 7*. The list of independent variables are whether a country was developing or developed; measured by a dummy variable, the level of democracy and the level of corruption. The definition of development is the same as used earlier in this report. The level of democracy is taken from the Economist Intelligence Unit’s Democracy Index. The benefit of this multivariate analysis is that it indicates which of these variables has the most influence over the level of peacefulness.

“ *The results show that flawed democracies with high levels of corruption in developing contexts have higher levels of homicides and violent crime than other government types.* ”

#### **MODEL 2**

What is more impactful on internal peace: corruption, level of development or level of democracy?

#### **MODEL 3**

What is more impactful on the overall measure peace (Internal + External): corruption, level of development or level of democracy?

#### **MODEL 4**

What is more impactful on homicide rates: corruption, level of development or level of democracy?

#### **MODEL 5**

What is more impactful on violent crime: corruption, level of development or level of democracy?

Both Model 2 and Model 3 show a highly significant negative relationship with the CPI, therefore as the level of peace increases, the level of corruption decreases. Model 2 uses the Internal GPI as a dependent variable and Model 3 uses the Overall GPI.

Further, the level of democracy highlights a significant negative relationship with the internal GPI. This shows that highly democratic societies are strongly associated with high levels of peace. Since the lower levels of the democracy index also represent highly autocratic regimes it can also be interpreted that autocracies are related to low levels of internal peace. The above models suggest that internal peace is correlated with high levels of corruption and low levels of democracy, while overall peace is correlated with high levels of corruption and lower levels of development.

Models 4 and 5 alter the analysis by using two violence indicators as independent variables, homicides (Model 4) and violent crime (Model 5). Higher democracy scores are significantly correlated to both increased levels of homicides and the rate of violent crime. This suggests that while well-functioning democratic societies may be influential at improving overall levels of peace and internal peace, there is still a large, significant negative relationship between democracy generally and violent crime and homicides.

The democracy variable moves from a range of 0 to 10, 10 being the highest level of democracy and 0 being an autocracy. It is important to add that the developing economy dummy is a significant variable in both models. Violent crime has an extremely significant, positive relationship with developing economies.

The models can be interpreted to mean that corrupt developing economies under some level of democratic regime are more likely to have high levels of violent crime than other country profiles.

This may not come as a complete surprise. Countries such as the El Salvador, Honduras, Colombia while being flawed democracies hold some of the highest homicide rates, while less democratic regimes such as Tajikistan, Bahrain and the U.A.E. hold extremely low levels of violent crime and homicide rates.

The results show that flawed democracies with high levels of corruption in developing contexts have higher levels of homicides and violent crime than other government types.

## MODEL 6 AND 7

### DO GEOGRAPHIC FACTORS PLAY A ROLE IN DETERMINING CORRUPTION?

**TABLE 8**

Multivariate analysis of corruption and peace variables by geographic region

	OVERALL GPI (MODEL 6)	INTERNAL GPI
Intercept	3.66***	3.09***
CPI	-0.025***	-0.017***
Developing	0.05	0.054
Democracy Index	-0.023	-0.026
South America	-0.52	-0.228
West Africa	-0.12	-0.255
Central America	-0.02	-0.235
East Africa	-0.275	-0.288
North Africa	-0.054	-0.102
Middle Africa	-0.238	-0.25
Southern Africa	-0.104	-0.169
Caribbean	-0.109	-0.298
East Asia	-0.39.	-0.206
South Asia	-0.097	-0.053
South-East Asia	-0.303	-0.293
South Europe	-0.445*	-0.358*
Central Asia	-0.437	-0.467*
West Asia	-0.004	-0.027
East Europe	-0.497*	-0.341.
North Europe	-0.066	-0.033
West Europe	-0.121	-0.080

\*\*\* p<0.01, \*\*p<0.05, \*p<0.1

Models 6 and 7 introduce dummy variables for 18 geographical regions. This builds on the assumption that regional location may have some sort of cultural effect which increases the level of corruption in society. Geographic location only has a limited relationship with democracy, development or autocratic regime. However, again corruption persists as the major variable influencing decreases in peace.

Geographic region has only a limited relationship as only three regions show significant linkages between the GPI and the other major variables tested. These are Central, Southern and Eastern Europe. These particular regions are made up of mostly former soviet or communist countries which in the last 20 years have had a change of regime from communist to various stages of democracy.

The above multivariate analysis provides evidence for a number of key questions. First, there doesn't appear to be a relationship where peace causes corruption as demonstrated by Model 1. However, there is evidence to suggest high corruption causes lower peace. While this does not give proof that corruption leads to low levels of peace, it does support the concept, as there seems to only be a one-directional relationship between the two variables. Second, the CPI is the only explanatory variable used in every model which shows consistent and significant correlations with all of the peace and violence indicators used; all models showing a negative relationship with a 99 percent confidence level.

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