

# GERMAN PEACE INDEX 2020

MEASURING THE  
DYNAMICS OF PEACE



IEP



## **Quantifying Peace and its Benefits**

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# Executive Summary

The 2020 Deutschland Peace Index (DPI), herein referred to as the German Peace Index, produced by the Institute for Economics and Peace (IEP), provides a comprehensive measure of peacefulness in Germany. The DPI is based on the work of the Global Peace Index, which is the leading measure of global peacefulness and has been produced by IEP annually since 2007. This is the first edition of the DPI, setting out the key trends, patterns and drivers of peace in Germany. Data for the DPI is sourced from the German Federal Crime Office (BKA).

Germany is among the most peaceful nations in the world, ranked 22<sup>nd</sup> out of 163 countries on the 2019 Global Peace Index (GPI). When compared to the 38 European nations, Germany ranks as the 15<sup>th</sup> most peaceful country in Europe. However, peace in Germany has declined by 12 per cent since 2013.

This report provides an important contribution to understanding peace in Germany. Over the period of 2013 to 2018, the total crime rate in Germany has decreased. However, combining less serious offences, such as petty theft, with more serious crimes that involve violence such as *homicide*, masks the changes in crimes that have a larger impact on peacefulness in Germany. The DPI, on the other hand, takes into account only the serious crimes that involve violence or public disorder. The rates of these crimes have worsened since 2013 driven by rising *homicide*, *violent crime* and *public disorder rates*.

The *homicide rate* increased by 35 per cent from 0.66 victims per 100,000 people in 2013 to 0.89 victims in 2018. The largest annual increase in the *homicide rate* was 22 per cent in 2016. *Violent crime*, which captures violent assault, robbery, rape and sexual coercion has also deteriorated since 2013. Over the same period, the *public disorder rate* increased by 163 per cent.

**Trier** was the most peaceful region in Germany in 2018. Trier, a region in the southwest of Rhineland-Pfalz, recorded an improvement of ten per cent in its level of peace since 2013. Trier had the lowest *homicide rate* in Germany in 2018 at 0.19 victims per 100,000 people. Detmold, Unterfranken, Tübingen and Brandenburg were the other four regions among the five most peaceful regions.

**Berlin** is the least peaceful region in Germany and suffers from significantly higher levels of *homicide*, *violent crime* and *public disorder*. Berlin's *homicide rate* of four victims per 100,000 people is the highest in Germany. In addition, *violent crime* in Berlin is consistently high compared to other regions. Peacefulness in Berlin deteriorated by almost eight per cent in the two years to 2018, driven by a rise in the *homicide rate*.

Bremen, Hamburg, Leipzig and Sachsen-Anhalt follow Berlin in ranking in the five least peaceful regions in Germany. Higher levels of crime and violence in German cities highlight the urbanised nature of interpersonal violence.

Interpersonal violence in Germany can take the form of organised crime, intimate partner violence, politically motivated crimes and terrorism. Politically motivated crime in Germany increased by 76 per cent in the 15 years to 2018.

Incidents of terrorism have also seen an increase in Germany in recent years. Terrorist activities in Germany peaked in 2015 and 2016 and have since fallen substantially, coinciding with the fall of the Islamic State terrorist group in the Middle East. Germany experienced its highest level of casualties from terrorism in 2016 at 26 deaths and 114 wounded, while 2015 saw the highest number of terrorist incidents in Germany at 61 terrorist attacks. In Germany, 18 per cent of those who committed a terrorism related criminal act had a history of politically motivated offences, suggesting a close association between the two types of offences.

**The economic impact** of violence in Germany is estimated at €85.2 billion in 2018, an equivalent of €1,085 per German citizen. At 2.6 per cent of GDP, this is more than five times higher than German foreign economic aid and three times higher than the expenditure on tertiary education. Reductions in violence can have a meaningful, positive impact on the economy.

Government spending on activities aimed at reducing and containing violence – *police spending and prison costs* – amounted to €54.9 billion, accounting for 64 per cent. *Violent crime* and *homicide* account for 30 per cent of the total. If Germany improved its peacefulness to the level of the five most peaceful regions, the dividend would amount to €6.5 billion per year, or €26 billion over four years.

Germany is one of the highest ranking countries in the **Positive Peace Index 2019**, which measures the strength of the *attitudes, institutions and structures* that create and sustain peaceful societies. It ranks 11<sup>th</sup> among the 163 countries assessed in the report, a position that has been stable over the past decade showcasing the nation's strength in socioeconomic development.

Positive Peace across German regions is strongly associated with high levels of peace as measured by the DPI. The correlation coefficient between Positive Peace and the DPI was 0.71 for 2018. This highlights that the regions with higher Positive Peace also tend to experience less violence. Positive Peace in

Germany has been largely stable since 2013 but has deteriorated slightly since 2015.

The three domains of Positive Peace, *attitudes*, *institutions* and *structures*, recorded diverging trends in Germany over the past decade.

The *structures* domain recorded a substantial and continuous improvement, broadly in line with global trends. This domain is heavily influenced by the economic cycle, business activity, technological developments and discoveries in applied sciences. The *institutions* domain was little changed in the period, reflecting the stability of the German democracy, culture and social norms.

In contrast, the *attitudes* domain posted a substantial deterioration from 2014 onwards, which coincided with rising levels of conflict in the Middle-East, terrorism and increased levels of migration. In recent years, there has also been an intensification of far-right political activity in Germany and other European nations.



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Germany experienced its highest level of casualties from terrorism in 2016 at 26 deaths and 114 wounded, while 2015 saw the highest number of terrorist incidents in Germany at 61 terrorist attacks.

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## Key Findings

- Peace in Germany improved by two per cent in 2018, the first improvement in the last six years.
- However, peacefulness in Germany has deteriorated by 12 per cent since 2013.
- Since 2013, the total crime rate decreased by nine per cent. However, serious crimes have been on the rise, causing the DPI score to deteriorate.
- The *homicide rate* in Germany fell by five per cent in 2018, leading to an improvement in peace. However, the rate in 2018 is 35 per cent higher compared to 2013.
- The *rape and sexual coercion rate* decreased by 18 per cent in 2018, although the rate is still 23 per cent higher than in 2014.
- The *public disorder rate* in Germany has increased by 163 per cent since 2013.
- Germany ranked 22nd on the 2019 Global Peace Index.
- The five most peaceful regions in Germany are Trier, Detmold, Unterfranken, Tübingen and Brandenburg.
- The three city-states in Germany—Berlin, Bremen and Hamburg—ranked among the five least peaceful regions in Germany, with Berlin as the least peaceful region.
- Politically motivated crimes in Germany increased by 14 per cent from 2013 to 2018.
- The drug trade-related offence rate increased by 50 per cent in the eight years to 2018.
- Intimate partner violence recorded a rise of 15 per cent in the six years to 2017.
- Notable improvements since 2013 include the *weapons crime rate* which decreased by 34 per cent, while the *robbery rate* has decreased by 24 per cent.
- Fear of crime and violence increased by 53 per cent from 2014 to 2017.
- Terrorism in Germany peaked in 2016 with 26 deaths and 114 people wounded. In 2018 there were four terrorist attacks in Germany, which wounded 19 people.

## WHY MEASURING PEACE MATTERS

Germany is among the most peaceful nations in the world, ranked 22<sup>nd</sup> out of 163 countries on the 2019 Global Peace Index (GPI). When compared to the 38 European nations, Germany ranks as the 15<sup>th</sup> most peaceful country in Europe.

However, peace in Germany has deteriorated for the last six years, declining by 12 per cent since 2013. Like most countries, there are significant differences in the levels of violence and *public disorder* at the sub-national level. The German Peace Index (DPI) offers a sub-national distribution of peace which highlights the variation in the level of peacefulness across the regions of Germany. In addition, the DPI presents an analysis of the socioeconomic factors associated with peacefulness in the German context as well as the economic impact of violence on the German economy.

The DPI measures peace defined as the *'absence of violence or fear of violence'*. This is the first-ever measure of peacefulness at

a sub-national level for Germany. It uses *violent crime* and *public disorder* statistics sourced from the Federal Police Crime Office or Bundeskriminalamt (BKA).

The recent marked deteriorations in *violent crime* and *homicide* have been masked by a decline in the total crime rate in Germany, which has attracted attention from the media and the general public. The greater focus on the total crime rate in Germany masks the trends in the subcategories of crime, including *violent crime* which has recorded a rise in recent years. The DPI places a higher weight on *homicide*, *violent crime* and *public disorder*, which better reflects the seriousness of these offences. In addition, the DPI examines levels of Positive Peace, defined as the *attitudes, structures, and institutions* that create and sustain peace. The analysis of Positive Peace focuses on socioeconomic factors that are associated with levels of peacefulness across Germany.

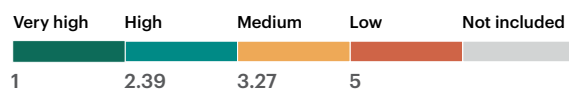
FIGURE 1.1

## A snapshot of the level of peace in Germany by regions, 2018

The most peaceful regions are in the northeast and the south of Germany while central Germany has the lowest levels of peace.

# GERMAN PEACE INDEX

### THE STATE OF PEACE



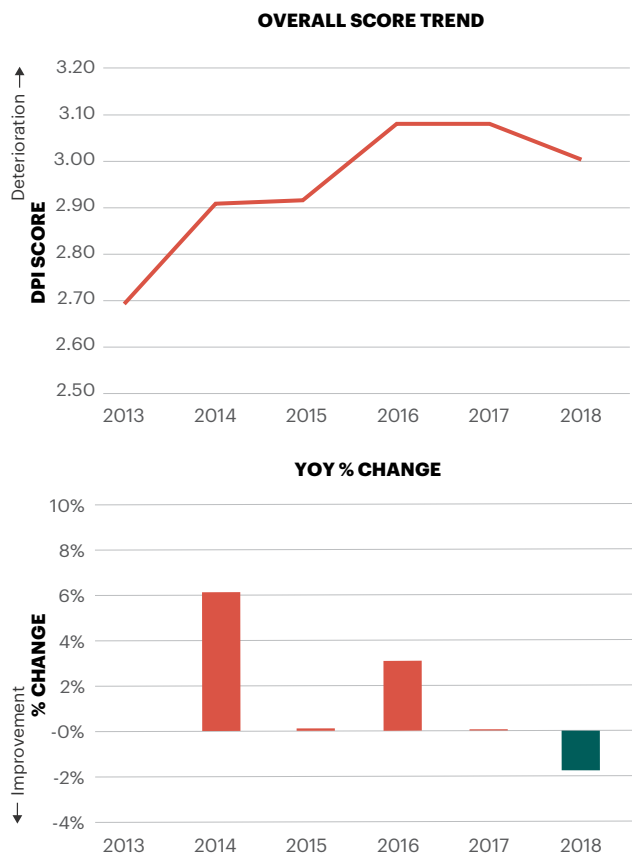
# Results and Findings

The average national level of peace in Germany improved by two per cent in 2018, recording its first improvement in the last six years. However, since 2013, Germany has recorded a deterioration of 12 per cent in its level of peacefulness.

The deterioration in peacefulness over the last six years has been primarily driven by significant increases in *public disorder*, *homicide* and *violent crime* rates. The largest deterioration in peacefulness was recorded in 2014 when the average national peace score fell by eight per cent.

FIGURE 1.2  
**Trend in peacefulness at the national level in Germany, 2013–2018**

Peacefulness in Germany has deteriorated by 12 per cent from 2013 to 2018. The largest decline in peace was in 2014 when the DPI score recorded an eight per cent deterioration.



Source: IEP

Contrary to the DPI score, the overall crime rate in Germany, which includes all offences against federal criminal law, has decreased in recent years. The overall offence rate in Germany declined from 7,797 per 100,000 people in 2015, to 6,710 in 2018, a decrease of 14 per cent. This decline in overall crime, however, does not reflect the state of peace in Germany given it aggregates less serious offences such as petty theft with more serious crimes that involve violence such as homicide. The DPI, on the other hand, takes into account only serious crimes that involve violence or *public disorder* and has recorded a marked deterioration. Despite the falling level of peace, Germany remains among the most peaceful countries globally with relatively low levels of violence and *public disorder*.

Figure 1.2 displays Germany's trend and year-on-year change in peacefulness at the national level.

Improvement in peacefulness in 2018 was the result of a decrease in the *homicide rate*, which decreased by five per cent from 2017. However, the *homicide rate* increased by 35 per cent from 0.66 victims per 100,000 people in 2013 to 0.89 victims in 2018.<sup>1</sup> The largest annual increase in the *homicide rate* was recorded in 2016 when it increased by 22 per cent, or 138 additional victims of homicide.

*Public disorder* recorded the largest deterioration of all the indicators included in the DPI. *Public disorder* includes cases of resistance to a public authority, such as police or other law enforcement officers, and offences or assault on a public authority.<sup>2</sup> Across Germany, the *public disorder* rate per 100,000 people experienced a significant rise between 2013 and 2018, increasing by 163 per cent. In 2018, the *public disorder* rate rose by 21 per cent. Germany amended its penal code in 2017 to strengthen the protection of law enforcement officials, including the police. This had a direct impact on the *public disorder* indicator in the DPI. Figure 1.3 highlights changes in domain score.

A recent study into police violence in Germany suggests that the police use force in a wide range of situations. These situations include demonstrations and sporting events such as football



games as well as situations that do not involve mass gatherings.<sup>3</sup> Police violence has caused 45 deaths from 2013 to 2017.<sup>4</sup>

The *weapons crime rate* has recorded the largest improvement of all the indicators in the DPI. The *weapons crime rate* recorded a significant decline of 34 per cent since 2013. The *weapons crime* indicator includes criminal offences that involve the use or threat of a firearm. For instance, a case of robbery that involves the use or threat of a firearm would fall under the *weapons crime* definition. In 2018, firearms were prevalent in approximately 0.7 per cent of crimes committed in Germany. The use of firearms is significantly higher for *homicide* and *robbery*.

The proportion of *homicide* cases that involved the use of a firearm fell from seven per cent of all the cases in 2013 to 4.5 per cent in 2018. The proportion of robberies that involved firearms has also declined from 5.5 per cent of all the cases in 2013 to 4.3 per cent in 2018. Germany has some of the most stringent gun control laws in Europe which restrict the acquisition, possession

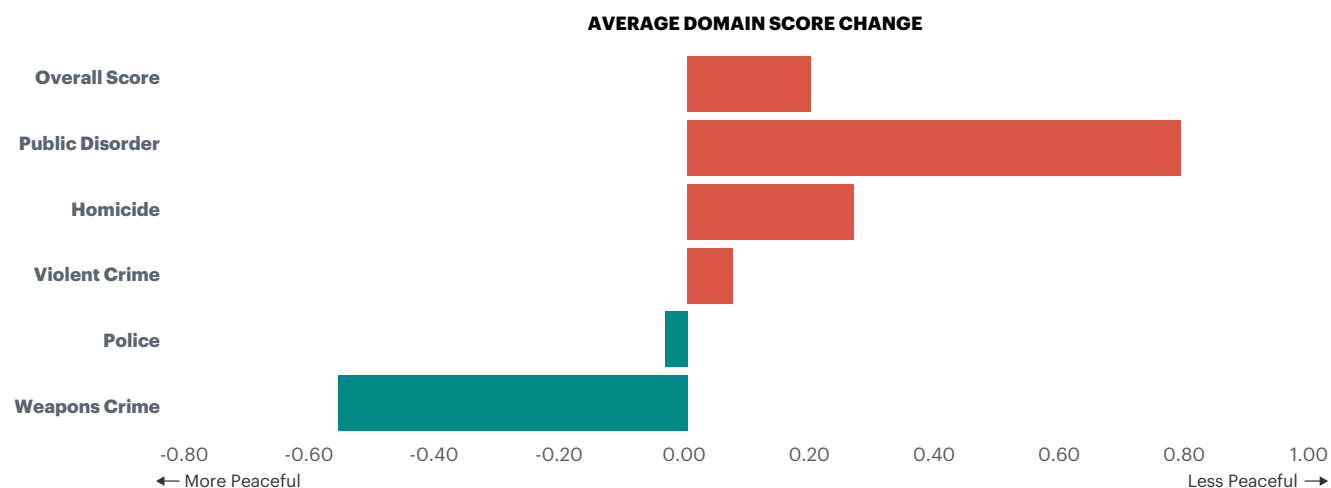
and carrying of a firearm.

Germany has experienced a steady increase in police power in recent years, including the ability of police to arrest and detain individuals for longer periods of time. In 2017, Germany introduced new legislation allowing for the surveillance of suspects, in which law enforcement authorities can access certain personal and private information on individuals.<sup>5</sup> The *police rate* in Germany has also recorded a small decrease of three per cent since 2013.

The *violent crime* domain aggregates three subcategories: violent assault, robbery and rape and sexual coercion. The *violent crime* domain score recorded a deterioration of eight per cent since 2013. However, the subcategories of the *violent crime* domain displayed varying trends which are not reflected in the overall trend in the domain score. The trends for the individual indicators in the *violent crime* domain are shown in Figure 1.4.

FIGURE 1.3  
**Change in the domain score, 2013–2018**

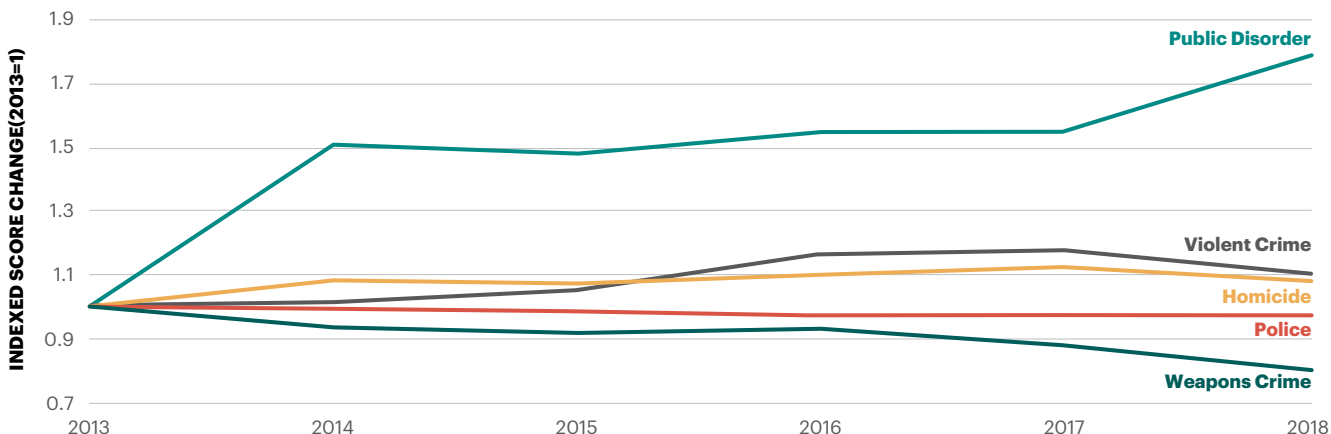
From 2013 to 2018, public disorder, violent crime and homicide deteriorated while weapons crime and police recorded improvements.



Source: IEP

FIGURE 1.4  
**National level indexed trend in DPI domains, 2013–2018**

Public disorder rate in Germany deteriorated by 163 per cent from 2013 to 2018, while weapons crime rate improved by 34 per cent in the same period.



Source: IEP

The *rape and sexual coercion* rate per 100,000 people increased by 23 per cent from 2014 to 2018, recording the largest increase of the indicators included in the *violent crime* domain. The largest increase in *rape and sexual coercion* rate was recorded in 2016 when the rate increased by 42 per cent from the previous year. However, this indicator improved by 18 per cent in 2018.

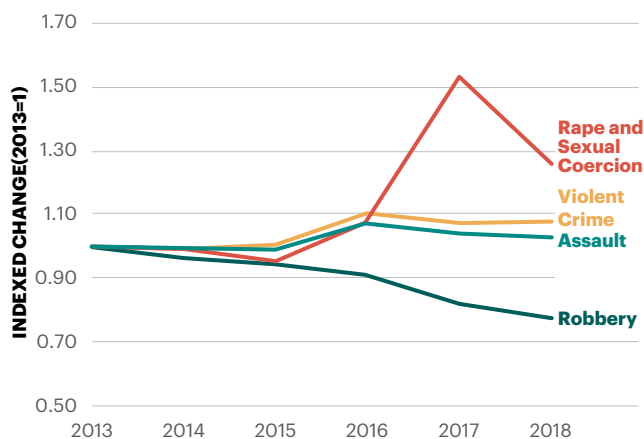
The German parliament approved changes to the sexual offences law in 2016, which makes it possible for the victims to report incidents to the police that were not covered in the previous legislation. The marked increase in the sexual violence statistics in 2016 could be partially attributed to the legislation changes. The change in the law has been subject to a long-standing debate.

Incidents of *violent assault* increased by three per cent from 2013 to 2018. The largest increase was observed in 2016 when incidents of violent assault increased by eight per cent from its 2015 level. *Robbery* was the only indicator within the *violent crime* domain that decreased since 2013. Police recorded *robbery* rate per 100,000 declined by 24 per cent from 2013 to 2018.

Figure 1.5 shows the trend in subcategories of the *violent crime* domain.

FIGURE 1.5  
**Trend in the categories of violent crime, 2013–2018**

Assault, violent crime, rape and sexual coercion have increased from their 2013 levels, while robbery recorded a decrease.



Source: IEP & BKA

## The Dynamics of Crime and Violence in Germany

Like most high peace countries, Germany experiences interpersonal violence.<sup>6</sup> This type of violence is defined as violence between individuals, either people who are known to each other or strangers. Interpersonal violence refers to the intentional use of physical force or power against another person by an individual and can involve intentional bodily harm and sexual violence.<sup>7</sup> Interpersonal violence can be fatal, such as homicide, or non-fatal, such as assault. Interpersonal violence might also result from the activities of organised crime groups.

Germany’s National Situation Report on Organised Crime identified organised crime groups as a potential threat to public order and safety. The majority of organised crime groups focus on drawing profits from the provision of goods and services that are illegal, strictly regulated or highly taxed, such as illicit drugs.<sup>8</sup> Nevertheless, one-third of the organised crime (OC) groups in Germany are also involved in other criminal activities, including violent crimes such as extortion and *homicides*.<sup>9</sup> In some areas, organised crime groups practise intimidating behaviour and create an environment that is perceived as unsafe by the general public.

Organised crime investigations increased by 1.6 per cent from 2016 to 2017. Nordrhein-Westfalen recorded the highest number of OC investigations at 111 cases in 2017, followed by Bayern with 76 investigations and Berlin with 68 investigations. Nordrhein-Westfalen has about 50 active criminal clans and is home to the criminal group with the highest number of charges against its members in 2019.<sup>10</sup> Criminal clans are organised crime groups that are connected by identity factors, such as ethnic background, and participate in illegal activities from fraud to violence. Between 2016 and 2018, clan-related groups were involved in 14,225 offences including two homicides and 24 attempted homicides.<sup>11</sup> Clan-related organised crime groups in Germany have recently attracted more scrutiny from the authorities. Police have undertaken major raids trying to counter criminal activities undertaken by such groups.

### BOX 1.1

#### Definition of organised crime in Germany

As per the BKA, organised crime is defined as: “the planned commission of criminal offences determined by the pursuit of profit or power which, individually or as a whole, are of considerable importance if more than two persons, each with his/her own assigned tasks, collaborate for a prolonged or indefinite period of time:

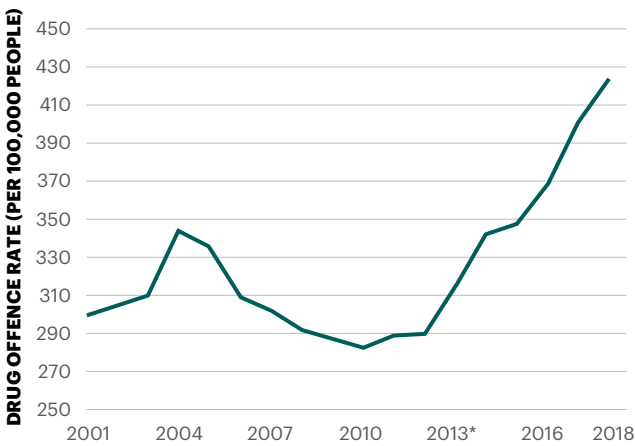
- a) by using commercial or business-like structures,
- b) by using force or other means of intimidation, or
- c) by exerting influence on politics, the media, the public administration, the judiciary or the business sector.”

Illicit drug trade is the most common criminal activity for organised crime groups. Illicit drug-related crime, including drug smuggling and trafficking, increased by 50 per cent in Germany from 2010 to 2018. In 2018, Hamburg recorded the highest drug crime rate at 727 per 100,000 people. This was followed by 611 in Thüringen and 547 in Bremen. The European Monitoring Centre for Drugs and Drug Addiction released a study which placed German cities at the top of the rankings for methamphetamine and amphetamine usage in 2018.<sup>12</sup>

FIGURE 1.6

### The trend in the drug offence rate in Germany, 2001–2018

The drug-related offence rate in Germany increased by 50 per cent from 2010 to 2018.



Source: BKA

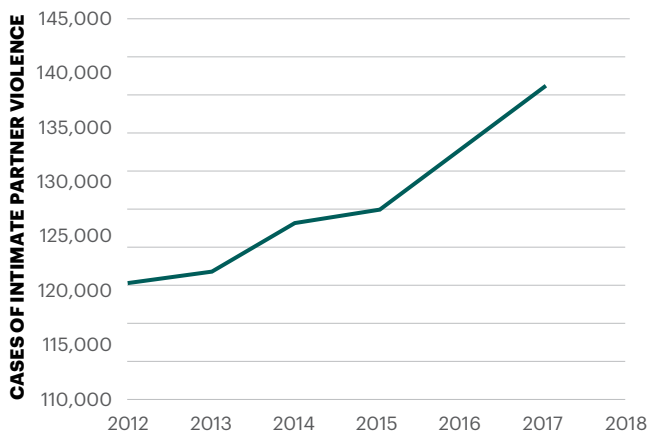
Another significant manifestation of interpersonal violence in high peace contexts such as Germany is violence in families and relationships. Intimate partner violence can include *homicide*, bodily harm and sexual violence. The DPI includes the indicator of *rape and sexual coercion* which consists of all cases of sexual violence, including those resulting from incidents of intimate partner violence, reported to or recorded by police.

Intimate partner violence is prevalent in Germany with almost 140,000 cases reported in 2017, an increase of 15 per cent from its 2012 level. The increase in 2017 was partially due to the new legislation on sexual violence that the German parliament passed in 2016. The legislation allowed police to record broader categories such as coercion, deprivation of liberty, sexual slavery and forced prostitution as sexual criminal acts. The law aimed to make it easier for the victims to report incidents of sexual

FIGURE 1.7

### Trend in incidents of intimate partner violence in Germany, 2012–2018

Incidents of intimate partner violence increased from 120,000 cases in 2012 to 140,000 in 2017, an increase of 15 per cent over a six-year period.



Source: BKA

violence to the police. Figure 1.7 shows the trend in the incidents of intimate partner violence in Germany.

German citizens constitute 72 per cent of the victims of sexual violence. Similarly, the perpetrators are predominantly German citizens, representing 68 per cent of the total police recorded cases. Intimate partner violence disproportionately affects women with 82 per cent of victims in 2017 being female.<sup>13</sup> Furthermore, of the intimate partner violence cases that resulted in death, 79 per cent of the victims were women.

A recent trend in Germany is the increase in politically motivated crimes, which has recorded a significant increase of 76 per cent from 2003 to 2018. In 2018, 36,062 crimes with political motivation were reported. The period between 2012 and 2016 had the largest change, increasing by 51 per cent. Politically motivated crime is defined as offences where the suspect or perpetrator is motivated by political or ideological reasons. A more detailed definition of this category of crimes is provided in Box 1.2.

Politically motivated crimes peaked in 2016 with 41,546 incidents recorded by police across Germany and have improved over the last two years. However, politically motivated crimes are almost two times its 2003 level. Figure 1.8 shows trends in politically motivated crimes in Germany.

FIGURE 1.8

### Reports of politically motivated crime for Germany, 2001–2018

Politically motivated crimes have increased by 76 per cent from 2003 to 2018, with the highest number of politically motivated crimes recorded in 2016 at 41,546 incidents.



Source: Bundesministerium des Innern, für Bau und Heimat



Intimate partner violence is prevalent in Germany with almost 140,000 cases reported in 2017, an increase of 15 per cent from its 2012 level.

BOX 1.2

### Politically motivated crime definition in Germany

Politically motivated crime is defined as a criminal act that is connected to, or the perpetrator's motive is directed/ aimed at:

- Preventing or changing democratic decisions or impact political decision-making
- Targeting the liberal democratic order
- Jeopardising Germany's foreign interests
- A person because of their attributes, political attitudes, nationality, ethnicity, appearance, religion or beliefs, social status, physical or mental disability or impairment and sexual orientation.<sup>14</sup>

German police further breaks down politically motivated crime, highlighting the political motive of the perpetrator. There is an internal political dimension to the politically motivated crimes that is recorded as a right- and left-wing political motive by the police. In addition, there are also external political motives, either ideological or religious. In 2018, 57 per cent of the politically motivated crimes were reported with a right-wing motive and 22 per cent with a left-wing motive. External political motives, or motives that were not related to domestic issues in Germany, accounted for nine per cent of the cases of politically motivated crime.

The German Federal Ministry of the Interior has reported a 2.5 per cent increase in hate crime in 2018. Hate crime is a category of politically motivated crimes. These include the rising levels of anti-Semitism and xenophobia. Walter Lubeck, a politician

known for his pro-immigration views, was assassinated in June 2019. Police later reported that the suspect was motivated by political reasons. Politically motivated crime can also be directed at the police.<sup>15</sup>

To counter the increase in politically motivated crime, Germany has taken initiatives to limit hate speech on social media networks. In 2017, Germany instituted the Network Enforcement Act (NetzDG), that requires social media sites to remove any content considered to be hate speech. In the case of non-compliance, social media networks can face up to 50 million euros in fines.

Incidents of terrorism, which have also seen an increase in Germany in recent years, are closely connected to politically motivated crime. In Germany, 18 per cent of the identified terrorists and those who travelled to the Middle East to join the Islamic State had a history of committing politically motivated crime.

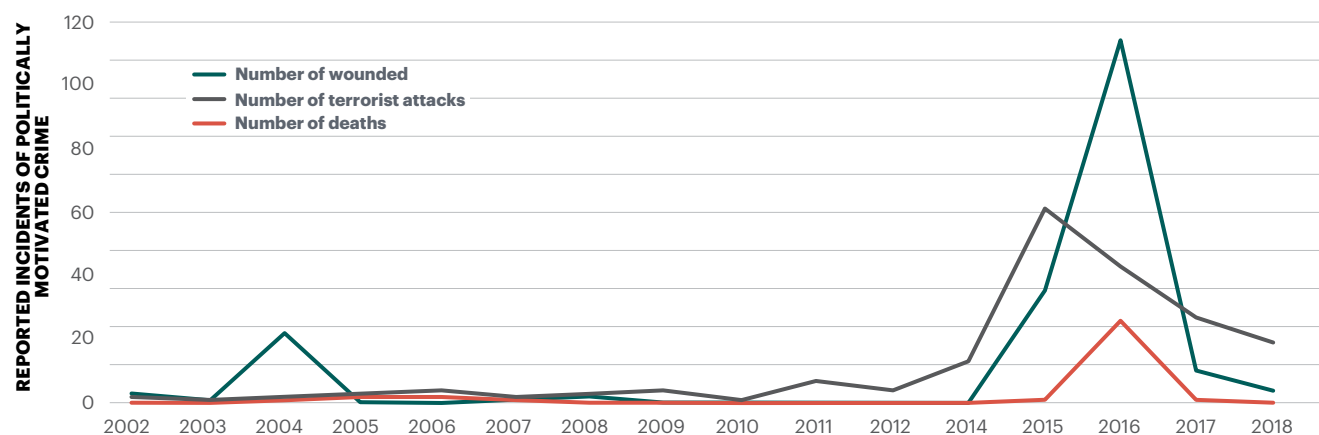
Incidents of terrorism in Germany increased from one attack in 2010 to 61 in 2015. The largest number of terrorism casualties were recorded in 2016 with 26 deaths and 114 wounded. In 2016, Germany experienced 43 terrorist attacks of which six were believed to have links to the Islamic State terrorist group.<sup>16</sup> The terrorist attack on the Christmas market in Berlin killed 12 people and 48 were injured. In the same year, perpetrators bombed a Sikh temple in Essen, leaving three people injured. However, with the decline of Islamic State, terrorist attacks have dropped significantly since 2016 with an average yearly number of 23 incidents for 2017 and 2018.

In the 2019 Global Terrorism Index, Germany ranked fourth in Europe for its impact of terrorism, with 19 recorded terrorist incidents in 2018. Germany has attempted to counter the threat of terrorism by increasing police powers and surveillance.

FIGURE 1.9

### The trend in terrorism incidents and casualties in Germany, 2002–2018

Germany has experienced a significant rise in terrorist attacks and casualties from terrorism in the last few years. In 2016, 43 incidents of terrorism caused 26 deaths and injured 114 people.



Source: GTI2018

Terrorist activities in Germany peaked in 2015 and 2016 and have since fallen substantially, coinciding with the fall of Islamic State terrorist group. There was only one major attack in Germany in 2017. In July, a terrorist attacked people in a supermarket in Hamburg resulting in one death and six injured. The perpetrator was stopped by bystanders, who detained him until the police could arrive. Although the terrorist had watched ISIS videos, he had no formal connections to the group and stated he committed the attack for global jihad.<sup>17</sup>

The high number of casualties by terrorist attacks in Germany in 2016 appeared to impact the public perception of safety and security in the country, with 73 per cent of the respondents in a survey conducted by an insurance group in 2016 indicating that they were worried that they might fall victim to a terrorist attack. In line with the falling numbers of terrorist attacks in 2017 and 2018, the number of respondents indicating that they were worried about a terrorist attack fell to 59 per cent in 2018 to 44 per cent in 2019.<sup>18</sup> While the general public's fear is in decline, the numbers are still relatively high compared to the very low probability of being present at an attack.

Large scale demonstrations have been held in Germany for or against causes related to domestic politics, climate change,

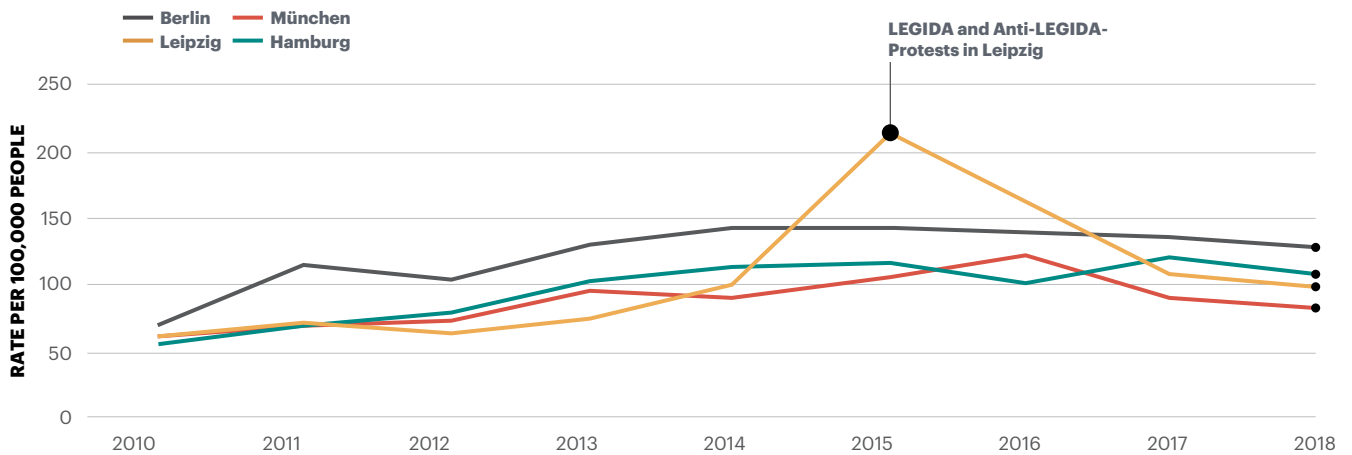
globalisation, economic issues, migration and democratic rights. In 2018, over 240,000 people participated in a mass protest in Berlin to stand against all types of marginalisation. This protest brought political activists, school children, non-government organisations and other groups together.<sup>19</sup> Germany has also experienced counter-protests, in which groups of protesters with opposing views on different issues confront each other or the police.

Lack of data on protests in Germany limits analysis on the comparison of demonstrations and how the recent protests compare to the past. Data gathered by Süddeutsche Zeitung from various police offices shows that Leipzig recorded a rise in protests that coincided with the height of the European immigration crisis when the rate of protests per 100,000 people reached 200.<sup>20</sup> There has also been an increasing trend in the number of protest across Berlin, Hamburg and München since 2013. Large German cities, such as Berlin, Frankfurt and München, have been at the forefront of protests on economic issues like housing. Other cities such as Chemnitz have experienced protests concerning the issues of immigration.<sup>21</sup>

FIGURE 1.10

### Trend in demonstrations rate in German cities, 2010–2018

The major cities in Germany recorded an increase in demonstration rates.



Source: Süddeutsche Zeitung

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In 2018, over 240,000 people participated in a mass protest in Berlin to stand against all types of marginalisation.

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# METHODOLOGY AT A GLANCE

The DPI is based on the work of the Global Peace Index, the leading global measure of peacefulness, produced by IEP annually since 2007. The DPI follows a similar methodology to the United Kingdom Peace Index, the United States Peace Index and the Mexico Peace Index also produced by IEP. This section provides a brief overview of the DPI methodology. More comprehensive methodological details are available in Appendix A on page 53. The DPI is composed of the following five indicators, scored between one and five, where one represents the most peaceful score and five the least peaceful.

## Homicide

The number of victims of *homicide* per 100,000 people at the district level in Germany.

## Violent Crime

The *violent crime* domain includes *robbery, assault, rape and sexual coercion* and *violent crimes*, such as extortion and hostage taking. These subcategories are weighted and then summed together to calculate the *violent crime* rate.

## Weapons Crime

The number of cases of *homicide* or *violent crime* that involved the use of a firearm per 100,000 people.

## Public Disorder

*Public disorder* includes cases of resisting or assaulting public authority or law enforcement officers per 100,000 people.

## Police Rate

The *police rate* is calculated using the total number of police officers per 100,000 people in a region.

## Data

Data for the German Peace Index is sourced from the Federal Police Crime Statistics or Bundeskriminalamt (BKA). German police crime statistics in Germany are reported at district (NUTS3) or state (NUTS1) level. The DPI aggregates crime statistics from the district level to estimate peace scores for the regional or NUTS2 level.

## Victimisation and Accuracy of Crime Statistics in Germany

In constructing the German Peace Index, which relies on crime data, a choice must be made whether to use police recorded crimes or those sourced from crime victimisation surveys. Crime victimisation surveys are based on a representative sample of a country's population and used to estimate crime rates for different categories of offences. Police crime statistics comprise all the crimes reported to or detected by the police.

Police crime statistics tend to underestimate the level of crime, given a proportion of crimes goes unreported. Considering that the victimisation survey data is not available at the regional level, the DPI does not adjust each category of crime for under-reporting.

In Germany, less than 50 per cent of total crimes are reported to the police. The under-reporting varies for different categories of crime. Minor and more frequent crimes have higher under-

reporting rates compared to less frequent and severe crimes.<sup>22</sup>

Studies of crime and violence estimate under-reporting rates for different categories of crime using crime victimisation surveys to account for the under-reporting in the police crime statistics. The German Institute for Economic Research (DIW) estimates the correction factors used in their 2015 study of crime in Germany. The highest under-reporting rate is estimated for internet crimes at 247, meaning that for each reported internet crime, 247 others are not reported to the police. The under-reporting is the lowest for murder and manslaughter. Table 1.1 shows the under-reporting rates from the DIW study.

TABLE 1.1

### Under-reporting rates for different categories of crime

Indicator	Mean of under-reporting estimates
Murder and Manslaughter	1.83
Bodily Harm	4.05
Threat	28.91
Burglary	5.57
Theft	2.94
Crime via internet	247.15

Source: DIW

The German police crime statistics office reports two nationwide victimisation surveys, conducted in 2012 and 2017. The national surveys use a sample size of 30,000 participants across the 16 German states. There have also been crime victimisation surveys undertaken in some states. The 2017 survey revealed that the majority of crimes that Germans fell victim to were theft, cybercrime and property damage, while crimes involving assault or robbery were rare.<sup>23</sup> Recent surveys show a declining rate of victimisation from *violent crime* across Germany.

On the other hand, property crimes are reported more frequently than other types of crime. This is mainly attributed to the insurance claim process which requires police validation of the crime in order to receive compensation for damaged or stolen goods. Victimisation survey analysis in Germany suggest that police reporting rates for property offences are higher than reporting rates for violent crimes.

## Regional Distribution of Peace across Germany

The DPI measures peace for the 38 regions of Germany. The German police crime statistics are reported at district (Landkreis) or state (Bundesland) levels. The DPI aggregates police crime statistics from the district level to the regional level.

While Germany is among the most peaceful countries globally, peacefulness varies significantly within Germany. The three city-states of Bremen, Berlin and Hamburg rank among the five least peaceful regions in the DPI.

The five least peaceful regions in Germany are Berlin, Bremen, Hamburg, Leipzig and Sachsen-Anhalt. Berlin is the least peaceful region in Germany and suffers from significantly higher levels of *homicide*, *violent crime* and *public disorder*. Bremen and Hamburg are the second and third-least peaceful regions, respectively. Leipzig, another large city in the north of Sachsen, ranks as the fourth least peaceful region in the DPI.

Higher levels of crime and violence in German cities highlight the urban and interpersonal nature of violence in the country. Even when the size of the population is accounted for, highly populated areas, such as Berlin, Hamburg, Leipzig and Bremen, tend to experience higher levels of crime and violence. This concentration of the violence in highly populated areas is further confirmed by the correlation between the DPI score and population density which indicates an increase in the population density is associated with lower levels of peace.

The five most peaceful regions in Germany are Trier, Detmold, Unterfranken, Tübingen and Brandenburg. These regions experience lower levels of *violent crime*, *homicide* and *public disorder* compared to the rest of Germany. For instance, in 2018, the *homicide rate* in Trier was 0.19 per 100,000 people and in Detmold, it was 0.29 per 100,000 people. Compared to the national *homicide rate* of 0.89 per 100,000, the *homicide rate* in the five most peaceful states is significantly lower. The two most peaceful regions in Germany, Trier and Detmold, experienced the lowest *homicide rates*. Table 1.2 shows the regional rankings in the 2019 DPI.

TABLE 1.2

### German peace index regional peacefulness ranking, 2018

A lower score indicates a higher level of peace.

Rank	Region	State	Overall Score	Rank	Region	State	Overall Score
1	Trier	Rheinland-Pfalz	2.155	20	Darmstadt	Hessen	2.926
2	Detmold	Nordrhein-Westfalen	2.322	21	Gießen	Hessen	2.947
3	Unterfranken	Bayern	2.334	22	Oberbayern	Bayern	2.961
4	Tübingen	Baden-Württemberg	2.445	23	Oberfranken	Bayern	2.988
5	Brandenburg	Brandenburg	2.528	24	Mittelfranken	Bayern	2.992
6	Freiburg	Baden-Württemberg	2.545	25	Rheinhessen-Pfalz	Rheinland-Pfalz	3.052
7	Oberpfalz	Bayern	2.581	26	Hannover	Niedersachsen	3.055
8	Mecklenburg-Vorpommern	Mecklenburg-Vorpommern	2.588	27	Arnsberg	Nordrhein-Westfalen	3.058
9	Dresden	Sachsen	2.592	28	Schleswig-Holstein	Schleswig-Holstein	3.075
10	Chemnitz	Sachsen	2.648	29	Köln	Nordrhein-Westfalen	3.079
11	Niederbayern	Bayern	2.658	30	Düsseldorf	Nordrhein-Westfalen	3.204
12	Münster	Nordrhein-Westfalen	2.702	31	Kassel	Hessen	3.611
13	Stuttgart	Baden-Württemberg	2.715	32	Weser-Ems	Niedersachsen	3.612
14	Koblenz	Rheinland-Pfalz	2.722	33	Saarland	Saarland	3.636
15	Schwaben	Bayern	2.726	34	Sachsen-Anhalt	Sachsen-Anhalt	3.734
16	Lüneburg	Niedersachsen	2.757	35	Leipzig	Sachsen	3.908
17	Braunschweig	Niedersachsen	2.77	36	Hamburg	Hamburg	4.344
18	Karlsruhe	Baden-Württemberg	2.9	37	Bremen	Bremen	4.605
19	Thüringen	Thüringen	2.922	38	Berlin	Berlin	4.741

Source: IEP

# MOST AND LEAST PEACEFUL REGIONS

For all the measures of peacefulness in the DPI, there is a substantial gap between the five most and least peaceful regions. Figure 1.11 compares the indicator scores for the least and most peaceful regions. The *violent crime*, *homicide* and *police rate* indicators display the greatest divergence between the least and most peaceful regions. For example, the average *homicide rate* across the five least peaceful regions is 1.78 per 100,000 people. This is considerably higher than the national *homicide rate* of 0.89. In the five most peaceful regions, the *homicide rate* is 0.39 per 100,000 people, substantially lower than the five least peaceful regions. The *violent crime* rate among the least peaceful regions is nearly twice as high as the national rate.

The difference in *weapons crime* between the most and least peaceful regions is the smallest of all the indicators. Restrictive laws and regulations governing the ownership of firearms in Germany have contributed to minimising the gap between the least and most peaceful regions in the *weapons crime* indicator. The stringent gun laws have also contributed to the reduction in *weapons crime* across all German regions since 2013, which decreased by 34 per cent.<sup>24</sup> Since 2013, the *weapons crime* rate has declined in 32 regions, and six regions have recorded an increase.

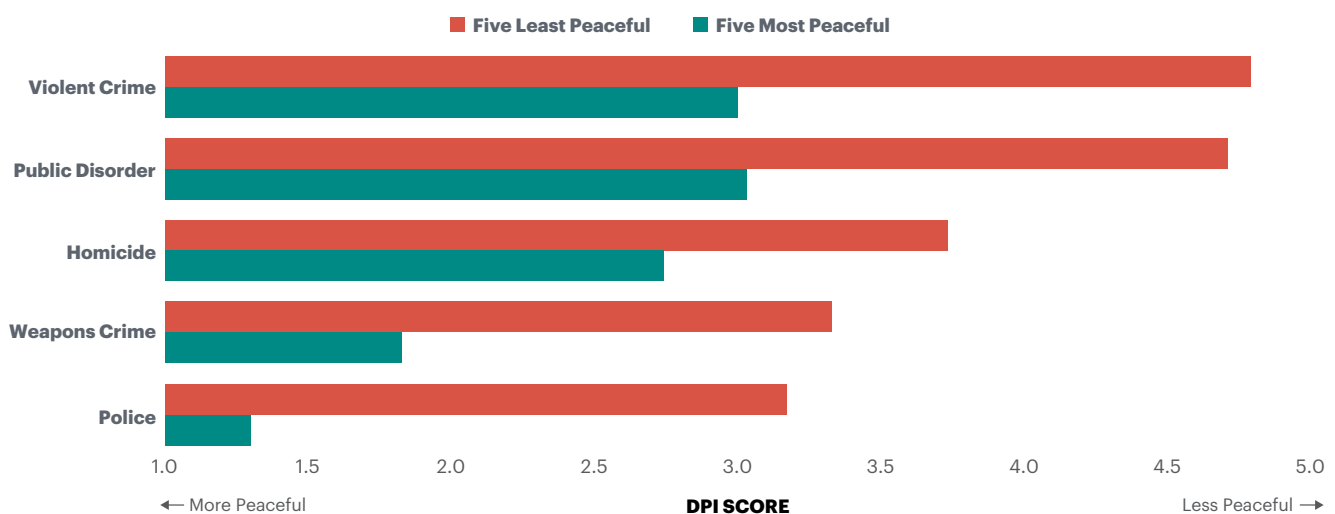
*Weapons crime* had the largest decrease in the region of Mecklenburg-Vorpommern, declining by 73 per cent from 2013 to 2018. In contrast, Thüringen has had a notable deterioration in its *weapons crime rate*, increasing by 195 per cent from 2013 to 2018.

All 38 regions have suffered large deteriorations in the *public disorder rate* since 2013. The increase in the rate of public disorder ranges from 67 per cent in Bremen to 377 per cent in Karlsruhe, a region in the state of Baden-Württemberg.

FIGURE 1.11

## The peace gap between the most and least peaceful regions, 2018

The five least peaceful regions in Germany have higher rates of homicide, weapons crime, police, public disorder and violent crime than the five most peaceful regions.



Source: IEP

“

The three city-states in Germany-Berlin, Bremen and Hamburg-ranked among the five least peaceful regions in Germany, with Berlin as the least peaceful region.



## The Five Most Peaceful Regions

The five most peaceful regions all had very low levels of violence and *public disorder* in Germany. Table 1.3 displays the indicator scores and the DPI scores of the five most peaceful regions. *Homicide* and *violent crime* rates are well below national rates for these regions. The average *homicide rate* for the five most peaceful regions is 0.39 per 100,000 people, compared to the national rate of 0.89. The *violent crime rate* in the five most peaceful regions is 266 per 100,000 people compared to 396 at the national level.

TABLE 1.3

### The five most peaceful regions in Germany, 2018

With an average homicide rate of 0.39 per 100,000, the five most peaceful regions experienced significantly lower levels of violence compared to the national rate of 0.89.

Rank	Region	State	Overall Score	Homicide	Public Disorder	Violent Crime	Weapons Crime	Police Rate
1	Trier	Rheinland-pfalz	2.16	1.51	3.19	2.94	1.68	1.28
2	Detmold	Nordrhein-westfalen	2.32	1.79	3.32	3.12	1.86	1.03
3	Unterfranken	Bayern	2.33	1.84	3.12	3.12	1.86	1.29
4	Tübingen	Baden-württemberg	2.44	3.04	2.57	2.58	1.65	1
5	Brandenburg	Brandenburg	2.53	2.07	2.92	3.35	2.11	1.92

Source: IEP

#### Trier

In 2018, Trier was the most peaceful region in Germany. Trier, a region in the southwest of Rheinland-Pfalz, recorded an improvement of ten per cent in its level of peace from 2013 to 2018. Trier's improvement in peace is driven by its low *homicide* and *weapons crime* rates. Trier is the region in Germany with the lowest population.

Trier has consistently experienced a low *homicide rate*, declining from 0.63 per 100,000 people in 2016 to 0.19 in 2018, an improvement of 70 per cent. This led to an overall improvement of 35 per cent in peacefulness in the region.

The rate of *weapons crime* in Trier was 1.89 per 100,000 people in 2018 and declined by 41 per cent from the previous year. The *violent crime rate* of 284 per 100,000 people and is substantially lower than the national average. However, it increased by eight per cent from 2013 to 2018.

The improvement in peacefulness in Trier would have been stronger except that the *public disorder rate* in the region registered a 26 per cent increase from 2017. Even though Trier had the lowest absolute number of incidents of all the regions in Germany, Trier's deterioration in *public disorder* is consistent with the overall trend of increasing *public disorder* in Germany.

#### Detmold

Detmold, a city located in Nordrhein-Westfalen with a population of over 70,000 people, is the second most peaceful region in Germany. Peacefulness in Detmold has deteriorated by 8.6 per cent from 2013 to 2018. Similar to other high peace regions, Detmold has low *violent crime* and *homicide* rates compared to the rest of Germany. In 2018, the *violent crime rate* at 310 cases per 100,000 saw an improvement of 12 per cent.

The *public disorder* domain has seen a significant deterioration in Detmold since 2013. The rate for *public disorder* more than doubled in Detmold, increasing from 22 cases per 100,000 in 2013 to 57 in 2018. The *homicide rate* in Detmold was 0.29 per 100,000 in 2018, which had decreased by 32 per cent from its 2013 level.

*Weapons crime* in Detmold is among the lowest in Germany with a rate of 2.4 cases per 100,000 people. However, Detmold is one of the few regions that experienced a rise in its level of *weapons crime*, which increased by 29 per cent in 2018. The *police rate* in Detmold is one of the lowest in Germany, with only Tübingen and Stuttgart having lower *police rates* in 2018.

## Unterfranken

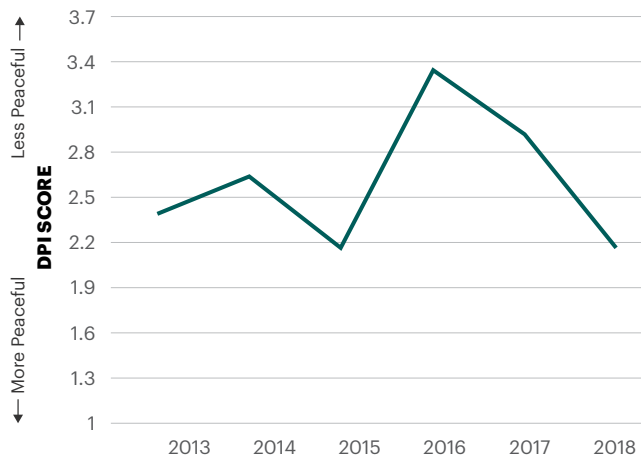
Located in the state of Bayern, Unterfranken ranks as the third most peaceful region in Germany. Peacefulness in Unterfranken deteriorated by 17 per cent from 2013 to 2018. The *violent crime rate* in Unterfranken has been increasing with a sizeable spike in 2017 to 341 cases per 100,000 people.

In 2018, Unterfranken recorded a 35 per cent improvement in its level of peacefulness from the previous year. This improvement was due to decreases in *homicide*, *violent crime* and *weapons crime rates*. The *homicide rate* in Unterfranken declined by 79 per cent from 1.5 per 100,000 people in 2017 to 0.30 in 2018. At the same time, *violent crime* and *weapons crime rates* decreased by nine and 43 per cent respectively in 2018.

However, the *public disorder rate* increased from 18 cases per 100,000 people in 2017 to 53 cases in 2018, almost a three-fold increase.

FIGURE 1.12  
**Trend in peacefulness in Trier, 2013–2018**

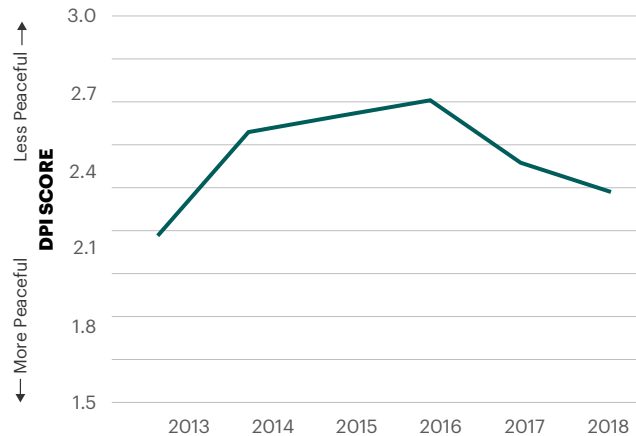
Peacefulness in Trier improved by ten per cent from 2013 to 2018.



Source: IEP

FIGURE 1.13  
**Trend in peacefulness in Detmold, 2013–2018**

Peacefulness in Detmold deteriorated by 8.6 per cent from 2013 to 2018.



Source: IEP

## Tübingen

Tübingen, a region in the south of Baden-Württemberg, ranks as the fourth most peaceful region in Germany. Since 2013, the level of peace in Tübingen has deteriorated by 28 per cent making 2018 the least peaceful year for the region. The *violent crime rate* in Tübingen increased by 19 per cent in 2018, leading to an overall deterioration in peacefulness.

In 2018, Tübingen's *violent crime rate* was 231 incidents per 100,000 people and the *public disorder rate* was 38 incidents per 100,000 people. Despite having the lowest *public disorder rate* across all German regions, Tübingen's *public disorder rate* increased by 262 per cent from 2013 to 2018.

The *homicide rate* in Tübingen is the highest among the five most peaceful regions at 0.76 per 100,000 people. The largest increase in the *homicide rate* in the region occurred in 2016, increasing from 0.5 per 100,000 people in 2015 to 0.88 in 2016, a significant increase of 75 per cent.

FIGURE 1.14  
**Trend in peacefulness in Unterfranken, 2013–2018**

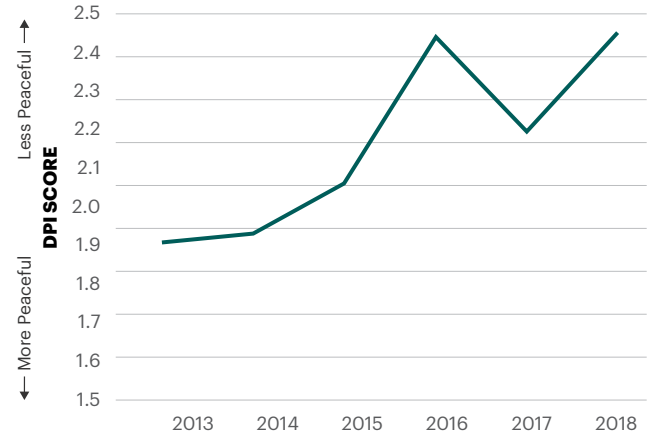
Peacefulness in Unterfranken deteriorated by 17 per cent from 2013 to 2018.



Source: IEP

FIGURE 1.15  
**Trend in peacefulness in Tübingen, 2013–2018**

Peacefulness in Tübingen deteriorated by 28 per cent from 2013 to 2018, making 2018 Tübingen's least peaceful year.



Source: IEP

## Brandenburg

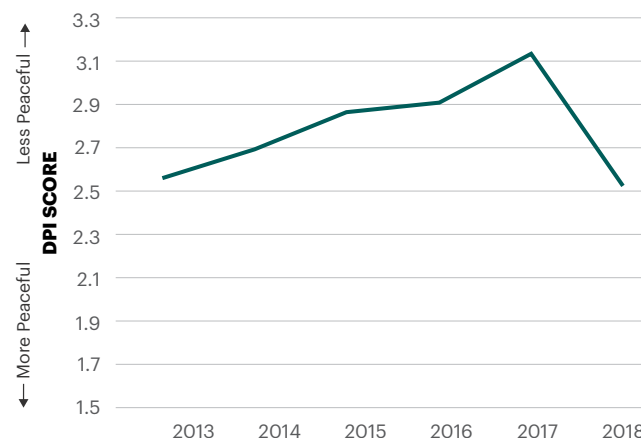
Located in the northeast of Germany, Brandenburg has a population of 2.6 million people. Peacefulness in Brandenburg improved by 20 per cent in 2018, which made the region the fifth most peaceful region in Germany. This significant improvement in peacefulness was driven by decreases of 57 per cent in the *homicide rate* and 28 per cent in *public disorder rate*. *Weapons crime* in Brandenburg also experienced a decline of ten per cent.

The *public disorder rate* in Brandenburg increased from 27 cases per 100,000 people in 2013 to 47 cases in 2018, or an increase of 74 per cent. However, the *public disorder rate* in Brandenburg is still significantly lower than the national rate of 66 per 100,000. *Violent crime* and *weapons crime* both increased in the last six years. From 2013 to 2018, the *violent crime rate* increased by 29 per cent and *weapons crime rate* rose by 12 per cent.

FIGURE 1.16

### Trend in peacefulness in Brandenburg, 2013–2018

Peacefulness in Brandenburg improved by 20 per cent from 2017 to 2018, making 2018 Brandenburg's most peaceful year.



Source: IEP

## The Five Least Peaceful Regions

The five least peaceful regions in Germany include Leipzig, Sachsen-Anhalt, and the three city-states of Berlin, Bremen and Hamburg. Four out of the five least peaceful regions score the highest possible DPI score for *violent crime* and *public disorder*. With an average *violent crime rate* of 688 cases per 100,000 people, the five least peaceful regions far exceed the national *violent crime rate* of 396 cases per 100,000 people.

Similarly, the average *public disorder rate* in the five least peaceful regions is 103 incidents per 100,000 people, compared to the national rate of 66. The five least peaceful regions underscore the urban nature of crime in Germany. Berlin, Bremen and Hamburg are all city-states, and Leipzig is a large city within the state of Sachsen. Table 1.4 displays the domain scores and overall scores of Germany's five least peaceful regions in 2018.

TABLE 1.4

### The five least peaceful regions in Germany, 2018

The five least peaceful regions experience twice as many homicides and incidents of violent crime per 100,000 people as the national level.

Rank	Region	Overall Score	Homicide	Public Disorder	Violent Crime	Weapons Crime	Police
38	Berlin	4.74	5	5	5	3.45	5
37	Bremen	4.60	4.16	5	5	5	3.62
36	Hamburg	4.34	4.23	5	5	3.12	3.98
35	Leipzig	3.91	3.6	5	5	2.97	1.57
34	Sachsen-Anhalt	3.73	5	3.52	3.95	2.12	1.68

Source: IEP

## Berlin

Berlin, the largest city in Germany by population size, ranks as the least peaceful region in the DPI. Peacefulness in Berlin recorded a deterioration of nearly three per cent in 2018.

Contrary to the national trend, the *homicide rate* in Berlin increased significantly in 2018. The *homicide rate* in Berlin increased from 1.26 per 100,000 in 2017 to four in 2018, which is an increase of 219 per cent. Berlin's *homicide rate* was the highest among all regions in Germany in 2018.

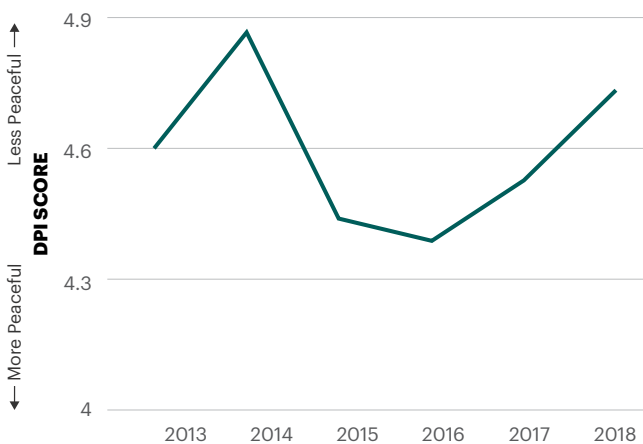
The *violent crime rate* in Berlin has consistently exceeded the national level. In 2018, Berlin's *violent crime rate* was 810 cases per 100,000 people and was more than twice the national rate of 396 cases. In addition, Berlin has the highest rates of *public disorder* in Germany at 139 incidents per 100,000 people, which has increased by 137 per cent since 2013. The higher levels of *violent crime* and *public disorder* in Berlin explains its ranking as the least peaceful region in Germany.

The higher level of crime and violence in cities, such as Berlin, are in part due to the presence of organised crime groups. As previously mentioned, the primary purpose of the organised crime groups might not be violence, but these groups do participate in perpetuating *violent crime*. For instance, more than 300 police officers in Berlin raided more than a dozen businesses with the suspicion of criminal activities in early 2019. Gang-related businesses often employ intimidation and violence and are involved in other criminal activities, such as money laundering and illicit drug trade. According to police crime statistics, in 2018 more than 17,000 cases of drug offences were recorded in Berlin alone.<sup>25</sup>

A more positive trend in Berlin is the *weapons crime rate* which has shown a steady decrease since 2013. This is in line with the declining trend in *weapons crime* at the national level in Germany, which could be accredited to stricter gun control laws. In Berlin, the *weapons crime rate* has fallen from 12 cases per 100,000 people in 2013 to seven cases in 2018. However, Berlin's *weapons crime rate* is the second-highest in Germany.

FIGURE 1.17  
**Trend in peacefulness in Berlin, 2013–2018**

Peacefulness in Berlin deteriorated by 7.8 per cent from 2016 to 2018.



Source: IEP

## Bremen

Bremen ranks as the second least peaceful region in Germany. Bremen's low level of peace is driven by the high levels of *violent crime, homicide, weapons crime* and *public disorder*. In 2018, Bremen had the highest *violent crime rate* in Germany with 841 cases per 100,000 people, more than double the national rate of 396 cases. Bremen also suffers the fourth-highest *homicide rate* at 1.2 per 100,000 people.

Peacefulness in Bremen has deteriorated by nearly 24 per cent from 2013 to 2018. Bremen suffers from higher levels of violence when compared to other regions Germany. Bremen's *violent crime* is characterised by high levels of drug offences and organised crime. In 2019, police and security forces in Bremen conducted successful investigations into a known drug ring, resulting in several arrests and the seizure of large quantities of drugs.<sup>26</sup> One of the most notable organised crime gangs operating in Bremen is the Miri clan. In 2019, special forces arrested one of the leaders of the Miri clan, who was subsequently deported.<sup>27</sup>

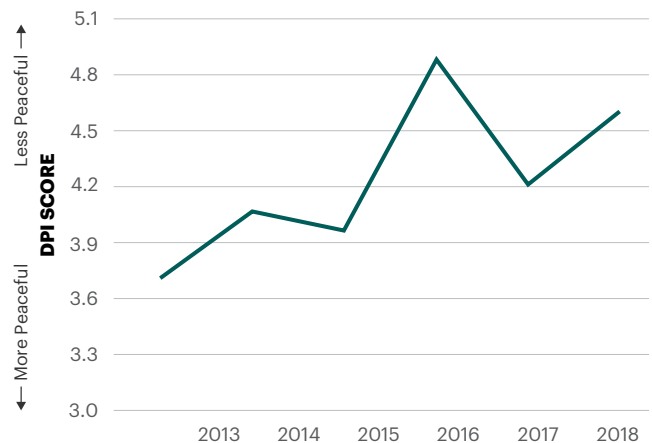
Bremen's city centre records more offences than the surrounding areas, highlighting how crime concentrates in urban areas in Germany. Crimes related to assault increased in the inner city area by nine per cent in 2018.<sup>28</sup> There were nearly 16,000 recorded cases of serious theft in Bremen, and less than six per cent of these cases were cleared.

Bremen scores the highest possible score on three of the five DPI domains: *violent crime, weapons crime, and public disorder*. Bremen experiences significantly higher levels of *homicide* and *violent crime*, compared to the national average and other German regions.

Bremen registered the highest rates of *weapon crimes* with a rate of 11 per 100,00 people. Bremen is the only region with a *weapons crime rate* higher than ten, which is almost double the second highest region - Berlin. The *weapons crime rate* in Bremen has decreased from its peak in 2013 by 21 per cent.

FIGURE 1.18  
**Trend in peacefulness in Bremen, 2013–2018**

Peacefulness in Bremen deteriorated by 24 per cent from 2013 to 2018.



Source: IEP

## Hamburg

Hamburg ranks as the third least peaceful region in Germany. Hamburg experiences significantly higher levels of *violent crime* and *homicide*, which explains the lower level of peacefulness in the region. Hamburg experienced its least peaceful year in 2015 and has improved slightly since then.

The *homicide rate* of 1.2 and *violence crime rate* of 715 cases per 100,000 people are above the national level for both indicators. Nevertheless, Hamburg has experienced a 19 per cent decrease in its level of *violent crime* since 2014. This improvement in the *violent crime rate* was the largest of any region between 2014 and 2018.

The *weapons crime rate* also fell by over 50 per cent from a peak of 13 cases per 100,000 people in 2015 to six cases in 2018. However, the *weapons crime rate* in Hamburg is still the third-highest in Germany.

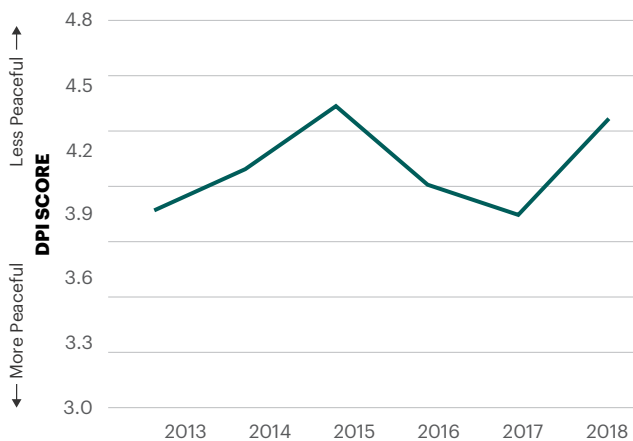
Hamburg suffers from the fourth-highest rate of *public disorder*, reaching its peak in 2018. There were 98 cases of *public disorder* per 100,000 people in 2018, rising sharply from 49 cases in 2013.

Hamburg ranks the second-highest for drug offences in Germany, behind Berlin. In 2018, there were 13,000 police recorded cases of illicit drug-related crimes.<sup>29</sup> As a port city, Hamburg is a pertinent location for drug trafficking. In 2019, police seized almost one billion euros worth of cocaine during a routine check. The drugs were being smuggled in through shipping containers and weighed over four tonnes, making it the largest shipment ever seized in Germany.<sup>30</sup>

FIGURE 1.19

### Trend in peacefulness in Hamburg, 2013–2018

Peacefulness in Hamburg deteriorated by 11 per cent from 2013 to 2018.



Source: IEP

## Leipzig

Leipzig, a city in the north of Sachsen, ranks as the fourth least peaceful region in Germany. From 2013 to 2016, peacefulness in Leipzig deteriorated by 28 per cent. However, from 2016 to 2018 there has been a turnaround with peace increasing by 16 per cent.

The *public disorder rate* in Leipzig has had the largest deterioration of the five least peaceful regions since 2013, which increased by 177 per cent. *Public disorder* is the primary driver of the deterioration in peacefulness in the region, which is driven by the rising level of political demonstrations. Leipzig has experienced a higher level of political polarisation and demonstration from opposing groups of activists. The demonstration rate in Leipzig peaked at the height of the European immigration crisis reaching 200 per 100,000 people. In 2018, Leipzig's demonstration rate of 100 per 100,000 people was still higher than its level in 2013.<sup>31</sup>

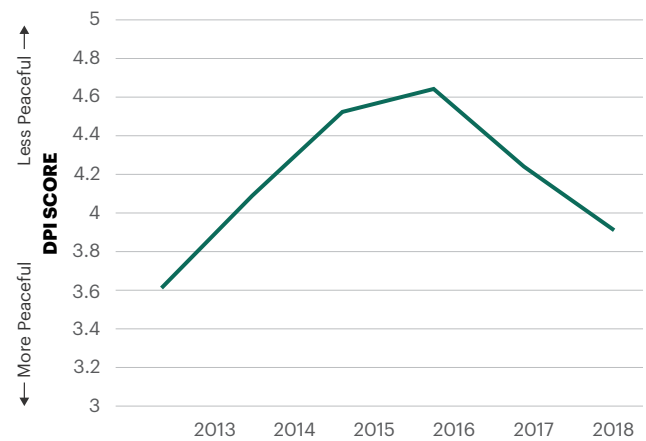
With a *public disorder rate* of 120 incidents per 100,000 people, *public disorder* in Leipzig is nearly double the national rate and is the second-highest in Germany after Berlin.

The *homicide, violent crime* and *weapon crime rates* in Leipzig are higher compared to the national level. Despite an improvement of 82 per cent in the *homicide rate* since 2016, the 2018 *homicide rate* of 0.97 cases per 100,000 people is 13 per cent higher than the national *homicide rate*.

FIGURE 1.20

### Trend in peacefulness in Leipzig, 2013–2018

Peacefulness in Leipzig deteriorated by 7.8 per cent from 2013 to 2018.



Source: IEP

## Sachsen-Anhalt

Sachsen-Anhalt, which is located in the east of Germany with a population of 2.3 million people, is the fifth least peaceful region.<sup>32</sup> Peacefulness in the region deteriorated by 29 per cent from 2013 to 2018. This deterioration in peacefulness was due to increases in *homicide* and *violent crime rate*.

The *homicide rate* in the region increased by 58 per cent to 1.5 per 100,000 people in 2018. The *violent crime rate* also recorded an increase of 24 per cent since 2013. Both *homicide* and *violent crime rates* in Sachsen-Anhalt were higher than the national rates in Germany.

The *public disorder rate* in Sachsen-Anhalt was 62 cases per 100,000 in 2018, which was up 155 per cent from its 2013 level. The *weapons crime rate* in Sachsen-Anhalt decreased by five per cent, which is in line with the national reduction in the indicator.

## WIDENING PEACE GAP IN GERMANY

In 2018, peacefulness at the national level improved slightly by 1.8 per cent from the previous year. An equal number of regions improved and deteriorated in their peacefulness. The regions that became less peaceful did so at a rate that exceeds the regions that became more peaceful, leading to a deterioration at the national level. This is not uncommon as it is also observed globally, where countries that fall in peace do so at a faster rate than countries that improve in peace.

The *public disorder rate* increased in 34 of the 38 regions, which was the largest number of regions to deteriorate for any of the DPI indicators. This was followed by the *homicide rate*, which increased in 16 of the 38 regions. In contrast, *violent crime* decreased in 36 regions and the *weapons crime rate* declined in 30 regions. Figure 1.22 shows regional improvements across indicators and the DPI score.

Germany strengthened the protection of law enforcement officials, including police in 2017. This has direct implications for the increase in the *public disorder* indicator in the DPI. Police now have greater powers in arresting and charging people. The rise in *public disorder* is also due to the increasing level of political polarisation, which has resulted in a greater number of demonstrations, especially in the larger cities.

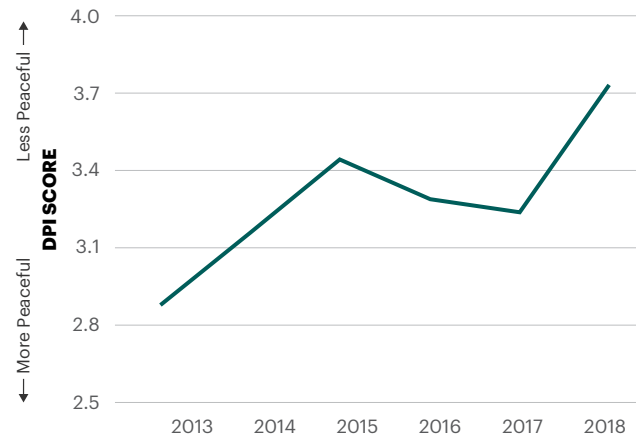
Four of the five most peaceful regions improved their peacefulness in the DPI. Tübingen was the only exception, which declined by 11 per cent in its level of peace in 2018. Figure 1.22 shows changes in the DPI by individual indicators.

In contrast, Bremen, Hamburg, Sachsen-Anhalt and Berlin, four of the five least peaceful regions, continued to record deteriorations in their peacefulness in 2018. When the most peaceful regions improve and the least peaceful regions deteriorate, it is indicative of a growing divergence across German regions in terms of levels of *violent crime* and *public*

FIGURE 1.21

### Trend in peacefulness in Sachsen-Anhalt, 2013–2018

In Sachsen-Anhalt, peacefulness deteriorated by 29 per cent from 2013 to 2018.



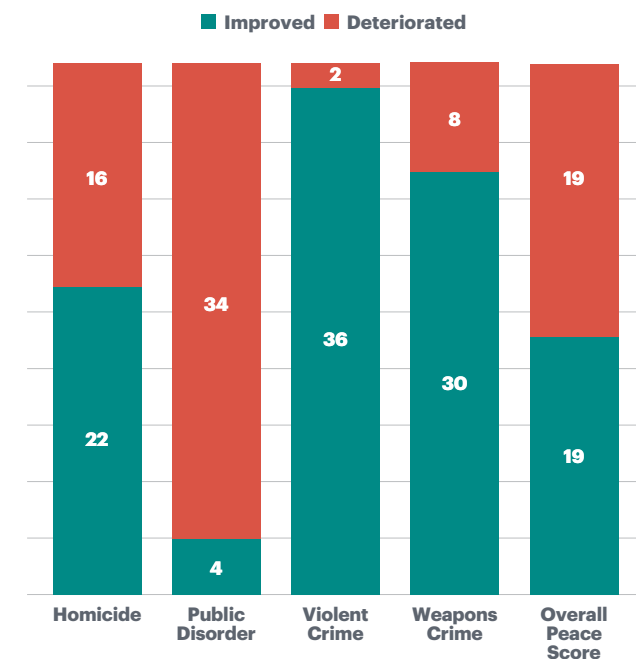
Source: IEP

*disorder*. The divergence also highlights the increasing inequality in peacefulness between regions in Germany. Interestingly, a similar pattern is observed at the global level, with countries that are at the top of the Global Peace Index, on average, increasing in peace while countries at the bottom, on average, keep deteriorating in peace. This is known as the growing inequality in peace.

FIGURE 1.22

### The number of regions that improved or deteriorated, 2017–2018

Thirty-six regions decreased their violent crime rate in 2018; however, 34 regions experienced an increase in the public disorder rate.

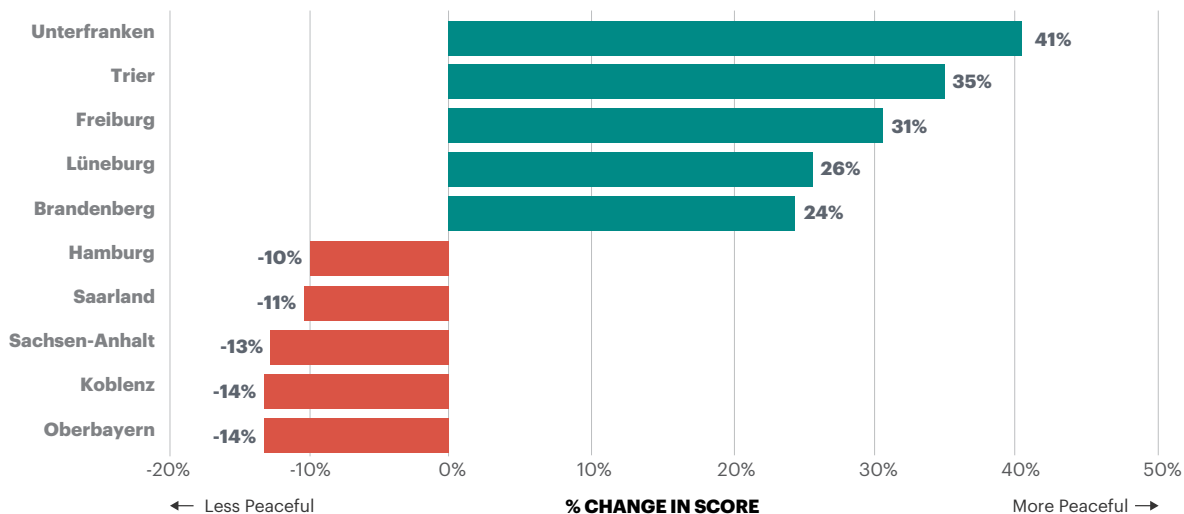


Source: IEP

FIGURE 1.23

### The five largest improvements and deteriorations on the DPI score, 2018

In 2018, 19 regions recorded deteriorations in peace, while an equal number of regions improved. However, on average, the regional decline in peace was larger than the rises, indicating a deterioration in peacefulness at the national level.



Source: IEP

Unterfranken, Trier, Freiburg, Lüneburg and Brandenburg were the regions that recorded the largest improvements in peacefulness in 2018. All five regions recorded improvements in peace exceeding 20 per cent. By contrast, Hamburg, Saarland, Sachsen-Anhalt, Koblenz and Oberbayern recorded the largest deteriorations in peace. Oberbayern experienced the largest deterioration in peace at 16 per cent. Figure 1.23 shows the five regions that improved and deteriorated the most in 2018.

Since 2013, peacefulness deteriorated by 12 per cent at the national level. During this period, 33 of the 38 regions experienced a decline in the levels of peace. Sachsen-Anhalt and Thüringen recorded the largest falls. The decline in peacefulness is driven by increases in *homicide*, *violent crime*, and *public disorder rates*. The only six regions experiencing improvements were Gießen in west Hessen, Brandenburg, Berlin, Trier in southwest Rheinland-Pfalz, Köln in Nordrhein-Westfalen and Braunschweig in Niedersachsen.

### Fear of Crime

Fear of crime represents individual attitudes towards falling victim to crime or violence. Fear of falling prey to crime or violence can affect the individual’s quality of life which can have broader socioeconomic impacts. Fear of crime is not included in the DPI estimation due to lack of reliable regional data.

More than half of Germans, 58 per cent, say they feel safe in their city or community and 29 per cent indicate that they feel very safe. Despite this, when asked about perceptions of fear over time, 44 per cent of the respondents suggested that they feel less safe in their cities today than in previous years. Residents in larger cities report higher concerns about safety and believe more should be done to improve public safety.<sup>33</sup> The higher level of concern for public safety in larger cities is reflected in the correlation between peacefulness and population density in Germany. The more densely populated areas tend to experience a higher level of *violent crime* and *public disorder*.

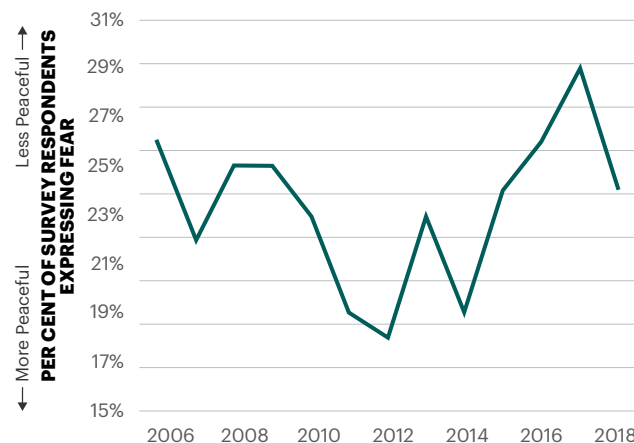
Fear of walking home alone is a measure of the fear of crime and perceptions of public safety. In Germany, the fear of walking home alone at night increased from 19 per cent in 2014 to 29 per cent in 2017, an increase of 53 per cent. However, in 2018 the indicator improved, recording a 17 per cent reduction in the fear of walking home alone at night.

The rising level of fear of walking home alone coincided with declining peacefulness in Germany – a consequence of increasing levels of *violent crime*, *homicide* and *public disorder*. Figure 1.24 shows the proportion of people that express fear of walking home alone at night.

FIGURE 1.24

### Proportion of people that express fear of walking alone at night, 2006–2018

Fear of walking alone at night increased by 53 per cent in Germany from 2014 to 2017.



Source: Gallup World Poll

Across Germany, fear of crime has a strong correlation with peacefulness, as shown in Figure 1.25. This strong association suggests that the public perception of fear of crime and violence align with the official crime and violence statistics.

The survey data includes fear of crimes that might not necessarily include violence or physical harm to the victim. This explains the higher level of fear of victimisation by crime in some of the more peaceful regions like Dusseldorf or Arnsberg. The fear of victimisation, like falling victim to cyber or internet-related crime, might be higher in places where the fear of falling victim to a *violent crime* is relatively low. The data was sourced from the German Institute for Economic Research (DIW).

Among the highly peaceful regions, up to 40 per cent of respondents reported fear of falling victim to crime or violence. In the least peaceful regions, particularly the larger cities, respondents reported a higher level of fear of crime. In Hamburg, Bremen and Berlin, more than 70 per cent of the respondents reported fear of falling victim to crime or violence.

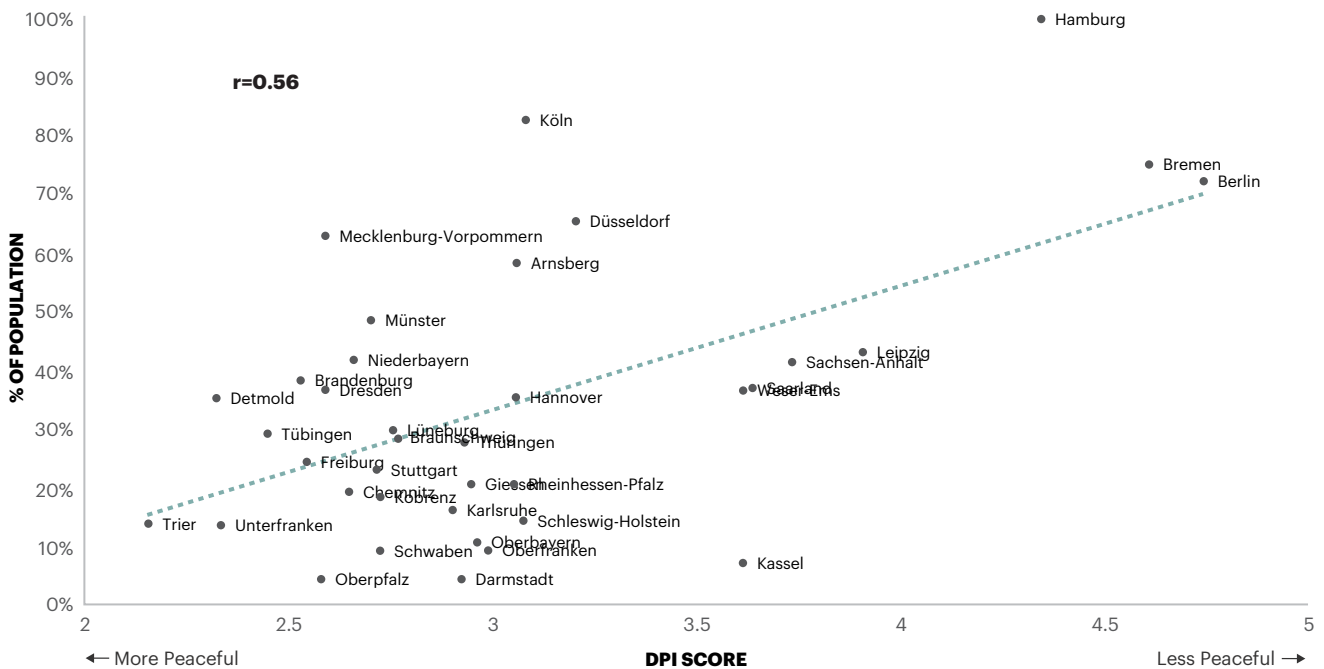
Several regions record a fear of crime that does not reflect the level of violence as measured by DPI. For instance, Münster experiences a higher level of fear of crime compared to Leipzig.

In recent years, more Germans have expressed higher levels of fear of falling victim to terrorism and politically motivated crimes. A recent survey undertaken by an insurance group reports that 71 per cent of respondents expressed fear of falling victim to terrorism and 62 per cent expressed fear of politically motivated crimes.<sup>34</sup> The fear of terrorism could be attributed to the recent rise in terrorism across Europe and particularly recent terrorist attacks in Germany— discussed in more details on page 10. Similarly, increased fear of politically motivated crimes can also be attributed to the recent rise in these incidents. However, the increasing media coverage of the threat of terrorism, as well as actual terrorist attacks and politically motivated crimes, have contributed to the changes in public perceptions.

FIGURE 1.25

### Correlation between levels of peacefulness across German regions and fear of crime

A strong, positive correlation exists between the level of peacefulness and fear of crime in German regions.



Source: IEP, DIW Berlin



More than half of Germans, 58 per cent, say they feel safe in their city or community and 29 per cent indicate that they feel very safe.



# LONG TERM TRENDS IN PEACEFULNESS

Peacefulness in Germany has deteriorated by 12 per cent in the last six years. The DPI measures six years primarily due to lack of uniform data for years before 2013. These six years do provide enough data to uncover significant insights on the trends in peacefulness in Germany. However, the data limitations prevent drawing insights into Germany's peacefulness over a more extended period.

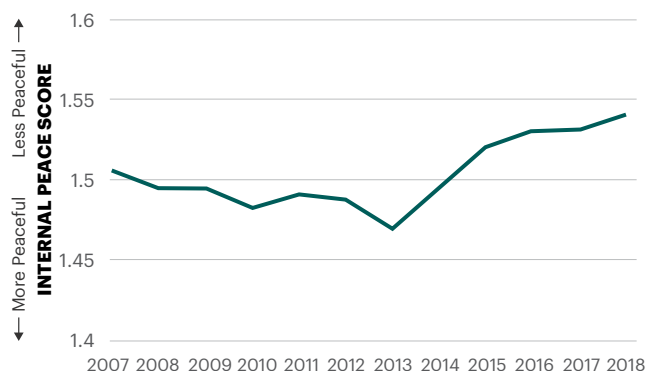
To check the consistency of the DPI, its national trends were compared to the internal peace measures of IEP's 2019 Global Peace Index (GPI). The GPI uses a variety of indicators to generate a comprehensive understanding of peacefulness including *homicide rate*, *violent crime*, incarceration rate, political instability, perception of criminality and access to small arms.

Internal peace in the GPI provides two valuable insights into peacefulness in Germany. Firstly, the GPI measures internal peace from 2007 to 2018, highlighting the changes in peacefulness in Germany over time. Secondly, internal peace is measured for 163 countries globally which allows for comparisons of internal peace between Germany and other countries.

The GPI's internal peace score for Germany deteriorated by seven per cent from 2013 to 2018 after experiencing substantial improvements in the years prior to 2013. Figure 1.26 shows Germany's trend in internal peace from 2007 to 2018. The results from the GPI are consistent with the findings from the DPI, as the DPI finds that peace deteriorated by 11 per cent between 2013 and 2018.

FIGURE 1.26  
**Internal peace scores at the national level for Germany, 2007–2018**

The deterioration in internal peace from 2013 to 2018 eroded the improvement that Germany experienced from 2007 to 2013.



Source: IEP

Since 2013, internal peace has deteriorated every year, which has eroded the improvements Germany experienced in the seven years to 2013. The deterioration in internal peace was driven by the rise in the *homicide rate*. However, the total *crime*

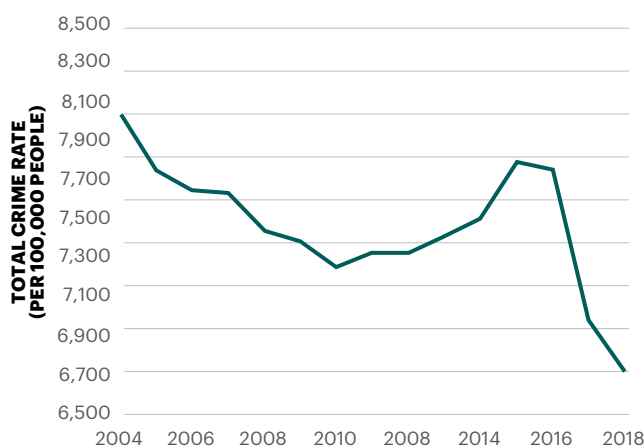
*rate* in Germany, defined as all offences against federal criminal law, have decreased in recent years.

The DPI only assesses serious crime which, in contrast, has deteriorated, especially *homicide* and *public disorder*.

The total criminal *offence rate* which includes all crimes in Germany declined from 7,797 per 100,000 people in 2015, to 6,710 in 2018, a decrease of 14 per cent. The overall *offence rate* rose between 2010 and 2015, increasing by eight per cent. Figure 1.27 shows the overall offence rate in Germany.

FIGURE 1.27  
**Total crime rate in Germany, 2004–2018**

The German crime rate has decreased by 14 per cent from 2015 to 2018.



Source: BKA

The *violent crime rate* in Germany shows a different trajectory to the overall *offence rate*. From 2007 to 2014, Germany experienced a decreasing *violent crime rate*. However, after this decline, the *violent crime rate* increased by 5.5 per cent from 2014 to 2016. The *violent crime* included in the DPI is a better proxy for peacefulness in society when compared to the overall *offence rate*.

The declining overall *offence rate* has been at the forefront of the debate around Germany's crime and the criminal justice system.



The total criminal offence rate which includes all crimes in Germany declined from 7,797 per 100,000 people in 2015, to 6,710 in 2018, a decrease of 14 per cent.

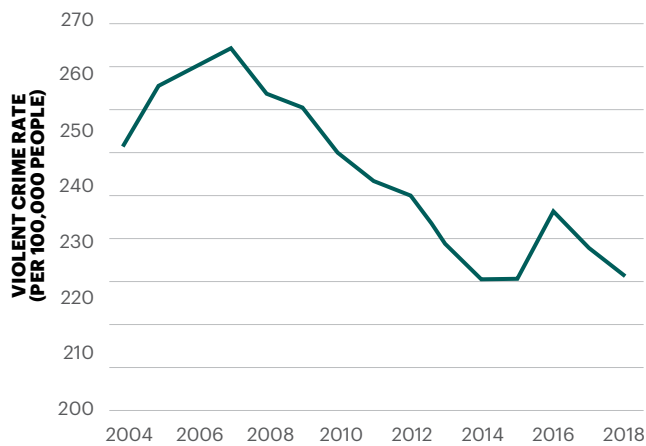
Despite the spike in the *violent crime rate* in Germany, the likelihood of falling victim to a *violent crime* stands at a negligible level for a majority of the German population. The more common crimes that affect Germans are pick-pocketing, theft and goods and services fraud. Figure 1.28 shows the trend in *violent crime rate* in Germany.

The number of *homicide* victims in Germany declined significantly by 47 per cent in the decade from 2002 to 2013. However, since then it has increased by 38 per cent between 2013 to 2018.

The deterioration in peacefulness has been driven by increases in *homicide*, *violent crime* and *public disorder*. Germany's *homicide rate* is relatively low when compared to other countries globally. The lower *homicide rate* in Germany is an indication of the higher levels of societal peace. Figure 1.29 shows the number of homicide victims for Germany.

FIGURE 1.28  
**Trend in the violent crime rate in Germany, 2004–2018**

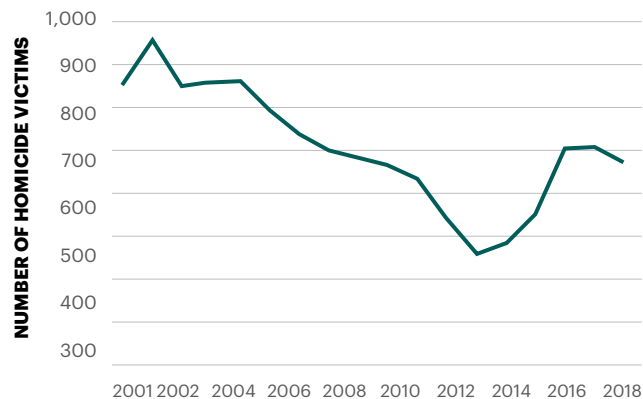
Germany's violent crime rate peaked in 2007, after which followed seven years of declining violent crime rates.



Source: BKA

FIGURE 1.29  
**Homicide victims at national level for Germany, 2001–2018**

Victims of homicide increased by 38 per cent from 2013 to 2018.



Source: IEP

## GERMAN PEACE IN A EUROPEAN CONTEXT

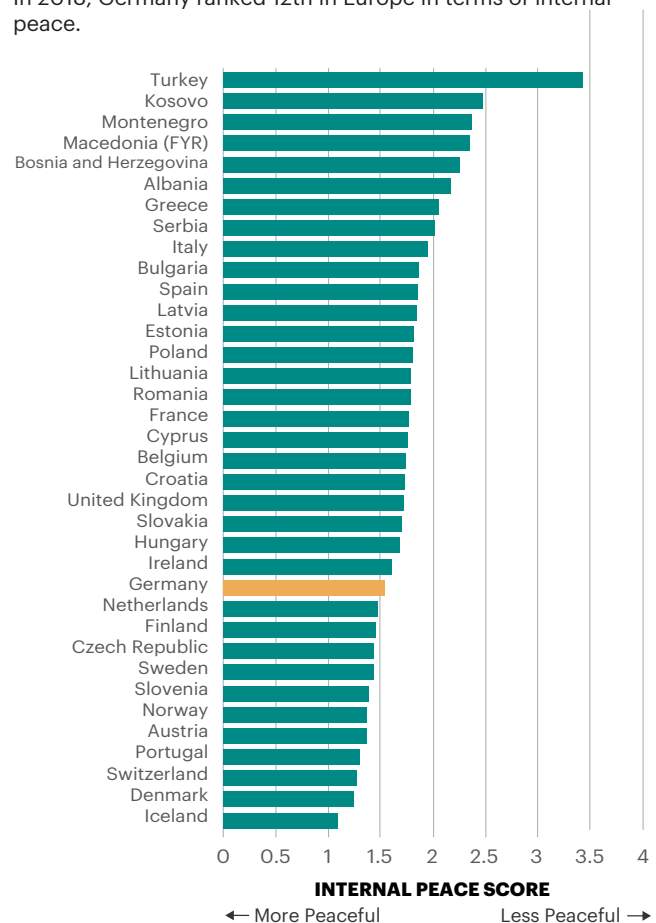
Europe is the most peaceful region for the twelfth consecutive year in the 2019 Global Peace Index (GPI), produced by IEP. The GPI ranks 163 countries on their level of peacefulness – Germany ranks as the 22<sup>nd</sup> most peaceful country on the index. The GPI measures three essential aspects of peace: ongoing conflict, social safety and security and militarisation. It can also be broken down by internal and external peacefulness.

European countries rank very high on the internal peace indicators, highlighting the significantly higher level of peacefulness experienced by European societies. Within Europe, Germany ranks as the 12<sup>th</sup> most peaceful country out of the 36 European countries included in the GPI.

The GPI domain *internal peace* includes indicators such as *homicide*, *violent crime* and *incarceration*. European countries rank among the most peaceful countries globally on these indicators of societal peacefulness. However, there is substantial variation within Europe on the measures of internal peace. This section highlights the differences between European countries and Germany's ranking on some of the important indicators of peacefulness in the region.

FIGURE 1.30  
**European internal peace scores, 2019**

In 2018, Germany ranked 12th in Europe in terms of internal peace.

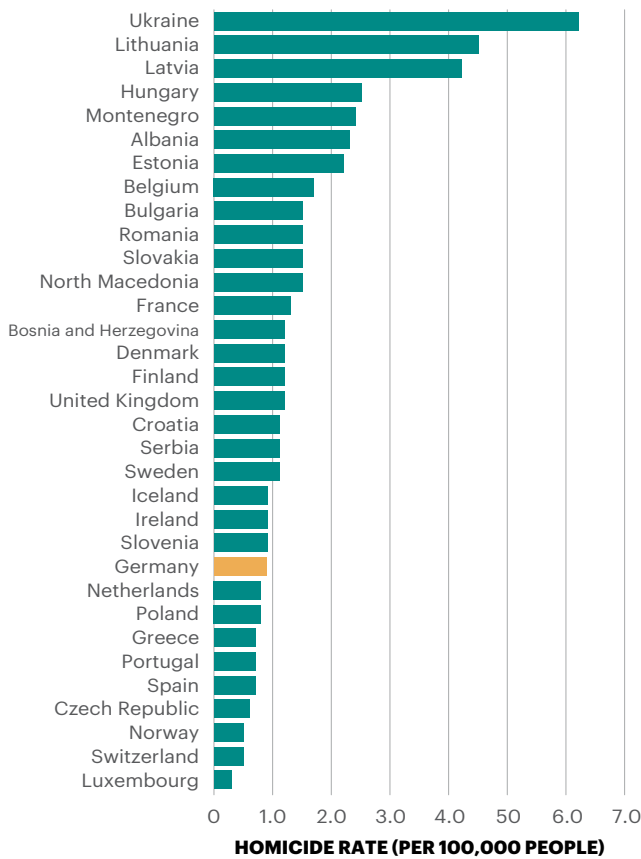


Source: IEP

The *homicide rate* in Europe is one victim per 100,000 people—the lowest *homicide rate* of any region in the world. The European *homicide rate* has experienced a significant decline of 38 per cent since 2002. Within Europe, Germany has the tenth lowest *homicide rate* at 0.93 victims per 100,000 people in 2017. Except for Spain, Germany's *homicide rate* is lower than the European countries with comparable population sizes, such as the United Kingdom, France and Italy. The *homicide rate* in Germany is five times smaller than the United States, and more than 60 times lower than El Salvador, the country with the highest *homicide rate* globally. However, the number of *homicide* victims in Germany has increased by 38 per cent since 2013. Figure 1.31 shows *homicide rates* across Europe for 2017.<sup>35</sup>

FIGURE 1.31  
**European homicide rate, 2017**

In 2017, Germany had the 10th lowest homicide rate in Europe at 0.93 victims per 100,000 people.

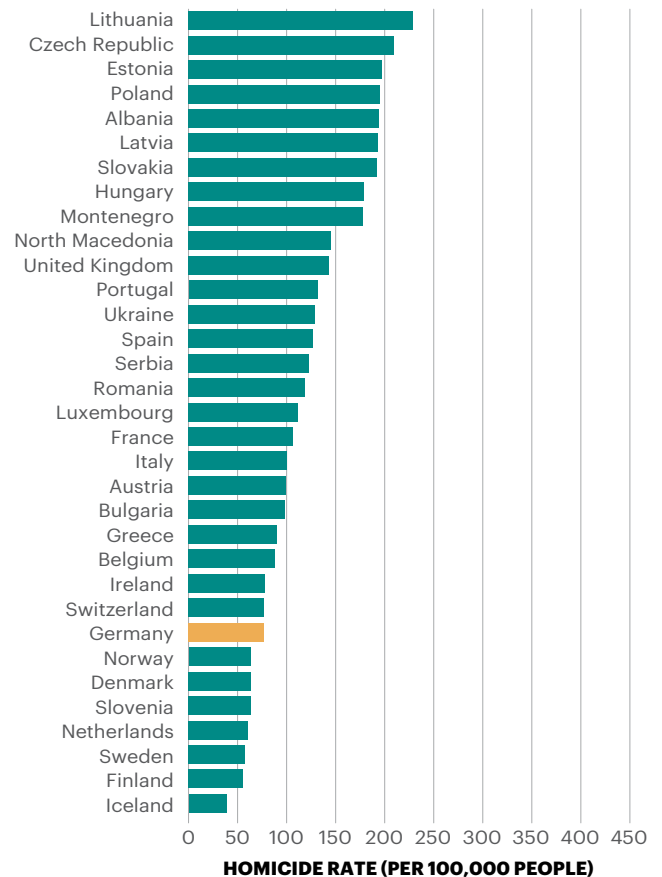


Source: UNODC, BKA

Germany has the eighth lowest *incarceration rate* in Europe, at 77 people per 100,000. This is a reflection of the relative effectiveness of the criminal justice system in the country. The criminal justice system in Germany uses alternative approaches to imprisonment which is reflected in the lower levels of prisoner population in the country. German criminal justice system focuses more on rehabilitation and reintegration into society for those that commit minor offences. Prison sentences are often shorter when compared to other western democracies such as the United States. Furthermore, living conditions in the German prisons mirror real-life conditions. Rather than imposing harsh prison terms, fines and other restrictions are favoured as consequences for crimes. Figure 1.32 highlights the *incarceration rates* in European countries.

FIGURE 1.32  
**European incarceration rates, 2017**

Germany has one of the lowest incarceration rates in Europe, at 77 people per 100,000 people.

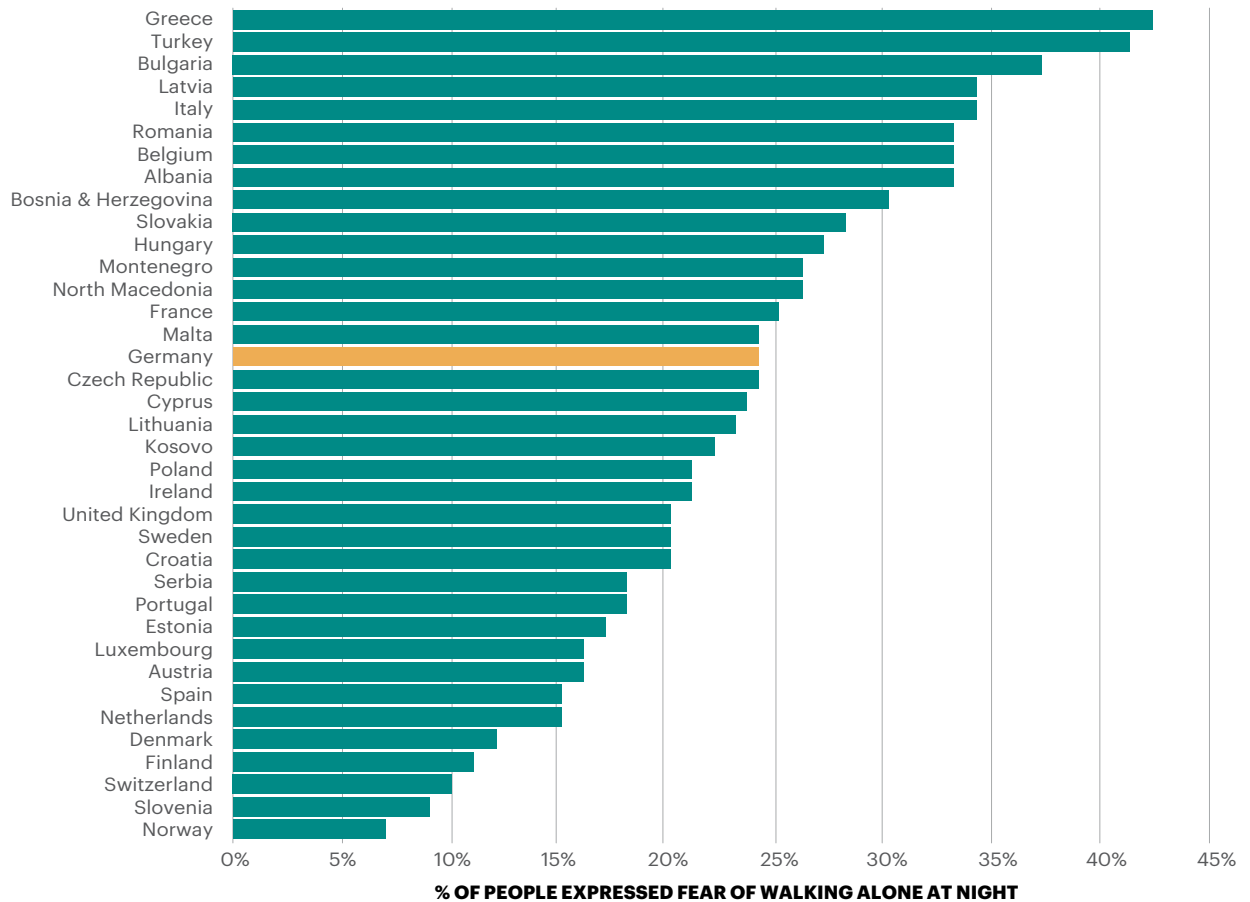


Source: UNODC

FIGURE 1.33

## Feeling safe walking alone at night in Europe, 2018

Germany's perception of safety is lower than its internal peace ranking in the GPI would suggest.



Source: Gallup World Poll

The Gallup world poll question, *do you feel safe walking alone at night?* is a widely used proxy to capture the fear of crime. Figure 1.33 ranks European countries on the level of fear of walking alone home at night. In 2018, nearly a quarter, 24 per cent, of the Gallup poll respondents expressed fear for their safety when walking alone at night. Germany ranks 16<sup>th</sup> in Europe on fear of walking home alone at night. Norway is the country where the highest number of respondents felt safe walking home at night.

In 2016, the German *police rate* of 297 per 100,000 people was among the lowest in Europe. The German *police rate* is almost half of that of Cyprus, the most policed society in Europe, with 573 police per 100,000 people. Considering the higher level of peacefulness in Germany, the lower level of police suggests that many other socioeconomic factors contribute to creating and sustaining peacefulness. The Positive Peace section explains the socioeconomic factors that create and sustain higher levels of peace in Germany.

Police, as the anchors of public safety and order in a society, are effective when the level of crime and violence are kept low without limiting the civil liberties of the citizen. The combination of lower *police rate* and lower levels of crime in Germany indicate the efficacy of police in maintaining higher

levels of public order and societal safety. However, more than two-thirds of German citizens suggest that the number of police in their city or community are too low.<sup>36</sup> Figure 1.34 shows the *police rate* for European countries.

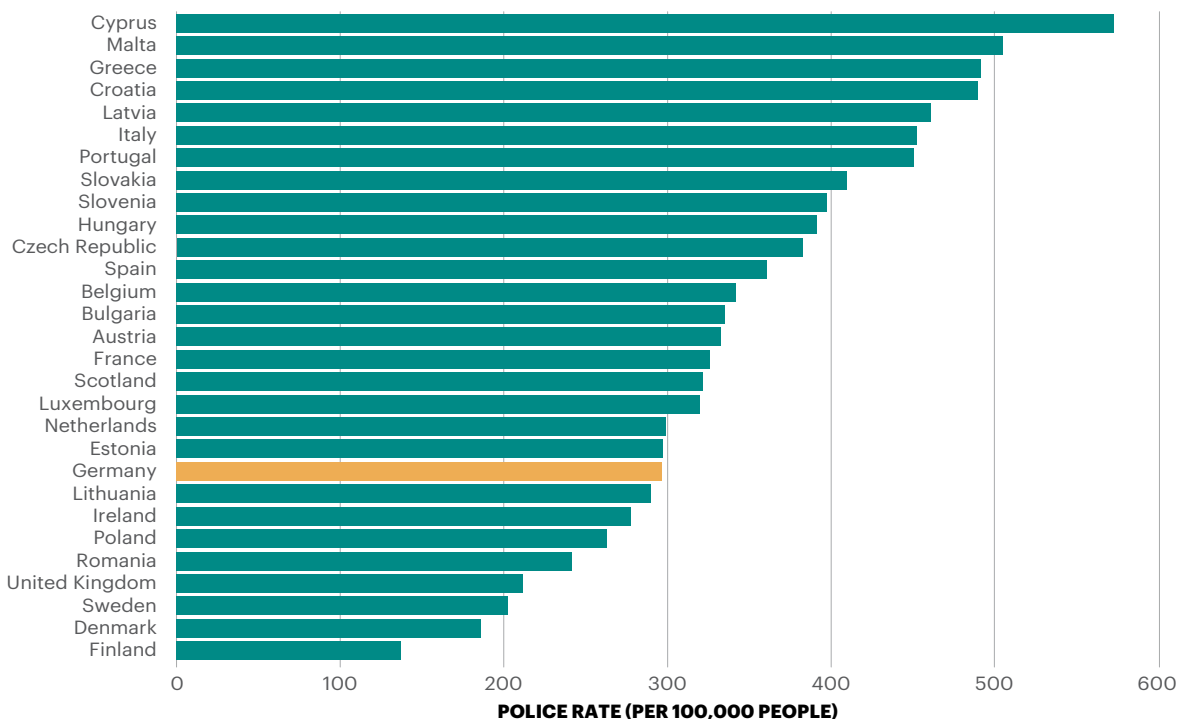
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Within Europe, Germany has the tenth lowest homicide rate at 0.93 victims per 100,000 people in 2017.

FIGURE 1.34

### Police rates in Europe, 2016

In 2016, the police rate in Germany was 297 per 100,000 people. Germany had the ninth-lowest police rate in Europe.



Source: Eurostat

### The Criminal Justice System in Germany

As the primary institution responsible for ensuring public safety and order, the effectiveness of the criminal justice system depends on identifying, arresting, prosecuting and convicting the perpetrators of crime and violence. This process involves the work of police, prosecutors, judges and those responsible for sentencing, correction and probation. The outcomes of the criminal justice system indicate its approach towards achieving high levels of public safety and social order.

The German criminal justice system uses an extensive system of fines, rehabilitation and educational arrangements as an alternative to prison sentencing, particularly for minor offences. This emphasis on rehabilitation and reintegration leads to lower incarceration rate and aims to reduce recidivism. Within the criminal justice system in Germany, the outcomes of judicial cases are determined by a panel of judges or a judge who is a public servant. Judges consider several external factors, such as the cause of the crime and what would be helpful to the defendant in the future before handing out final verdicts.

The German criminal justice system has shown substantial change since 2005. For instance, the rate of entry into penal institutions decreased by 22 per cent from 2005 to 2015. In the same period, the prison population decreased by 19 per cent. In addition, the ratio of inmates to prison staff decreased by 19 per cent as well, indicating a better resourced criminal justice system. The German criminal justice system performed better than many European countries on its performance measures.<sup>39</sup>

The 2018 police crime statistics report estimates that 57 per cent of all registered crimes are cleared by police. However, this rate falls to 15 per cent for more serious crime cases, indicating the

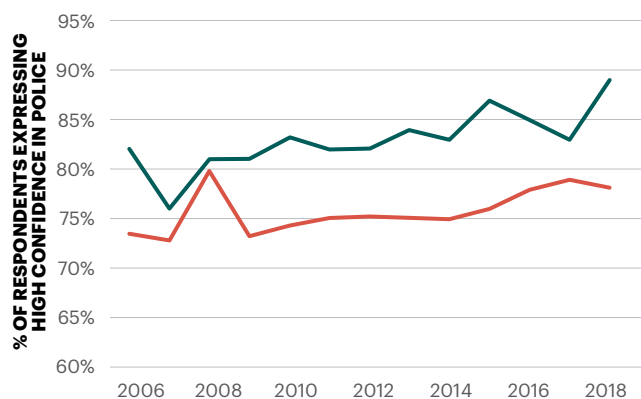
complexity of aggravated crimes. The clearance rate for most violent crimes ranges between 57 per cent for robbery, including assault, to 96 per cent for murder and manslaughter.<sup>40</sup>

Surveys by Gallup indicate that people in Germany express a high perception of safety and high levels of confidence in the German police. In 2018, a majority of German citizens, at 88 per cent, reported that they have confidence in their police—the second-highest level of confidence after Switzerland. Figure 1.35 displays the percentage of respondents in Germany who have confidence in the German police.

FIGURE 1.35

### The trend in the German public perception of police, 2006–2018

Germans express very high confidence in their police at 89 per cent compared to 78 per cent on average in Europe in 2018.



Source: Gallup World Poll

The *incarceration rate* in Germany has recorded a small increase since 2014, increasing by three per cent, from 75 people per 100,000 in 2015 to 77 in 2018. The recent increase in the *incarceration rate* mirrors the deterioration in peacefulness due to the rising level of *violent crime* and *public disorder* in Germany. Figure 1.36 shows the *incarceration rate* for Germany from 2014 to 2018.

However, Germany has one of the lowest *incarceration rates* among European countries and globally. A study of the German criminal justice system reports that only 16 per cent of the total suspects facing court are imprisoned.<sup>41</sup> When compared to other countries like the United States, prison sentences in Germany are often shorter, and the living conditions in prisons are better.

In addition, the efficacy of the criminal justice system and the higher level of peacefulness in Germany contributes to the lower *incarceration rate*. The level of peacefulness across regions and states is reflected in the level of incarceration in these states. The three city-states of Bremen, Hamburg and Berlin have some of the highest *incarceration rates* in Germany.

Berlin and Bremen, which are among the five least peaceful regions, have the highest *incarceration rates* at 99 and 81 people per 100,000 people, respectively.

The state of Sachsen has the fourth least peaceful region, Leipzig. Sachsen has a high *incarceration rate* at 81 people per

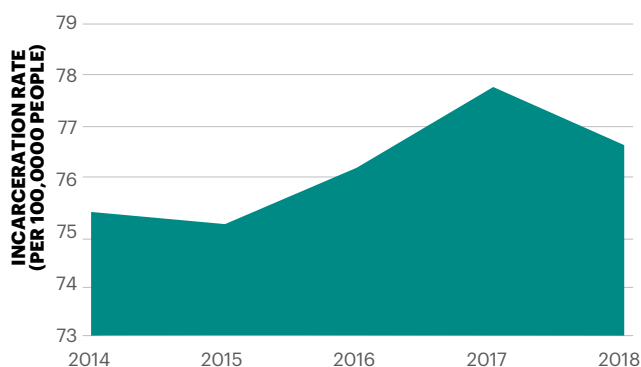
100,000, the equivalent level of Bremen.

All three city-states, Bremen, Hamburg and Berlin, have *incarceration rates* significantly above the average *incarceration rate*. Table 1.5 shows state-level *incarceration rates*.

FIGURE 1.36

### Germany's national incarceration rate, 2014–2018

The incarceration rate in Germany has increased by two per cent from 75.4 per 100,000 people in 2015 to 76.7 in 2018, in line with the national deterioration in peacefulness.



Source: UNODC

TABLE 1.5

### State ranking based on incarceration rate for Germany

The three city-states, Berlin, Hamburg and Bremen, rank among the five least peaceful states in Germany and have Germany's highest incarceration rates.

State	Incarceration Rate (per 100,000 people)	Ranking
Schleswig-Holstein	40	1
Brandenburg	50	2
Niedersachsen	59	3
Baden-Württemberg	64	4
Mecklenburg-Vorpommern	67	5
Thüringen	69	6
Sachsen-Anhalt	72	7
Hessen	73	8
Saarland	74	9
Rheinland-Pfalz	75	10
Bremen	81	11
Sachsen	82	12
Bayern	89	13
Nordrhein-Westfalen	90	14
Hamburg	98	15
Berlin	99	16

Source: UNODC

# 2

## The Economic Value of Peace in 2018

### Key Findings

- The economic impact of violence in Germany was €85.2 billion in 2018, equivalent to 2.6 per cent of Germany's GDP.
- This is five times higher than German foreign economic aid, and three times higher than the government spending on tertiary education.
- The economic impact of violence increased by 11.2 per cent from 2013 to 2018.
- Spending on the police in Germany increased by four per cent from 2013 to 2018.
- Government expenditure on *police* was the largest contributor to the economic impact of violence at 55 per cent, equivalent to €47.3 billion in 2018.
- On a per-person basis, the economic impact of violence was €1,085. However, the per capita economic impact varied significantly from region to region, from €898 in Tübingen to €2,124 in Berlin.
- If each region's violence and its consequential economic impacts are reduced to the level of the five most peaceful regions in Germany, the resulting peace dividend will amount to €26 billion over a four-year period, the equivalent to one per cent of Germany's GDP.
- In 2018, the total losses from organised crime amounted to €691 million. This is slightly lower than in 2013.
- German military expenditure has increased by 32 per cent from 2000 to 2017 and is currently equal to 1.2 per cent of Germany's GDP. However, it is still short of the two per cent of GDP commitment that the United States is seeking from the NATO alliance. Military spending is not included in the economic model.

# TRENDS IN THE ECONOMIC IMPACT OF VIOLENCE

The economic impact of violence in Germany is estimated at €85.2 billion in 2018, equivalent to 2.6 per cent of Germany's GDP.

The economic impact of violence increased by 3.5 per cent or €2.9 billion in 2018. It now represents an 11.2 per cent increase since 2013. The rising economic impact of violence is consistent with the 12 per cent deterioration in peacefulness over the last four years in Germany as measured by the DPI. *Police spending, organised crime* and the costs of the *fear of violence* increased in 2018, while *homicide, violent crime* and *prison costs* decreased. Figure 2.1 illustrates the trend in the economic impact of violence in Germany from 2013 to 2018.

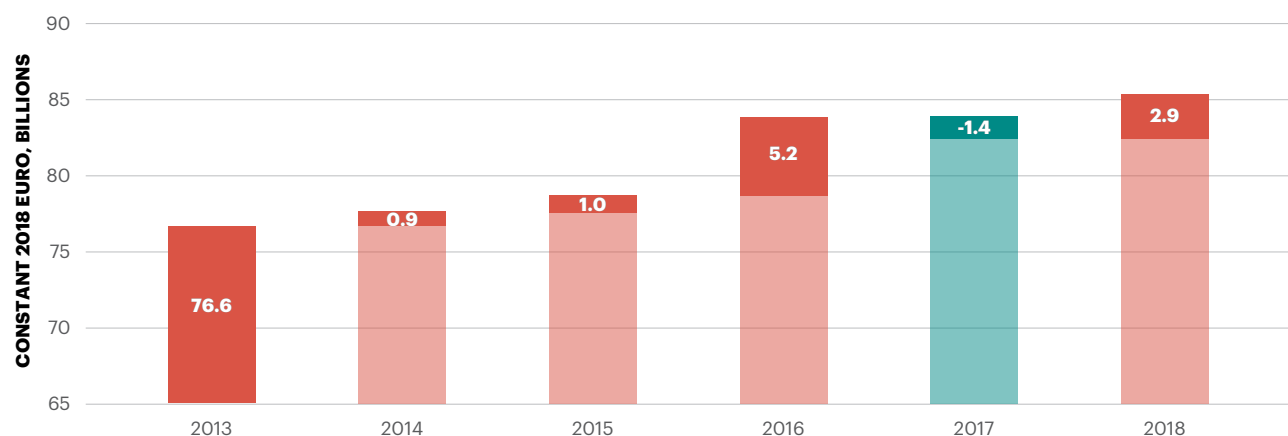
Since 2013, the economic impact of violence has increased every year except 2017, with the largest change of 6.6 per cent or €5.2 billion in 2016. The increase in 2016 was driven by the impact of *homicide* and *violent crime*, which increased by 26 and ten per cent respectively from 2015 levels. Table 2.1 presents a full breakdown of the economic impact from 2013 to 2018.

To put the economic impact of violence into perspective, it is more than five times higher than German foreign economic aid and more than three times higher than the expenditure on tertiary education. This highlights that reductions in violence can have a meaningful, positive impact on the economy.

FIGURE 2.1

## Trend in the economic impact of violence, 2013–2018

The economic impact of violence increased by 11.2 per cent from 2013 to 2018. It has increased every year since 2013 except for 2017.



Source: IEP

TABLE 2.1

## Economic impact of violence, 2013–2018, constant 2018 euro, billions

Domain	2013	2014	2015	2016	2017	2018	Change (2017 to 2018)
Homicide	3.1	3.2	3.6	4.5	4.6	4.4	-4%
Violent crime	19.8	19.8	19.6	21.6	21.10	21.08	-0.1%
Fear	3.2	3.2	3.2	3.3	3.4	3.4	1.2%
Prison costs	7.2	7.4	7.3	7.4	7.6	7.6	-0.4%
Police spending	41.7	42.7	43.9	44.9	45.2	47.3	4.6%
Organised crime	1.6	1.2	0.9	2.1	0.4	1.4	225%
<b>Total</b>	<b>76.6</b>	<b>77.5</b>	<b>78.5</b>	<b>83.7</b>	<b>82.3</b>	<b>85.2</b>	<b>3.5%</b>

Source: IEP



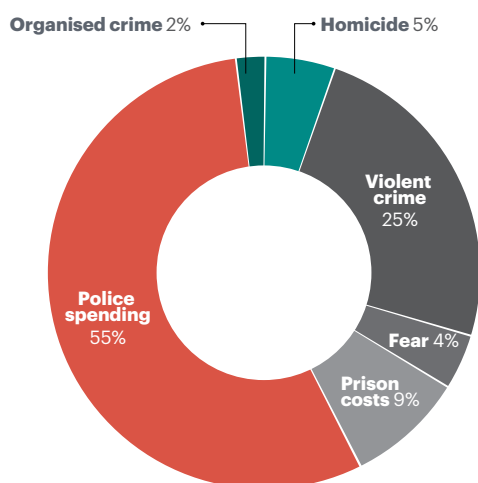
Violence and the fear of violence create significant economic disruptions, with violent incidents incurring costs in the form of property damage, physical injury or psychological trauma. Fear of violence alters economic behaviour, primarily by changing investment and consumption patterns, as well as diverting public and private resources away from productive activities and towards protective measures.

Combined, violence and the fear of violence generate significant losses in the form of productivity shortfalls, foregone earnings and distorted expenditure. Measuring the scale and cost of violence, therefore, has important implications for assessing the effects of violence on economic activity.

Figure 2.2 illustrates the breakdown of the total economic impact of violence by category in 2018. The data shows that the expenditure on preventing and containing violence in Germany is greater than the costs of violence.

FIGURE 2.2  
**Category breakdown of the economic impact of violence, 2018**

Policing is the largest category at 55 per cent. Homicide and violent crime represent 30 per cent of the economic impact of violence.



Source: IEP

Government spending on activities aimed at reducing and containing violence – *police spending* and *prison costs* – amounted to €54.9 billion, accounting for 64 per cent. The economic impact of *police spending* is the largest category in the model at 55 per cent of the total, or €47 billion in 2018. *Prison costs* include the lost wages of those imprisoned and government expenditure on prisons. In 2018, *prison costs* were nine per cent of the total economic impact, equivalent to €7.6 billion. The lost wages for prisoners are assumed to equal the German minimum wage of €18,684 per year.

*Violent crime*, which is comprised of robbery, assault and sexual violence, was the second largest category, representing 25 per cent of the total economic impact at €21 billion.

*Fear of violence* amounted to €3.4 billion in 2018, the equivalent of four per cent. Two per cent of economic losses are related to *organised crime*, equalling €1.4 billion in 2018.

The total economic impact of *homicide* on the German economy amounted to €4.4 billion in 2018, equivalent to 0.1 per cent of German GDP. *Homicide* made up five per cent of the total in 2018. As a result of the falling number of homicides in 2018, the economic impact from *homicide* fell four per cent, a decrease of €162 million from the previous year. However, the number of homicide victims in Germany has increased significantly since 2013, with the largest annual increase of 26 per cent occurring in 2016, the equivalent of €919 million. The economic impact of *homicide* increased again in 2017 to €4.6 billion, before falling in 2018.

In 2018, Luxembourg had the lowest homicide rate in all of Europe and Germany had the tenth lowest at 0.89 victims per 100,000 people. If Germany were to achieve Luxembourg's homicide rate of 0.34 victims per 100,000 inhabitants, the economic impact of *homicide* in Germany would decline to €1.6 billion. This is less than half of the current amount.

Together, *violent crime* and *homicide* add up to 30 per cent of the total. The economic impact of both *violent crime* and *homicide* decreased in 2018 from the 2017 levels, with *violent crime* recording only a slight decline, decreasing by 0.1 per cent, the equivalent of €19 million.

Interpersonal violence combines the indicators of violent assault, robbery, sexual violence and *homicide*. Figure 2.3 illustrates the share of the economic impact in 2018 of interpersonal violence by indicator, equal to €25.5 billion. Violent assault and *homicide* accounted for 96 per cent of the economic impact of interpersonal violence within Germany, equal to €24.5 billion.

Sexual violence includes rape and sexual assault, which account for one per cent of the economic impact of interpersonal violence. In 2018, rape and sexual assault accounted for €140.7 million and €97.8 million, respectively. Given the high level of under-reporting of sexual crimes, the economic impact of sexual violence is a highly conservative estimate. The European Union Agency for Fundamental Rights conducted a survey in 2012 that found only 15 per cent of victims of serious incidents of sexual violence by a partner contacted the police.<sup>1</sup>

In 2018, robbery represented three per cent of the economic impact of interpersonal violence, the equivalent of €787 million.

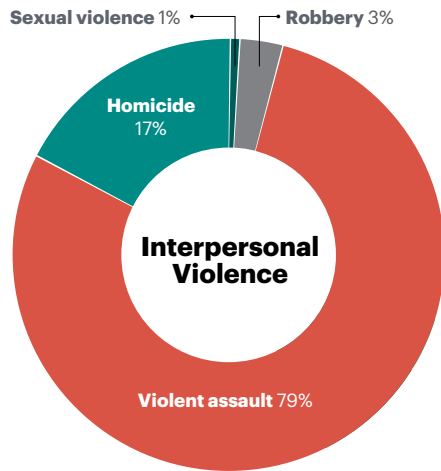
“

Government expenditure on police was the largest contributor to the economic impact of violence at 55 per cent, equivalent to €47.3 billion in 2018.

FIGURE 2.3

### Breakdown of the economic impact of interpersonal violence, 2018

Violent assault accounts for more than three-quarters of the economic impact of interpersonal violence.



Source: IEP

The economic impact of violence includes direct and indirect costs and a multiplier effect. Direct costs can be expenditure incurred by the victim, the perpetrator and the government. Indirect costs accrue after the incident and include the present value of long-term costs arising from incidents of crime, such as lost future income and psychological trauma.

The multiplier effect represents the foregone economic benefits that would have been generated if all relevant expenditure had been directed into more productive alternatives.

The end of this section provides a more comprehensive explanation of the methodology used to calculate the economic impact of violence. Table 2.2 presents a full breakdown of the costs included in the 2018 estimate.

TABLE 2.2

### The economic impact of violence, 2018, constant 2018 euro, billions

The total economic impact including the lost opportunity resulting from violence amounted to €85.2 billion in 2018.

Indicator	Direct	Indirect	Multiplier Effect	The Economic Impact of Violence
Homicide	1.1	2.2	1.1	4.4
Violent crime	4.7	11.6	4.7	21.1
Prison	3.1	1.5	3.1	7.6
Fear	-	3.4	-	3.4
Police	23.7	-	23.7	47.3
Organised crime	0.7	-	0.7	1.4
<b>Total</b>	<b>33.2</b>	<b>18.7</b>	<b>33.2</b>	<b>85.2</b>

Source: IEP

## THE ECONOMIC IMPACT OF VIOLENCE PER CAPITA

The economic impact of violence in Germany amounted to €1,085 per person in 2018.

Table 2.3 presents the DPI rank, the per capita economic impact of violence by region and the total by region. As expected, where peacefulness is low, the impact is higher. However, given the high level of police spending for some regions, the economic cost of violence in these regions is greater than their DPI rank would seem to predict.

In 2018, Berlin ranked as the least peaceful region in Germany and had the highest per capita economic impact of violence at €2,124. The homicide rate in Berlin was the highest in Germany, which was reflected in the higher per capita impact, reaching €253 per person. Hamburg, Bremen and Leipzig, which are all in the five least peaceful regions, were the other regions with the highest per capita impact.

On average, police spending in the three city-states of Berlin, Hamburg and Bremen was €1,053 per person, the highest across all regions in Germany in 2018. Furthermore, Berlin and Hamburg have the highest economic impact per capita from violent crime, amounting to €463 and €447 per person, respectively.

Tübingen, located in the state of Baden-Württemberg, ranks as the fifth most peaceful region in Germany and has the lowest per capita impact at €898 per person.

To better understand the likely future economic impact of violence, three different scenarios are projected. This analysis only includes *homicide*, sexual violence, assault, robbery, *organised crime* and *fear of violence*. It does not include police or incarceration costs.

The high peace scenario demonstrates the benefits of reducing the economic impact of violence to the level of the five most peaceful regions. The five most peaceful regions in 2018 were Trier, Chemnitz, Dresden, Oberpfalz and Tübingen.

In contrast, the low peace scenario demonstrates the additional losses that Germany will incur should the economic impact of violence across all German regions increase to the level of the five least peaceful regions. The five least peaceful regions in 2018 were Oberfranken, Hamburg, Berlin, Leipzig and Bremen.

The third scenario assumes that peacefulness in Germany continues at its current trend.

Figure 2.4 displays the benefits from a reduction in violence to a level of the five most peaceful regions in Germany (the high-peace scenario). If Germany could improve its levels of peace to the five most peaceful regions, then the economic benefit would be €6.5 billion per year, or €26 billion over four years.

TABLE 2.3

### The per capita economic cost of violence, 2018, constant 2018 euro

The per capita economic cost of violence varies significantly from €898 per person in Tübingen to €2,124 in Berlin.

State	NUTS2 DPI Rank	Per Capita Economic Impact of Violence	Economic Impact of Violence (Billions)
Tübingen	4	898	1.7
Detmold	2	903	1.9
Freiburg	6	903	2.0
Darmstadt	20	913	3.6
Stuttgart	13	920	3.6
Karlsruhe	18	929	2.2
Gießen	21	941	1.0
Trier	1	949	0.5
Oberpfalz	7	960	0.9
Münster	12	972	2.5
Unterfranken	3	978	0.9
Chemnitz	10	981	1.4
Lüneburg	16	981	1.7
Braunschweig	17	986	1.6
Schleswig-Holstein	28	988	2.9
Koblenz	14	988	1.5
Schwaben	15	995	1.6
Oberbayern	22	1010	3.6
Dresden	9	1012	1.6
Niederbayern	11	1021	1.0
Kassel	31	1022	1.0
Düsseldorf	30	1037	5.4
Mittelfranken	24	1039	1.5
Arnsberg	27	1039	3.7
Hannover	26	1040	2.2
Köln	29	1052	4.7
Rhein Hessen-Pfalz	25	1056	2.2
Weser-Ems	32	1064	2.4
Thüringen	19	1082	2.3
Brandenburg	5	1088	2.7
Oberfranken	23	1106	0.8
Mecklenburg-Vorpommern	8	1143	1.8
Saarland	33	1170	1.2
Sachsen-Anhalt	34	1184	2.6
Leipzig	35	1300	0.8
Bremen	37	1617	1.1
Hamburg	36	1788	3.3
Berlin	38	2124	7.7

Source: IEP

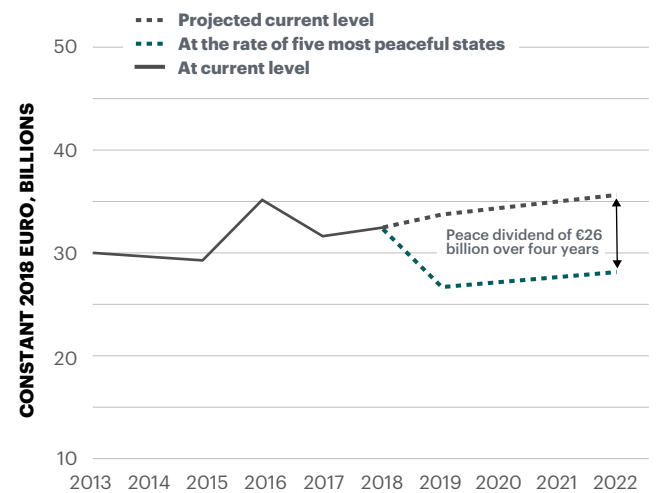
The peace dividend is significantly higher when the difference in the economic impact between the high and low peace scenarios is considered. The peace dividend in this scenario amounts to €25.4 billion per year, or €102 billion over a four-year period.

Figure 2.5 illustrates the disparity between the low peace scenario and high peace scenario, forecasting for four years.

FIGURE 2.4

### Future economic impact of violence, the high peace scenario, 2013–2022

Germany will avoid €26 billion in additional losses over four years if peace improves to a level equivalent to the five most peaceful regions.

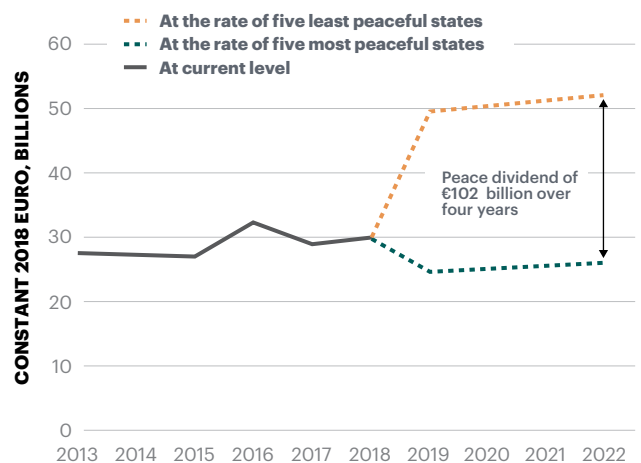


Source: IEP

FIGURE 2.5

### Future economic impact of violence, the difference between the high and low peace scenario, 2013–2022

A reduction in the economic impact of violence from the level of the five least peaceful regions to that of the five most peaceful regions amounts to €102 billion.



Source: IEP

# ECONOMIC LOSSES FROM ORGANISED CRIME IN GERMANY

In 2018, the total losses from *organised crime* reached €691 million, which is slightly lower than the 2013 figure. The timing of the investigations can explain the fluctuations in *organised crime* losses between 2017 and 2018. The losses are recorded in the year of which the investigation started rather than when the case proceedings are concluded.

Losses from *organised crime* consist of two per cent of the economic impact of violence in Germany. More details on the definition of organised crime are provided on page 8 in Section 1 of this report.

Organised crime activities in Germany mostly involve property crime, illicit drug trade, tax and customs and business crimes.<sup>2</sup>

In 2018, five per cent of the cases of *organised crime* investigated by the German police involved violence. In addition, 38 per cent of the organised crime cases were related to drug trafficking.

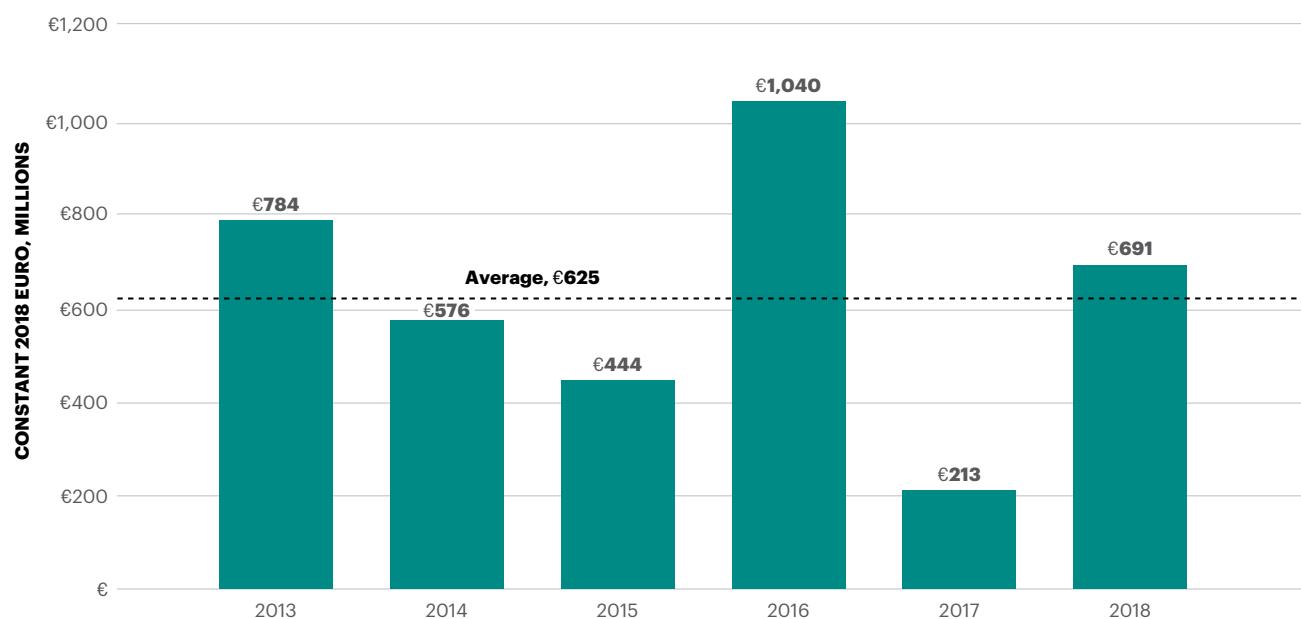
The average annual losses from *organised crime* equalled €625 million from 2013 to 2018. The worst year was 2016 with losses of over one billion euros. However, losses reported to the police do not reflect the true impact of organised crime given the high numbers of under reported crime in Germany.

The true impact of *organised crime* could be estimated if a nationally representative crime victimisation survey was conducted. Figure 2.6 illustrates the trend in the economic losses from *organised crime* in Germany.

FIGURE 2.6

## Trend in the economic losses from organised crime, 2013-2018

The economic losses from organised crime peaked in 2016 to over a billion euros.



Source: IEP, BKA

## Government expenditure on public order and safety

The economic impact of the government expenditure on containing and dealing with the consequences of violence amounted to €54.9 billion in 2018. This total is comprised of spending on police and prisons.

The justice system and law courts are not included in the economic model's government expenditure calculations but are accounted for in *homicide* and *violent crime*. A large proportion of the justice systems activities are directed at dealing with issues

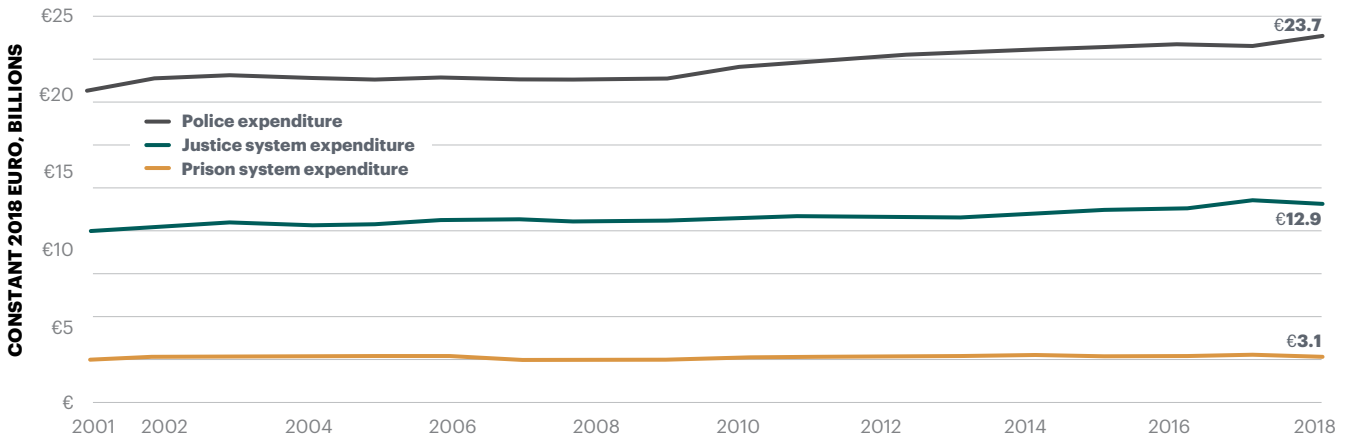
of civil laws, rather than violence. Furthermore, the proportion of the justice system costs allocated to violence containment are not reported separately.

Government expenditure on public order and safety has been relatively constant in Germany over the last 17 years. Spending on police increased by 17 per cent, or €3.4 billion, in the 17 years from 2001 to 2018. Justice system expenditure increased by 16 per cent, or €1.7 billion, between 2001 and 2018, while the prison system recorded an increase of seven per cent since 2001. Figure 2.7 highlights the trends in the categories of public order and safety expenditure.

FIGURE 2.7

### Government expenditure on public order and safety, 2001–2018

Police spending in Germany increased by 17 per cent from 2001 to 2018.



Source: Eurostat, IEP

### Military Expenditure

Military expenditure in Germany is not included in the economic impact of violence model. Europe’s military expenditure has attracted greater public attention as well as increased criticism from the United States in recent years. The United States has asked the European partners in the North Atlantic Treaty Organisation (NATO) to increase their defence spending and share the burden of global security.

Military expenditure in Germany has increased significantly since the turn of the century, increasing by 32 per cent from 2000 to 2017, reaching €31 billion. However, the increase in military expenditure is less remarkable in terms of per cent of GDP. As a

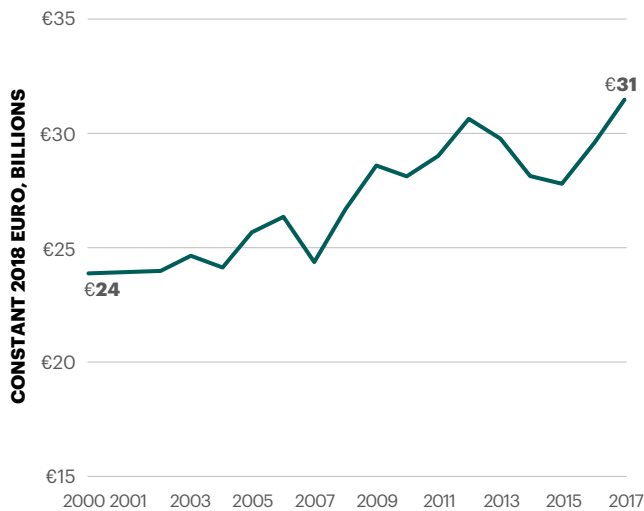
percentage of GDP, German military expenditure has decreased from 1.4 per cent of GDP in 2000, to 1.2 per cent in 2017. This highlights the fact that the increase in military expenditure has been below GDP growth in Germany. Figure 2.8 shows the trend in military expenditure in Germany from 2000 to 2017.

European military expenditure rose by three per cent in the four years since 2014. This rise was preceded by the declining trend from 2005 to 2014 when the military expenditure decreased by 22 per cent. Figure 2.9 shows the trend in military expenditure in Europe. In the figure, Germany is excluded from the European expenditure.

FIGURE 2.8

### German military expenditure, 2000–2017

Germany’s military expenditure peaked in 2017 at €31 billion.

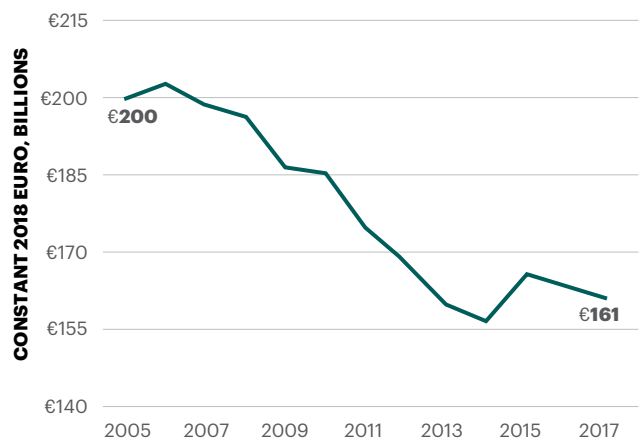


Source: IEP, Eurostat

FIGURE 2.9

### Trend in European military expenditure excluding Germany, 2005–2017

Military expenditure across Europe has increased since 2014, increasing by three per cent.

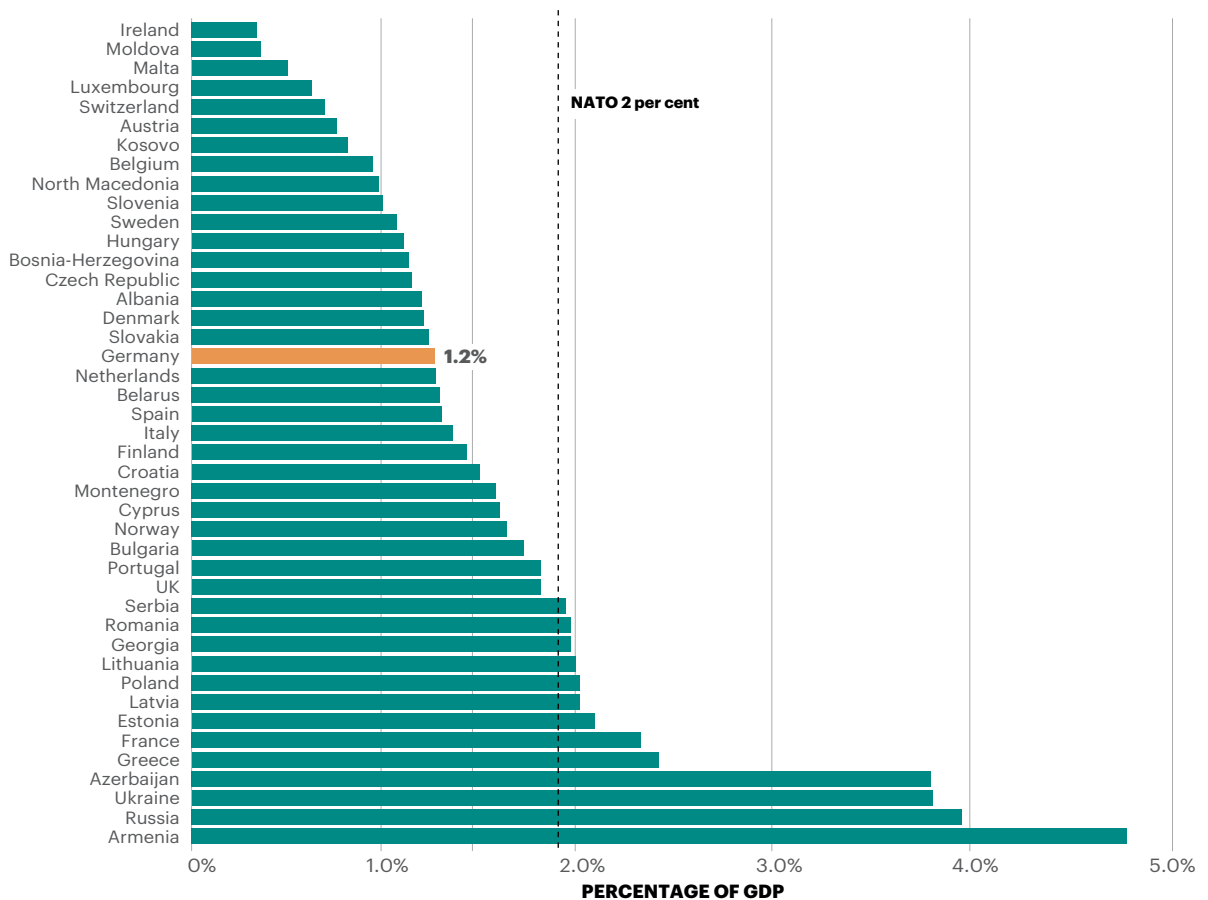


Source: IEP, Eurostat

FIGURE 2.10

## European military expenditure as a percentage of GDP, 2018

A majority of the European countries, including Germany, spent significantly less than two per cent of GDP on defence.



Source: IEP, SIPRI

## METHODOLOGY AT A GLANCE

The economic impact of violence is defined as the expenditure and economic effects related to “containing, preventing and dealing with the consequences of violence.” The estimate includes the direct and indirect costs of violence, as well as an economic multiplier. The multiplier effect calculates the additional economic activity that would have accrued if the direct costs of violence had been avoided.

Expenditure on containing violence is economically efficient when it effectively prevents violence for the least amount of spending. However, spending beyond an optimal level has the potential to constrain a nation’s economic growth. Therefore, achieving the right level of spending on public services such as the police, the judicial and the prison systems are important for the most productive use of capital.

IEP estimates the economic impact of violence in Germany using a similar methodology to its global study, The Economic Value of Peace. The Germany study uses a variety of measures, including a comprehensive aggregation of costs related to violence and expenditure on violence containment. In addition, a cost related

to the fear of violence is included.

IEP’s estimate of the economic impact of violence includes three components:

- 1. Direct costs** are the costs of crime or violence to the victim, the perpetrator and the government. These include direct expenditures, such as the cost of policing, medical expenses, funerals or incarceration.
- 2. Indirect costs** are the long term costs that accrue after the incident. These include physical and psychological trauma and the present value of future costs associated with the violent incident.

**3. The multiplier effect** is a commonly used economic concept and describes the extent to which additional expenditure has flow-on impacts in the wider economy. Refer to Box 2.1 for more detail on the peace multiplier.

The economic impact of violence refers to the total cost of violence containment plus the peace multiplier.

This study uses a cost accounting methodology to measure the economic impact of violence. Expenditure on containing violence is totalled and unit costs are applied to the estimates for the number of crimes committed. The crimes included are homicides, assaults, sexual violence and robberies. A unit cost is also applied to the estimated level of fear of insecurity and violence. The unit cost estimate the direct (tangible) and indirect (intangible) costs of each crime. Direct unit costs include losses to the victim and perpetrator and exclude costs incurred by law enforcement, as these are captured elsewhere in the model.

Data for violent crimes are obtained from the Police Crime Statistics of Germany (PCS) and are compiled from the individual data sets at the Länder Criminal Police Offices (LKÄ) and at the Bundeskriminalamt (BKA, Federal Criminal Police Office). Government expenditure on the police and incarceration are taken from Eurostat and disaggregated at the regional level. Data relating to the level of fear comes from the WISIND state-level surveys and is compiled by the German Institute for Economic Research (DIW). The monetary losses from organised crime are sourced from BKA.

The cost estimates provided in this report are in constant 2018 euros, which facilitate the comparison of the estimates over time. The estimation only includes elements of violence where reliable data could be obtained. As such, the estimate can be considered conservative. The items listed below are included in the cost of violence methodology:

1. Homicide.
2. Violent crime, which includes violent assault, rape and sexual coercion, robbery and violent crime.
3. Costs of incarceration.
4. Fear of insecurity.
5. Police costs.
6. Incarceration costs.
7. Organised crime.

Some of the items not counted in the economic impact of violence include:

- Regional public spending on security.
- Protection costs such as private security and firearms.
- Federal spending on external violence containment such as military expenditure.

This study assumes that the multiplier is one, signifying that for every euro saved on violence containment, there will be an additional euro of economic activity. This is a relatively conservative multiplier and broadly in line with similar studies.

#### BOX 2.1

### The Multiplier Effect

The multiplier effect is a commonly used economic concept, which describes the extent to which additional expenditure improves the wider economy. Every time there is an injection of new income into the economy, this will lead to more spending, which in turn creates employment, further income and additional spending. This mutually reinforcing economic cycle is known as the “multiplier effect” and is the reason that a euro of expenditure can create more than a euro of economic activity.

Although the exact magnitude of this effect is difficult to measure, it is likely to be particularly high in the case of expenditure related to containing violence. For instance, if a community were to become more peaceful, individuals and corporations would spend less time and resources protecting themselves against violence. Because of this decrease in violence, there are likely to be substantial flow-on effects for the wider economy, as money is diverted towards more productive areas such as health, business investment, education and infrastructure.

When a homicide is avoided, the direct costs, such as the money spent on medical treatment and a funeral, could be spent elsewhere. The economy also benefits from the inclusion of the lost lifetime income of the victim. The economic benefits from greater peace can, therefore, be significant. This was also noted by Brauer and Tepper-Marlin (2009), who argue that violence or the fear of violence might result in some economic activities not occurring at all. More generally, there is strong evidence to suggest that violence and the fear of violence can fundamentally alter the incentives for business. For instance, analysis of 730 business ventures in Colombia from 1997 to 2001 found that with higher levels of violence, new ventures were less likely to survive and profit. Consequently, with greater levels of violence, it is likely that we might expect lower levels of employment and economic productivity over the long-term, as the incentives faced discourage new employment creation and longer-term investment.

# 3

## Positive Peace

### Key Findings

- Positive Peace in Germany deteriorated by 2.2 per cent since the onset of the European immigration crisis of 2015. Despite this, the country retains the 11<sup>th</sup> highest Positive Peace rank in the world.
- The *Structures* domain of Positive Peace saw substantial and continuous improvement over the past decade, broadly in line with global trends.
- The *Institutions* domain changed little over the period, reflecting the stability of the German democracy, culture and social norms.
- The *Attitudes* domain posted a substantial deterioration from 2015 onwards, indicating that Germans took to viewing their own society somewhat less positively than before.
- German regional scores are reasonably homogeneous, with three quarters of the regions scoring between 1.10 and 1.60. Notable exceptions are the regions of Berlin, Bremen and Hamburg, which displayed low levels of Positive Peace relative to the rest of the country.
- The southernmost regions of Schwaben, Tübingen and Oberbayern held the top three Positive Peace ranks in 2018.
- The analysis in this section is a starting point for further research, which could deepen the knowledge of Positive Peace nuances in regional Germany.



# WHAT IS POSITIVE PEACE?

FIGURE 3.1



- Positive Peace is defined as the *Attitudes, Institutions and Structures* that create and sustain peaceful societies. These same factors also lead to many other positive outcomes that society feels are important. Higher levels of Positive Peace are statistically linked to higher GDP growth, better environmental outcomes, higher measures of wellbeing, better developmental outcomes and stronger resilience.
- Positive Peace has been empirically derived by IEP through analysing thousands of cross-country measures of economic and social progress to determine which have statistically significant relationships with actual peace as measured by the Global Peace Index (GPI).
- Positive Peace is measured by the Positive Peace Index (PPI), which consists of eight Pillars, each containing three indicators. This provides a baseline measure of the effectiveness of a country's capabilities to build and maintain peace. It also provides a measure for policymakers, researchers and corporations to use for effective monitoring and evaluation.
- Positive Peace can be used as the basis for empirically measuring a country's resilience - its ability to absorb, adapt and recover from shocks, such as climate change or economic transformation. It can also be used to measure fragility and help predict the likelihood of conflict, violence and instability.

## POSITIVE PEACE & SYSTEMS THINKING

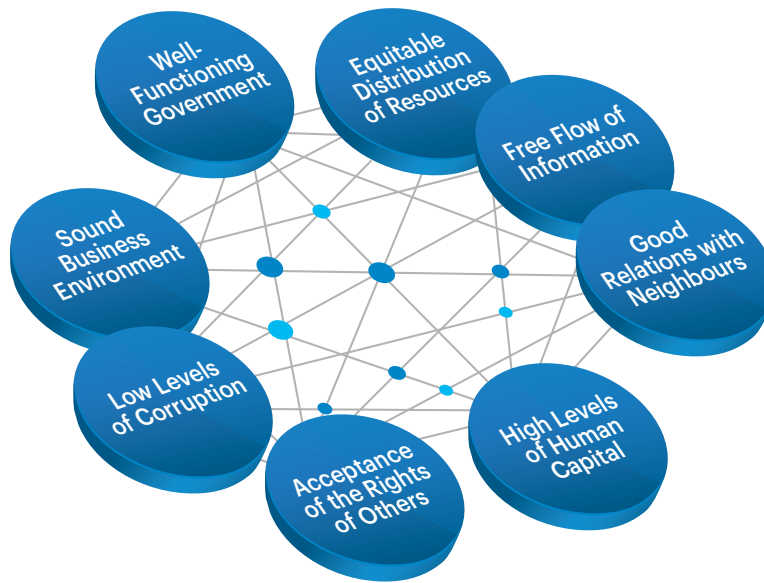
This section describes how Positive Peace can reinforce and build the *Attitudes, Institutions and Structures* that allow societies to flourish. These same factors create resilient and adaptive societies that pre-empt conflict and help citizens channel disagreements productively.

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

To construct the Positive Peace Index, IEP statistically compared nearly 25,000 national data series, indices and

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

FIGURE 3.2



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

### The Pillars of Positive Peace

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

- **Well-Functioning Government** – A well-functioning government delivers high-quality public and civil services, engenders trust and participation, demonstrates political stability and upholds the rule of law.
- **Sound Business Environment** – Represents the strength of economic conditions as well as the formal institutions that support the operation of the private sector. Business competitiveness and economic productivity are both associated with the most peaceful countries.
- **Equitable Distribution of Resources** – Peaceful countries tend to ensure equity in access to resources such as education, health, and, to a lesser extent, equity in income distribution.
- **Acceptance of the Rights of Others** – Peaceful countries often have formal laws that guarantee basic human rights and freedoms, as well as informal social and cultural norms that relate to behaviours of citizens.
- **Good Relations with Neighbours** – Peaceful relations with other countries are as important as good relations between groups within a country. Countries with

positive external relations are more peaceful and tend to be more politically stable, have better functioning governments, are regionally integrated and have lower levels of organised internal conflict.

- **Free Flow of Information** – Free and independent media disseminates information in a way that leads to greater knowledge and helps individuals, businesses and civil society make better decisions. This leads to better outcomes and more rational responses in times of crisis.
- **High Levels of Human Capital** – A skilled human capital base reflects the extent to which societies educate citizens and promote the development of knowledge, thereby improving economic productivity, care for the young, political participation and social capital.
- **Low Levels of Corruption** – In societies with high levels of corruption, resources are inefficiently allocated, often leading to a lack of funding for essential services and civil unrest. Low corruption can enhance confidence and trust in institutions.

Positive Peace can be described as the *Attitudes, Institutions and Structures* that create and sustain peaceful societies. Each of these three factors represent a fundamental influence on peacefulness and together are termed the domains of Positive Peace. IEP does not specifically set out what interventions should be done for each of the Pillars, as these will very much be dependent on the cultural norms and development path of a specific country. What is appropriate in one country may not be appropriate in another.

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

## Positive Peace Indicators

IEP has selected 24 indicators to quantify Positive Peace globally.<sup>3</sup> These indicators are highly correlated with negative peace levels internationally and proxy the factors driving the domains and Pillars of Positive Peace (Table 3.1).

TABLE 3.1

### Indicators in the Positive Peace Index

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

Pillar	Domain	Indicator	Description	Source	Correlation coefficient (to the GPI)*
Acceptance of the Rights of Others	Structures	Gender Inequality Index (GII)	The Gender Inequality Index (GII) reflects women's disadvantage in three ways: reproductive health, empowerment and the labour market.	United Nations Development Programme	0.65
	Attitudes	Group Grievance	The Group Grievance Indicator focuses on divisions and schisms between different groups in society, particularly divisions based on social or political characteristics, and their role in access to services or resources, and inclusion in the political process.	Fragile States Index	0.65
	Attitudes	Exclusion by Socio-Economic Group	Exclusion involves denying individuals access to services or participation in governed spaces based on their identity or belonging to a particular group.	Varieties of Democracy (V-Dem)	0.73
Equitable Distribution of Resources	Structures	Inequality-adjusted life expectancy index	Life expectancy for the whole population correcting for changes in income levels. Lower income brackets tend to have shorter life expectancy. A change in inequality may lead to a change in the overall life expectancy even if the life expectancy for each individual income bracket has not changed.	United Nations Development Programme	0.59
	Structures	Poverty headcount ratio at \$5.50 a day (2011 PPP) (% of population)	Poverty headcount ratio at \$5.50 a day is the percentage of the population living on less than \$5.50 a day at 2011 international prices.	World Bank	0.52
	Structures	Equal distribution of resources index	This component measures the equity to which tangible and intangible resources are distributed in society.	Varieties of Democracy (V-Dem)	0.73
Free Flow of Information	Attitudes	Freedom of the Press	A composite measure of the degree of print, broadcast and internet freedom.	Freedom House	0.58
	Attitudes	Quality of Information	A measurement of how often governments disseminate false or misleading information.	Varieties of Democracy (V-Dem)	0.59
	Structures	Individuals using the Internet (% of population)	Internet users are individuals who have used the internet from any location in the last three months. The internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV, etc.	International Telecommunication Union	0.59
Good Relations with Neighbours	Attitudes	Hostility to foreigners/private property	Intensity of antagonistic attitudes towards foreigners or property held by foreigners.	The Economist Intelligence Unit	0.68
	Structures	International tourism, number of arrivals (per 100,000)	Number of tourists who travel to a country, staying for at least one night, other than that in which they have their usual residence.	World Tourism Organization	0.39
	Structures	The extent of regional integration	A qualitative measure reflecting the level of regional integration as measured by a country's membership of regional trade alliances.	The Economist Intelligence Unit	0.6

	Structures	Share of youth not in employment, education or training (NEET) (%)	Proportion of people between 15 and 24 years of age that are not employed and are not in education or training.	International Labour Organization	0.54
High Levels of Human Capital	Structures	Researchers in R&D (per million people)	The number of researchers engaged in Research & Development (R&D), expressed as per one million population.	UNESCO	0.64
	Structures	Healthy life expectancy (HALE) at birth (years)	Average number of years that a newborn can expect to live in full health.	World Health Organisation	0.61
	Institutions	Control of Corruption	Control of Corruption captures perceptions of the extent to which public power is exercised for private gain.	World Bank	0.77
Low Levels of Corruption	Attitudes	Factionalized Elites	Measures the fragmentation of ruling elites and state institutions along ethnic, class, clan, racial or religious lines.	Fragile States Index	0.72
	Institutions	Irregular payments and bribes	Measures the prevalence of undocumented extra payments or bribes by firms.	World Economic Forum	0.70
	Structures	Business Environment	Measures a country's entrepreneurial environment, its business infrastructure, barriers to innovation and labour market flexibility.	Legatum Institute	0.70
Sound Business Environment	Structures	GDP per capita (current US\$)	GDP per capita is gross domestic product divided by midyear population.	World Bank	0.61
	Structures	Prosperity Index Score	Assesses countries in regards to economic development, business environment, governance, education, health, safety and security, personal freedoms, social capital and natural environment.	Heritage Foundation	0.81
	Institutions	Political Democracy Index	Measures whether the electoral process, civil liberties, functioning of government, political participation and culture support secular democracy.	The Economist Intelligence Unit	0.64
Well-Functioning Government	Institutions	Government Effectiveness: Estimate	Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.	World Bank	0.78
	Institutions	Rule of Law: Estimate	Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	World Bank	0.81

\* Correlations reflect 2018 data, and are presented in absolute terms; that is, all indicators have been adjusted to convey the same directionality as the GPI, with higher (lower) levels representing lesser (greater) socio-economic development.

# POSITIVE PEACE IN GERMANY

Germany is one of the highest ranking countries in the Positive Peace Report 2019, which showcases the nation's success in socio-economic development. It ranks 11<sup>th</sup> among the 163 countries assessed in the report, a position that has been stable over the past decade (Table 3.2).

TABLE 3.2

## Positive Peace Index - Top 20 rankings, 2018

Germany's score of 1.42 placed the country as the 11<sup>th</sup> most peaceful country in 2018.

RANK IN 2018	COUNTRY	SCORE IN 2018	RANK CHANGE FROM 2009
1	Norway	1.17	↑2
2	Finland	1.21	↑2
= 3	Sweden	1.23	↓1
= 3	Switzerland	1.23	↑2
5	Denmark	1.26	↓4
6	Iceland	1.28	↓1
7	Netherlands	1.29	↔
8	Ireland	1.34	↔
9	New Zealand	1.4	↑2
10	Canada	1.41	↓1
11	Germany	1.42	↔
12	Austria	1.47	↓2
13	Australia	1.51	↔
= 14	Belgium	1.53	↔
= 14	Singapore	1.53	↑3
16	France	1.55	↔
17	Japan	1.56	↑1
18	Portugal	1.57	↑2
19	United Kingdom	1.59	↓4
20	Slovenia	1.63	↓1

Source: IEP

Positive Peace in Germany had been improving almost without interruption until 2015 when the index reverted and initiated a mild deterioration trend (Figure 3.3). By 2018, the German Positive Peace score was 1.42 – a deterioration of 2.2 per cent since 2014. Despite this deterioration, the country's score remains substantially better than the equally weighted European average of 1.97. The deterioration in Positive Peace coincides with the deterioration in actual peace in Germany. The DPI score deteriorated by 12 per cent from 2013 to 2018.

The three domains of Positive Peace, *Attitudes*, *Institutions* and *Structures*, recorded diverging trends in Germany over the past decade (Figure 3.4).

The *Structures* domain recorded substantial and continuous

FIGURE 3.3

## German Positive Peace Index – overall score, 2009–2018

From 2015, the German score reverted and initiated a slight deterioration trend.



Source: IEP

improvement, broadly in line with global trends. This domain is heavily influenced by the economic cycle, business activity, technological developments and discoveries in applied sciences. This domain tends to improve continuously, with only major shocks such as deep economic crises, natural disasters or widespread conflict being capable of creating setbacks or trend reversals.

The *Institutions* domain changed little over the period, reflecting the stability of the German democracy, culture and social norms.

In contrast, the *Attitudes* domain posted a substantial deterioration from 2014 onwards, which coincided with rising levels of conflict in the Middle-East, terrorism and increased levels of migration. In recent years, there has also been an intensification of far-right political activity in Germany and other European nations.

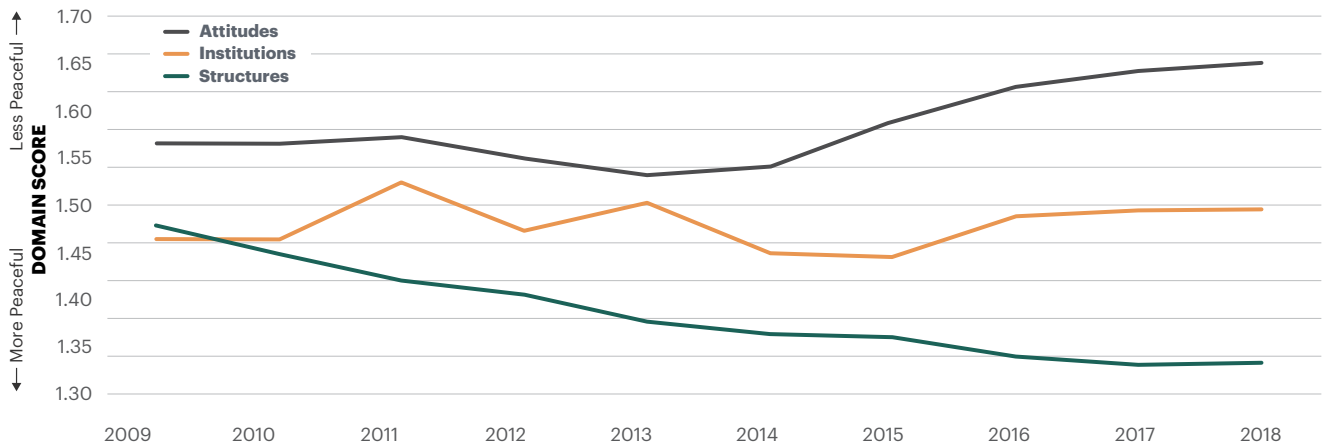
The indicator recording the most progress in Germany over the past decade was the *business environment* (Figure 3.5). This is consistent with the economic recovery experienced in the aftermath of the global financial crisis of 2008-09. In particular, Germany's international trade surplus grew strongly over the past decade, and the unemployment rate fell sharply from 7.7 per cent in 2009 to 3.4 per cent in 2018.<sup>4</sup> Other *Structures* indicators capturing youth employment and training, access to information, life expectancy and gender inequality have also improved considerably.

In line with global trends, Germany's *Attitudes* domain of Positive Peace deteriorated over the past decade. Of particular note, the Fragile States Index's *factionalized elites* indicator

FIGURE 3.4

### German Positive Peace Index – the domains of Positive Peace, 2009–2018

The Structures domain improved continuously since 2009. In contrast, the Attitudes domain deteriorated from 2014 onwards.



Source: IEP

recorded the largest deterioration, 25 per cent, reflecting greater dissention among ruling elites and a rise in political radicalism. This indicator had been relatively stable in the first half of the 2010s, but deteriorated markedly from 2015 onwards.

Other indicators that deteriorated are *irregular payments and bribes*, *equal distribution of resources*, *freedom of the press* and *political democracy*, although the changes recorded for Germany were small by OECD standards.

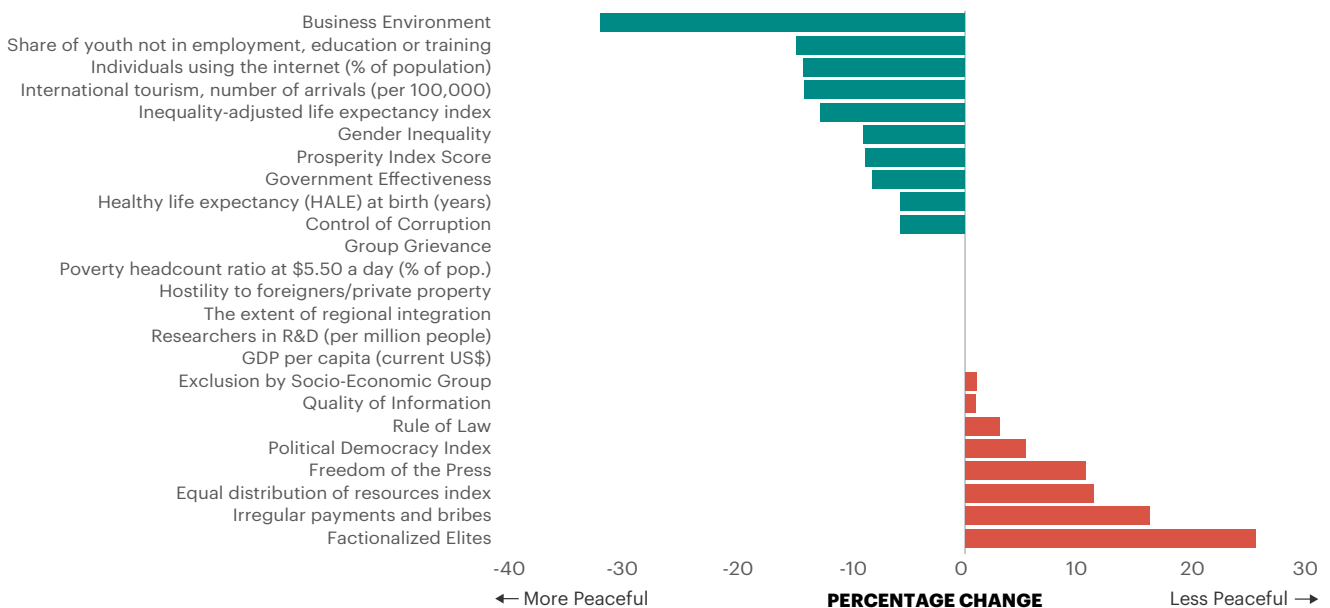
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Positive Peace in Germany deteriorated by 2.2 per cent since the onset of the European immigration crisis of 2015.

FIGURE 3.5

### German Positive Peace Index – changes in indicators, 2009–2018

Four indicators posted deteriorations greater than ten per cent since 2009. All relate to the Attitudes domain of Positive Peace and reflect more intense socio-political tensions and greater inequality.



Source: IEP

Movements in the *factionalised elites* and *irregular payments and bribes* indicators have driven a deterioration in the *Low Levels of Corruption* Pillar (Figure 3.6). This was the only Pillar of Positive Peace that has worsened in Germany since 2009.

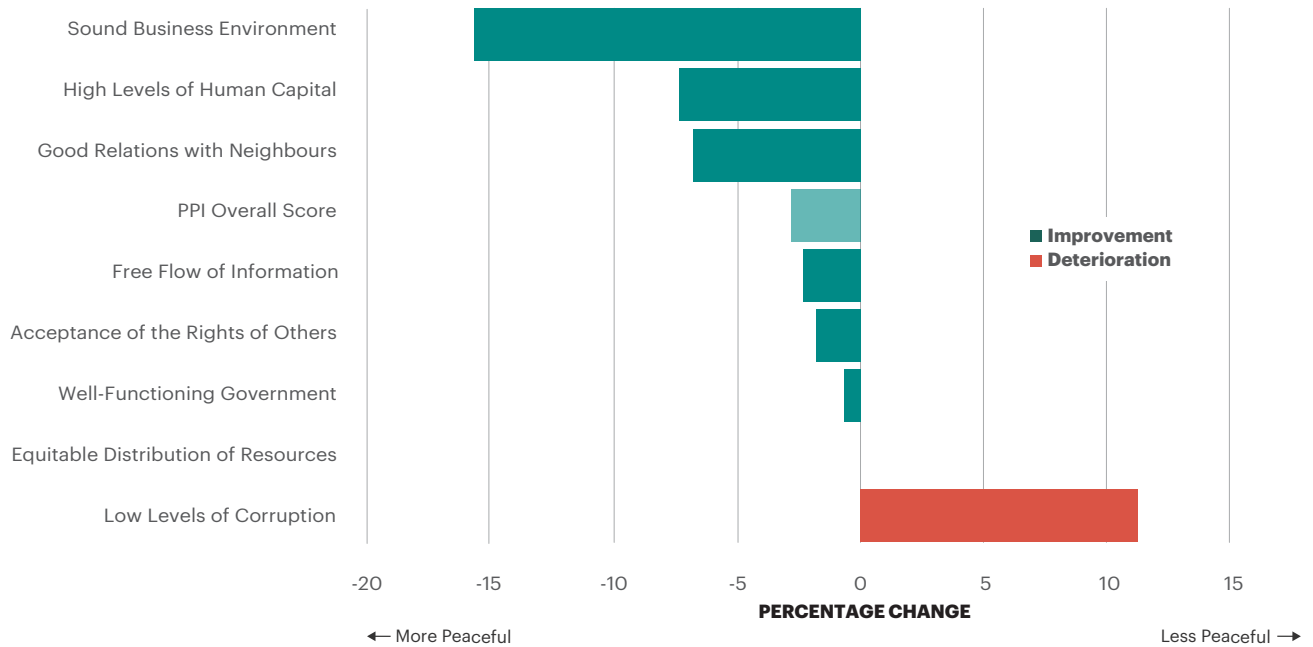
*Sound Business Environment* recorded substantial progress, along with *High Levels of Human Capital*, which was buoyed by falling rates of youth out of employment or education. Germany displays a very low rate of youth unemployment by EU standards, which is in part a result of a successful implementation of learn-on-the-job apprenticeship programs.<sup>5,6</sup> These programs were only possible due to the relative cooperation between companies and trade unions, which in

Germany are less mutually antagonistic than in other countries.

The *Good Relations with Neighbours* Pillar benefited from increased tourism in the country. In recent years, the World Economic Forum has consistently ranked Germany as the third most competitive tourism destination of the 140 assessed countries.<sup>7</sup> This reflects Germany’s highly developed physical infrastructure and stable socio-political framework. The number of foreigners travelling to Germany has risen over the past decade in part because international tourists have grown increasingly wary of terrorism and social instability among developing world destinations.<sup>8</sup>

FIGURE 3.6  
**German Positive Peace Index – changes in Pillars, 2009–2018**

All Positive Peace Pillars presented improvements with the exception of *Low Levels of Corruption* and *Equitable Distribution of Resources*.



Source: IEP

“

The *Institutions* domain changed little over the period, reflecting the stability of the German democracy, culture and social norms.



# POSITIVE PEACE IN GERMAN REGIONS

It was not possible to capture the same Positive Peace indicators used at the global level in Germany for the country's regions due to difficulties in accessing data. Therefore, IEP selected eight indicators produced by Eurostat available for Germany at the Nomenclature of Territorial Units for Statistics, Division 2 (NUTS-2) level to proxy internal Positive Peace (Table 3.3).

The selection criteria were threefold. Firstly, these indicators are conceptually consistent with Positive Peace. Secondly, they presented enough regional variability to capture the dynamics of sub-national Positive Peace gradations. Thirdly, they displayed sufficient correlation with the DPI to allow for the construction of Positive Peace scores for each of the 38 German NUTS-2 regions. These eight indicators were used to estimate the Deutsche Positive Peace Index (DPPI) scores for each of the 38 German regions for 2018.



## POSITIVE PEACE IN GERMANY





TABLE 3.3

### Indicators of Positive Peace in Germany, 2018

The indicators listed are moderately correlated with the DPI overall score. Correlation coefficients were calculated across the 38 German NUTS-2 regions for 2018.

INDICATOR	CORRELATION COEFFICIENT WITH DPI	COMMENT
Education participation among 25-65 year olds	0.38	The rate of adults still in education is indicative of lesser socioeconomic development because it suggests lack of education opportunities at younger ages.
Early leavers from education rate	0.45	Early exit from schooling is suggestive of lower academic achievement overall.
Population density	0.73	Higher population density is directly associated with greater crime, social tensions and poverty.
Proportion of youth outside education, employment or training	0.50	This is indicative of lesser academic standards and smaller present value of lifetime income streams.
Proportion of population at risk of poverty	0.49	Lower income is suggestive of lesser socioeconomic development.
Unemployment rate	0.40	Inability to find work is suggestive of lesser socioeconomic development, although this may be mitigated by changes in the workforce participation rate.
Total fertility rate	-0.26	Higher fertility rates suggest younger population on average, which has been statistically associated with greater social instability.
Life expectancy	-0.33	Higher life expectancy rates are associated with greater socioeconomic standards of living.

Source: IEP, Eurostat

As expected, German regional scores are reasonably homogeneous, with three quarters of the regions scoring between 1.10 and 1.60. Notable exceptions are the regions of Berlin, Bremen and Hamburg, which displayed low levels of Positive Peace relative to the rest of the country. These are also the least peaceful regions in Germany. The southernmost regions of Schwaben, Tübingen and Oberbayern held the top three Positive Peace ranks in 2018.

Thirty out of the 38 regions recorded deteriorations in Positive Peace in the five years to 2018. This is broadly consistent with the deterioration of the whole-of-Germany Positive Peace score discussed above and the deterioration in the score of many high-income European nations over period. Substantial improvements in Positive Peace were almost exclusively concentrated around the southwest of the country, in particular

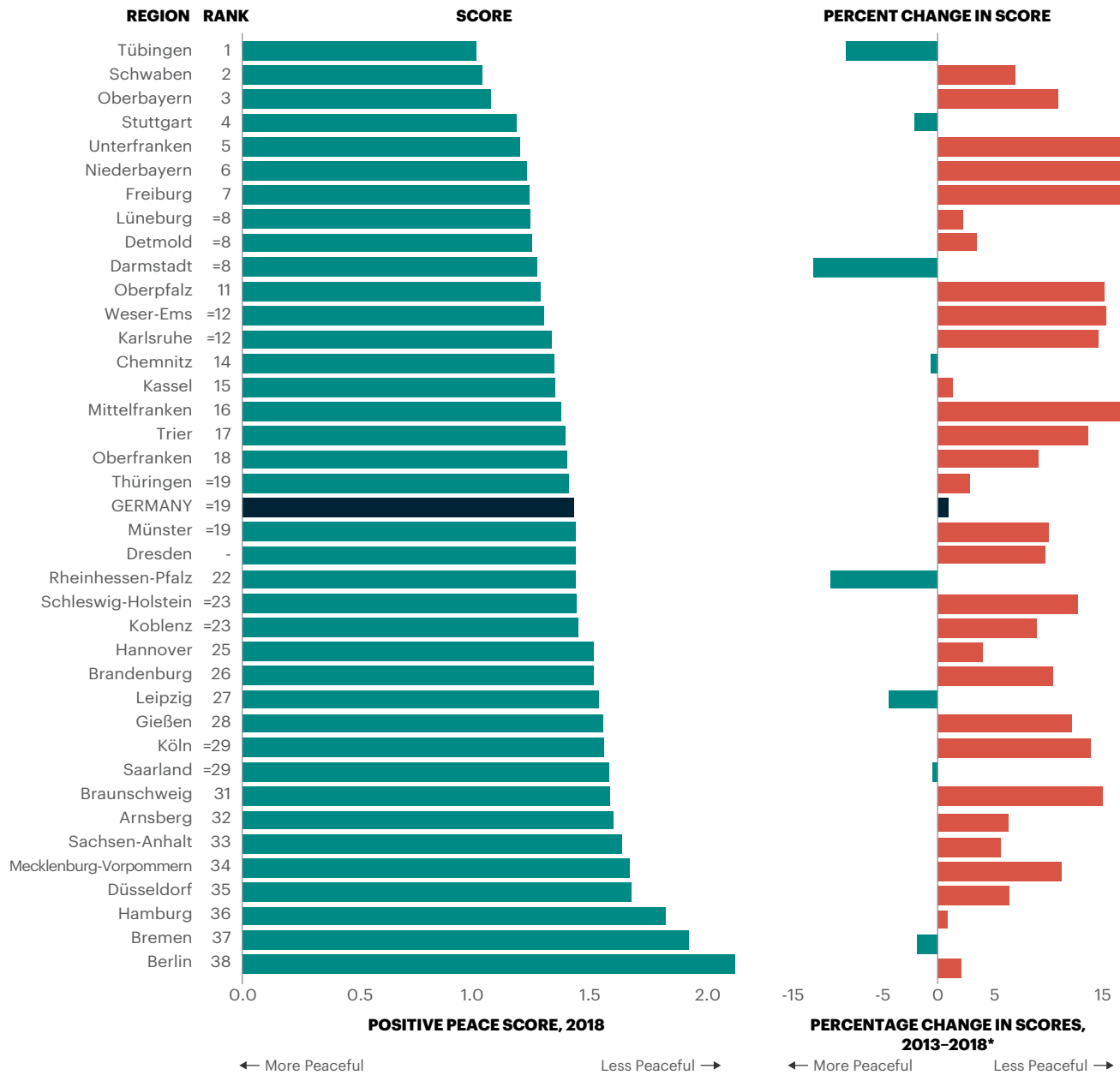
the regions of Darmstadt, Rheinhessen-Pfalz and Tübingen.

The correlation between Positive Peace and actual peace as measured by the DPI in Germany is relatively high. The correlation coefficient between the DPPI and the DPI was 0.71 for 2018 (Figure 3.9). This highlights that the regions with higher socio-economic development also tend to be more peaceful. However, this relatively high correlation is influenced by some outlying observations regarding low-Positive Peace, low-peace regions. Without the densely populated regions of Berlin, Bremen and Hamburg, the correlation coefficient between the DPPI and the DPI declines to 0.41. This is a more modest but still significant positive correlation, suggesting that at the sub-national level peace is associated with higher socioeconomic development in Germany.

FIGURE 3.8

### German Positive Peace Index – results by region, 2018

German regional Positive Peace scores are substantially homogeneous, with few exceptions. In the five years to 2018, Positive Peace deteriorated in 30 of the 38 German regions.



Note: \*Whole of Germany score change not comparable with regional changes as it was derived from different data. Included for illustrative purposes only. Source: IEP



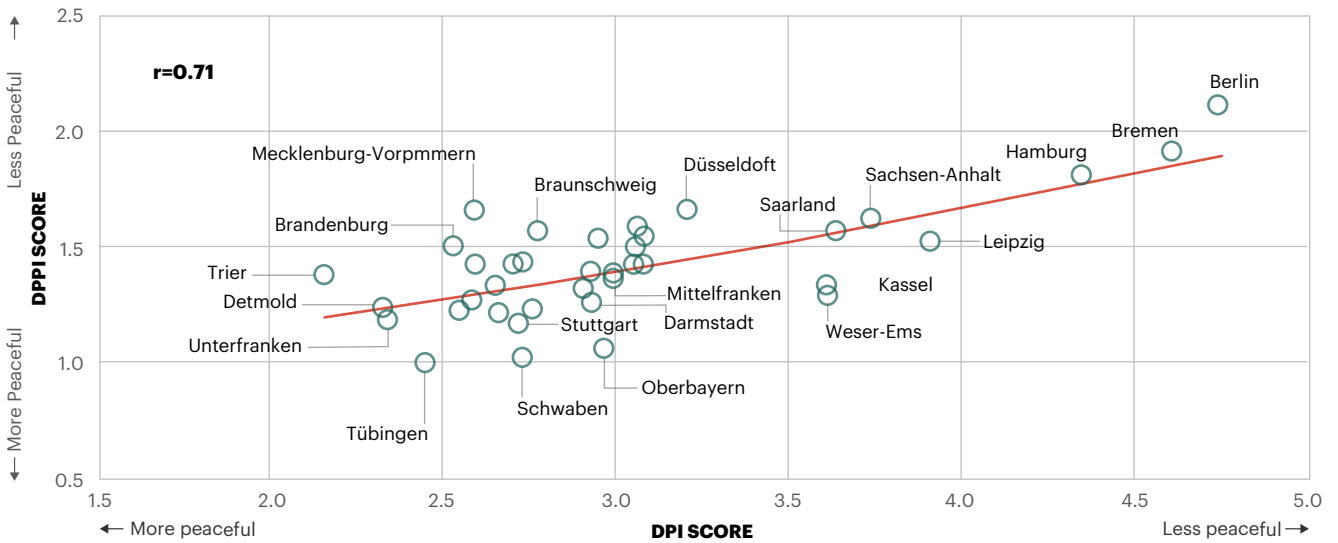
30 regions recorded deteriorations in Positive Peace in the five years to 2018.



FIGURE 3.9

### Positive and actual peace in Germany, 2018

The correlation between the DPI and the DPPI was high at 0.71 in 2018. However, this is partly driven by the densely populated regions of Bremen, Berlin and Hamburg. Excluding these, the correlation coefficient declines to a modest but still significant 0.41.



Source: IEP

To better understand Positive Peace in Germany, four Pillars were selected for deeper coverage – *Good Relations with Neighbours, High Levels of Human Capital, Equitable Distribution of Resources* and *Well-Functioning Government*.

### Good Relations with Neighbours

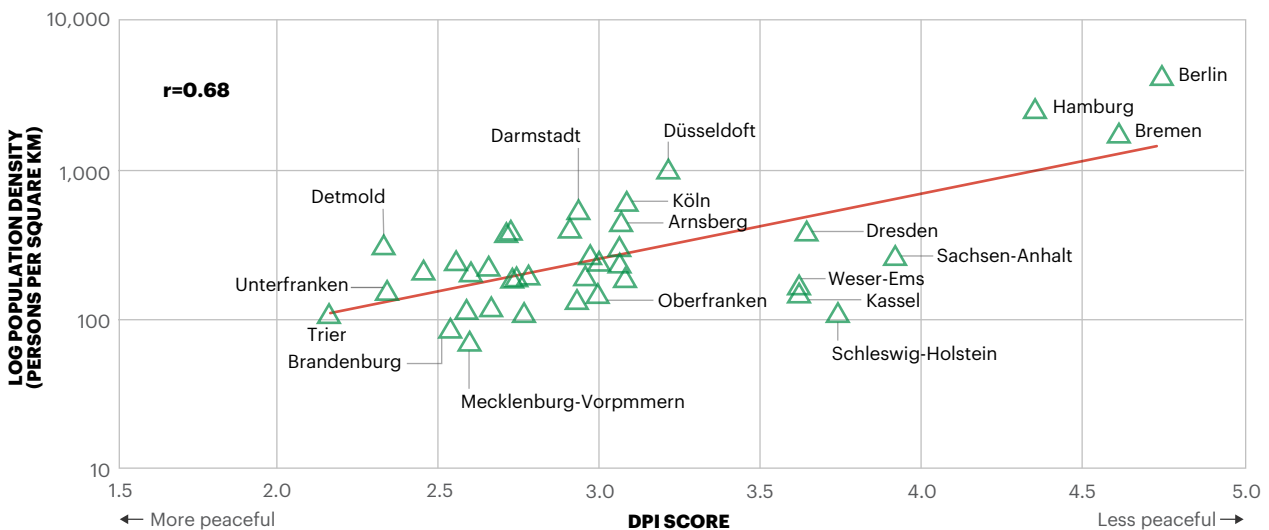
There is a strong urban aspect to crime and violence in Germany. Of the five least peaceful regions in the DPI, three were city-states (Bremen, Hamburg and Berlin). This urban feature of violence in Germany is born out of the relationship between population density and the DPI score (Figure 3.10). Higher density NUTS-2 regions tend to be comparatively more violent.

The ‘neighbourhood effect’ tries to explain the connection between urban areas and crime by claiming that the areas in which people live have an impact on their individual behaviours.<sup>9,10</sup> Urban areas are more sought after by individuals seeking better livelihoods due to the greater concentration of employment opportunities. As a result, overcrowding may lead to poor access to social housing, schooling and health care. This issue may have also been exacerbated by recent increases in immigration.<sup>11</sup> Overcrowding and economic disadvantage may push some individuals towards crime as a source of income or violence as a means to address grievances. Thus, higher density areas in Germany tend to be those in which people have, on average, less harmonious relations with those around them.

FIGURE 3.10

### Population density vs German Peace index, 2018

The level of peacefulness across German NUTS-2 regions is strongly associated with population density. As population density increases, peacefulness tends to deteriorate.



Source: IEP, Eurostats

## High Levels of Human Capital

The links between education and peacefulness are multiple. Educated workers tend to be better paid, have more resources and are therefore more adaptable, which reduces the incentive for crime to be used as a source of income. Children and youth undergoing schooling or training are less likely to associate with criminal activity.

Educational attainment at the upper secondary level is statistically significantly associated with peacefulness across German regions. The relationship is directly proportional, which means an increase in the educational attainment rate of a certain region is associated with improved peacefulness. The relationship is stronger at the upper secondary educational level, although it can be observed across all categories of early education.

The education system in Germany differs substantially from others in the developed world. After completing high school, young people can decide to enrol in a dual education program, which includes both on-the-job training and classes. This Dual Vocational Training – *Duale Ausbildung* – program typically lasts two to four years and allows students to gain hands-on experience and skills while still mastering a curriculum. Many are offered full-time positions at their place of apprenticeship upon successful completion of the program. This system eases the transition from education into the labour force. It also provides an alternative more affordable option to being a full-time student. Germany and Austria are the major proponents of this type of system within the European community.

Adults with this upper secondary education have better job prospects than those with the same qualifications did a decade

earlier. The vocational education and training program is widely credited as being the primary reason for Germany’s high educational attainment rates, as well as high employment. Lower levels of unemployment are more frequently recorded among regions with higher levels of peace.

## Equitable Distribution of Resources

Although employment is important for obvious economic reasons, it is also essential to the social cohesion of a community and for an individual’s sense of self-worth and agency. Without confidence and initiative, the individual is less likely to secure employment as time goes by, thus establishing the vicious cycle of long-term unemployment. Long-term unemployment can have a negative impact on the levels of peace and increase the need for social security. Long-term unemployment can increase the risk of poverty, which in turn is associated with greater levels of violence (Figure 3.11).

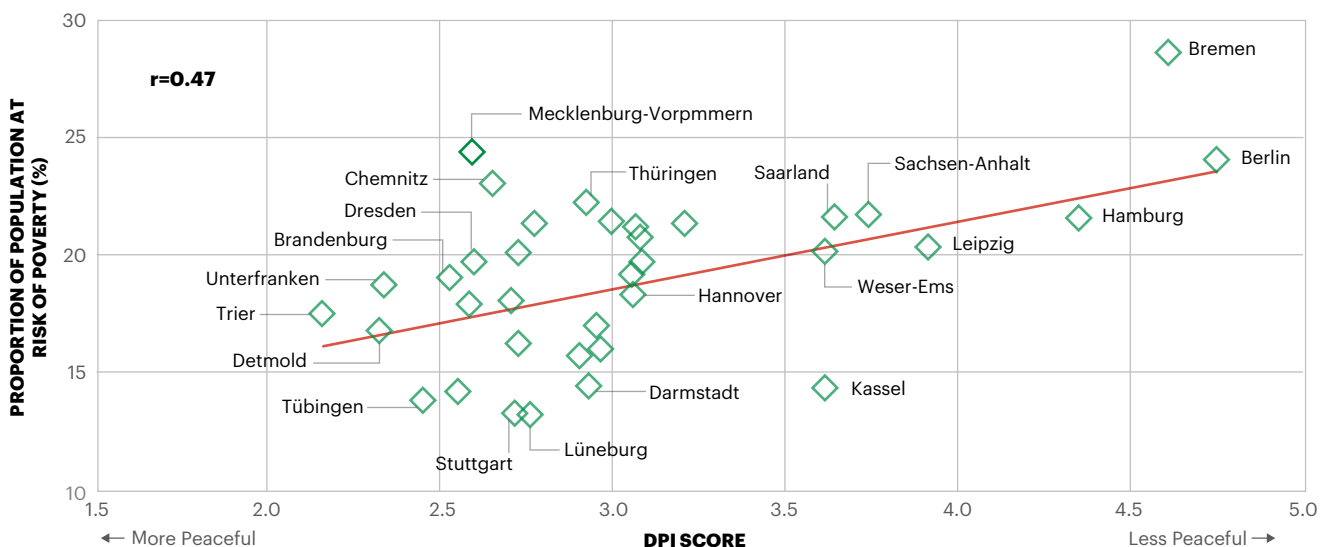
Germany has made efforts to reduce long-term unemployment rates, which would support peace levels. One recently implemented project, referred to as the Social Labour Market, provides government-subsidized jobs for persons vulnerable to long-term unemployment. People who are over the age of 25 and part of the *Hartz IV* state welfare program are eligible for these jobs, which can last for about five years.<sup>12</sup>

Unemployment in Germany has dropped to a record low in 2018, with the number of registered unemployed people falling substantially. The number of people suffering from long-term unemployment has also decreased, which could have positive effects on peace in the future. The drop in long-term unemployment could also be indicative of progress in the integration process of migrants into German society.

FIGURE 3.11

## Population at risk of poverty and peacefulness across German regions

Peacefulness across German NUTS-2 regions improves as the proportion of the population at risk of poverty decreases.



Source: IEP, Eurostats

Poverty in Germany is defined as those who earn less than 60 per cent of Germany’s median national income or those who suffer from severe material deprivation. This measure compares Germany’s poorest to the median income earners. In effect, this says that peace levels are affected by the inequality between the nation’s bottom and middle income brackets. Individuals and families may struggle to meet their basic needs if they are earning below a certain level of income, which can increase the chances of living in a community with violence. A study by the European Union found that 15.5 million people, or about 19 per cent of the German population, were on the verge of poverty in 2017.<sup>14</sup> The study suggests that some people do not earn enough to stay above the poverty line, despite the high employment rate in the country.

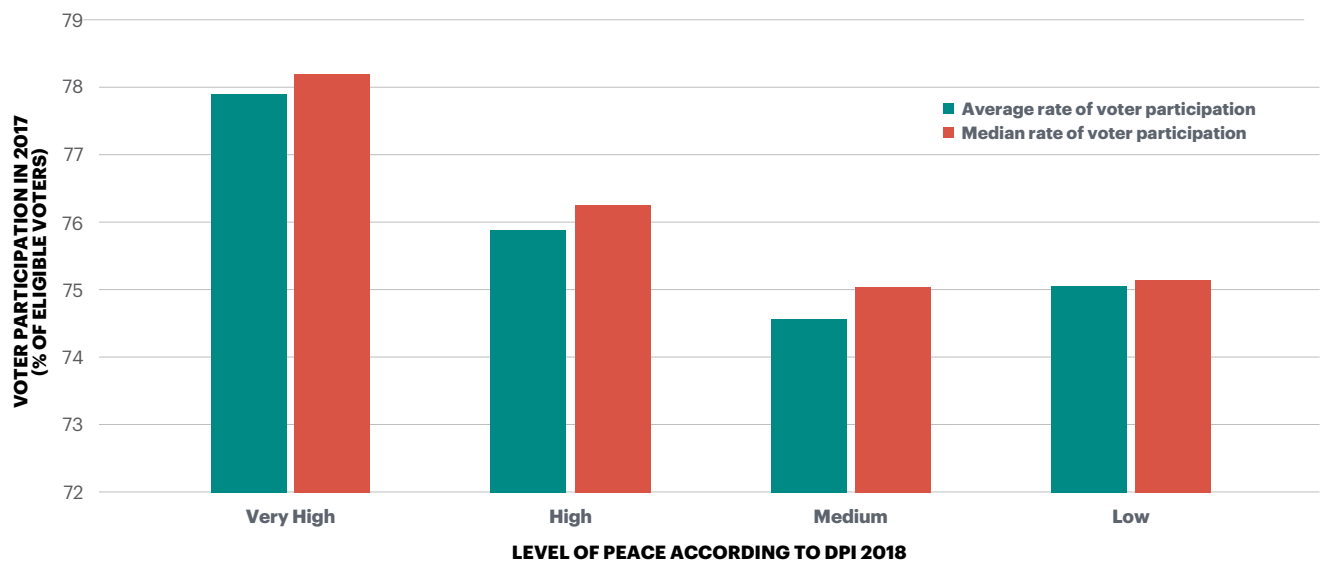
## Well-Functioning Government

Voter turnout is a common gauge of political participation. The most recent federal election in Germany constituted the Bundestag in 2017. In this election, voter turnout rate was 76 per cent of eligible voters, which is a relatively high proportion.<sup>15</sup> Given that voting is not compulsory in Germany, voter turnout can be used as a proxy for population trust in governmental institutions. Those who vote do so because they believe their views will be heard and represented. Voting turnout is directly associated with peacefulness, with districts with very high levels of peace operating with higher voter participation (Figure 3.12).

FIGURE 3.12

### Political participation and peacefulness

As political participation decreases, the level of peacefulness across German districts deteriorates.



Source: IEP, Eurostats

“

A study by the European Union found that 15.5 million people, or about 19 per cent of the German population, were on the verge of poverty in 2017.



# 2020 German Peace Index Methodology

The DPI is based on the work of the Global Peace Index, the leading global measure of peacefulness, produced by IEP annually since 2007. The DPI follows a similar methodology to the United Kingdom Peace Index (UKPI), the United States Peace Index (USPI) and the Mexico Peace Index (MPI) also produced by IEP. Like the GPI and MPI, the DPI measures Negative Peace, defined as the *absence of violence and fear of violence*.

The DPI is composed of five indicators: homicide, violent crime, weapons crime, public disorder and police rates. The violent crime domain is a weighted composite of rape and sexual coercion, violent assault, robbery and violent crimes.

Data for the German Peace Index are sourced from the Federal Police Crime Statistics or Bundeskriminalamt (BKA). German police crime statistics are reported at district (NUTS3) or state (NUTS1) level. The DPI is estimated at the German regional or NUTS2 level by aggregating crimes statistics from the district level.

## 2018 DPI Indicators

### Homicide

The number of victims of intentional homicide per 100,000 people.

### Violent Crime

The violent crime domain in the DPI includes robbery, assault, rape and sexual coercion and violent crimes. Before estimating a violent crime rate, each category is weighted then aggregated. The violent crime rate is calculated using the weighted sum of the categories included in the domain per 100,000 people. Table A.1 shows the weights for categories of violent crime.

TABLE A.1

### Weights within the violent crime domain

Variable name	Domain	Weight
Rape and Sexual Coercion	Violent crime	6
Robbery	Violent crime	3
Assault	Violent crime	0.25
Violent crime	Violent crime	0.4

Source: IEP

### Weapons Crime

The number of cases of homicide or violent crime that involved the use of a firearm per 100,000 people.

### Public disorder

Public disorder includes cases of resisting or assaulting public authority or law enforcement officers per 100,000 people.

### Police rate

Police rate is calculated using the total number of police officers per 100,000 people in a region.

### Crime Under-reporting in Germany

Police crime statistics tend to underestimate the level of crime, given that a proportion of crimes goes unreported. In Germany, less than 50 per cent of total crimes are reported to the police. The under-reporting varies for different categories of crime. Minor and more frequent crimes have higher under-reporting rates compared to less frequent and serious crimes.<sup>1</sup> Studies of crime usually estimate under-reporting rates and apply it to the police crime statistics in an attempt to correct for crimes that are not captured by official statistics. When estimating for the DPI, this study does not use any under-reporting correction for the crime statistics.

### Indicator Scores and DPI Calculations

The DPI indicators are scored between 1 and 5, with 5 being the least peaceful and 1 being the most peaceful score. Banded indicator scores are calculated by normalizing the range of raw values based on each region's average value from 2013 to 2018. First, the average value for each region over the six years of the study is calculated. Then, the outliers are removed from the range of average regional values in order to identify the minimum and maximum of normally distributed average values. Outliers in this case are defined as data points that are more than three standard deviations greater than the mean. Next, the values for each year are normalized using the minimum and maximum of the normal range and are banded between 1 and 5. The calculation for banded scores is:

$$Banded\ score_x = \left( \frac{raw\ value_x - min_{sample}}{max_{sample} - min_{sample}} \times 4 \right) + 1$$

Finally, if any of the banded values are above five, the region is assigned a score of five, and if any values are below one, the region is assigned a score of one.

After the score for each indicator has been calculated, weights are applied to each of the indicators in order to calculate the overall DPI score. The overall score is calculated by multiplying each indicator score by its assigned weight, summing the weighted indicator scores.

There are many methods for choosing the weights to be applied to a composite index. In order to maintain consistency across IEP's various peace indices, the weights in the DPI mirror those used in the GPI, UKPI and MPI as closely as possible.

The weights for the GPI indicators were agreed upon by an international panel of independent peace and conflict experts based on a consensus view of their relative importance. To complement this approach and reflect the local context of Germany, a second expert panel was formed consisting of leading German academics and researchers to determine the final weights for the five indicators in the DPI. These final weights are shown in Table A.2.

With direction from the expert panel, a number of different methods such as equal weighting, principal component analysis and analytical hierarchical processing were used to test the robustness of the results.

TABLE A.2

### Domain weights in the DPI

Domain	Weight
Homicide	4
Violent Crime	3
Weapons Crime	2
Public Disorder	2
Police	1

Source: IEP

TABLE A.3

### 2019 DPI Expert Panel

**Professor Tilman Brück**

Director, ISDC - International Security and Development Center  
 Visiting Professor, London School of Economics  
 Co-Director, Households in Conflict Network

**Dr. Tim Stuchtey**

Executive Director Brandenburg Institute for Society and Security (BIGS)

**Dr. Johannes Rieckmann**

Senior Research Fellow  
 Brandenburg Institute for Society and Security (BIGS)

# B

# Economic Impact of Violence Methodology

The economic impact of violence is defined as the expenditure and economic effects related to *containing, preventing and dealing with the consequences of violence*. The estimate includes the direct and indirect costs of violence, as well as an economic multiplier. The multiplier effect calculates the additional economic activity that would have accrued if the direct costs of violence had been avoided.

Expenditure on containing violence is economically efficient when it effectively prevents violence for the least amount of spending. However, spending beyond an optimal level has the potential to constrain a nation's economic growth. Therefore, achieving the right level of spending on public services such as the police, the judicial and the prison systems is essential for the most productive use of capital.

IEP estimates the economic impact of violence in Germany using a similar methodology to its global study, The Economic Value of Peace. The German study uses a variety of measures, including a comprehensive aggregation of costs related to violence and expenditure on violence containment. In addition, a cost related to the fear of violence is included.

IEP's estimate of the economic impact of violence includes three components:

- 1. Direct costs** are the costs of crime or violence to the victim, the perpetrator and the government. These include direct expenditures, such as the cost of policing, medical expenses, funerals or incarceration.
- 2. Indirect costs** are the long term costs that accrue after the incident. These include physical and psychological trauma and the present value of future costs associated with the violent incident.
- 3. The multiplier effect** is a commonly used economic concept and describes the extent to which additional expenditure has flow-on impacts in the wider economy. Refer to Box B.1 for more detail on the peace multiplier.

The **economic impact of violence** refers to the total cost of violence containment plus the peace multiplier.

This study uses a cost accounting methodology to measure the economic impact of violence. Expenditures on containing violence are totalled, and unit costs are applied to the estimates for the number of crimes committed. The crimes included are homicides, assaults, sexual violence and robberies. A unit cost is

also applied to the estimated level of fear of insecurity and violence. The unit costs estimate the direct (tangible) and indirect (intangible) costs of each crime. Direct unit costs include losses to the victim and perpetrator and exclude costs incurred by law enforcement, as these are captured elsewhere in the model.

Data for violent crimes are obtained from the Federal Police Crime Office of Germany (BKA) and are compiled from the individual datasets at the Länder Criminal Police Offices (LKÄ) and at the Bundeskriminalamt (BKA, Federal Criminal Police Office). Government expenditure on the police and incarceration are taken from Eurostat and disaggregated at the regional level. Data relating to the level of fear comes from the WISIND state-level surveys and are compiled by the German Institute for Economic Research (DIW). The monetary losses from organised crime are sourced from BKA.

The cost estimates provided in this report are in constant 2018 euros, which facilitates the comparison of the estimates over time. The estimation only includes elements of violence where reliable data could be obtained. As such, the estimate can be considered conservative. The items listed below are included in the cost of violence methodology:

1. Homicide.
2. Violent crime, which includes assault, rape and sexual coercion and robbery.
3. Costs of incarceration.
4. Fear of insecurity.
5. Police costs.
6. Organised Crime.

Some of the items not counted in the economic impact of violence include:

- Regional public spending on security.
- Protections costs such as private security and firearms.
- Federal spending on external violence containment such as military expenditure.



Although data is available for some of these categories, it is either not fully available for all regions or for all the years of analysis.

This study assumes that the multiplier is one, signifying that for every euro saved on violence containment, there will be an additional euro of economic activity. This is a relatively conservative multiplier and is broadly in line with similar studies.<sup>1</sup>

## Estimation Methods

A combination of approaches is used to estimate the economic cost of violence to Germany's economy. The analysis involved two components:

1. Financial information detailing the level of expenditure on items associated with violence was used where possible.
2. Unit costs were used to estimate the cost of violent activities. Specifically, an estimate of the economic cost of a violent act was sourced from the literature and applied to the total number of times such an event occurred to provide an estimate of the total cost of categories of violence.

IEP uses federal government expenditure data for police spending and the incarceration system as sourced from Eurostat. State and municipal level spending is excluded from the study due to data unavailability and disaggregated at the regional level. The federal government expenditure data does not provide details of the spending at the state level. Therefore, a combination of state population size, number of police and DPI scores is used to estimate the likely distribution between states.

A unit cost approach is used to estimate the economic cost of

homicide, violent crime, organised crime, fear of insecurity and firearms. Unit costs for homicide, violent crimes and organised crimes are based on a study by Heeks et al. (2018) that estimated the tangible and intangible cost of violent crimes in England and Wales.

1. Direct costs or tangible costs of crimes include medical expenses, insurance administration, cash losses, property theft or damage, victim services and productivity losses from hours of lost work.
2. Indirect costs include physical and psychological trauma as well as long term costs due to a violent incident.

In addition to the breakdown by tangible and intangible costs, Heeks et al. (2018) offers further details of the costs by victim, perpetrator and justice system. Such itemisation enables IEP to exclude particular justice system and policing costs to avoid double counting with expenditure data used for the policing and incarceration.

IEP uses Dolan & Peasgood's (2006) estimate of the unit cost of fear of crime to calculate the cost of perceptions of insecurity in Germany.

To ensure the cost estimates appropriately represent relative income levels in Germany, they are scaled according to Germany's GDP per capita relative to the United Kingdom, before being converted to 2018 euros. This was based on the aforementioned study, costing the indirect costs of a homicide equal to £2.08 million. The equivalent cost in Germany was then calculated based on the World Bank's purchasing power adjusted GDP per capita of \$53,075 for Germany and \$45,973 for the UK in 2018. This is called the adjusted unit cost.

### BOX B.1

## The Multiplier Effect

The multiplier effect is a commonly used economic concept, which describes the extent to which additional expenditure improves the wider economy. Every time there is an injection of new income into the economy, this will lead to more spending, which in turn creates employment, further income and additional spending. This mutually reinforcing economic cycle is known as the "multiplier effect" and is the reason that a euro of expenditure can create more than a euro of economic activity.

Although the exact magnitude of this effect is difficult to measure, it is likely to be particularly high in the case of expenditure related to containing violence. For instance, if a community were to become more peaceful, individuals and corporations would spend less time and resources protecting themselves against violence. Because of this decrease in violence, there are likely to be substantial flow-on effects for the wider economy, as money is diverted towards more productive areas such as health, business investment, education and infrastructure.

When a homicide is avoided, the direct costs, such as the money spent on medical treatment and a funeral, could be spent elsewhere. The economy also benefits from the inclusion of the lost lifetime income of the victim. The economic benefits from greater peace can, therefore, be significant. This was also noted by Brauer and Tepper-Marlin (2009), which argues that violence or the fear of violence might result in some economic activities not occurring at all. More generally, there is strong evidence to suggest that violence and the fear of violence can fundamentally alter the incentives for business. For instance, analysis of 730 business ventures in Colombia from 1997 to 2001 found that with higher levels of violence, new ventures were less likely to survive and profit. Consequently, with greater levels of violence, it is likely that we might expect lower levels of employment and economic productivity over the long-term, as the incentives faced discourage new employment creation and longer-term investment.

All the costs are adjusted to constant 2018 euros using the consumer price index (CPI) data from 2015. The base year of 2018 was chosen because it is the most recent year for which CPI data was available and is the latest year of the DPI. Estimating the economic impact in constant prices facilitates comparisons over time. Any GDP-related analysis uses the most recently available GDP data from the World Bank and Eurostat.

## **Calculating the Cost of Homicide and Violent Crime**

To calculate the cost for the categories of crime used in this study, IEP uses the data from the DPI.

Data on the incidence of homicide are sourced from the BKA. Incidents of homicide are multiplied by the adjusted unit costs to calculate the total cost of homicide in Germany.

Violent crime, which includes incidents of rape, robbery and assault, are also sourced from BKA. The economic costs of each category of violent crime are calculated using the respective adjusted unit costs.

## **The Cost of Organised Crime**

The BKA provides a euro estimate of the losses from organised crime by state. IEP applies the CPI to these costs to get the BKA estimates into constant 2018 euro. In order to disaggregate the organised crime costs to the regional NUTS2 level, the DPI score of each NUTS2 region within a state is aggregated to give a total state DPI score. The percentage contribution of each NUTS2 region to its state score creates the weight of each NUTS2 region within the state. Organised crime costs from states are then multiplied by the NUTS2 region DPI weight to get an organised crime cost for each region. Less peaceful regions in a state are allocated a higher proportion of the state's organised crime cost.

## **Cost of Fear of Insecurity**

WISIND state-level survey data are used to estimate the perception of insecurity at the regional level in Germany. IEP uses the proportion of respondents who felt insecure, multiplied by the region's population to arrive at the number of people who reported a fear of insecurity.

The unit cost of fear is taken from Dolan and Peasgood (2005), from which the adjusted unit cost is derived.

## **Calculating the Indirect Cost of Incarceration**

The direct cost of incarceration is the government expenditure on the prison system sourced from Eurostat. The indirect cost of incarceration is the lost income due to imprisonment. This is calculated using the German minimum wage and the number of inmates. Data on the minimum wage for Germany are sourced from Eurostat.

## **Peace Multiplier**

To measure the total economic impact of violence, IEP uses a peace multiplier to estimate the additional economic activity that would have resulted if the violence was avoided. The conceptual underpinning of the multiplier is the opportunity cost of the resources lost by the victim, perpetrator and the law enforcement agencies due to the crime. Therefore, the peace multiplier represents the flow-on effects of redirected expenditure from violence containment to more economically enabling activities such as business investment or education.

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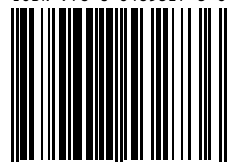
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