Quantitative research evaluating the effect of peacekeeping operations usually links conflict abatement to the number of casualties in order to measure mission success. Such an approach is incomplete as security concerns extend far beyond the number of conflict related deaths. This narrow understanding of mission success leaves a significant assessment gap. Therefore this study is the first which presents comprehensive data using a wider understanding of violence and peace. We apply 11 indicators measuring security comprehensively. These range from the number of battle death, to violence against civilians, domestic unrest as well as domestic governance and political stability. In contrast to the mainstream quantitative literature our analysis shows that conflict often persists even with the deployment of peacekeepers. The absence of war (decline of battle death) does not automatically equate for non-violence and peace. In order to explain variation between cases we are also exploring the significance of different peacekeeping types, the size of developmental aid, rents from natural resources and the role of governance on conflict.

Introduction
The use of peacekeeping missions as an important tool for conflict management and post-conflict peace building has seen a remarkable revival since its decline in the mid-and late 1990s. While in the year 2000, less than 20,000 troops had been deployed in United Nations (UN) missions, by December 2015, a historic peak has been reached with 107,088 civilian and military staff being deployed (UN: DPKO). If we are adding regional organisations such as the African Union (AU) these numbers would even be higher. The AU reached its peacekeeping peak in 2013 with the deployment of 40,000 troops (Lotze 2015: 2). Although the European Union (EU) has never deployed large numbers of peacekeepers, the organisation is an active deployer of military and civilian missions. Since 2003, it established 17 missions in Africa (EU: Military and civilian missions and operations). Financially peacekeeping has also grown into a multi-billion project. In 2017/18, the UN will spend $6.8bn on peacekeeping (UNGA 71st session 30 June 2017). There are three large-scale peace operations of more than 20,000 troops each in the Democratic Republic of Congo (DRC), Sudan and Somalia (AU). Africa remains the main location of peacekeeping operations.
However, even with the considerable investments of human and financial resources in peacekeeping as an instrument with which to pacify violent conflict, we know astonishingly little about the effects of missions on the ground.

Although the question if peacekeeping works has generally been answered positively by the quantitative literature (Fortna 2008), there are important assessment gaps which remain unaddressed.

First, the majority of quantitative studies operate from a rather simple conceptualization of security and peace which measures conflict abatement by counting battle deaths. Social unrest, riots, high crime rates or political instability are ignored, even though they can have an equally negative effect on peace and security. Therefore, we apply 11 indicators measuring security within mission hosting countries in order to map the wider security environment in which missions are deployed and assess their possible effects on this environment. Today, we have a much more complete and comprehensive data basis on which to measure security at country level (Clayton et al. 2017).

Second, we focus on the more recent deployments from 2000–2015. This is justified because although the character of missions has changed, the literature has not fully reflected this. Current missions are much more likely to be deployed in situations of continued fighting and/or in the absence of a reliable peace agreement (CAR, DRC, Mali, Somalia, Sudan, South Sudan). The latest missions are more likely to use force and become targets themselves of insurgents, rebels or terrorist groups (Dersso 2016). This makes the question of what kind of peace, peacekeeping is bringing even more compelling than in the case of deployments after a peace deal has been brokered (such as in Burundi, Ivory Coast, Liberia, and Sierra Leone). An evaluation of the recent operations is important because it is not self-evident that the results of previous statistical analyses will apply to the new realities in which peacekeepers aim at stabilising a country while facing continued security threats.

Nine out of the current 16 UN operations are deployed in Africa and most other deployments outside the continent are small in scale with only one exception, Lebanon. Thus, the focus of this article will be on the African continent. There is hardly a major conflict on the African continent in which peacekeepers have not been involved. It has become a widely used instrument to pacify violent conflict. The establishment of the African Peace and Security Architecture (APSA) and the many AU peace operations which have been deployed over the last decade are testament to this development (GIZ 2016).

The article is structured as follows. The first section below offers a short review of existing quantitative studies on peacekeeping effectiveness. It explores persisting trends but also identifies their gaps in a more detailed manner in order to make a complementary contribution to the literature. The subsequent section introduces our measurement taxonomy which builds on 11 indicators. We will present mostly indicator and country specific descriptive statistics with the aim to explore possible linkages between peacekeeping missions and comprehensive security on the ground. In this regard, the article is primarily empirically-driven and policy-oriented. In the third section, we change the analytical focus from mapping security in the shadow of peacekeeping missions, to explaining persistent security patterns. Here we are interested in what explains variations in our indicators and concentrate on two main explanations: the type of peacekeeping mission (stabilisation vs traditional peacekeeping) and the quality of security governance. In the last section, we contrast the relative effectiveness of mission deployment with two alternative explanations. In particular, we are interested to know if higher degrees of official developmental assistance (ODA) have a positive effect on degrees of violence, and if natural rents fuel conflict.
A short review of the peacekeeping effectiveness literature

Over the last 15 years, roughly a dozen quantitative studies evaluating the impact of peacekeeping missions have emerged (Rudolf 2015). In one of the first studies conducted, researchers explored how different types of missions are impacting on the establishment of peace (Doyle and Sambanis, 2000: 791, and Sambanis 2008). They found that multi-dimensional missions are more effective than other types, such as observer and peace enforcement missions. A positive relationship between survival rates of peace agreements and the deployment of peacekeeping missions could be established by Hartzell, Hoddie and Rothchild (2001: 200). Additionally, Fortna (2004 and 2008) found that peacekeeping missions impact positively on the long-term perspectives for peace.

With the introduction of civilian protection clauses after 1999, interest shifted to exploring the effects of peacekeeping mission on civilian casualties. In this regard, the theory was that lower levels of violence could be attributed to civilian protection mandates. The widely shared view issued by Hultman, Kathman, Shannon (2013 and 2014) and Hegre, Hultman and Nygård (2015) was that the deployment of peacekeepers did indeed lead to a reduction of violence. Caplan and Hoeffler (2017) find that the deployment of UN peacekeepers has no effect on the duration of peace but helps stabilizing countries if there is a negotiated peace agreement. The average picture, which emerges from these studies, depicts a rather positive situation. The deployment of larger and multi-dimensional missions is associated with reduced levels of violence against civilians, declining numbers of battle deaths and a positive long-term outlook for stable peace. Despite this rather positive picture, however, a number of issues remain.

As previously stated, most studies assessing peacekeeping effectiveness quantitatively associate success in terms of the absence of war (negative peace) measured by the number of battle deaths. While one can distinguish between different categories of death such as civilian versus combatant or government versus rebel forces, the problem with this data is that it does not cover the security spectrum comprehensively. While there is no doubt that death is the most lethal form of violence and any assessment of peacekeeping missions would be grossly incomplete without it, it is misleading to just rely on this one indicator (Diehl 2017). If peacekeepers are supposed to bring, keep, or create peace, the conceptualisation of peace needs to be comprehensive. As Kurtenbach (2017: 3) argues the absence of war does not automatically equate for peace and the opposite of peace might not be war. It is, therefore, important to use measurements of peace which allow for a differentiated assessment of various kinds of violence beyond counting battle death.

Indeed, possible are cases in which the number of battle deaths is declining but security remains fragile due to the spreading of other forms of non-lethal but still intimidating violence. A key problem for most quantitative studies was that the supply of data was rather limited and, thus, the ability to measure security comprehensively was limited too. Analytically this can be problematic. Treating the presence of troops as success if it correlates with a decrease in casualties can be premature if no measurement of other effects is possible and the effects are only tested against other causes. In addition battle deaths often does not count deaths from inter-communal or low level conflicts which are often present alongside with the higher level conflicts.

Most statistical models used are designed to explore causes of a presumably unitary outcome, which is peace and security. Standard regression models are often used for exploring the relative relevance of various independent variables but not for accounting for various outcomes of a particular cause. Consequently, the drive for exploring causes means that most studies on peacekeeping effectiveness provide analytical value, only if we assume that peacekeeping has fairly unitary effects. To overcome this important gap, the authors
here are primarily interested in the multiple consequences of peacekeeping missions, of which a reduce in battle deaths could be one. We are measuring security changes in key security parameters that go along the deployment of peacekeeping missions through the use of 11 different indicators. Once we have established our approach to measuring security, we turn to different contributory causes to violence and peace, in order to explain variation in outcomes and evaluate the relative relevance of mission deployments.

**Measuring security**
Assessing the overall effect of peacekeeping on the local security situation is a complex undertaking that is marred with challenges. It should be acknowledged that changes in our 11 indicators cannot exclusively be attributed to the deployment of peacekeeping missions. The causes of conflict and insecurity are almost always to be found outside the deployment of a peace mission. What our indicators are displaying, though, is the wider security environment on which they aim to have an impact. Therefore, we do not make any claims about the causal impact of mission deployments in the narrow sense of the term; causality as mission impact cannot neatly be separated from other causes of conflict. Realistically peacekeeping should be posited a contributory factor towards peace, but can hardly be positioned as the only relevant condition. In this regard, it is rather a mechanism through which peace is generated (in the best case), but not the sole cause for peace. However, if this mechanism for peace is affecting the security environment, it should become visible in our indicators.

Analytically, any statement about potential peacekeeping effects needs to attribute the effect to the deployment and determine a baseline against which such effects are measured (Kahl 2013: 37). The first is done by applying the before-after research design (George and Bennett 2005: 166-167). Any effects, if they are linked to peacekeeping, should become visible only after a mission has been deployed. The appearance of change in the indicators is assumed to be connected to the timing of deployments. While it is true that with this method we cannot fully control for other conditions impacting on the outcome, we can explore alternative conditions – such as the size of ODA, natural rents, mission types and governance scores – in order to allow for a more differentiated analysis beyond the deployment/non-deployment dyad. This is presented in the third part of this paper.

Our baseline for comparison is the relative change in indicators after deployment but not at a certain end-state or specific goal attainment. We also do not evaluate specific mission programmes. We have selected similar cases in order to allow for greater comparability for cumulative measurement. We have selected peacekeeping missions in Africa from 2000 to 2015. We concentrate on the latest generation of peacekeeping operations deployed since 2000 as only a few studies have done so to date and the character of missions has changed significantly from a traditional focus on keeping peace after a ceasefire towards stabilisation missions aiming to create peace. We are also only interested in peacekeeping missions with an operational mandate, excluding all those operations that are observer or training missions. These missions have been excluded because they are not designed to have a large-scale impact on security and, thus, fall outside our analytical framework. In the end, this leaves us with ten African missions which are the following:

1. Burundi, (ONUB), Central African Republic (MINUSCA), the Democratic Republic of Congo (MONUSCO), Ivory Coast (UNOCI), Liberia (UNMIL), Mali (MINUSMA), Somalia (AMISOM), Sierra Leone (UNAMSIL), South Sudan (UNMISS), and Sudan (UNAMID).

Within this group of missions all but one are deployed by the UN. Operation AMISOM is an AU mission. We have included it because in the majority of statistical studies, the case of Somalia is missing. However, operation AMISOM is the most extreme of all cases and deviates from the standard UN peacekeeping mission. It can best be characterised as a
peace enforcement operation which is somehow (but not entirely) different from the typical UN mission. Indeed, Somalia displays the most extreme negative trends in our indicators and has a large effect on calculating averages. For this reason, we have calculated averages with and without the Somali case mentioning the latter when there is a significant deviation. While Somalia often has a large effect on the average numbers, excluding a potential outlier from the norm can also be misleading.

We opted against the application of regression models for a statistical analysis because the pool of cases is rather small and we are primarily interested in mapping various consequences of mission deployments and are less interested in comparing different causes to a specific outcome. No such mapping currently exists as the majority of research on peacekeeping effectiveness is concentrating on input factors like programme designs at the international level, but scarcely have there been studies assessing comprehensive security at country level (Diehl and Druckman 2010, 2012).

Measuring changes in security beyond counting casualties is warranted because mission mandates expand far beyond a narrow understanding of security. The UN Capstone Doctrines (2008: 23) for peacekeeping defines security broadly as:

a) Create a secure and stable environment while strengthening the State's ability to provide security, with full respect for the rule of law and human rights;
b) Facilitate the political process by promoting dialogue and reconciliation and supporting the establishment of legitimate and effective institutions of governance;

In order to fulfil these goals, missions have developed a wide range of instruments. Standard programmes to be found in practically all mission mandates include Security Sector Reform (SSR), Demobilisation, Disarmament and Reintegration (DDR), and/or Protection of Civilians (POC) to mention a few examples. With reference to peacekeeping mandates, security can be understood as aiming to (1) reduce casualty numbers and stop fighting, (2) reform security forces and (3) support state structures following principles of good governance.

Therefore, we measure security comprehensively with reference to three main categories, namely: war and conflict, domestic and personal security and security governance (see Table 1). Each main category is subdivided into a number of indicators. The war and conflict dimension is measured by the number of battle deaths, civilian

Table 1: Indicators.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicator</th>
<th>Source</th>
</tr>
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<tbody>
<tr>
<td>War and Conflict</td>
<td>· Number of battle death</td>
<td>· ACLED</td>
</tr>
<tr>
<td></td>
<td>· Civilian death</td>
<td></td>
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<tr>
<td></td>
<td>· Number of all conflict events</td>
<td></td>
</tr>
<tr>
<td></td>
<td>· Number of conflict events with government forces</td>
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</tr>
<tr>
<td></td>
<td>· Number of conflict events with rebel forces</td>
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</tr>
<tr>
<td>Domestic and personal security</td>
<td>· Violence against civilians</td>
<td>· ACLED</td>
</tr>
<tr>
<td></td>
<td>· Domestic unrest (no of conflict events)</td>
<td></td>
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<td></td>
<td>· Number of refugees</td>
<td>· <a href="http://www.refugeeproject.org">www.refugeeproject.org</a></td>
</tr>
<tr>
<td>Security Governance</td>
<td>· Rule of Law</td>
<td>· IIAG</td>
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<td></td>
<td>· Accountability</td>
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<td></td>
<td>· Political Stability</td>
<td>· World Bank</td>
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casualties, number of (all) conflict events, number of conflict events with government forces and with rebels. Indicators measured in the first dimension are generated from the Armed Conflict Location & Event Data Project (ACLED).

In the second dimension, domestic and personal security, we are using three indicators. These are domestic unrest, violence against civilians and number of refugees. These indicators are generated from two different sources which are ACLED and the refugee project.

The third dimension, security governance aims at evaluating the progress in the transformation of the state and security sector. Standard programmes such SSR that are applied by most peacekeeping missions, aim at transforming the security sector by through demilitarisation, reorganization and fostering civilian supervision. We, therefore, use the IIAG to measure the rule of law and accountability for each country. Additionally, we use the World Bank Good Governance indicator on political stability.

The reasons for the selection of ACLED as main source is because of its detailed information reaching beyond the number of violent deaths that is the standard methodology we are complementing. ACLED, unlike other sources such as the Uppsala Conflict Dataset (UCD), records conflict events whether fatal or not (Eck 2012: 127). This is crucial to exploring whether peacekeeping has reduced violence in the countries being studied. As with UCD, ACLED relies on open source reporting and recording for its conflict indicators. Underreporting cannot be ruled out. But it is so far the most sophisticated dataset available. The IIAG has been selected because it is the most comprehensive dataset available for measuring African governance. It was compiled to fill a measurement gap regarding the African continent (Farrington 2009: 251).

In the following section, we map the wider security environment surrounding peacekeeping missions. We are measuring the relative change in our indicators but are not assessing the effectiveness or success as such. While changes in indicators are quantifiable, effectiveness is a question of interpretation (Diehl and Druckman 2010: 15). There is probably no particular level of change, which qualifies as either only failure or as a success. As peacekeeping missions are deployed into a fragile security environment and increasingly into active war zones, it is important to keep expectations realistic. Because of the difficult situation missions are facing, it is unrealistic to assume large-scale, quick and sustainable positive change in indicators. More realistic are moderate, gradual and unstable changes. At the minimum, we should expect country indicators to not perform poorer once missions have been deployed. The number of violent acts should rather decrease but not rise. Identifying a clear baseline for success is difficult but indicators reaching pre-deployment levels might signal a real improvement of the situation. While we do not have absolute security over the effects peacekeeping missions create (many conditions impact on peace) the argument can be made that: if peacekeeping is supposed to leave a positive imprint, it should be associated with a decline in the number of violent deaths, conflict events or violence against civilians. If these core indicators are not at least being stabilised, it is somehow difficult to claim a positive effect. Again we are less interested in a comprehensive analysis of what originally contributes to conflict, instead we aim at mapping the broader security environment after peacekeeping missions have been deployed and, which they are mandated to effect positively.

In the graphs below, we are exploring both cumulative and individual indicator changes. The timeframe in each graph is standardised. We are measuring change two years before deployment and five years into deployment. We have marked the year of deployment as ‘zero year’. Pre-deployment is marked as minus years while years after deployment are marked as plus years. In the case of multiple deployments to one country, we have picked as ‘zero year’ the year that a comprehensive mission was deployed, usually by the UN.
Peacekeeping and Comprehensive Security: The Data

The first dimension of indicators measure war and conflict and as such they can be regarded as considering the core priorities of peacekeeping. Here we look at different categories of battle deaths and the number of conflict events occurring in mission hosting countries.

War and Conflict

When we examine the average numbers of battle related deaths the picture is rather sobering (see Figure 1). While right after deployment there is a plateau and numbers seem to be stable, on average the total number of battle deaths is increasing well into the third year of deployment before numbers start to decline, but still remain above or just at the pre-deployment level. Interestingly, there is also a difference between civilians and combatants. The number of civilian deaths is not only smaller than those of combatants, but civilian casualty numbers also decline fast and reach pre-deployment levels sooner than for combatants. Even after five years of peacekeeping, the number of combatants dying remains above the pre-deployment level. When looking at average numbers in both cases, civilians and combatants numbers do not immediately decline. Casualty numbers only decline after two to three years. Despite a visible decline, numbers remain fairly high. After five years of peacekeeping, the average number of battle deaths is at 1868, which can still be regarded as a major war. Even when taking out Somalia the overall patterns in Figure 1 does not change substantially. Conflicts in Sudan, South Sudan, DRC and Somalia are the main contributors to these high numbers.

When we are analysing the number of conflict events incorporating non-lethal as well as lethal encounters2, the overall picture is bleak (see Figure 2). There is a strong upward trend towards more conflict events the longer a mission is deployed. Over a five year period, the number of conflict events increases from 477 per mission and year to 814. There is practically no difference if government or rebel forces are involved in conflict events as both almost double in five years. The increasing number of conflict events forms a certain contrast to the decline in battle related deaths in Figure 1. This indicates that peacekeeping, after a medium period of time is able to curb the number of lethal encounters, but still struggles to consolidate peace domestically. Conflict seems

Figure 1: Average number of casualties during peacekeeping missions.
Source: Own calculation based on ACLED data: https://www.acleddata.com/data/.
to convert to different forms of violence, but does not cease.

If we are taking Somalia out of the averages a somewhat different trend emerges. The number of conflict events does not increase anymore but remains stable. A similar trend can be observed with regard to rebels and government forces being involved in conflict. Still, there remains a contrast between the decline in battle death and the unchanged and/or increasing number of conflict events in mission hosting countries.

While exploring mission averages, the picture looks rather gloomy as the number of violent deaths and conflict events is not significantly decreasing or remains high even when peacekeepers are deployed. However, if we take a closer look and distinguish between individual missions, we can isolate positive as well as negative trends (Figure 3). There is a group of countries (Burundi, Ivory Coast, Liberia, Mali, Sierra Leone) that respond significantly better to mission deployments with a clearly reduced number of conflict events. The exact opposite trend can be observed in Sudan, South Sudan and Somalia, which witnessed a concerning upsurge in violence despite peacekeepers being deployed. Another group of countries shows no significant improvements over time, but a volatile trend. The DRC and CAR are included here. In both countries, peacekeepers have been deployed for a long time, but this has not led to a visible reduction in violence. The negative cases are dominating the scene.

**Domestic and Personal Security**

In the second dimension, we are interested in domestic and personal safety following the trend of a more human-centred approach to security and the emphasis on the protection of civilians that can be found in most mission mandates. We ask to what extent are better living conditions associated with the deployment of peacekeeping missions. As seen in the data above, there is a difference between the number of conflict events and the number of battle related deaths. Thus, the question that emerges is whether peacekeeping is better able to curb the number of battle deaths than impacting on other forms of violence?

Figure 4 illustrates the number of events relating to domestic unrest, such as protests and riots. If we look at the number of events in this category during the time of deployment and five years later, a significant
increase can be observed from 235 to 375 events per annum. Somalia is a key contributor to these high numbers. If we calculate an average without Somalia we have an increase from 132 to 169 events. While we can see that in the same time period battle related
deaths have declined visibly, conflict at lower levels remains largely unaffected. As in the previous figures, the spread between countries is enormous. Those countries, which display a high number of battle deaths, also display high numbers of domestic unrest. Most countries, which have below 200 conflict events per annum after peacekeepers have been deployed, also have a low number of riots and protests before deployment, which means peacekeeping is fairly ineffective in addressing domestic unrest.

A similar trend can be observed when exploring the number of violent acts against civilians (VAC). While the number of civilian deaths is declining over time, acts of violence are increasing from 153 cases during deployment to 221 five years later (Figure 5). Somalia again drives up the numbers. Without it, VAC remains at the same level of 104 and 108 cases. However, there is a wide spread between countries. The DRC, Somalia, Sudan and South Sudan are leading the group of worst performers. A country like Burundi could sustainably decrease the number of violent acts against civilians. Interestingly, both Mali and CAR, which are confronted with an Islamist insurgence and rebel violence, also show decreasing numbers.

Major wars tend to produce large numbers of refugees. In this regard, they are an important indicator for personal and domestic security. However, violent conflict is not the only cause of increasing refugee numbers. Natural disasters might also play a role. Is the deployment of peacekeeping missions accompanied by a reduction of the number of refugees? On average, we can say that there is no effect, but instead a slight increase becomes visible (see Figure 6). Without Somalia a slight decrease can be identified. However, this does not mean that there are no positive cases. In Burundi and Liberia, we can see a visible decrease, and in Sudan, the pre-deployment level was not reached again. On the other hand, in CAR and Somalia the number of refugees increased significantly despite the presence of international peacekeepers. In the case of the DRC, refugee numbers do not change significantly. A study by ACLED is confirming our findings and coming to the conclusion that there is no “significant reduction of VAC
over the long-term due to PK deployment.” (ACLED 2015: 15).

Security Governance
In our third, category we are measuring changes in security governance. As there is no direct measurement of security sector performance available, we are concentrating on indirect country measures, such as accountability, the rule of law and political stability that include state security institutions. In this section data are drawn from the IIAG and the World Bank. When we explore accountability score, the spread between countries is significant (Figure 7). On average, no improvement of accountability measures can be observed; pre and post-deployment numbers are largely unchanged. A slight downward trend can be seen in Mali and Burundi. A slight upward trend is visible in CAR and Liberia. The trend line remains fairly flat and it is difficult to associate mission deployment to any governance effects. Leaving out Somalia does not change the trend, as the country scores remain low throughout the measured time period.

Our next indicator measures the rule of law (Figure 8). Here the trend is slightly different. Country scores are split between two groups. While around one half of all countries show no significant changes in either direction (Burundi, CAR, Somalia, Sudan), the others display a declining trend (DRC, Mali, Ivory Coast, South Sudan). With the exception of Liberia, very few show a positive upward trend. For the average scores, this means that there is very little to no movement comparing pre-deployment and five years into deployment. This means that with regard to scores of the rule of law, no effect can be attributed to peacekeeping missions. The Somali case has no impact in this picture.

Our last indicator measures political stability (Figure 9). Again great divergence exists between countries. Some countries, like Liberia and Burundi, recovered quickly, while other countries display a more uneven trend. The worst performance can be found in South Sudan. However, the average trend displays a stabilisation effect that correlates with the deployment of a peacekeeping mission. While in the pre-deployment time,
political stability is in sharp decline, the situation changes with mission deployment and increases steadily over time.

**Summary**

The descriptive statistics presented offer an important addition to the mainstream knowledge that quantitative studies provide. While most studies describe a rather positive picture of peacekeeping effects, our analysis cautions against this view and provides a more nuanced analysis. On average, the deployment of peacekeeping missions is accompanied by various forms of violence. The number of battle deaths remains relatively high, the number of conflict events

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**Figure 7:** Accountability in percentages.  
Source: Own calculation based in IIAG: http://iiag.online/.

**Figure 8:** Rule of law in percentages.  
Source: Own calculation based in IIAG: http://iiag.online/.
does not decrease after deployment, levels of domestic unrest and violence against civilians remain unchanged and the number of refugees is still high. On the governance side, indicators for the rule of law and accountability hardly change at all.

The most positive change we can observe is in scores of political stability and a decline in civilian deaths. An interesting observation is the contrast between the relative decline of battle deaths and the unchanged degree of domestic unrest and violence against civilians. While armed conflict seems to decline – but not disappear – other forms of violence are persistent. This is a concerning trend that needs to be addressed by missions and points to the urgency of civilian forms of peacekeeping in addition to its military component (Gelot 2017).

Lastly, there is enormous variation between individual missions. Peacekeeping does not have unitary effects. While a decline in conflict indicators can be found in some countries, in others, we can see the opposite effects. Although the average changes in indicators are sobering, selective countries still perform well. In the following section, we aim at explaining these variations and also explore the potential impact of alternative conditions.

**Explaining variation**

As the figures above have shown, there is ample variation between countries. This raises the issue of how such variations can be explained? While at local level there are certainly individual trajectories that can be explored, we are more interested in cumulative effects between groups of countries. Therefore, we concentrate on two variables, namely: the type of peacekeeping mission and the quality of security governance.

We distinguish between two different types of peacekeeping operations. While all our selected missions are multi-dimensional in orientation, they do vary regarding their deployment environment and mandates. More recent operations tend to be deployed in countries without a reliable peace agreement. Deployments in countries like CAR, DRC, Mali, Somalia, Sudan and South Sudan have taken place without having a functioning peace agreement in place. These missions thus do not keep the peace but aim at reducing violence by also pro-actively engaging peace spoilers such as rebel groups, insurgents, terrorists etc. if deemed necessary. In
In this context, the term stabilisation mission appeared (De Coning, et al. 4-5).

The term is not codified by the UN in its official peacekeeping doctrines and is still evolving but has found resonance in the literature (Tull 2018, Karlsrud 2015). In this context, mission mandates speak about “neutralising” armed groups, or “direct operations against asymmetric threats” (Tull 2018: 168). The use of force is seen as a tactical instrument to enforce peace, if necessary. But the use of force is not a standalone or the only instrument used. In this regard, stabilisation missions have left the traditional focus of peacekeeping, which is based on impartiality, consent and non-coercive means but they are still embedded in traditional means of keeping the peace.

In practice the use of force varies significantly between missions. While in Somalia, it effectively takes the form of counter-insurgency; in other cases such as South Sudan the Security Council concentrates more narrowly on human protection by mandating the mission “To deter violence against civilians … especially through proactive deployment, active patrolling…” (UNSC res. 2252, para 8 a (ii), 15 Dec. 2015). Still all these countries experience a continuation of violent conflict while peacekeepers are on the ground.

Older missions such as those in Burundi, Ivory Coast, Liberia and Sierra Leone have been deployed in much more favourable conditions with more possibility for in which there was a peace to keep. Here peacekeepers have been sent to countries with a negotiated peace agreement often after major conflict started to cease. In this context, we are interested in exploring how these two groups of countries and missions perform in key security indicators. Figures 10 and 12 compare stabilisation and more traditional peacekeeping missions. We concentrate on four indicators the number of conflict events, domestic unrest, battle death and refugees. The graphs show the relative change in indicators and do not represent total numbers.

In the case of stabilisation missions, including Somalia, the overall picture is rather negative. Within five years of deployment, practically no indicator shows a clearly positive trend. The number of refugees almost doubled, the number of domestic unrest and number of conflict events increased significantly. The number of battle deaths, though showing some significant decline, remains above the redeployment level. The effect of Somalia on this situation (Figure 11) is somehow moderate. Although without Somalia changes in indicators are slowing

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**Figure 10:** Stabilisation missions with Somalia.
down, they do not reverse the overall negative trend. A different situation can be observed in the case of traditional peacekeeping missions (Figure 12). Here all four indicators display a positive trend after deployment. The number of conflict events, battle deaths, cases of domestic unrest number of refugees all decline significantly and show a sustainable positive trend. On average, within a period of just five years, progress is visible and countries responded positively to the deployment of peacekeeping missions. A key variable explaining variation between countries is indeed the type of peacekeeping mission. Stabilisation missions perform considerable poorer than traditional missions.

Clearly, there is significant variation between indicators and mission hosting countries. Strikingly, there is a divergence between a relative decline in the number of battle deaths and unchanged or rising scores of violence against civilians and domestic unrest. How can this divergence be explained? We presume that there is a relationship between the quality of security governance within countries and the cases of domestic unrest and violence against civilians. As Zartman (1996) and others (Lyons 2012) postulate that standards for good

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**Figure 11:** Stabilization missions without Somalia.
Source: own calculation based on ACLED: https://www.acleddata.com/data/.

**Figure 12:** Peace to keep missions.
governance can be seen as tools for conflict management. Accountability, or the dominance of a rule-based order, are assumed to prevent or mediate conflict in society by undercutting, for example, predatory and exploitative forms of government that fuel conflict. Figure 13 explores this relationship. The quality of security governance is the combined five year average of our three governance indicators: accountability, the rule of law and political stability since deployment of a mission. These scores are set in relation to the average annual number of domestic unrest and acts of violence against civilians.

What can be seen in Figure 13 is that higher scores in the quality of security governance are indeed on average positively related to lower numbers of domestic unrest and violence against civilians. There is no case in which a high score on security governance displays a high number of non-lethal forms of violence. Countries with a governance score of around 20% or more, on average, display less than 200 cases of domestic unrest or violence against civilians per annum. However, smaller deviations occur. For the fairly high governance score of Mali, the number of domestic unrest and violence is relatively high. In the case of the DRC, the number of domestic unrest is relatively high, but compared with its population size of 77 million people, it is significantly larger than other countries in the graph. The Ivory Coast displays a rather low number of violent incidents. In sum, in order to address the issue of local violence and public protest, the quality of governance needs to be strengthened. However, this is one area in which peacekeeping only leaves a rather light imprint (see Figures 7 and 9).

The role of ODA and natural rents

There is no doubt many conditions influence the course of conflicts into which peacekeeping missions are deployed. While we cannot explore an exhaustive list of auxiliary conditions, in order to evaluate the relative relevance of mission deployments, in this section we assess the comparative significance of two external conditions, namely: official development assistance (ODA) and natural rents.

The role of ODA

First, we are exploring to what extent ODA is linked to levels of violence. Given the seemingly minimal influence of deployments on governance indicators, we also explore the extent to which ODA can make a difference. We are using World Bank data and a five year

average since mission deployment. ODA is measured in percentage of the growth national income (GNI). We assume that higher levels in ODA have a stabilising effect on domestic forms of violence through having a positive effect on security governance. This assumption is based on the literature emerging around the security-development nexus (Fukuda et al. 2008, Jackson 2015). Accordingly, development deprivation is an important contributing factor to violent conflict. Higher degrees of ODA can, thus, be assumed to have a mediating effect on conflict.

As can be seen in the Figure 14, degrees of ODA are moderately related with degrees of violence. The correlation is stronger in the category of conflict events, which measures a more comprehensive variety of violence than in the specific category of violence against civilians. Thus, higher levels of ODA are moderately positively related with a lower overall degree of violence, and are rather minimally related with degrees of violence against civilians. Of course, some caution needs to be applied when making statements on the causal relationship between ODA and violence. While the cases of Liberia, Burundi and Sierra Leone display the highest degree of ODA and the lowest degree of violence, we can assume that lower levels of violence enable international aid and thus stabilise these countries further.

In the cases of major warfare, conditions for extending ODA are limited by the insecure environment, which might explain the relatively lower levels of ODA in Sudan, South Sudan, DRC Mali or CAR. On average stabilisation missions display lower degrees of ODA than traditional peacekeeping operations. The later, thus, do not only profit from generally lower degrees of violence, but also higher degrees of ODA, which is likely to have a multiplying effect.

Given the relative meagre influence mission deployments have on our governance indicators, we are interested if ODA as a civilian form of assistance would be better placed to leave a positive imprint. Therefore, we compare levels of ODA with changes in our governance indicators (Figure 15). Indeed, we can observe, on average, a positive

**Figure 14:** ODA and levels of violence.
influence of ODA on the quality of governance. However, the spread between countries is significant. Low levels of ODA do not necessarily lead to low levels of governance, as can be seen in the case of Ivory Coast and Mali. Still ODA can be seen as a positive contributing factor on governance. This finding is of significance considering the low impact of mission deployments in this sector but its relevance for bringing down levels of violence (see Figure 13).

**The role of natural rents**

It has often been stated that violent conflict in Africa is fuelled by resource abundance (Colliers and Höfler 2005). As the presence of peacekeepers does not cause violence, but the number of conflict events remains high even with the deployment of a mission, we are exploring if higher levels of violence are associated with resource rents. We are using World Bank data which is providing measures for income from natural rents in percentage of GDP. This includes rents from oil, gas coal, minerals, and forests. As in the previous sections, we are using a five year average since mission deployment for our conflict indicators and natural rents.

**Figure 15** explores a potential relationship between resource income and persistent violence in peacekeeping hosting countries. The picture that emerges is diverse. If we look at all cases no clear trend emerges. The two countries (Liberia and Burundi), which have the greatest income from natural resources do not display a high number of conflict events or violence against civilians (**Figure 16**). However, some resource-rich countries such as South Sudan, Sudan, DRC and Mali are among those countries which experience the highest degree of violence. If we exclude Burundi and Liberia from the scatter plot, the trend line would clearly show a strong upward direction, indicating a strong relationship between natural rents and conflict. The composition of rents is different among countries. Those which display significant conflict mostly receive their rents from oil, gas or minerals, while in the case of Burundi and Liberia forest rents are dominant.

For our analysis of peacekeeping missions this means that countries with little resource rents, or resource rents predominately from forest rents, have greater chances to profit
from peacekeeping deployments. Resource rich countries that base large parts of their income from oil, gas and minerals are significantly more likely to suffer from violent conflict, even with the deployment of peacekeepers. Therefore, there seems to be a direct influence of natural rent income and violence in mission hosting countries.

**Concluding observations**

The main aim of this study was to explore if peacekeeping missions are reducing levels of violence in host-countries. The main rationale was placed on complementing existing studies on peacekeeping effectiveness, which mostly measure success in terms of negative peace (i.e. the end of war) but fall short of testing a variety of other lethal and non-lethal forms of violence. We have explored a number of descriptive indicator-oriented statistics in the first part of the article. In the second part, we applied a more analytical approach wanting to explain variation between cases and exploring what influences degrees of violence using peacekeeping internal and external conditions, such as the mission type, security governance, ODA or natural rents. This brought about a number of interesting observations.

First, when measuring security comprehensively, the legacy of peacekeeping missions is somehow less impressive than the existing quantitative literature implies. The number of violent deaths still increases in the initial years of deployment. Other forms of violence, measured in terms of in the number of conflict events, domestic unrest and violence against civilians, remain unchanged. So too does the number of refugees, as well as, governance indicators in the area of the rule of law and accountability. These are rather sobering findings. Peacekeeping missions struggle to deliver in their core field of competence on the promise of pacifying conflicts and creating conditions for a peaceful post-conflict environment.

Second, peacekeeping does not bring about unitary effects. Reactions are diverse and levels of violence do both increase and decline. There are some countries that respond significantly better to international deployments than others. Deploying into continuing armed conflict as it is the case in Somalia, Sudan, South Sudan or the DRC.

**Figure 16:** Natural Rents and Violence.

Source: Own calculation based on World Bank and ACLED datasets. No data was available for Somalia: [https://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS](https://data.worldbank.org/indicator/NY.GDP.TOTL.RT.ZS), [https://www.acleddata.com/data/].
and to some extent also in CAR and Mali, thwart the chances of establishing comprehensive peace in the mid-term. Indeed, during the deployment of stabilisation missions the number of battle deaths, domestic unrest and refugees is increasing, while scores for personal safety are decreasing. In the long-run, such a situation is unsustainable.

However, there are also positive cases. If there is a working peace agreement, the chances of a positive impact are significantly higher. Burundi, Liberia, Ivory Coast and Sierra Leone have responded fairly well to international peacekeeping by displaying mostly stable positive trends in our key security indicators. The impact of peacekeeping depends to a fair degree on the end or at least control of violent conflict prior to deployment. Creating peace in a violent environment is a more challenging task than accompanying a country in which violent conflict has come to an end. As such this is no new finding, but it becomes an ever more pressing concern considering the record number of deployed peacekeepers, and the growing trend of deploying stabilisation missions into intractable conflicts. If these missions continue to produce a high number of casualties and are unable to address domestic unrest, they are likely to lose support from troop contributing countries and the local population, curbing their chances of success significantly. Indeed, the new leadership that has taking office in 2017 at the UN, AU and US have taken a somewhat critical position towards the latest generation of stabilisation missions as well as key troop contributing countries such as India. Starting a debate on the affects of missions on the ground is essential for strengthening their positive impacts and to avoid a drastic, and potentially dangerous, scaling down of peacekeeping operations.

Third, what brings down non-lethal forms of violence might be less related to the deployment of a peacekeeping mission and more about the quality of security governance in a country. We could show that higher scores in the quality of security governance are positively related to lower numbers of domestic unrest. If peacekeepers aim at reducing violence, a stronger focus on governance issues is needed.

Fourth, while governance scores remain fairly unchanged during mission deployments, we could show that higher degrees of ODA have a moderately positive influence on governance scores and the number of conflict events. This highlights the importance of the integrated and comprehensive approach the UN endorses combining military security instruments, such as peacekeeping with developmental assistance. Curbing violent conflict is not only a question of peacekeepers deployed, but also wider context conditions among which ODA plays a role.

Fifth, if the underlying causes for conflict remain prominent, it is difficult for peacekeeping missions to reduce violence significantly. Countries with a large income from natural sources such as oil, gas, and minerals display a high level of violence. The deployment of peacekeepers is not changing this situation immediately. Our final conclusion is that mission deployments into continued warfare seem not to be able to reduce violence within five years of deployment.

Notes
1 Technically Kosovo would also fall within the selection criteria. We have excluded it only because our main data-sets ACLED and the IIAG do not collect data on Kosovo.
2 For a definition of conflict event we would like to refer the reader to the ACLED code book which can be accessed at: http://www.acleddata.com/wp-content/uploads/2015/01/ACLED_Codebook_2015.pdf.

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