

The politics of survival or business as usual?

Exploring the effects of armed conflict on corruption

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Abstract

Countries emerging from violent conflict must overcome several challenges to achieve long-lasting peace. The literature paints a bleak picture indicating that only few post-conflict countries improve in terms of good governance and the rule of law. Instead, they might experience even more corruption, because state structures are not fully developed while informal networks have flourished during the civil war. Yet, we know surprisingly little about what happens to corruption during conflict. In this study, we examine whether levels of corruption in post-conflict countries are systematically different from pre-war levels. Using data from the V-Dem project, we find that corruption is relatively stable over time. However, longer and more intense conflicts are associated with higher levels of corruption.

Keywords: civil war; corruption; good governance; post-conflict peace; rule of law.

Introduction

War is assumed to foster corrupt behaviour, because it leads political and administrative actors to prioritise private gains over the public good. This type of behaviour will subsequently carry into the post-conflict period, a proposition that is supported by case study evidence. The decades-long war between the Sri Lankan government and the Tamil rebels, for instance, led to wide-spread extortion at road blocks: ‘During and just after the war, intricate pass systems were in place, demanding citizens to obtain passes to visit, leave or stay in certain areas’ (Lindberg and Orjuela 2011: 222). Such petty corruption can be observed in many conflict-affected countries and particularly impairs vulnerable economic or ethnic groups. It often goes hand in hand with large-scale corrupt practices among political elites. Military spending during periods of insecurity is a prime opportunity for graft, particularly when it is not subject to civilian oversight (Cover and Mustafa 2014). In newly independent South Sudan, for instance, the defence budget rose to 35 percent of GDP through a combination of corrupt arms deals, a vast network of patronage, and salaries for ‘ghost soldiers’ that were diverted to higher-ups (de Waal 2014; Pinaud 2016).

In addition, violent conflict intensifies the transactional character of politics. When their survival depends on it, political leaders use bribes to buy loyalty. In the Angolan civil war, the governing party rewarded loyalists by giving them favourable treatment during a privatisation campaign. Between 1988 and 1994, army officers and other officials acquired farms and small businesses, while valuable real estate in the capital was transferred to loyalists for nominal payments (Hodges 2001: 118–21). Notorious for its corruption, the regime in South Vietnam enlisted support of local commanders by according them franchise to local agricultural production, e.g. rice, cinnamon or opium, but also access to real estate (Karnow 1983: 456–58). Bribes might even be offered to the enemy: in Cambodia during the 1990s, some Khmer Rouge leaders switched sides after the central government offered them a lucrative deal (Biddulph 2014: 877). Bribery can become even more virulent when deep-pocketed external actors are involved, such as with the US

government paying Afghan warlords to secure their support (Chayes 2015; SIGAR 2016). Corruption thus becomes part of the war economy in multiple ways.

The link between corruption and conflict has become a salient political problem high on the agenda of international organisations and donors. If violence is more likely to erupt in corrupt and poorly governed societies (Neudorfer and Theuerkauf 2014; Hegre and Nygard 2015), it makes sense to prioritise good governance and the rule of law to curtail corrupt behaviour. In post-conflict situations, corruption should also be addressed – not least to avoid a vicious cycle of conflict recurrence. However, it might be much more important to tackle the problem early on and not to let it rise during conflict. The literature on corruption in post-conflict situations paints a bleak picture. Haggard and Tiede (2014: 413) find that ‘very few countries showed significant improvement in the rule of law in the post-conflict period’. Instead, post-conflict societies might experience even more corruption. For one, state structures are not fully developed and informal networks from the civil war prevail. Moreover, uncertainty associated with a transition to peace and potential changes in government might trigger self-serving behaviour by incumbent elites.

Similar dynamics are discussed in the literature on democratisation. Higher levels of democracy are associated with lower levels of corruption (Treisman 2007; Pellegata 2013; Kolstad and Wiig 2016). However, corruption is likely to increase during periods of democratisation (Moran 2001). Instances of this dynamic have appeared in the post-Soviet countries (Karklins 2002; Levin and Satarov 2000). After several years of democracy, corruption is then likely to decrease again as the uncertainty of the transition period subsides (Rock 2009). In addition to consolidation (or maturity) being important, other research points to income as conditioning the positive effects of democracy (Jetter et al. 2015). It thus seems that periods of uncertainty – such as conflict and regime transition – are crucial for understanding change in levels of corruption.

Considering the political relevance of this relationship, we know surprisingly little about how corruption levels evolve during periods of conflict. The rationalist-opportunist perspective on corruption suggests that corrupt practices should surge in line with violent conflict. Elites face

fewer constraints on their incentives for rent-seeking during a state of emergency, and the logic of survival trumps the notion of public goods provision. At the same time, agents such as bureaucrats or military officials feel less constrained by their principals, enabling them to pursue corrupt practices of their own (Le Billon 2008). This view is complemented by theories that emphasise the lack of social trust as driver of corruption. When a civil conflict is driven by ethnic motivations or territorial disputes, societal groups are likely to use corrupt practices at the expense of their enemies (Neudorfer and Theuerkauf 2014). In contrast to these views predicting more corruption during conflict, another school of thought focuses on the long-term stability of corruption as a social practice. Accordingly, corruption and its counterpart good governance are highly path-dependent, and we would not expect to see much change before and after an armed conflict (Haggard and Tiede 2014).

We put these theoretical expectations to the empirical test. To this end, we first assess whether levels of corruption change significantly during armed conflict. Only long-term or high-intensity conflicts should provide enough stimuli to worsen the established patterns of corruption. Because the measurements of corruption provided by the World Bank and Transparency International are ill-suited for comparisons over time, we use expert assessments of corruption recently published by the V-Dem Institute for a wide range of countries (Coppedge et al. 2016). Drawing on several explanatory variables to investigate the influence of different conflict characteristics, we find that corruption is relatively stable but tends to increase during conflicts. This effect is more pronounced for longer and more intense conflicts. In contrast to some arguments in the literature, however, we do not find territorial or ethnic conflicts to be more conducive to corruption than others. Only conflicts about access to central government are related to more corrupt practices.

The next section briefly discusses the nexus between conflict and corruption. We then present our hypothesis regarding post-conflict levels of corruption as compared to the status before the conflict. Following a section on data and research design, we summarise and discuss the findings from our statistical analyses. The article concludes with implications for future research.

Corruption and conflict

A growing body of research investigates the conditions under which corrupt practices enable or directly lead to the eruption of violent conflict (Le Billon 2003, 2014; Chayes 2015; Working Group on Corruption and Security 2014; Transparency International UK 2017). This ties in with the literature on motivations versus opportunities as drivers of intrastate war, although it might be difficult to disentangle corrupt practices from other facets of poor governance and economic inequality (Fearon 2013).

Previous research has shown that the risk of civil war is higher in states with weak state structures (Fjelde and de Soysa 2009; Thies 2010; Risse and Stollenwerk 2018).¹ This correlation between institutional quality and peace exists not just at the state but also at the local level (Wig and Tollefsen 2016). State capacity is often understood in terms of coercive means that can deter rebellions (Fearon and Laitin 2003). Yet, it also refers to the government's capacity to meet its citizens' demands, to extract tax and non-tax revenue, to provide public and private goods, and to address underlying grievances (Sobek 2010). This complex and multidimensional concept thus captures administrative capacity as well as the quality of institutions (Hendrix 2010) – and is closely related to corruption. After all, corrupt bureaucrats subvert the goal of impartial, fair, and transparent government institutions. This is particularly prevalent in the context of significant natural resources, which by themselves are considered a risk-factor for conflict incidence. Vast natural resources create an incentive to fight about control of the government and/or territory to reap the associated rents. Rentier governments in turn reproduce weak state institutions and have little incentive to provide public goods, creating a vicious cycle (Fearon and Laitin 2003; Fearon 2005; Lujala et al. 2005).

Some authors, however, note that patronage might provide a way to pay off challengers and buy peace (Fjelde 2009; Paine 2016). Citizens might be willing to tolerate corruption when there is an urgent crisis such as an external military threat (Miller 2018). Yet, other research findings point to the limitation of such effects. Considering the psychological micro-foundations of conflict,

corruption appears to be particularly suited to spark outrage and violent reactions (cf. Blattman and Miguel 2010: 18). Arguably, corruption is most relevant for ethnic conflict: Because networks of corruption tend to be organised along ethnic lines, groups that are excluded from economic participation are likely to take up arms (Neudorfer and Theuerkauf 2014). Indeed, Neudorfer and Theuerkauf find a robust effect of corruption on the incidence of civil wars also when controlling for regime type, population or indicators related to natural resources. Corruption seems particularly destabilising when societies have a significant ‘youth bulge’ (Farzanegan and Witthuhn 2017). Such findings suggest that even if corruption can buy peace in individual cases, overall it is more likely to undermine it.

Weak state capacity and corruption are not only relevant for the outbreak of armed conflict but also for its duration. Weak states find it difficult to commit to negotiated solutions to end a conflict, making the successful implementation of peace agreements less likely (DeRouen et al. 2010). Furthermore, scholars argue that poor governance leads to the renewed outbreak of armed conflicts (Walter 2014; Hegre and Sambanis 2006; Hegre and Nygard 2015). For countries that emerge from civil war, distributing political power and economic resources among the conflict parties is crucial to achieve lasting peace (Hartzell and Hoddie 2003). If competing forces try to consolidate local power bases, this is likely to lead to a system of entrenched corruption and clientelism. Even in the absence of natural resources, public offices are linked to revenue streams such as income from taxes and tariffs or the power to appoint loyalists to public positions. Based on case studies on Bosnia-Herzegovina, Cambodia, DR Congo, Kosovo, Liberia, Nigeria, Sri Lanka and Uganda, Lindberg and Orjuela (2014: 728) conclude that ‘in post-conflict situations we often see an intensification and entrenchment of the corruption-related problems’.

External actors interested in peacebuilding must find a balance between reducing grievances and fostering inclusive institutions on the one hand and compromises in terms of power-sharing and the pacification of potential spoilers on the other (Philp 2008). The international community might choose to tolerate corruption instead of pursuing a strict good-governance agenda, because ‘turning

a blind eye to various types of corruption is sometimes seen as necessary to sustain a fragile peace' (Lindberg and Orjuela 2014: 724). Even if such behaviour is at odds with official statements about the formal transition agenda, pragmatic compromises often prevail (Le Billon 2014: 776). Corruption might serve as a tool to buy off potential spoilers of peace 'based on the tacit understanding that officeholders will be permitted to exploit fully the economic opportunities provided by government positions' (Cheng and Zaum 2008: 303). However, no consensus finding emerges from reviewing the empirical literature. Haaß and Ottmann (2017) demonstrate that countries with active power-sharing agreements are, on average, more corrupt than others. In contrast, Remmert (2019) shows that the net effect of peace missions on corruption levels can be positive or negative, depending on each mission's 'intrusiveness' in domestic politics. Le Billon (2008) finds no conclusive pattern in 22 post-conflict societies with major peacekeeping efforts. As he acknowledges, however, these results might be influenced by his choice of indicators.²

Corruption is widely discussed as a driver of war and as a factor in post-conflict scenarios. Our project, however, is motivated by a different question: does corruption increase or decrease during armed conflict? It is not clear how civil wars affect institutions such as property rights and social cohesion: 'The social and institutional legacies of conflict are arguably the most important but least understood of all war impacts' (Blattman and Miguel 2010: 42). A more recent review article reaches the same conclusion (Cederman and Vogt 2017: 14). Not least because corruption has been identified as a major factor for the recurrence of violence, this gap in the research literature needs to be addressed.

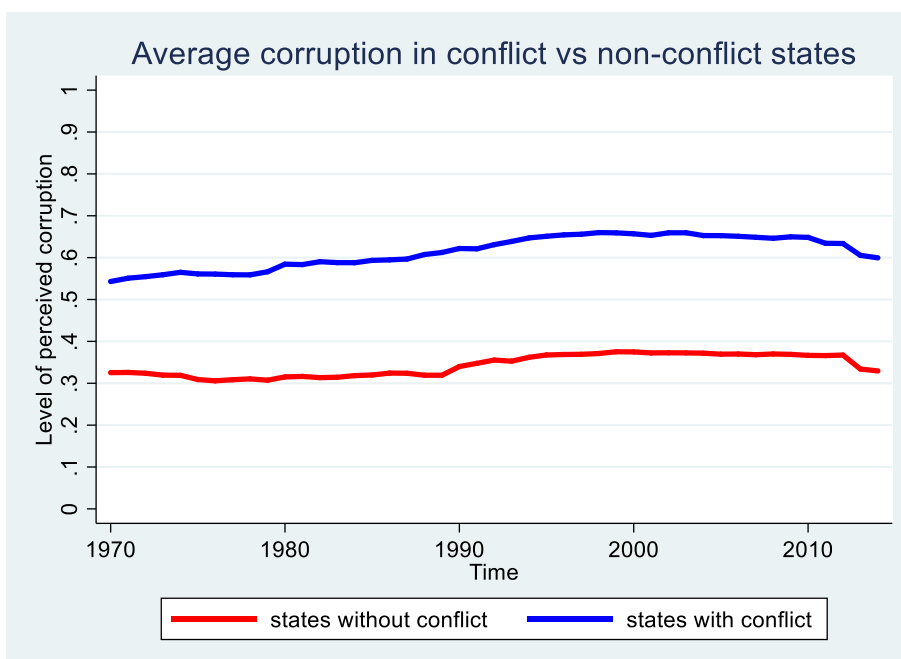
Theoretical argument

Corrupt behaviour flourishes whenever opportunities outweigh constraints. This opportunistic view of corruption can be expressed in a simple formula: 'Corruption equals monopoly *plus* discretion *minus* accountability' (Klitgaard 1998: 4, emphasis in the original; cf. Klitgaard 1988). Opportunistic political leaders can thus be expected to engage in rent-seeking whenever possible.

Corrupt behaviour by elites is often termed ‘grand’ corruption based on the scale of funds and the influence of actors involved. Nepotism, embezzlement, and large-scale bribery belong in this category. Opportunistic lower-level officials, in turn, are often seen as agents that indulge in corrupt behaviour whenever their principals fail to monitor them. This is typically labelled as ‘petty’ corruption and involves routine payments to facilitate or speed up administrative services (Nystrand 2014: 824). Sceptics argue that the principal-agent assumption does not hold when there are no plausible principals to constrain public officials in the first place (Mungiu-Pippidi 2015: 208–10); nonetheless, the differentiation between grand and petty corruption is widely shared (e.g. Transparency International 2018).

Times of war offer increased opportunities for grand and petty corruption and simultaneously reduce the constraints on powerful actors. **Figure 1** underlines that overall corruption is, on average, significantly higher in countries that were involved in armed conflict compared to peaceful societies. The figure also reveals a rather slow increase of average corruption in both groups, with relatively little fluctuation.³ This is in line with the literature that stresses that corruption is rather stable over time.

Figure 1: Average corruption in countries with and without violent conflict



Previous research emphasises the temporal stability and path-dependent persistence of corruption focusing on long-term trends, with the overall level of development and ‘modernisation’ largely explaining levels of corruption (Mungiu-Pippidi 2015: chapter 4). Emphasising long-term historical processes, corruption is seen as a collective-action dilemma that needs to be tackled through sweeping societal reform. According to a typology developed by Johnston, corruption in countries in the developing world with a high risk of conflict is mostly of the ‘official moguls’ type. Here, the boundaries between public and private are blurry. There are no strong institutions to constrain individual leaders, and power is personalised rather than emerging from the state. Consequently, the countries affected by this type of corruption ‘have seen ambitious elites exploit economic opportunities while most citizens remain poor’ and are characterised by ‘relatively intrusive but ineffective states’ (Johnston 2005: 158). In such settings, petty administrative corruption spreads; but more importantly, elites can enrich themselves with impunity. In other words, corruption has long-term roots and government elites in countries at risk of civil war did not face significant constraints to begin with.

In their study of post-conflict rule of law, Haggard and Tiede (2014) indeed find a great deal of path dependence. Controlling for pre-conflict levels of rule of law indicators, such as the protection of political and civil liberties, executive constraints and the protection of property rights, leaves little room for conflict intensity to contribute to the explanatory power of their model. Neither conflict intensity, in terms of total battle-related casualties, nor conflict duration have a significant effect on post-conflict rule of law. Based on this argument, one would not expect levels of corruption to change much during war times compared to pre-conflict levels.

However, opportunities for corruption can arise particularly in settings of armed conflict. First, episodes of violence have the potential to create new discretionary powers and to diminish accountability. In times of war, acquiring control over resources becomes the paramount objective, and ‘the “politics of survival” take over any semblance of “public ethics”’ (Le Billon 2008: 346). The most obvious tool in governments’ arsenals is to declare a state of emergency or martial law.

During such times civil rights and liberties are partly suspended, opening space for abuse, such as the use of torture and detention without trial. Under martial law, the executive is provided with far-reaching and extraordinary rights. Political leadership is much less accountable to other civilian government institutions, such as parliament, and the military takes over civilian tasks. In such scenarios, checks on elite power, such as judicial oversight, are diminished (Haggard and Tiede 2014: 406). In line with the rent-seeking model, conflicts change the balance between opportunities and constraints on elites, which may lead to more corrupt behaviour by these actors, as they now predict they can loot with impunity.

In parallel to declining accountability, governments that are engaged in a protracted armed conflict against one or more rebel groups are confronted with an increased demand for financial and military resources. A larger share of the budget will have to go to the military, thus reducing the share that can be spent on the provision of public goods other than security. This contributes to corruption because military spending is inherently prone to corrupt practices. The literature points to several explanatory factors, including secrecy around contract negotiations, the high value of typical arms deals, and the phenomenon of military actors having business interests of their own in many countries (Gupta et al. 2001; Feinstein et al. 2011).

Yet, corruption is not merely an unintended by-product of increased defence spending in times of war. If the outcome of a conflict seems uncertain because of the military balance of power or protracted fighting, political leaders might fear for their political survival. In such situations, they will be willing to provide significant private goods to gain favour with the important domestic actors. Far from being an accidental side effect of new weapons purchases, favouritism and other corrupt practices then serve to secure the loyalty of those actors deemed necessary for political survival (Bueno de Mesquita et al. 2003). Military spending can be used to channel such flows, for instance by inflating the number of salaried personnel to let commanders pocket the funds or by providing other economic benefits to loyalists (Hodges 2001: 118–21; de Waal 2014; Pinaud 2016).

In addition to shifting the incentives for political elites, civil wars can lead to an overall decline in government functions and state authority, creating new principal-agent problems (Lindberg and Orjuela 2011: 214). In societies dealing with the economic consequences of war, shortages in goods often lead to flourishing informal markets. In addition, the unclear situation of territorial control and general insecurity during times of war will allow rebel forces and government troops to demand bribes and protection money. Restrictions such as road blocks with their associated fees and informal tariffs can severely disrupt trade and distort commerce in war-affected countries. Rent-seeking is thus likely to become more attractive compared to regular competition. At the same time, conflicts facilitate the illicit trade in drugs and arms, and more generally increase the crime rate (Collier 2000; Keen 2000). A general climate of anarchy can spread to state officials: In Peru, the government had to tacitly agree to the local drug production to avoid depriving farmers of their only source of income; it was then confronted with the problem that its own soldiers became involved in drug trafficking and corruption to augment their small pay (Weinstein 2007). Similarly, organised crime profited from the protracted conflict in Guatemala (Rose-Ackerman 2008: 419). As conflicts undermine public administration, they foster both grand and petty corruption. In this scenario, the rule of law ‘may break down not because of the abuse of executive power, but as a result of anarchy’ (Haggard and Tiede 2014: 406).

Yet, not all conflicts necessarily lead to a significant failure of government structures. Full-scale civil war imposes immense economic costs as infrastructure is increasingly destroyed and resources used for fighting are no longer available to productive sectors (Collier et al. 2003; Blattman and Miguel 2010). People in war-affected societies with high levels of uncertainty will focus on a shorter time horizon and pursue immediate gains rather than attribute importance to their reputation for future business deals (Collier 2000). Minor armed conflicts, in contrast, might not interrupt daily political and economic affairs all that much. Conflicts fought at the periphery have less potential to impinge on large parts of the public sector compared to rebellions that challenge central government authority. While violence might be concentrated in one part of the country,

regular life or business as usual goes on in the rest. Relatively weak rebel groups will not have the resources to capture the state and thus concentrate on secessionist aims. Relatively strong and capable governments, in turn, will be able to deter challengers, pushing conflicts to the periphery (Buhaug 2006).

In sum, we expect only conflicts fought with high intensity and for multiple years to leave significant marks and lead to an increase in corruption. This applies to both grand and petty corruption. Networks of corruption evolve over time and become more entrenched as conflicts drag on and provide elites with more discretion. In other words, we expect to see a self-reinforcing logic of large-scale corruption. Low-level officials, meanwhile, will be increasingly tempted or feel forced to augment their income through petty corruption as their salaries and costs of living are affected by persistent conflicts. Instead of a uniform effect, we thus expect the duration and intensity of conflict to matter for corruption.

Hypothesis: Corruption increases during large-scale and protracted internal armed conflict.

Data and research design

In our cross-section analyses of post-conflict countries, we incorporate data on 71 countries that experienced one or more conflicts between the years 1970 and 2014. Relying on the UCDP Armed Conflict Data Version 4-2016 (Gleditsch et al. 2002; Melander et al. 2016), our sample comprises cases in which the conflict has ended, thus not covering conflicts that were still ongoing in 2015. We include all internal and internationalised internal armed conflicts with more than 25 battle-related deaths regardless of intensity level. Our models in the cross-section analyses are estimated with OLS regressions and robust standard errors clustered by country.

Our dependent variable is the level of corruption in a post-conflict society. Given the nature of the phenomenon, corruption is notoriously difficult to measure, let alone in a manner that allows for comparisons across states and across time (Treisman 2007: 215–21; Heywood and Rose 2014;

Rohwer 2009). Broadly speaking, the well-known corruption measures rely on perceptions based on expert assessments and survey data. Surveys are typically addressed to firms or households; experts can be either country-specific or rating multiple states at once; such ratings are presumably biased towards Western, business-related impressions (Knack 2007: 257; Treisman 2007: 215). One of the best-known indicators is the Corruption Perceptions Index (CPI) created by Transparency International and published since 1995. A second measure is provided by the World Bank as part of its World Governance Indicators dataset. However, neither the CPI nor the World Bank's Control of Corruption (CC) is designed to allow for longitudinal comparisons. In both cases, the aggregated scores are meant to compare countries at the respective point in time. The World Bank calibrates the scores so that the CC measure has a mean of 0 and a standard deviation of 1 *in each year* (Knack 2007: 264). Scores in the CPI equally reflect the relative position in the rank-order but have not been designed to express developments over time.⁴

Due to the shortcomings of the well-known CPI and CC indicators, we rely on a dataset provided by the Varieties of Democracy (V-Dem) project (Coppedge et al. 2016; McMann et al. 2016). Each country-year in the dataset is scored by at least five experts, of which at least three come from or reside in the country under review. According to V-Dem, more than 2000 experts were involved, following consistent recruitment and coding procedures. Scores are then constructed by means of an item response theory measurement model to make up for individual differences in scaling. Additionally, V-Dem employs specific types of cross-country and 'lateral coders' to improve calibration (McMann et al. 2016: 14). In contrast to CPI and CC, the V-Dem data is explicitly designed to allow for time-series cross-sectional analysis (McMann et al. 2016: 16). We use the overall V-Dem corruption measure *v2x_corr*, which aggregates sub-indicators pertaining to bribery and embezzlement in the public sector, the executive, the legislature and the judiciary. The indicator is scaled from 0 to 1, with higher values signifying higher (worse) levels of corruption. We compare pre- and post-conflict levels in the cross-section analysis.

As an alternative measure, we use the corruption estimate published by the PRS Group, a commercial provider of business-related risk data. Our source is the 2016 Researcher's Dataset of the International Country Risk Guide (ICRG), which provides corruption scores for 146 entities from 1984 to 2015. Due to its target audience, the ICRG measure focuses on political corruption that might be harmful to businesses both in the short and in the long run (PRS Group 2014: 4). While it seems to be geared towards comparisons, the publishers of the dataset do not explain in detail how ratings are constructed. This has led to criticism regarding the ICRG's methodological transparency and consistency (Treisman 2007: 220; Knack 2007: 269). Nonetheless, we consider the ICRG as alternative dependent variable for robustness checks, as the indicator seems more suitable for a comparison across time than CPI and CC.

We test several conflict-related explanatory variables drawn from the UCDP armed conflict dataset (Melander et al. 2016). We do not expect that minor armed conflict will significantly change corruption. Thus, the first variable indicates whether a country experienced a civil war of high intensity with more than 1000 casualties per year. Furthermore, many conflicts in our sample are of a short duration, and for such cases we do not expect much change in levels of corruption. Therefore, we include a variable for the number of years a conflict lasted to account for conflict duration. In some cases, conflicts drop below the level of 25 casualties and would then cease to be coded as conflict. However, we treat a conflict as ongoing if there was an active conflict in the preceding and the following year. We also created dummy variables for various conflict characteristics. The first variables track whether the conflict was fought over control of the central government or of a specific part of the territory (Buhaug 2006). If parties to the conflict rely on ethnic allegiance for recruitment and as their claimed goals, the conflict is coded as ethnic (Vogt et al. 2014; Wucherpfennig et al. 2012). Another variable keeps track of internal armed conflicts that are internationalised, allowing us to test whether the involvement of third parties to the conflict is related to higher corruption. We also take the complexity of conflicts into consideration by accounting for the number of rebel groups that are active in a conflict (Cunningham 2006).

We try to keep our model specification as simple as possible and only include the most important factors. In addition to the main explanatory variables, we incorporate pre-conflict corruption levels as independent variable, thus accounting for several influences on corruption more generally. We expect corruption levels to be rather persistent, similar to other measures of rule of law (Haggard and Tiede 2014). While this variable presumably absorbs a large share of explanatory power, we include additional controls that we expect to be related to corruption as well as conflict, so that omitting them might bias our results. Research on corruption identified the overall level of economic development as a robust variable (Treisman 2007). Countries with high levels of development are equipped with more efficient bureaucracies but are also less prone to experience armed conflict or its recurrence (Hegre and Sambanis 2006; Walter 2004). The level of development is measured as the logarithmic transformation of real GDP per capita in constant 2011 international dollars with data from the World Development Indicators (World Bank 2016). In addition, we control for income from natural resources, again with data from the World Development Indicators. Total natural resource rents are the sum of rents from oil, natural gas, coal (hard and soft), minerals, and forest. The prevalence of natural resources has been linked to corruption as well as to civil war (e.g. Ross 2004).

The effects of conflict intensity and duration on levels of corruption

In the first set of tests, we analyse a cross-section of 113 conflicts in 71 countries. As expected, we find that levels of corruption are rather persistent. The mean value of corruption in our sample is only slightly higher after a conflict than before a conflict (0.6358 vs. 0.6070). The pre-conflict corruption levels are a good predictor of post-conflict corruption with an R^2 of .60 in a bivariate analysis. Our baseline specification also includes logged GDP per capita, which is negatively related to post-conflict corruption, and total natural resource rents, which are related to more corruption. Both control variables are highly significant throughout our models.

In the first column of **Table 1**, we added a dummy variable for whether the conflict is of high intensity in terms of more than 1,000 casualties in any of the conflict years. We suppose that not all conflicts have an equally disruptive effect on political and economic life in a country. The larger effect on corruption can be expected for conflicts with higher intensity, which reach further into society than low-scale armed conflicts. As expected, the dummy variable for high-intensity civil wars is positively related to post-conflict corruption levels with a significance level of $p < .13$. Keeping the other variables fixed at their mean, the marginal effect of high intensity conflicts is 0.655 compared to 0.615 if intensity of conflicts is below 1,000 casualties.

Table 1: Armed conflict and post-conflict corruption levels

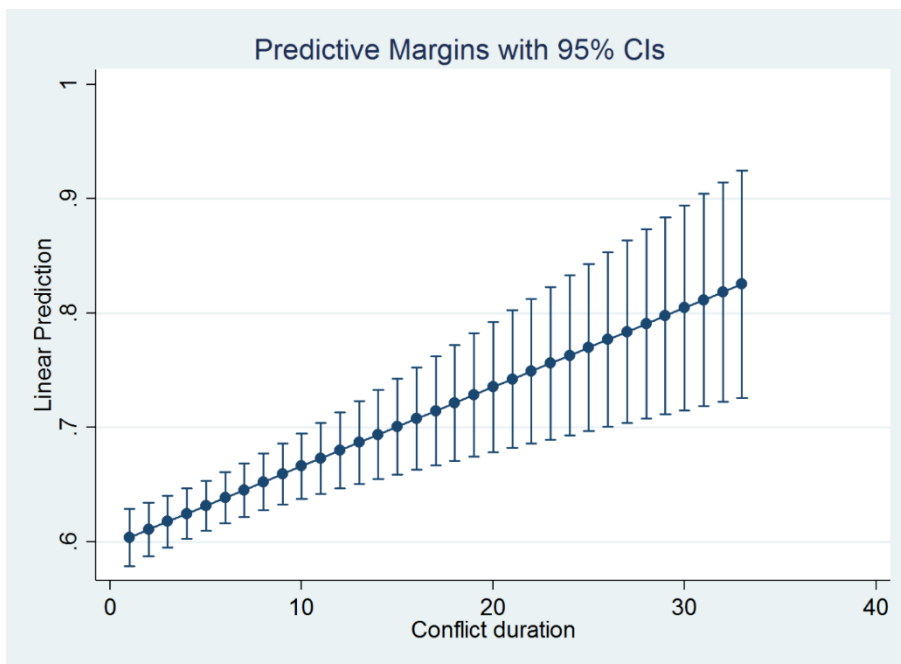
	First post-conflict year	First post-conflict year	First post-conflict year	Third post-conflict year	Fifth post-conflict year
Pre-conflict corruption	0.5991 (0.0669)**	0.6459 (0.0597)**	0.6460 (0.0604)**	0.6423 (0.0661)**	0.6652 (0.0632)**
Natural resource rents	0.0028 (0.0008)**	0.0031 (0.0007)**	0.0031 (0.0007)**	0.0014 (0.0008)+	0.0010 (0.0010)
GDP p.c. (log)	-0.0496 (0.0131)**	-0.0471 (0.0123)**	-0.0469 (0.0126)**	-0.0555 (0.0142)**	-0.0499 (0.0128)**
High intensity civil war	0.0399 (0.0256)				
Conflict duration		0.0069 (0.0017)**	0.0070 (0.0017)**	0.0036 (0.0019)+	0.0032 (0.0020)
Time trend			-0.0001 (0.0006)	0.0001 (0.0007)	-0.0008 (0.0008)
Constant	0.5756 (0.1231)**	0.5075 (0.1131)**	0.5114 (0.1110)**	0.6083 (0.1257)**	0.6438 (0.1374)**
R^2	0.71	0.74	0.74	0.72	0.77
Conflicts	113	113	113	100	86
Clusters	71	71	71	71	69

Note. Coefficients and robust standard errors clustered on state, + $p < 0.1$; * $p < 0.05$; ** $p < 0.01$

We also expect conflicts that last only a few months to have less disruptive consequences on society, because a longer duration is needed to fundamentally change the constraints and opportunities for petty and grand corruption. 40% of our observations consist of conflicts that lasted less than one year, and for these cases we see hardly any difference between the means of pre- and post-conflict levels of corruption (see the online appendix Table A1). Once we begin comparing the means for conflicts that last more than one year, a difference of average corruption levels before

and after a conflict starts to emerge. The difference becomes more pronounced for longer conflicts. For the six conflicts that were ongoing for more than 20 years, the difference is an increase of .24. This pattern is corroborated by the second model reported in **Table 1**, which show a positive and highly significant coefficient for conflict duration. As **Figure 2** shows, the marginal effects increase for every additional year of conflict duration. We reran the analysis in column 3 with a trend variable to ensure that conflict duration does not merely pick up the general time trend in the corruption indicator (McMann et al. 2016). Conflict duration remains positive and highly significant, whereas the trend variable itself is not statistically significant.

Figure 2: Marginal effects of conflict duration on corruption



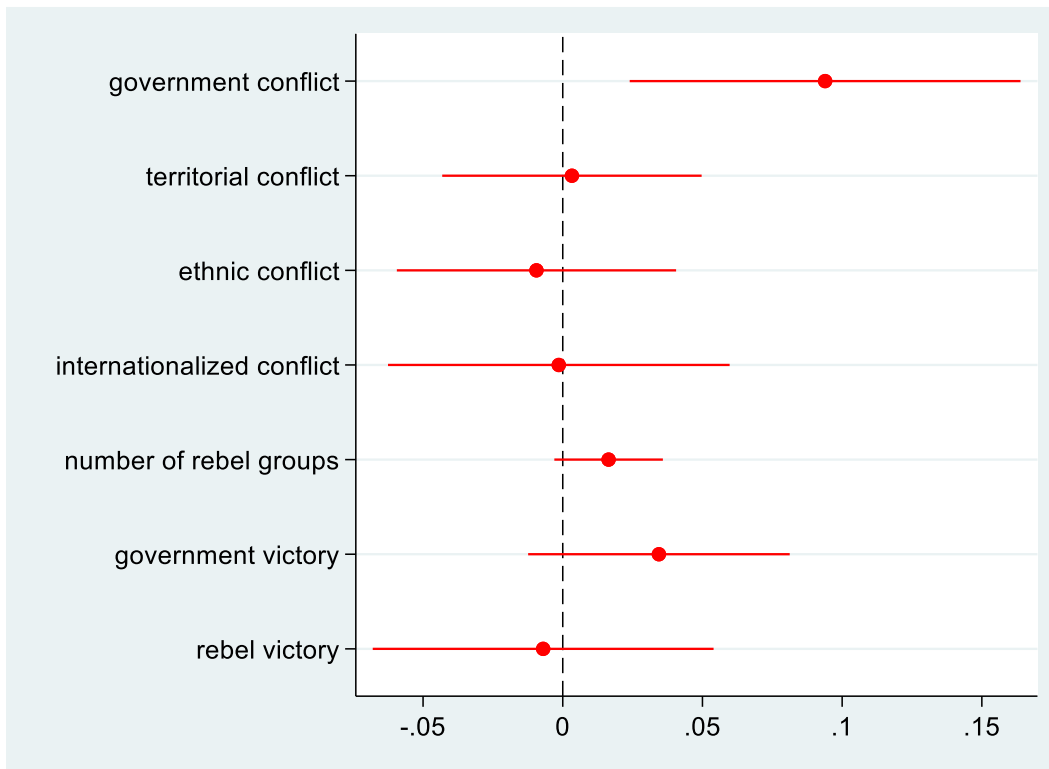
While long and intensively fought conflicts are related to increased corruption in the immediate aftermath of conflict, the effect might wear off with time. Other factors, which are more prevalent during post-conflict reconstruction, such as new power distributions and power-sharing arrangements (Haaß and Ottmann 2017) or the presence of international donor agencies might overshadow experiences with corruption during the conflict. In columns 4 and 5 of **Table 1** we reanalysed the models for three and five years after the conflict ended to see if the effect of armed

conflict endures. Indeed, our findings reveal that the effect of conflict duration wears off to some extent. When looking at the cross-section three or five years after the conflict ended, the coefficient decreases by more than half, and the level of significance also declines to $p < .08$ and to $p < .12$ respectively compared to the first post-conflict year.⁵ Instead of conflict duration, we also tested the effect of high intensity civil wars, which was not significantly related to corruption three or five years after a conflict ended. In sum, our results indicate that levels of corruption are higher after intensively fought civil wars and after long conflicts. This effect is present in the immediate post-conflict year but starts to decline as time passes.

Other conflict characteristics and levels of corruption

Besides conflict intensity and conflict duration, the *type* of armed conflict might make a difference for the level of corruption. Central to the rent-seeking argument is control of the central government, which will allow access to state revenues. Access to public funds and the opportunity to distribute the spoils of office matter greatly, both for the incumbent government and for the armed opposition. The prize of state power can be an important incentive for starting a rebellion, as it will increase the pie that can be distributed to key supporters in exchange for loyalty. They can be rewarded with ministerial positions, which in turn allow access to funds and a patronage system of their own. Rewards can also take the form of lucrative business contracts with the public sector, access to foreign aid money, or rents from natural resources that are under government control (Le Billon 2003). Thus, we could expect conflicts fought over central government control to be more closely related to corrupt behaviour. To test this, we added a dummy variable for government conflict to our baseline specification. The results are reported at length in Table A2 in the online appendix and summarised in **Figure 3**, where only the coefficients of the different conflict types are plotted as entered in various specifications of the baseline model. As expected, the coefficient for government conflicts is positively related to corruption. This result is highly significant, with the confidence interval not including zero, which would have pointed to the null hypothesis.

Figure 3: Effects related to different types of conflict (coefficient plots)



Note: Coefficients for conflict types from different model specifications. Control variables are omitted in the presentation.

The literature points to another dynamic linking conflicts and corruption. In a model proposed by Uslander (2008), corrupt behaviour is primarily driven by inequality between groups and by the dynamics of social trust. Because violent conflict shapes the trust relationships between societal groups, it in turn affects patterns of corruption. Wars seem to be conducive to trust and altruistic behaviour within social groups (Cederman and Vogt 2017: 14). In a meta-analysis of studies on cooperation and trust, Bauer and colleagues (2016) conclude that the evidence strongly supports altruistic behaviour towards members of the same social community or ethnic group. They do *not* find consistent evidence pointing to a decrease in trust towards the out-group. Still, the tendency to form tight-knit networks in times of crisis and to favour one's own social group might increase corruption simply because it is at odds with generalised trust (Börzel and Risse 2015: 13; Hammond and Axelrod 2006). This trust-based argument should be particularly prevalent when the conflict

revolves around ethnic cleavages or territorial disputes, both of which provide for clear division between in-group and out-group (cf. Neudorfer and Theuerkauf 2014). We thus tested whether territorial and ethnic conflicts lead to a particularly strong increase of corruption. Our results indicate that none of these factors play an important role. While the territorial conflict dummy carries the expected positive sign, the dummy variable for ethnic conflicts is negatively related to corruption; however, both dummy variables are not statistically significant.

Many war-affected societies are characterised by large inflows of humanitarian and development aid as well as the direct involvement of outside military personnel. External actors might use patronage to secure the allegiance of local players (Chayes 2015). More broadly, external funds provide additional incentives for rent-seeking. When outside actors engage in post-conflict reconstruction, they might ‘increase opportunities for corruption by overwhelming domestic institutions with large flows of funds and little oversight’ (Remmert 2019: 89). The same logic applies to humanitarian assistance, budget aid, and military spending by outsiders during conflicts. When such resources enter the war economy, they further tilt the balance away from public-goods provision towards rent-seeking and grant corruption. That is why we also consider whether the existence of an *internationalised* armed conflict drives increased corruption. Again, the dummy variable fails to reach a statistically significant level.

Conflicts with multiple rebel groups are more complex and consequently more difficult to end and more likely to recur. Rebel fragmentation and splinter groups provide for a more fragile peace (Rudloff and Findley 2016; Cunningham 2006). A higher number of conflict actors introduce new interests and could increase corruption: when several rebel groups are active simultaneously, they are likely to compete for resources and might seek to impose costs on the supporters of other groups. When control over territory is contested among several groups, this could further exacerbate predatory behaviour at roadblocks and similar mechanisms. We thus controlled for the number of rebel groups involved in a conflict to account for additional conflict complexities. The variable was

positively related to corruption and significant at the 10% level. Thus, the more rebel groups were active during a conflict, the higher the level of corruption in the first peace year.

Corruption might also be influenced by how the conflict ended.⁶ Cheng and Zaum (2016: 464–65) argue that conflicts ending in a decisive military victory should lead to less corruption, as there are fewer power struggles. On the other hand, if the incumbent government prevails in the violent conflict, corrupt networks will likely prevail or could even be strengthened. If, however, the armed opposition is victorious and takes control of the government, previous corrupt networks should be interrupted and corruption would decline in the aftermath of a conflict, at least until new networks are established. Based on the UCDP Conflict Termination data (Kreutz 2010), we added dummy variables for whether the last armed conflict ended in a military victory for the government or whether the rebels won control of the government. Our results support this line of argument to some extent. Both factors are related to post-conflict corruption levels in the expected direction (positive coefficient for government victory, negative for rebel victory). Yet, only the former is marginally significant ($p < .15$).

We conducted further checks of robustness to account for omitted variable bias by adding the logarithmic size of the population and trade openness as measured by the sum of exports and imports in relation to GDP or tax revenues as percentage of GDP (with data from the World Development Indicators) to our cross-section model specification, since these variables were related to less corruption in other studies (Treisman 2007). All three variables were not significant, keeping in mind that we perform a rather strenuous test with the inclusion of previous corruption values as independent variable. The additional control variables did not change the result of the civil war dummy or the variable of conflict duration, which kept its positive coefficient and (marginal) significance in all models. The rate of economic growth, surprisingly, is related to higher levels of corruption but not statistically significant. Its inclusion, however, did not alter our main finding.

Neither do our findings depend on the inclusion of industrialised countries: when tested without the three OECD countries in our sample (Mexico, United Kingdom and Spain), the results

for high intensity conflicts and conflict duration remain essentially the same. As an alternative to the V-Dem data, we performed a test with the ICRG corruption index. Using this data reduced our sample, allowing tests only for 47 conflicts in 35 countries. Besides pre-conflict corruption levels, none of the other variables showed any sign of statistical significance. The conflict variables were related to more corruption (with a negative coefficient for the inversely coded measure) but are not statistically significant ($p < .22$). Since this data set is controversial, as we have discussed above (Treisman 2007; Knack 2007), we refrain from using it further.

In sum, the results support our hypothesis. Compared to pre-conflict levels, corruption is slightly higher after high-intensity conflicts and after longer conflicts. Many small-scale conflicts in our sample are not related to a change in corruption levels, which generally supports the assumption that corruption is highly path-dependent. Our analyses also reveal that conflicts over access to the central government, involving several conflict parties, or ending with a government victory tend to entail higher levels of corruption in their aftermath.

Discussion and conclusion

The connection between conflict and corruption is a salient issue. Studies suggest that corruption increases the risk of conflict occurrence; that it is particularly linked to natural resources; and that corrupt behaviour flourishes in post-conflict settings. We have drawn on expert assessments of changes in corruption over time to investigate a relationship that is often implicitly assumed: what effect does violent conflict have on levels of corruption? We expected that long and high-intensity conflicts would lead to worse patterns of corruption. Such situations seem particularly suited to create new opportunities for ‘grand’ and ‘petty’ corruption while reducing the constraints on powerful actors. Minor types of violent conflict, in contrast, are less likely to disrupt the existing patterns of governance.

Our analysis indeed shows that levels of corruption are relatively stable over time. Economic development and the amount of rents from natural resources are significant control variables in our

models. Yet, despite our demanding model specifications – which include the pre-conflict corruption measure as independent variable – we find evidence that corruption tends to worsen during conflicts. However, this effect is not visible for short-term conflicts. While we do not wish to downplay the destructive potential and negative social consequences of short periods of violence, they do not seem to unsettle established practices of governance. We further find that more severe conflicts are more robustly associated with an increase in corruption. The effect of conflict intensity and duration seems to matter more in the immediate aftermath but less so several years after the conflict ended. We also find that conflicts over central government control, conflicts that end with the military victory of the incumbent government, as well as the number of rebel groups are significantly related to increased corruption. Other conflict characteristics, such as the internationalisation of a conflict or their ethnic and territorial dimensions, do not seem to matter as much.

The findings suggest that civil wars can interrupt the existing patterns and lead to new networks of corruption, thus fuelling the escalation of new conflicts (Le Billon 2003). Sceptics might argue that our measure of corruption merely registers the biased perceptions of experts, who assume increased levels of corruption in times of conflict rather than directly experience them. Considering the limitations of all available corruption indicators, the V-Dem measure nonetheless seems to be our best option (McMann et al. 2016). Our results showcase the relatively nuanced approach taken by the coders – as evidenced by the fact that corruption values do *not* just rise across the board whenever there is any type of conflict. Ultimately, the question of measurement cannot be solved with certainty, but we are confident that our approach is sensible.

Future research should concentrate on ways to overcome the feedback loop between civil war and corruption to develop a better understanding of rent-seeking behaviour and respective constraints in post-conflict societies. One should consider in more detail the progression of time after a conflict ends. How does corruption develop as time passes in post-conflict societies? Le Billon (2008) touches on this, and Haggard and Tiede (2014) show that several rule-of-law

measures fail to improve after conflicts end. Still, there is room for additional analyses with more comprehensive data. Moreover, we need to incorporate post-conflict activities by external actors. The design of peacekeeping missions and power-sharing agreements come to mind as relevant factors (Haaß and Ottmann 2017; Remmert 2019). The international community and transnational investors can fight corruption by demanding transparency in their dealings with a conflict-affected government.

Some researchers argue that the end of violent conflict provides a unique window of opportunity to create less corrupt institutions. Due to the path-dependent nature of good governance, anti-corruption measures must be ‘radical and strong enough to affect the balance and thus trigger disequilibrium’ (Mungiu-Pippidi 2015: 129). Post-conflict transitions offer a rare chance to overcome the ‘collective action dilemma’ of corruption, although it will still be difficult (Lindberg and Orjuela 2014: 729). Such windows of opportunity can be used to establish new laws and procedures for the management of natural resources, to create new governmental oversight bodies, and to re-negotiate contracts with private entities to better control corruption (Cheng and Zaum 2016: 467). The literature on post-conflict state-building offers many suggestions on which reforms to implement. However, there seems to be a lack of systematic evidence regarding which anti-corruption reforms work in post-conflict societies. A broad survey of the literature finds that we do not know if corruption-related challenges in such countries are ‘qualitatively different, or merely different in scale’, or how peacebuilding interacts with anti-corruption (Johnsøn et al. 2012: 44). Considering our findings, emphasis should be given to the aftermath of protracted conflicts about government control, which are most likely to pose significant corruption challenges. Governments that defeated a challenger seem to escalate corrupt behaviour, which suggests that international attention could be focused there.

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Notes

- ¹ However, some authors point to reverse causality (Thies 2010).
- ² Le Billon uses both the CPI by Transparency International and the ICRG by the PRS Group. Both have limitations in the context of time-series analysis (Le Billon 2008: 347–50).
- ³ Patterns for individual time series can be found in the online appendix.
- ⁴ TI reworked the CPI in 2012 to facilitate future comparisons over time (Malito 2014: 14–15).
- ⁵ To investigate the robustness of these findings, we also ran panel regressions that provide us with information on a country-year basis and thus allow us to capture dynamics in the post-conflict period instead of comparing the pre- and post-conflict situations. The results generally support a positive relation of conflict duration with corruption levels. Conflict duration carries a positive coefficient but is statistically not significant in the fixed-effects regressions (as advised by the Hausman test).
- ⁶ We thank one of the anonymous reviewers for this suggestion.

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Online Appendix

Replication files are available at:

<https://ipk.uni-greifswald.de/politikwissenschaft/ib-replikationsdaten/>

Table A1: Comparison of corruption means

Conflict years	Observations	Pre-conflict corruption	Post-conflict corruption	Change
1	46	.59	.60	.01
>1	67	.62	.66	.04
>5	35	.56	.67	.11
>10	22	.53	.67	.14
>20	6	.34	.58	.24

Table A2: Conflict type and post-conflict corruption

Pre-conflict corruption	0.6661 (0.0706)**	0.6764 (0.0691)**	0.6759 (0.0674)**	0.6782 (0.0681)**
Natural resources rents	0.0021 (0.0007)**	0.0022 (0.0007)**	0.0022 (0.0008)**	0.0021 (0.0008)**
GDP p.c. (log)	-0.0391 (0.0121)**	-0.0433 (0.0123)**	-0.0421 (0.0123)**	-0.0407 (0.0127)**
Gov't conflict	0.0403 (0.0295)			
Territorial conflict		0.0088 (0.0203)		
Ethnic conflict			-0.0070 (0.0228)	
Internationalised conflict				0.0121 (0.0231)
Constant	0.4521 (0.1220)**	0.5067 (0.1259)**	0.5082 (0.1276)**	0.4879 (0.1247)**
R ²	0.77	0.76	0.76	0.76
Number of conflicts	115	115	112	115
Number of states	73	73	71	73

+ $p < 0.1$; * $p < 0.05$; ** $p < 0.01$

Table A2: Conflict type and post-conflict corruption (continued)

Pre-conflict corruption	0.6015 (0.0675)**	0.5933 (0.0676)**	0.6061 (0.0688)**
Natural resources rents	0.0030 (0.0008)**	0.0032 (0.0009)**	0.0031 (0.0009)**
GDP p.c. (log)	-0.0480 (0.0129)**	-0.0537 (0.0127)**	-0.0523 (0.0136)**
Number of rebel groups	0.0164 (0.0097)+		
Government victory		0.0344 (0.0235)	
Rebel victory			-0.0070 (0.0306)
Constant	0.5511 (0.1196)**	0.6059 (0.1198)**	0.6107 (0.1266)**
R ²	0.70	0.70	0.70
Number of conflicts	113	113	113

+ $p < 0.1$; * $p < 0.05$; ** $p < 0.01$ **Figure A1: Individual time series of corruption levels**