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## Corruption and Armed Conflicts: Some Stirring Around in the Governance Soup

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### **Abstract:**

The paper discusses the impact of corruption on the probability of violent conflict events and traces the shifts in the composition of corrupt transactions during and in the aftermath of violent conflicts in an informal way. So far there has been little interaction between empirical corruption research and the empirical research into civil wars. When the two strands of research are brought together and their results are combined, some patterns become apparent that would have been difficult to detect if the results within each field were analysed in isolation.

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## **Corruption and armed conflicts: Some stirring around in the governance soup**

### ***1. Introduction***

Most countries where large-scale violent conflicts break out are also highly corrupt. Is this a coincidence? How might these phenomena eventually be linked? So far these two sets of phenomena have been explored empirically as separate issues, although the methods for studying them are similar and many of the same explanatory variables are used. The negative *economic* consequences for aggregate output and economic growth may appear similar. Nevertheless, as more or less observable phenomena they are dramatically different. In the present paper I am exploring the relationships of these two research fields. In addition to ask whether there are some causal linkages between corruption and conflicts I explore some of the implications of the results from one field of research to the other: Are they compatible and reasonable when moved into the other context?

The notable expansion in both research fields is part of the far broader resurgence of research into the workings of political and economic *institutions*. Since much of the focus among economists has been on their impact on growth and GDP per capita, this has been an important part of their story. In outlining his new research programme for building institutions into neoclassical economics in general and growth theory in particular, Douglass C. North (1981: 7) mentioned three building blocks. A theory of the state is one of them, 'since it is the state that specifies and enforces property rights' (*ibid.*). Institutions he defined as a 'set of rules, compliance procedures and moral and ethical behavioural norms designed to constrain the behaviour of individuals in the interest of principals' (*ibid.*: 201–202). The issues of corruption and violent conflicts are obviously related to the core of this research programme. Both deal with the *modus operandi* of the state and the violation of the institutional and normative restraints that are built into any state.

In one case, it is the violation of the core institutional rule that the state has a monopoly on force including its lawful delegation that is the issue. A violent rebellion comes as a direct challenge to that rule. Behind any estimate of aggregate corruption there are numerous breaks to a myriad of rules that agents of the state are supposed to follow, but which they violate (or challenge) when pursuing their private interests. In both cases the violation may be motivated by the individuals' private economic interests, or by their adherence to non-state rules. The set of rules emanating from a given set of institutions that criss-cross an economy need not be consistent. Both sets of behaviour may also reflect related forms of state weakness. In the case of rebellion, it is the strength of the physical force apparatus and its monitoring capacity that may appear sufficiently weak to leave it open to challenge. In the case of corruption, it is mainly the monitoring apparatus only that seems so weak or unreliable that agents expect to get away with their violations undetected or at least unpunished. In other dimensions, the acts and organization of corruption are miles apart from what is needed in a rebellion. To that we will return.

Since corruption is present before any outbreak of conflicts, it may appear reasonable to ask whether there is a causal relationship. Widely varying views have been put forth in an otherwise surprisingly meagre research field:

- a) Corruption is an important *cause* of conflict, weakening the government at the same time as causing grievances and discontent.
- b) Corruption *prevents* conflicts, by bribing competing contenders for power.
- c) Corruption and violent conflicts are basically *co-flux* phenomena caused by the same or closely connected mechanisms.
- d) Corruption is *irrelevant* for the outbreak of conflicts: no causal links exist.

My personal favourite is c), but I will not argue strongly for it here. Whether corruption tends to contribute to conflicts or prevent them, its effects may work through either direct or indirect mechanisms.

In examining the interaction between corruption and conflicts, most of this paper addresses the question of corruption as potential cause. However, I also discuss how the prevalence of extensive corruption may impact the course of conflict as it develops, and how the course of conflict may shift the level of corruption and

particularly the distribution of corrupt transactions across the set of public institutions. Any large-scale conflict will change the regular private economy of a country as well as its public institutions.

As a country moves back to a more peaceful post-conflict state, will the conflict as such have lasting impact on corruption rates and their distribution across sectors of private and public activity? In recent literature on corruption and conflict probabilities, this is the topic that has received most attention. It also has the most obvious policy implications: will aid delivery in post-conflict situations be wasted?

Any large-scale conflict will generally have caused major shifts in the set of institutions including the state's own ways of working. A more theoretical question that arises here is that many plausible explanations of corruption are based on a strategic complementarity that can easily lead to multiple equilibria. Might civil war cause a shift in this equilibrium, thereby bringing about a lasting change in the incidence of corruption, whether up or down?

## ***2. Corruption and violent conflicts – some distinctions***

Intuitively, corruption and organized non-state violence may appear as two very different forms of state malfunctioning. The World Bank Institute's set of governance indexes – to which I will return – sees 'Control of Corruption' and 'Political Instability and Violence' as two different but related components of 'governance' (Kaufmann et al., 1999a). In policy debates there is also a tendency to lump all 'bad' governance phenomena into one heap, with the implicit assumption that they are all moving together.<sup>1</sup>

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<sup>1</sup> In his survey article 'Economic governance' Avinash Dixit (2006) defines the field of economic governance studies as a field that compares the performance of different institutions under different conditions, the evolution of these institutions, and the transition from one set of institutions to another. This definition is rather wide, but it focuses on something central in the present research: an important aspect of the performance of institutions is their 'quality', which may be difficult to measure directly, even though it is believed to be essential for economic growth. Extensive efforts have been made to get quantitative indicators of 'quality'. The interest in 'governance' followed in the wake of the renewed interest in institutions.

However we define conflicts and corruption precisely, they are obviously distinct phenomena – but in which respects? With regard to violent conflicts, I have mainly civil war-like situations in mind in the following. This means situations where an outbreak of conflict implies that at least one collective organization has organized some violent activities on a significant scale that challenges the official state monopoly on violence. The exact scale is not important at this stage, so both the most and the least restrictive standard definitions of ‘civil wars’ – hundreds versus thousands of battle-related deaths a year – may apply. Seen from our perspective, the number of deaths is not the essential characteristic, however, but rather the size of the competing violent organizations. Most of the time I will have civil wars in mind, but the development of large-scale bandit organizations engaging in mass violence may also suffice. ‘Conflict’, ‘violent conflict’ and ‘civil war’ will often be used as synonyms as well as ‘rebels’ and ‘violent organization’, although the latter may also embrace the governmental violent apparatuses as well as large bandit organizations. I do not see a great need for precision here, although it is indeed interesting that in order to grow above a certain size, violent organizations seem at least to pretend that they carry some political aims.

Normally the scale of the conflict as well as the size of the organizations will be reflected in the basic events that conflict research has sought to explain: the number conflict-caused deaths. These are in principle directly observable and easy to aggregate.<sup>2</sup> The basic events as well as their aggregates have clear cross-country meanings. Not so with corruption, however. Here it is difficult to avoid a more lengthy elaboration of meanings.

Before the choice of any particular definition, however, let us note some important distinctions between the two forms of public malfunctioning that do not rely on that choice:

- a) Corrupt transactions are mainly performed in dyads: The typical corrupt action involves single individuals or organizations that seek to

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<sup>2</sup> The number of deaths need not be closely correlated with the size of the battling organizations. The regional distribution of control, foreign financing etc. may have a direct impact on the number of civilians killed, independent of the size of organization (Kalyvas, 2006). Weinstein (2007) argues that the kind of assets rebel organizations possess at the initial stage of the conflict may have lasting effects on their rate of killing. An obvious implication is that the number of deaths in a violent conflict may only be weakly related to the size of rebel organizations.

influence public decisions by offering illegitimate economic rewards to single officials in a public (or private) bureaucracy. A key problem in economic corruption research is to explain why such dyads do not in fact arise more frequently than they do. Violent conflicts, on the other hand, involve extensive collective action. They presuppose an ability of individuals operating outside the public state organizations to mesh into organized groups. A key problem in economic conflict research is to explain why such groups form, why they ever happen.

- b) While commercial forms of corruption will normally be economically motivated with agents focused on economic rewards, this need not always be the case with violent action. When agents are focused on economic rewards, free-rider issues are likely to become more difficult to handle and set restraints to the scale of the competing groups.
- c) Any organized violent action will normally have an important geographical dimension: an area is either attacked or defended. Moreover, violent groups may migrate into neighbouring regions or countries. While corruption may vary across public sub-apparatuses, this variation will not have any essential geographical dimension, although there might be considerable regional variation.<sup>3</sup> On the other hand, public apparatuses (with the exception of the military ones) will not normally migrate into neighbouring countries (or regions): each country is basically stuck with its own apparatus. Outright conquest of other countries' territory has become rare today. Nevertheless, geographical spillovers of corruption tend to be more indirect and also different in kind than geographical spillovers of violence.
- d) As mentioned, data on conflicts – such as number killed in violent conflicts per year – are observable phenomena with a distinct meaning across conflicts and countries. Corruption, by contrast, is usually not observable as such – only in relation to a given normative grid that may vary across countries (Andvig, 2006a). Moreover, even given a choice of a normative (or legal) grid, the agents involved are likely to hide most corrupt transactions, making the phenomenon almost impossible to observe. For comparative purposes we have in most cases to rely on indexes that may have undergone refined statistical processing, but often without clear-cut conceptual interpretation.
- e) Corrupt transactions are likely to take place to some degree in any kind of organization at all times. In countries where extensive corruption characterizes much of the public apparatus, corruption is likely to take place in all periods, whereas violent conflicts normally have a beginning and an end.
- f) In both governmental and non-governmental organizations that apply the active use of force as a means of influence, the threat of force is available as an incentive. In conflict situations, agents with force at their disposal may apply it not only for public or purely predatory aims, but also as a basis for embezzlement, fraud and dyadic, corrupt transactions.

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<sup>3</sup> Cf. the analysis of Golden and Picci's (2005) estimates of the regional variation in corruption levels in Italy.

So far I have left corruption undefined. In most of the violent conflicts to be considered in the following, relation-based groups that operate partly outside and partly inside the formal state apparatus are a key part of the story, so that feature should be borne in mind when defining corruption. We have to, so to speak, shift our glasses, sometimes looking at the situation from the perspective of such groups and sometimes from the point of view of a formal public apparatus. Corruption internal to the private sector is not so important for the relationships discussed here, so it will be disregarded in the following.

Since the ease of construction of relation-based groups is also relevant for the possibility of civil warfare,<sup>4</sup> it is more important to make the definition of corruption clear at this point.

The definition proposed is based on Andvig (2006b), but many other definitions of corruption are current in the literature. The one most frequently used is ascribed to Nye (1967: 419) and defines corruption as ‘behavior that deviates from the formal duties of a public role (elective or appointive) because of private-regarding (personal, close family, private clique) wealth or status gains.’

Interpreted literally this definition is too wide for most purposes, since it would mean that almost every official in any country would behave corruptly almost every day. A more reasonable interpretation would be to let the wording cover serious acts of bribery and extortion at its core, and depending on the context, to include various types of private-regarding activities at the edges. I have few objections to the standard definition interpreted this way, but I have found the following one, based on Rose-Ackerman (1978: 6–7) more precise and useful for my purposes:

- An act is *commercially corrupt* if a member of an organization uses his position, his rights to make decisions, his access to information, or other resources of the organization, to the advantage of a third party and thereby receives money or other economically valuable goods or services where either the payment itself or the services provided are illegal and/or against the organization’s own aims or rules.
- If the act is mainly motivated by the intangible valuables received, is given by the member serving the interests of friends or family or his own standing in

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<sup>4</sup> Cf. our later discussion of the Azam models.

family-friendship networks, it is an act of *relation-based corruption*.<sup>5</sup> Commercial and relation based corruption constitute corruption in the narrow or transaction-based sense.

- An act represents *embezzlement* if a member of an organization uses his rights to make decisions, his working time, his access to information or some tangible assets of the organization to his own economic advantage, or to the advantage of some other members of the organization, in ways that are either illegal or against the organization's own aims or rules. Embezzlement might also be motivated by the desire to affect the individual's standing in family-friendship networks. Corrupt forms of *extortion* are predatory acts where an agent uses his position in an organization by means of threats to gain involuntary transfers of resources from individuals outside the organization against the organization's own interest.<sup>6</sup> Corruption in the *loose* sense embraces all these forms of activities.

Note that the definition focuses on acts that are made by members of an organization that work against the organization's direct interests. We also observe that corrupt transactions are not a set of actions that may be observed as such. Corruption has to be related to a set of rules about the proper procedures for transactions. When a person acts corruptly, rules about which 'transactional mode' (Andvig, 2006a) to a situation are broken. Both family-friendship and commercial corruption imply a transaction between at least two actors, of whom one has to be a non-member of the organization in question. In the case of regular, commercial corruption, an illegal or illegitimate expansion of market transactions into the fields of bureaucratic or political fields of transaction takes place. It is obvious, but rarely made clear, that since the rules for the proper dividing lines between family, bureaucratic and market transactions may change during an historical process, so will the scope of what should be considered 'corrupt'.

A single insider may embezzle resources from an organization, but large-scale embezzlement will normally involve several people. More importantly, the rules broken

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<sup>5</sup> This term may signal some positive normative connotation. Perhaps it would be more neutral to call it *relation-based* corruption in the sense of Dixit (2004) or Scott's (1972) negatively-laden term 'parochial corruption'.

<sup>6</sup> Examples related to violent organizations: Corruption: bribes to a commander for not fighting a certain battle, to an official for not catching smugglers, and so on. Extortion: looting after victory where the looting is not permitted. Embezzlement: stealing from own resources including military units' own time, when hiding these facts. Transaction types are often combined. Combined embezzlement and corruption takes place when a unit sells part of its own weapons to enemy units or abroad. Looting as a diversion from fighting combines looting with embezzlement, and so on. All these activities are covered by the standard definition of corruption: misuse of public position for private ends. Note that organized looting *if permitted by superiors* does not represent 'corruption' even in the broad sense as defined here.

are different from those that apply in transactional corruption. While corruption in the narrow sense raises the question of the proper way of conducting transactions, embezzlement challenges the property rights of the organization, including the accepted internal allocation of decision-making rights. In the context of violent conflicts in ‘failed’ states, embezzlement may involve not only minor book-keeping fraud, but the massive construction of false positions, the stealing of pensions from large professional groups, land grabbing, seizure of other natural resources or other property against established private or public property rights, some forms of privatization, and so on.

Just as the existence of outside, relation-based groups makes it disputable whether a transaction should be considered *rightfully* relation-based or a ‘family-corrupt’ *transgression* of formal rules, in many African countries the question arises of whether ‘embezzlement’ is land grabbing from the state or the rightful return of property to members of the entitled owner groups. Legitimate rules may contradict each other. This situation is likely to be more frequent where both corruption and rebels flourish.

That said, here we will consider violations of transaction and property rules, corruption and embezzlement, from the perspective of a ‘modern’ Weber-like state. It is the ‘failure’ of impersonal rule-based public apparatuses that is the issue here. While organizational rules are rarely followed completely, most states are not wholly Potemkin villages either. Some of the rules will bite, and be displayed in the actions of their agents.

Here we need to distinguish between the different forms of corruption, as they will be linked to the probability of outbreak of violent conflicts in different ways. While the link between commercial corruption and conflicts appears rather indirect and circumscribed, the extent of relation-based corruption and the ease of building competing (to the official government) violent groups are likely to be more direct. We should also note that the empirical indicators of corruption incidence are meant to reflect the standard, broad definition of corruption as the misuse of public office for private use, and hence are likely to embrace all the forms of such misuse outlined above, and more.

### **3. World Bank Institute indexes – an econometric co-flux ‘theory’?**

During the past decade or so, econometric, quantitative approaches have had a considerable impact on research into the modus operandi of governmental apparatuses, in focus in both social science and foreign aid policy alike. The prospect of quantification has probably been a precondition for this increased interest. Both the study of conflict and the study of corruption have been influenced and have at key points a similar explanatory structure with a strong overlapping of explanatory variables.

There has been surprisingly little interaction between quantitative conflict and corruption research, however, even though one of the foremost groups in conflict research (Collier et al.) and the leading group in empirical corruption research (Kaufmann et al.) have both involved in World Bank research efforts on governance. While Kaufmann et al. at the World Bank Institute (WBI) have developed a separate index on 'political instability and violence' together with a 'control of corruption' index, they have not delved deeply into conflict research as yet. The focus has been partly on the interaction between corruption and several macroeconomic variables such as GDP levels and growth rates, and partly on constructing the indexes of different aspects of governance as such. The latter appears essential for any empirically based comparative research where corruption is to be either an explained or an explanatory variable.

The WBI group has developed a procedure for constructing index numbers that has been applied to each of six seemingly different components of governance, covering as many countries as possible from a large number of heterogeneous sources of information. Among the indicators are 'control of corruption' and 'political instability and violence'. Might these be applied to explain the effects of corruption on political instability and violence (or perhaps the effects of political instability and violence on corruption)?

The statistical methods applied and assumptions made are the same for each governance component, and the basic sources of information are frequently overlapping. Among other things, it is assumed that all index numbers followed a standard normal distribution across countries. The sources that are most strongly

inter-correlated with other sources and that cover the largest number of countries are endogenously given greater weight.<sup>7</sup> The WBI group defined governance more narrowly than Dixit, as ‘the traditions and institutions by which authority in a country is exercised’. That governance is divided into three major components: ‘the process by which governments are selected, monitored and replaced; the capacity of the government to .... formulate and implement sound policies; the respect of citizens and the state for the institutions that govern economic and social interactions among them’ (Kaufmann et al., 1999a). Each of these three components was then divided into two sub-components, and these are the ones for which the actual indexes were constructed.

In the following I will mainly discuss three of the six WBI governance indicators: a) the ‘voice and accountability’ index, meant to ‘measure the extent to which citizens of a country are able to participate in the selection of government’; b) the ‘political instability and violence’ index, meant to ‘measure perceptions of the likelihood that the government in power will be destabilized, or overthrown by possibly

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- <sup>7</sup> The group apply a so-called ‘unobserved component’ method. The main idea of the method is to aggregate the bits and pieces of information on corruption levels as efficient as possible. In particular how to link information about a few countries into an index that may embrace as many countries as possible. While I will not discuss the statistical methods applied in any detail here, we may note some of the major assumptions applied that have theoretical implications. For example, their assumption of normal distribution of all the governance indicators across countries may have important implications for the estimated GDP–corruption interactions. In several theoretical models it has been argued that one may expect multiple equilibrium levels in corruption, which is not easy to combine with a normal distribution. Moreover, Haque and Kneller (2005) have explored the issue empirically using the TI corruption perception index that does not assume uni-modal distributions. They have found support for a of multi-modal distribution of corruption across countries. Whether multiple equilibrium models are the most realistic ones or not, have also important consequences for the potential effect of a conflict on the persistence of post-conflict corruption levels. The statistical methods and the empirical basis are explained in Kaufmann et al. (1999b). All the index numbers are partly based on assessments of experts and expatriates, where we may expect strong mutual spillovers contrary to the statistical independence across assumed. This to some degree also applies for the outcomes of the questionnaires addressed to businesspeople or the general public that constitute another information base for these indexes. Perceptions have played a major role all along, but more experience-related information has been fed into the indexes lately, and their basis for construction has become more transparent. Nevertheless, the conceptual content remains fuzzy, and the perceptions of international business are probably still over-represented. They form the basis for several of the original indicators that embrace the largest number of countries at the same time as they are the most strongly correlated among themselves and with the other sub-indexes. Criticism of the indicators from various points of view may be found in Andvig (2005), Knack (2006) and Khan (2003). Kaufmann has sought to answer the critics in several papers, the arguments summed up in Kaufmann et al. (2007). A major drawback when using the group’s ‘control of corruption’ index to explain conflicts is that it is conceptually unclear and is likely to contain components that are likely to have widely different forms of impact on the likelihood of conflict.

unconstitutional and/or violent means’;<sup>8</sup> and c) the ‘control of corruption’ index, which ‘measures perceptions of corruption’. The intended meaning of the latter is the conventional one of ‘exercise of public power for private gain.’ This belonged to the third category since it showed a lack of respect for the institutions meant to govern the interactions between citizens and public officials. The remaining three indexes were ‘government effectiveness’, the ‘regulatory burden’ and the ‘rule of law’ indexes. The rule of law covered crime, including violent crime, and may reflect many of the same factors as the political instability and violence indicator. Their ‘regulatory burden’ index was the most ideologically laded one.

While these indexes are meant to reflect quite distinct phenomena, it is an open question to what extent they actually do so. For example, a sub-index of the rule of law index may be based on the answers to a different set of questions posed to a group of experts than the ones collected for the ‘control of corruption’ indicator, but the answers may reflect the same ‘gut’ feeling about the country in question, since the experts as well as the questionnaire often are same. Moreover, the opinions of different groups of experts or expatriates are liable to rely on each other and cannot be assumed statistically independent.<sup>9</sup> If so, they cannot be used to answer one of the questions raised here: May high corruption levels cause serious political instability, including significant levels of group violence? Any positive correlation become trivial if the two data sets in fact are strongly overlapping.

In presenting their first tables of the six governance indicators (in Kaufmann et al., 1999a: 23–27) the group also explores several simple relationships between three different economic success variables – GDP per capita, infant mortality and adult literacy – and the six governance indicators. In each case, the governance indicators had quite similar and positive effects on the desideratum variable in question.<sup>10</sup>

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<sup>8</sup> This is an even broader definition of violent conflicts than I apply here.

<sup>9</sup> Kaufmann et al. (1999a) assumed otherwise, and have been criticized on this point several times. While admitting the possibility, they consider this objection empirically unimportant. Their responses to this and many other objections are summed up in Kaufmann et al. (2006b). However, they have not countered the objection that deals with the conceptual independence of the different indexes of each other. This is important for our purposes, since we are considering the possible causal impact of one (corruption) on the other (political instability and violence).

<sup>10</sup> A simple two-stage least-squares regression was performed on each desideratum with respect to governance indicator in isolation. All regression coefficients with respect to a given desideratum variable had the same sign; the greatest percentage difference between the regression coefficient with

‘Good’ governance, whatever its components, was found to increase GDP per capita, reduce infancy mortality and increase adult literacy rates. But why single out corruption? It did not have exceptionally strong impact compared to the others. Moreover, since the data strongly suggested that all the governance components would move in the same direction as that of the GDP per capita or infant mortality rates, that also indicated it should be difficult to trace any independent effects of varying corruption levels on the ‘political instability and violence’ indicator.

That said, when violent conflicts of a certain scale break out they should, of course, generally have stronger effects on the perceived political instability than on the corruption index. That is confirmed by examination of the WBI governance indicators together with the Uppsala data on wars, so at least some weak form of independent variation is evidently present. In a study on the effects of foreign aid on the various governance indicators, Ear (2002) even got some of the indicators to move in opposite directions. While increased aid was found to improve government effectiveness, it worsened the outcome on the indicators of political instability, regulatory quality and rule of law. The indexes for control of corruption and for voice and accountability remain unchanged. Serious doubts about the validity of these results may be raised, however.<sup>11</sup>

Straub (2000) has explored the behaviour of the WBI indicators – including ‘political instability and violence’ and the ‘control of corruption’ indicators – within a set of other institutional and economic variables, first by means of factor analysis and then by multiple regression equations. He formulates several regression equations with the governance indexes as left-hand variables. The strong degree of correlation between the governance indexes is confirmed. This correlation does not allow us, for example, to apply the corruption index as an explanatory variable in a regression equation for

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the highest and lowest absolute value divided by the regression coefficient with the highest absolute value was 42%. In all situations, the voice and accountability index had the weakest impact while the political instability or rule of law indexes had the strongest impact. Since all the indexes were standardized in the same way, such comparisons are meaningful.

<sup>11</sup> It was the *change* in each governance index that was the explained and the change in foreign aid in the preceding period that was the explanatory variable. As pointed out by Kaufmann, the standard deviation in each of the governance indicators was very high, so it is not so surprising then that the changes in the governance indicators might move in opposite directions although the correlation between their levels were high. Ear (2002) also got high positive correlation between the average levels of all the governance indicators.

the political instability and violence indicator to be explained, but the separate governance regressions for them hint at possible mechanisms of interests: some rough Weberian indicators, like bureaucratic incentives, appear to have significant preventive effects for both, but are stronger for corruption.<sup>12</sup> Price distortions enhance both, while ethno-linguistic fragmentation works only on the instability index and openness only on corruption. All the results are rather fragile, sometimes shifting dramatically with the model specifications, as Straub himself underlines.

In a number of papers Dreher (with co-workers) has sought to handle the econometric issues that arise because of the mutual endogeneity between corruption and other governance indicators in a different but related manner of Straub, by applying so-called structural estimation methods. Somewhat loosely, the basic idea here is that corruption may be considered as a 'latent' variable that may be uncovered through an econometric system of equations where some observable variables are considered as indicators of the latent variable and the other observable variables are considered causes. If specified correctly, the system will define the latent variable(s). When fed by actual observations, and a choice of an observable indicator variable which the latent variable is normalized to, actual numbers for the latent variable may be produced. In Dreher et al (2007) corruption is the only latent variable. The only other governance variable, 'the rule of law', may only be vaguely related to conflict, and is defined as a causal observable variable. GDP/capita that often are considered as a right hand variable is here defined as an indicator variable corruption.<sup>13</sup>

The outcome of this particular exercise is the determination of values for a latent variable, that may itself be considered as an indicator of corruption. As such it has several nice features, such as cardinality, but why should it be interpreted as corruption? There are many other governance variables that may be determined by, let us say, the rule of law, and have impact on, let us say, GDP/capita. The latent variable

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<sup>12</sup> Straub's results here give weak support for Evans and Rauch's (2000) result about the importance of a Weber-like bureaucracy to prevent corruption.

<sup>13</sup> Among the other indicators is, for example, the extent of credit regulation. Why it is not defined as a causal variable instead appears rather arbitrary. The same question may also be raised by the choice of GDP/per capita as an indicator.

determined by the proposed equation system might be interpreted in several ways.<sup>14</sup> The choice of what is a latent and what is an observable variable may not be so obvious in the context of governance. For example, it is not so obvious that the extent of rule of law is any more observable than corruption. In the WBI battery of governance indicators they are constructed in exactly the same way. They may both be *chosen* to be a measurable variable. Numbers for both are regularly published, but why one and not the other? A given indicator for the rule of law is, of course, observable, but such indicators are available for corruption, too. The endogeneity issue is handled by the somewhat artificial classification of impacting, observable variables as indicators and as causal, exogenous.

In a second paper they (Dreher et al 2005) apply structural estimation methods to determine the values of several interacting latent variables, of which one is corruption. The endogenous latent variables they study are the size of the shadow economy and the level of corruption. In addition they explore the effects of an intervening (exogenous latent) variable, institutional ‘quality,’ that presumably will affect both the size of the shadow economy and the corruption level. They find that an improvement in institutional quality will reduce both the size of the shadow economy and the corruption level, but the interaction between the shadow economy and corruption initiated by the quality improvement will reduce the effect on corruption. That is, the corruption level and the size of the shadow economy appear to be substitutes.

How are these results and methods related to the WBI construction of governance indicators and the question of how violent conflicts and corruption may be related? First, two of the observable indicators chosen for the latent explanatory variable, institutional quality, are among the six WBI indicators: ‘the rule of law’<sup>15</sup> and the ‘government effectiveness’ indicator. The rule of law indicator is supposed to reflect some of the crime levels including violent crimes, and the effectiveness variable should reflect some of the government capability of monitoring the economic agents and political citizens of a country. Particularly the latter, I have argued, is likely to

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<sup>14</sup> Maybe the cement production indicator they use is so unique that corruption is a reasonable interpretation of the latent variable determined by their chosen equation system, but conceptual ambiguity appears difficult to avoid when applying structural estimation to the governance field.

<sup>15</sup> In this paper they use the WBI indicator that is constructed in the same way as the WBI corruption indicator.

have significant impact on both corruption levels and the probability of outbreak of civil war. That is, if it really reflects actual capability, not mainly vague perceptions of international business and country experts about the likeability of the different countries. TI's perception index (CPI) is applied in the paper as one of the indicators of corruption. While it differs in the ways TI's index aggregate the basic information – its informational basis is the same as WBIs – an amalgam of perceptions of experts' and businessmen's vague perceptions of the corruption level, their somewhat more precise perceptions about corruption levels that arise in more definite situations and household's responses to a few questionnaires. Hence it is not surprising that TI's CPI is highly correlated with the WBI 'control of corruption' variable. And since all the WBI governance indicators including the 'rule of law and the 'government effectiveness' are closely correlated, it is not so surprising that the endogenous latent variable the authors interpret as corruption, also are strongly correlated with the other 'observable' corruption indicators.

We may have the same objection to this structural estimation of corruption as before:- the rule of law or effectiveness is not more observable than corruption. We have also reason to suspect that if we turned the equations around and made, let us say, the rule of law a latent variable and 'control of corruption' an observable indicator of institutional quality, the new 'rule of law' latent variable is likely to look quite similar to the former latent 'corruption' variable. Closer to the issue discussed in this paper, this set-up may also be explored to study the interaction between the WBI 'political instability'-indicator and 'corruption' where we turn around what is observable and what is latent.<sup>16</sup>

Summing up, it is tempting to apply the WBI index of corruption (perhaps with some of the other WBI indexes of governance) to explain the probability of the outbreak of political violence – represented by the political instability and violence indicator – since they are the best available indicators covering most countries in the world. For the reasons indicated above, they are difficult to apply that way, however, but they do suggest that there should be some form of shared component (good vs. bad governance?) that drives them all. As the dominant relationship between the various

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<sup>16</sup> A more interesting use of the set-up would be to include some of

aspects of governance is a positive co-flux relationship – all the good things go together – they remain aspects of something shared. On the other hand, since fairly loose perceptions comprise a large share of the drivers behind each governance component, and experts as well as other rapporteurs of governance perceptions tend to perceive that all good things go together, the indicators may exaggerate their positive association. From these data, theory-focused attention is naturally drawn towards a search for omitted variables that might drive them jointly in the same direction (such as Straub’s bureaucratic incentives and maybe Dreher’s latent variables<sup>17</sup>) – and not to search for mechanisms that might tie them together in different and perhaps more interesting ways, where we need to look out for trade-offs between the various desiderata because they interact in ways that force the desiderata to move in opposite directions. For example, how should we view an IMF policy package if a 2% increase in the long-term GDP growth rate implied that the risk of violent conflict increased by 10%, but reduced corruption by 5%?

Dreher et al (2005) consider the high correlation between their estimated latent corruption variable and the other corruption indicators as confirming evidence. That may be a very open question. In an important paper Razafindrakoto and Roubaud (2006) demonstrate that at least in the case of the eighth African countries they explore, all the different international databases on corruption are likely to be wide off the mark as are the aggregate of expert opinions they collected.<sup>18</sup> This raises, of course, a serious question about the possibility of using ‘control of corruption’ or any of the other governance indicators as explanatory variables for the outbreak of large-scale violent conflicts.

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<sup>17</sup> Note that Dreher et al (2005) allow a more interesting interaction between corruption and another ‘bad’, the size of shadow economy, despite the important role of the different ‘WBI indicators. It is possible that a reasonable specification of structural estimation model with corruption and the probability of violent, large-scale conflict as two endogenous latent variables, may also give scope for an interesting transformation curve between these two variables.

<sup>18</sup> In this paper they let sample of households from the eight countries being asked about their corruption experience of corruption. Then a group of experts was asked to guess about the fraction of households that had been exposed to corruption. Their ranking of countries was wide of the mark, but strongly correlated with the international data bases. The experts also exaggerated the corruption incidence of corruption. Incidentally, when comparing the estimates of the size of the shadow economy based on structural estimation or other indicator-based methods with estimates based on household experiences we find that the latter give so much lower estimates, that one may reasonably doubt that the more refined methods may yield estimates that bear any close relationship to reality.

## 5. *Two policy indexes of institutional substitution – but still co-flux?*

Strangely enough, a similar vision is conveyed by several of the policy-motivated indexes that have been in use, although they are, in one sense, based on almost the converse assumption: That the different components of the index may readily be substituted against each other. Here it is not any causal structure that by implication joins the good things together, but normative additive structures above a surprising melange of policy and institutional desirables, which, when combined by rather implicit (if any) causal restraints, give scope for a wide range of policy and institutional substitutions. While institutions matter here in a normative sense, the ease of their substitution makes their positive interaction patterns inconsequential.

Among the indexes of this type that have implications for the analysis and the policy directed towards countries that may slide into conflict are the Country Policy Institutional Assessment (CPIA) ratings of the World Bank<sup>19</sup> and the Failed States Index published by *Foreign Policy*.<sup>20</sup> The CPIA index has been made by the World Bank as an instrument for allocating foreign aid (through its IDA, the International Development Association) across low-income countries by giving an edge to countries with higher CPIA ratings. The index is important from a policy perspective, but has also been used for more analytical purposes.<sup>21</sup> At present it consists of 16 criteria covering various fields of economic policy, aspects of governance (including corruption)<sup>22</sup> and actual economic and social results, and has what we could be termed an economic liberalist slant. The rating for each criterion is normalized, added (each criterion is given the same weight) and then divided by their number. For example, a country with worsening completion rates in primary education that has introduced lower tariffs may have an unchanged CPIA rating. The same unchanged

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<sup>19</sup> A good description of the composition of the CPIA index as the assessment system in which it is embedded is World Bank (2005a).

<sup>20</sup> The brief description here is based on *Foreign Policy* (2006, May/June, 48–58).

<sup>21</sup> The CPIA index is still used as part of the data that constitute the basis for the WBI governance indexes (Kaufmann et al., 2006a). Another important use is for the LICUS (Low income countries under stress) classification of the World Bank, where the World Bank seeks to differentiate more finely among countries that score low on the CPIA indicator and therefore may be considered rather unreliable borrowers.

<sup>22</sup> The WBI indexes have played a role in rating governance, but the main source of the ratings is meant to be the Bank's own country experts. This is the legitimacy for using the assessment as input in the WBI normative (or policy) indexes. The rates for each criterion might vary between 1 (bad) to 6 (good) in steps of 0.5. The basis for the grading is outlined in World Bank (2005a).

result may be the outcome if (perceived) corruption increases but the country signs ILO Convention 182 on the worst forms of child labour.

The main point here is that the simple additive form of the social welfare function of World Bank implied by the CPIA rating and related indexes, does not stimulate further analysis of the likely interaction between the governance components and the other criteria. Any worsening in one direction could be compensated by an improvement in another at the normative level. At the positive level, the very heterogeneity of the underlining objects under-stimulates the search for their actual interactions. From the index itself there is a kind of negative feedback on the research on institutions, even though the index includes several institutional and governance components and is dominated by the judgment of governmental and institutional and governance styles, not economic and social results. Again, since all ‘good’ values of objects or processes tend to go together, the particular causal mechanisms connecting the institutional and governance preference dots seem less urgent to disentangle – if that is at all possible given the wide diversity of the CPIA desiderata.

In this respect, the failed state index (FSI) exhibits some of the same properties. It is another broad index where judgments and experiences from widely differing arenas of the economy and society are each characterized by a single number and then compressed into a single index number – their mean value. In this case it consists of 12, not 16, individual indexes grouped into three areas: social, economic and political. Among the social indicators are demographic ‘pressures’ and mutual group grievances. Economic differences across groups and evidence of serious economic declines are the two economic indicators, while crime, corruption and morale in the security apparatuses are among the political indicators.

Unlike the CPIA rating, the immediate stated aims of the FSI are not normative, but rather to predict state ‘failures’ and to build a framework for journalistic analyses of countries threatened by eruptions of serious forms of political violence.<sup>23</sup> The FSI is more focused on conflicts than the CPIA index.

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<sup>23</sup> The index is sponsored by the journal *Foreign Policy* and a US non-governmental organization, the Fund for Peace. The exact compilation and aggregation procedures leading from data to the indexes are not made public, but in addition to public statistics, newspaper stories and other media reports are

Like the CPIA rating system, the FSI sub-indexes cover such a wide range of heterogeneous phenomena that it is difficult to imagine any definite patterns to their interactions. Since they are tied additively through the index ratings themselves, and since the sub-indicators appear positively associated – like the different WBI governance indicators – the indexes again tend to blend the phenomena into a kind of governance ‘soup’ where most indications of ‘bad’ or ‘good’ governance go together. This is reinforced by the fact that they are mainly constructed as ranking devices. Formally they are cardinal numbers, but they have only ordinal meanings. Thus it makes little sense to ask, for example, whether an increase in corruption from what was a high level may decrease political stability while an increase from a low level may increase it.

Summing up, since corruption is difficult to observe and since it takes place in so many heterogeneous situations, we have only indirect indicators of the extent and severity of the phenomenon. To study empirically the mechanisms that may link corruption to likely outbreaks of conflicts, some understanding of corruption indicators is helpful. Here I have focused on indicator systems that somehow tie a corruption indicator to index numbers that also produce some figures that simultaneously indicate internal conflict tendency, the WBI governance indicators, the CPIA rating system and the Failed State Index. While in the WBI set of governance indicators the relevant indexes are linked partly through their statistical construction, in the CPIA and FSI ratings corruption could in principle be freely substituted against other governance indicators – but even so, a positive association between corruption and conflict tendency indicators emerged in all three. In different ways, all three assumed that higher corruption levels should be associated with higher conflict propensity – without suggesting theories as to why or when such co-flux movement should be expected.<sup>24</sup>

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included in the empirical base. The nature of the sub-indexes is such that expert judgments must also play an important role in the final outcome.

<sup>24</sup> In general we may not expect anything like this from any index number, but the system of national accounts is a system of index numbers that suggested theories of interaction that once revolutionized macroeconomics.

In order to explore how different governance components may interact in more interesting ways, I will look into Huntington's 1968 classic *Political Order in Changing Societies*, where both co-flux, non-linear and a negative relationship between corruption and violent conflicts were suggested. Then I explore more recent theory about civil wars where corruption plays a key role, although it is not named as such. In particular its composition into commercial and 'relation'-based corruption appears to be important. After some descriptive portraits of corruption during actual conflicts I return to n-country cross-section issues, to see how estimates of GDP levels and rates of change are fed into corruption vs. conflict research. In that way we may explore the implications of the results from one research field to the other.

## **6. *Corruption and conflicts driven by 'modernization'?***

Modernization theories of economic, political and social development were regarded as old-fashioned and discredited already several decades ago. Strongly inspired by the sociology of Talcott Parsons, they introduced many quasi-mechanical and complex sets of structures and of functions between a large number of 'variables', variables that were often equally complex and not anything like a variable in the mathematical sense. Now their subject matter has become alive again in areas like the modern economics of institutions and the political economy of governance.<sup>25</sup> At the time of their demise, modernization theories were considered too harmonious and unidirectional, even somewhat ethnocentric. Marxist-inspired research was influential in shaping that view.

Compared to today's leading trends in the study of governance, conflicts and growth, however, modernization theory was more aware of possible dysfunctional interaction

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<sup>25</sup> Even some of the more specific issues of the old modernization research have re-entered the research agenda. For example, the question of how to characterize the shifts in social (and economic structures when agents move from locally embedded to more open ones, and the economic and political effects of such shifts (Kali, 2003). Dixit's (2004) analysis of relation-based forms of economic governance will stimulate the exploration of modernization-like issues in a wide field. In several papers Kingston has started a systematic analysis of relation-based forms of corruption, for example in Kingston (2006). I have not come across any similar approach in modern theory of conflict, but that may be due to my lack of knowledge. As will be evident from the following, I believe this development to be helpful both on research and policy grounds. .

patterns among governance, growth and education: Too little corruption may increase the level of conflict, higher levels of political participation and democracy could do the same or could give rise to more corruption, more education may lead to political violence, and so on. Here I will look at Huntington's (1968) classic study of political development and order, with emphasis on his ideas about conflict and corruption.

Already in the first chapter of *Political Order in Changing Societies* he argues strongly that both political instability (group violence) and corruption are likely outcomes of 'modernization.' Modernization is the main omitted 'variable' that links corruption and violent conflicts into a co-flux relationship:

The functions, as well as the causes, of corruption are similar to those of violence. Both are encouraged by modernization; both are symptomatic of the weakness of political institutions....the society which has a high capacity for corruption also has a high capacity for violence. (Huntington, 1968: 63)

Rapid modernization processes are characterized by 'political mobilization' increasing faster than political 'institutionalization'. Behind political mobilization is 'social mobilization'. Social mobilization tells a story of rapid changes in the economic strength of different groups, in what people know about the world around them, including their increasing education levels and new media exposure, in their expectations about economic possibilities, as well as rapidly shifting values, and so on. While economic growth goes together with social mobilization and may contribute to it, so may growth, to the extent that it bring greater real income to broad groups, reducing the 'social frustration' that could otherwise result from social mobilization and its new expectations.

An unemployed student who has completed secondary school may serve as a concrete example of social frustration. He is more likely to engage in political activity than the average citizen, hence the 'political participation' will increase. If his (and his fellow students') later demands for employment are not brought into the political system in legitimate ways because the degree of 'political institutionalization' is too low, these demands may give rise to corruption or political instability: The student may, for example, get his family to pay a bribe so he can get a job as a teacher, or he may join

a violent rebellion where his education may be put to some use as an officer in the rebel organization.

It is not made clear why political institutionalization in particular is so much slower variable than political participation and some of the other variables Huntington mentions, but behind the battery of the somewhat vague terms we may find an interesting vision of corruption and conflict based on a theory about the evolving roles of expectations and perceptions in the process of modernization. It is obvious that expectations and perceptions may move at a different and often much faster speed than the actual economic or political variables expectations are expectations of. For example, if most poor citizens suddenly expect to become well-off, and even if these expectations prove correct in the end, it will take many years to realize them.

And many expectations are about stocks that in principle need longer periods of flows to cumulate to in order reach their expected levels. A political system, a political infrastructure that handles political demands may also be considered as a stock that needs a flow of 'institutionalization' to be built – but then, what institutionalization should mean remains somewhat vague. Huntington defined it as follows: '[political] institutionalization is a process by which organizations and procedures acquire value and stability.' (1968: 12). Since it is a stock that handles political demands it is the *level* of institutionalization (that is, the stock), a build up of political and organizational capital that deliver the supply of relevant political services while the demand is based on faster-moving political expectations.

Unable to cope with all the new demands that arise under a modernization process in legitimate political ways, excess demand is on the one hand released by individual agents trying to get access to and influence the political and bureaucratic apparatus through corruption; on the other hand, excess demand stimulates attempts to organize access to the collective decision-making through the creation of wholly new alternative procedures or organizations for public decision-making through group violence.

Without going into detail on Huntington's explanations and conceptual system of 1968, complex and Parsons-inspired as it was, it may be of interest to point to areas

where his approach, his predictions and results differ from current quantitative research. Since no data on corruption existed then, he could of course not offer any clear-cut results with regard to corruption either. Huntington did present some data on violent conflicts, however. Compared to recent results, a striking difference is the effects of GDP levels and GDP growth rates on conflicts. Collier et al. (2006), who bring in civil war data from 1965 till the end of 2004, show that both GDP levels and growth rates have both significant and strong negative effects on the probability of outbreaks of violent conflicts in subsequent periods.

Relying on data on conflict between 1948 and 1962 (admittedly far less precise than the data banks on civil wars of today), Huntington (1968: 53) reported that practically no correlation between economic growth and domestic group violence could be found for the poorer countries, but (like Collier) a negative correlation between overall GDP levels and growth rates for the richer countries and the rate of conflicts. He suggested quite complex patterns of interaction: Positive growth in very poor countries may cause violence through unbalanced forms of modernization while growth in better-off countries may simply reinforce their stability. Negative growth may, however, also cause group violence. Hence no straight relationship should be expected between growth rates and frequency of group violence.<sup>26</sup>

Much hinges upon the expectations of agents and their possible disappointments. The most 'traditional' countries, which also are the very poorest, are also likely to be quite stable, he claimed. The relationship between GDP levels and the incidence of violent conflict must, according to this theory, be somewhat complex. Either when the countries are distributed according to their GDP levels or when we follow the timeline of the single country, we end up with a distribution that follows an inverted U-shape – a shape very popular today.

According to Huntington, secondary education has a two-edged character. On the one hand it may contribute to the economic development, but a high rate of secondary school attendance as well as rapid development of primary school capacities in poor

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<sup>26</sup> Recent studies find similar negative associations between corruption rates, GDP growth and levels. Some authors have tried to explore whether the relationship may be more complex. Merz (2004), for example, argues that increased variance in GDP growth rates may cause higher corruption levels.

countries will increase the probability of conflicts: ‘Political participation by illiterates ... is likely to remain limited, while participation by literates is more likely to snowball with potentially disastrous effects on political stability’ (1968: 49).

Compared to our example, the main danger here appears not to work so directly on the recruitment of rebels as through their potential efficiency. Collier and Hoeffler (2004b) show that in their data, higher levels of secondary school participation have a significant negative effect on the probability of violent conflict, but the significance disappears when the GDP level is included in their regression.

Today’s statistical methods are better, the data more reliable and more comprehensive. When the results are different, may we then conclude simply that Huntington of 1968 was wrong and should be forgotten? Such a conclusion, I believe, would be premature. His vision of economic growth as possibly interlinked with painful processes of corruption and violence may in the end prove more fruitful for formulating hypotheses than the present dominant vision where bad goes with bad and good with good in the field of governance, where the process for escaping low production equilibria is basically smooth and similar everywhere. That may become the outcome even though the modern vision is propped up with seemingly better data,<sup>27</sup> and better methods have been applied to analyze them statistically. As just pointed out, most of the governance data used share the weakness of being remote from direct observation and are likely to correlate by construction.

One explanation of the difference in results may be that the relationships may change with historical developments. For example, if Huntington was correct about his ‘traditional’ societies, but no such societies exist today, the relationship between the GDP levels and conflict outbreaks then and now is likely to differ. If his views about the instability-causing mechanism of secondary education were correct, then it might be due to the fact that it was communist ideology that was the rebel-making ideology then, but not now. When the appeal of that ideology weakened the effects of secondary schooling on political violence may also have changed.

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<sup>27</sup> Some of the data are constructed in such ways that they will almost automatically be positively correlated. That makes it difficult to test other hypotheses.

Another possibility is that the very poorest countries might be less conflict-prone than now, because ‘modernization’ had not really started among them. They were closer to the ideal type of ‘traditional’, whereas ‘modernization’ has taken a grip on them now. Or perhaps the relationships have changed by now because ‘modernization’ has ended. ‘Modernity’ is everywhere. If so, the mechanisms that Huntington saw as linking corruption and conflicts into the same process of modernization must of course also be different. To explore questions like this, we would have to look at sub-samples of the data that Collier et al. applied, for each decade or each generation (25-year periods). Unfortunately, corruption data do not stretch far enough back in time.

In the preceding I have emphasized one interpretation of Huntington, the one where corruption and conflict are considered as forms of co-flux phenomena caused by different but similar mechanisms linked to the same process of modernization. We may perhaps simplify his ideas by means of a simple heuristic model:

Let us look at the variables:

V – voice and accountability index (level of political participation)

E – government efficiency index ( level of political institutionalization)

P – political instability index

C – control of corruption index

M- level of modernization.

All variables may be considered functions of time.<sup>28</sup>

Huntington’s simplest system may then be formulated as:

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<sup>28</sup> The terms chosen are taken from the WBI governance indicators. ‘Government efficiency’ is the one closest to Huntington’s political institutionalization, but is much more narrow. ‘Voice and accountability’ contains some elements of Huntington’s notion political participation, but also items alien to it. To build up an index close to this notion on the basis of the WBI data would demand a reworking of the whole set of the governance indexes from scratch. Even more than the other variables here ‘modernization’ is a variable only in a heuristic, not a mathematical sense. It will consist of complex processes, outcomes that may vary, the existence or non-existence of a large number of rules, norms and values, and so on. If we were using the WBI indexes in any operationalization of the model, we would have to shift the sign of P and C, since there higher negative values means more corruption and higher instability.

$$(1) \frac{\Delta C}{\Delta t} = a [V(M)/E(M) - h] \text{ for } V(M)/E(M) \geq h, 0 \text{ otherwise;}$$

$$(2) \frac{\Delta P}{\Delta t} = b [V(M)/E(M) - k] \text{ for } V(M)/E(M) \geq k, 0 \text{ otherwise,}$$

where a, b, h and k are positive constants,  $\frac{\Delta C}{\Delta t}$  and  $\frac{\Delta P}{\Delta t}$  are the derivatives of corruption and political stability with respect to time. h and k represent political equilibrium values where participation levels balance political supply capacity. If political demands exceed this, both corruption and conflict risks will increase.

As modernization shifts upwards from a traditional-society equilibrium, political participation responds more quickly, since expectations come to play a more important role and overshoot political institutionalization. The resulting disequilibrium may remain as such, but clustered in three stages (not modeled here): ‘oligarchic’, ‘middle-class’ and ‘mass participation’. As the economy grows and political parties mature, political institutionalization will (one hopes) also shoot up.

Huntington argues, however, that corruption may reduce political instability, including political violence. This can be accommodated within our set-up if  $b \geq a$ , and we subtract (1) in equation (2). Then modernization increases both corruption and instability while corruption reduces the effect on latent violence. Today Huntington’s analysis of corruption is best known for pointing out the conceivable positive effects of corruption on development, including this conflict-mitigating one. That is, he may be interpreted as believing that corruption basically deflects conflicts. Nevertheless, the whole gist of his study of political order in poor countries makes a co-flux interpretation the most reasonable one. Modernization, as employed by Huntington, was such a vague concept that it could embrace a large number of mechanisms.<sup>29</sup>

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<sup>29</sup> In the interpretation here I have focused on the participation/ institutionalization fraction as driving both, as a kind of co-flux, where modernization is a form of vaguely specified omitted variable. It is, however, also possible to interpret Huntington’s ‘modernization’ as being composed of components so different that his corruption level was irrelevant for political instability. Corruption was simply a form of cultural norm-imitation almost irrelevant for behaviour. Cf. his remark, ‘Corruption in a modernizing society is thus in part not so much result of the deviance of behavior from accepted norms as it is the deviance of norms from established patterns of behavior’ (Huntington 1968: 60).

**7. *When can corruption reduce or increase conflict risks and the prospects of conflict reduce or increase corruption?***

If we accept the latter version of Huntington's co-flux theory, what may make  $b \geq a$ ? It is difficult to find any deliberate attempt to answer questions of this kind in his book. Furthermore, looking at the linkage between corruption and political instability in Huntington (1968), I portrayed it (in Andvig 2006a) as a rather mechanical relationship driven by the power of modernization where corruption may have some feedback effects on political instability, but not the other way around. What was meant by political stability was deliberately made vague, except that some form of collective action was presupposed. That could involve removal of a government through elections, military coups or larger-scale violent action ranging from local guerrillas to wholesale revolutions. Corruption was also defined widely, embracing both relation-based and commercial forms.<sup>30</sup>

In this section we will again focus on civil war-like situations. For some models the difference between commercial and relation-based corruption is important for the likely consequences for outbreaks of civil wars. In contrast to Huntington's modernization theory, the prospect of war may have feedback effects on corruption.

When propagating the application of economic mechanisms in explaining civil wars the World Bank research group emphasized initially a distinction between greed and grievance rebel groups (Collier & Hoeffler, 2001). According to their estimates, 'greed' groups were more frequent, but grievances may also play a role.<sup>31</sup> Extensive corruption may be expected to stimulate both. Extensive corruption implies that public resources disappear into private pockets while many urgent and feasible public actions remain undone. That is likely to stimulate grievances against the current public power-holders.

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<sup>30</sup> In Andvig (2006a) I analysed the forms of corruption under Huntington-like modernization processes where both norms changed, loyalty shifted and where old traditional loyalties kept family-friendship forms persisting while the norm conflicts that arose increased the commercial forms through anomie mechanisms.

<sup>31</sup> Their results indicated that the ease of financing rebellions was an important economic factor. Today's conflict researchers have become (excessively?) critical of the distinction for empirical research.

On the other hand, as current power-holders grow rich through corrupt income obtained through their public positions, the incentives to acquire public offices for outsiders will increase. Hence, the incentives to establish greed-motivated rebel groups are stimulated if access to public offices demands violent actions.<sup>32</sup> Moreover, extensive bureaucratic corruption, particularly when connected to armed forces and tax collection, increases the likelihood of a successful rebellion through the consequent weakening of the state apparatuses, including its military capability. This implies that extensive corruption should stimulate both greed- and grievance-motivated rebel organizations and increase their chances of winning military contests, hence stimulating their presence.

The existence of extensive corruption raises a problem for this kind of logic, however. In order to acquire positions which enable them to collect bribes, why should individuals resort to *group* violence – which is both risky and costly? Why not get them through bribes? Lack of the individual wealth or education necessary in order to get into a bribe-collecting position<sup>33</sup> is an obvious answer, but some wealth /education is necessary to organize an alternative organization – so why not follow the individualistic road through corruption to get access to the public rents? The prospects of individual access should work against this kind of group action. Here we see a mechanism where corruption may prevent the coalescence of rent-seeking individuals into rent-seeking violent groups at the same time as corruption constitutes a large share of the rents that may drive the creation of such groups. Moreover, even if greed-motivated violent organizations are about to emerge or have already arisen, they may be prevented from fighting by being bribed. That is, if groups external to the formal state have some mechanism for sharing rents acquired by members as individual bribes, it may appear unnecessary to resort to violence. Again, we see that the prevalence of corruption creates problems for conflict theory in the case of greed-motivated agents. This reasoning applies if all agents or all extra-state groups have, in principle, approximately equal access to the government. If specific groups of individuals are denied such access, the situation is changed. Then individuals from the

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<sup>32</sup> This is in fact the standard starting point in most analytical (economic) conflict theory, where different groups are competing for rents that accrue to the public power-holder and where the winner gets both power and its rent. That rent may embrace more than corrupt income, however.

<sup>33</sup> Lack of relevant education is another answer, if education of a certain type has become the necessary entry-ticket for a position. But if so, that is likely to be a requirement after a regime change.

disadvantaged groups may improve their access only if their group joins a winning coalition that can gain access to power (and the sources of corrupt income) solely through collective action – most likely violent action.<sup>34</sup> The existence of relation-based groups competing for control of the state apparatus (where the workings of the state apparatus itself may be dominated by their competition) will change the likelihood of violent conflict itself, the prevalence of relation-based versus commercial corruption, as well as their effects on the prevalence of these two forms of corruption, being part of group calculations about getting involved in a violent contest or not. Moreover, the likelihood of the outbreak of violent group conflict will have effects on most other aspects of public behaviour.

Although scarcely applying the term ‘corruption’ Jean-Paul Azam (2001, 2006) has analysed this situation in several models. He focuses on two groups that have their organizational basis and legitimacy outside the state apparatus.<sup>35</sup> He looks at the extreme case where one group is in temporary control and may employ the state apparatus (particularly its military part) to further its group interests. The other group – the ‘opposition’ – may be wholly denied access to the state; or the controlling group may transfer a share of the public goods, public positions and public income to members of the opposition group. In many African countries, some form of collective instrument for gaining access to land is also frequently involved: a share of land is put in the pot, increasing the value of the prize gained or lost in the extra-state group competition. This is an institutional feature that may stimulate both corruption and armed fighting. After a group has gained control, many of these transactions will be corrupt when regarded from the vantage point of view of the formal state.

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<sup>34</sup> If a majority coalition is denied access, and power could be achieved through elections, why then have they not gained power before? A minority coalition may not gain power through elections at all in this stylized situation where everyone is focused on possible spoils, and the only way to gain access to these is through armed rebellion.

<sup>35</sup> The following exposition represents an interpretation of his models. Since Azam does not discuss corruption explicitly, this is a point where I may depart from his view. I read his model as dealing not only with conflict but also with the roles of corruption when ethnic groups are competing for the control of the central government. The key point here is that when the central management of the state is made to serve the aims of outside groups, high corruption levels (as seen from the perspective of the state) can be expected. Seen from the point of view of the competing groups themselves, the normative grid fixed by the state may appear arbitrary, and rules will be violated as part of the fight. Seen from the point of view of the state, many of these violations represent corruption. Relation-based corruption will be especially prominent. The likely effects of corruption on conflict probability would hinge upon how its components are related to the group struggle. Azam considers transfers mainly from the perspective of the competing extra-state groups, and so corruption disappears from view.

Azam assumes that the opposition group has the potential capacity to organize a violent rebellion, whether or not it currently has evident control of some instruments of violence. Hence, the models assume the existence of at least two centrally directed organizations that may operate behind the back of the formal public institutions, sometimes using the latter as instruments. Such ethnic groups, ‘clans’, ‘tribes’, even ‘nationalities’ are relation-based and may supply individual insurance, mutually supporting values, and so on, not only the basis for collective decision-making units that ‘produce’ violence. Azam’s models are inspired by West African experience, but such groups are quite prevalent in many other developing areas characterized by relation-based (family) production and insurance systems.<sup>36</sup>

In the extreme case of Somalia, the relation-based groups are so prevalent that the formal state apparatus has almost disappeared, even as a Potemkin village. Without any formal public institutions, also corruption (as ordinarily defined) should then disappear in principle.<sup>37</sup> With it, however, a large share of transactions that take place through the state apparatus is likely to be (relation)-corrupt: You do your duties according to the ulterior interests of a non-state, non-elected principal. This is an obvious over-simplification, in the sense that we have *chosen* to look at the situation from the viewpoint of a formal state or a formal organization when defining corruption. Then we have to consider how group-determined transactions are filtered into ‘corrupt’ and ‘non-corrupt’, under the normative grid of a Weber-like state organization.

As noted in Azam (2001 and 2006), there exists a coalition of ethnic groups that controls the state. That group relates to another coalition of ethnic groups that might

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<sup>36</sup> I came across such systems also when studying corruption in Azerbaijan (Andvig, 1999). Here the ruling coalition, the Aliev ‘clan’, was not simply based on perceived family or ethnic links, but also on the personal history of the president, with relations built around his home area, his educational and later professional KGB experience. The potential opposition groups were equally complex but not so clearly articulated. With less clear ties to any geographical base areas and greater member fluidity, these clan organizations should be expected to have greater difficulties in organizing violent rebellions than African ethnic groups, however.

<sup>37</sup> Of course, a member of one clan might to be bribed by a member of another to undertake an action against the interests of his clan. The ethical response to a violation of the duties of a relation-based position may be even stronger than ordinary corruption in a formal organization – it may be perceived as ‘treason’. Within a formal state system, it is only when the briber is a foreign power that it will normally be so strongly condemned.

rebel, applying military force, like the governing coalition. The controlling coalition may spend the income from the state, **T**, on military force, **D**, on the potential rebels, **G**, or on itself, **A** (i.e.  $T = D + G + A$ ).<sup>38</sup> The conflict between the controlling and potentially rebelling coalition is modelled as a lottery where the probability that the rebels will succeed and take control of the state is determined by the resources of force the rebels are able to muster, compared to the control coalition. The model addresses potential civil war situations. The force gathered by the rebels, **F**, must exceed a certain threshold before the probability of their winning can rise above zero. Unless there are some pre-existing groups with a certain geographical concentration, this threshold may be passed only with difficulty.<sup>39</sup>

Seen from the point of view of the ruling group – which owes its legitimacy to conditions outside the state – we could interpret **G** as a bribe to the rebel group to dissuade it from arming. Depending on circumstances it might ‘bribe’ the leadership or the followers in the potential rebel coalition, using the state as the obvious instrument of redistribution<sup>40</sup>. These bribes would tend to reduce the possibility of conflict. **G** corruption would reduce the rebels’ incentive for seizing power since they have already received the part of the rent that would eventually accrue them as power-holders, and their own expected future net rents would be reduced since, if they won, they would expect to have to pay a similar amount to the opposition in order to maintain control.

If, on the other hand, the ruling coalition spends its net state rents on itself, the other form of corruption (**A**), that would clearly stimulate conflicts since (1) it would leave the controlling group with a smaller, less well-armed military force, thereby increasing the probability that rebels might win, which in turn would raise the

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<sup>38</sup> **A** is not made explicit, but without it the discussion would not make much sense. **A** may be interpreted variously, but a likely interpretation would be as a kind of rent that accrues to the leadership of the state-controlling coalition through its ‘ownership’ of the state. It is reasonable to assume that a large share of **A** represents corruption.

<sup>39</sup> That is when passing the threshold of civil war-like situation. The start-up groups may be very small like Taylor’s start-up group initiating the civil war in Liberia in 1989. They may have many different forms of glue and test out the possibility of passing the threshold by trial and error. I am not aware of any systematic study of such start-up groups, where both failures and successes are recorded. When reaching the data threshold for the civil war definitions they have already become successful.

<sup>40</sup> While seen from the perspective of the ruling group, **G** represents bribes, from the point of view of the Weber grid some of the redistribution may not be bribes but legitimate expenditures like investment in schools, roads or health clinics in ‘rebel’ areas, in addition to the regular bribes of the members of the opposition.

probability of the outbreak of conflict, and (2) it would increase (or keep) the size of the catch that rebels might grab, and hence strengthen their incentives for rebelling. How the corrupt income is spent is crucial for its impact on conflicts.

However, there is a problem in interpreting  $G$  simply as a *flow* of corrupt income within this model, since it then may easily be adjusted upwards or downwards. This is problematic because the ruling coalition then cannot pre-commit to  $G$  and let it stay at that level whatever the level of force,  $F$ , chosen by the rebel coalition. That is, the ruling coalition cannot pre-commit  $G$  to the level necessary for the rebels to decide not to arm. And if it cannot pre-commit, that means that the government coalition has an incentive to spend all its income either on its own military forces, or grab the rent for its own use, depending on the  $F$  it observes. If it observes  $F = 0$ , the government coalition will keep so much of the rent itself that the rebels will arm in any case, so as to catch that large rent – and no peace-inducing, arms-saving corruption will emerge.

To apply redistribution as an instrument to prevent civil war, the government coalition has to pre-commit, making it unable to adjust the level of  $G$  to the observed level of the force-relevant expenditures controlled by opposition groups. This pre-commitment might be done in several ways – for example, by allocating public investment in ways that may favour the potential rebel coalition. When schools and health clinics are built in rebel-controlled areas they are there, and it is hard to refuse to pay the teachers and doctors. It takes time before roads in rebel areas become totally unusable. This was the form of pre-commitment Azam had in mind. While corruption is bound to evolve around the administration of schools and clinics in countries where corruption is common, most of this form of ‘bribing’ the potential rebel coalition would not be deemed ‘corruption’ under a Weber grid.

Another method of pre-commitment more closely tied to corruption in a Weberian sense is to allocate a certain number of rent-generating positions (or administrative units) in the government to members of the ethnic groups of the opposition coalition.<sup>41</sup> In this way, members of the opposition can collect their own bribes in the

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<sup>41</sup> According to widespread rumours in Kenya around 2000 Kikuyus were allowed to keep all the rents they could catch in the Nairobi Town Council during the Kalenjin rule of former president Daniel Arap

same way as members of the government. Here the redistribution of income is by implication.<sup>42</sup> It is the members of opposition groups holding positions in the state who actually collect the corrupt income.

Turning to the Weber grid, we see that it would be almost impossible for an outsider unfamiliar with the relation-based chains of the backseat organizations to determine the likely effect of corruption on the possibility of conflict. The actions performed by government employees who are members of the potential rebel and the government group would look exactly the same, but while corruption on the government side would increase the probability of conflict, that performed by the opposition would act to reduce it. The effect of aggregate corruption on conflict probability would then become difficult to determine by outsiders who do not know the composition of government employees across groups. For a given allocation of government positions across groups, we would, however, expect conflict probability to increase with aggregate corruption, since it will increase with **A** and with those components in **B** that cannot be pre-committed.

In another, somewhat more complex model, Azam (2006) focuses on the relative income-generating versus fighting abilities of the two contesting groups, and models more explicitly the credibility of government income transfers. This credibility may now vary in degree, but it is still assumed to be exogenous. Azam applies the new set-up to explain why a government controlled by a relatively 'rich' group may need to redistribute income to the 'poor' in order to keep the peace. If redistribution becomes less credible, the government will have to transfer more; however, if credibility falls below a certain level, the only remaining device to keep the peace or win the fight is the accumulation of force. If, by contrast, the poorer group controls the government, it is likely not to redistribute to the potential rebels, but to rely on military force. Hence, redistribution is an issue mainly when the richer coalition is in power. Since this redistribution will have a large share of corrupt components, ruling coalitions from richer areas may tend to be more corrupt (and perhaps also win democratic contests

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Moi. This and other power-sharing devices may partly explain the absence of any serious violent rebel organizations during his rule, except for the coup attempt of 1982.

<sup>42</sup> If the positions were not secure, or control of the units could easily be revoked, such licenses to bribe could, of course, not be applied in any pre-commitment strategy. It is easier to dish out positions as part of a pre-commitment strategy when the potential rebel groups are tied to geographical areas.

when transfer in corrupt items increases their chances of winning), whereas ruling coalitions from poorer areas will tend towards military forms of ruling with less corruption and more use of force.

As in the preceding model, corruption may increase or reduce the probability of conflict, depending on whether the corrupt income is caught by the rebel or by the government coalition. On the other hand, the model suggests another mechanism that points to conflict-enhancing effects of corruption. While an exogenous parameter in the model, the level of credibility is likely to be influenced by the rates of corruption (according to the Weber grid). Whatever level of redistribution from the power-holding group the two coalitions have agreed upon, it is meant to be implemented through the state apparatus. If that is permeated by corruption, the credibility of any commitment will be low. Hence, when the power is held by the richer group, a high level of corruption will go together with a high likelihood of civil war.

Part of the motivation for Azam's models is to understand the situation when contesting ethnic groups are fighting for state power while also possessing their own decision mechanisms for redistribution, production and allocation of publicly delivered goods and services, such as security, working outside the state apparatus. While this is not modelled explicitly, in order to understand whether the government coalition will choose to grant licenses to bribe or actually deliver goods and services to rebel group members, it may be important to distinguish between the leadership and the ordinary members of the coalition.

If the key problem is to prevent the leadership of the rebel coalition from opting for conflict, the licence to bribe is likely to be preferred, since that will be to their immediate advantage. Schools and health clinics, however, will be more to the advantage of the rank and file, and will act to prevent them from joining a rebellion. It may also weaken the rebel leaders' hold on the group through patronage, since they receive less in bribes to redistribute.

That would also happen with the licenses to bribe extraction, if corruption has become a cause for policy dissatisfaction. When the leaders indulge in corruption, this may weaken the motivation of the rank and file to join them in a rebellion. In this

case, the rulers might bribe the rebel leaders in order to prevent their rank and file from joining. If, on the other hand, the rebel followers are less concerned about their leaders' corruption, this could backfire: earning corrupt income gives the leaders scope for their own redistribution to followers, which may boost their power and popularity. However, if it is the poorer group that gains power, it will be less able to redistribute rents to the out-of power group and will have to rely more on force to stay in position.

The last model is clearly inspired by the 2002–03 rebellion in the Ivory Coast and the post-World War II history of Nigeria. Alternating between rulers from richer areas with some democratic credentials but characterized by extreme corruption, and military rulers based on support in poorer area almost seems to have been the rule.

Azam's articles are mainly theoretical. Particularly interesting, in my view, are his ideas about how the conflict potential of an economy could have important effects on whether or not open conflict may emerge. Among the mechanisms working during peace but likely to be influenced by the shadows of war are the various forms of corruption. If the level of corruption is high in a period prior to a civil war, this may be because it is an active cause – or, conversely, it may be conflict-reducing, but not sufficiently so. If it is low, this could be because the fear of conflict may induce the ruling coalition to collect less of its state control rents for private consumption, but to spend these rents on weapons, schools or health clinics instead. We still need more information about the ethnic aspect of redistribution, however. If these models apply, it would be difficult for an econometric specification of the determinants of conflict probabilities to catch the latter possibility without such specification.

Azam (2001) also reports some simple empirical results, but without specifying any corruption variable. Expenditure on health as share of GDP reduces the probability of violent conflicts, which sits well with his models. Contrary to expectation, however, the level of enrolment in secondary schools increases it – which confirms the earlier Huntington result. On the basis of data from 23 African countries, Azam speculates that the reason may either be that the implied redistribution towards the better-off sections of the population creates dissatisfaction among the rank and file, or that secondary schools may increase the supply of low-cost leadership to rebellions. A

further conflict-reducing measure found effective is high public-sector wages combined with relative low public-sector employment. This reinforces the ethnic redistribution mechanisms. This mechanism should work roughly the same way as low public-sector wages when accompanied by extensive corruption, however.

Although it is inherently difficult to test Azam's models against direct empirical observations, the main empirical results of the large political instability, logistic prediction model of the Political Instability Group's report (2003, 42–43) appear to support (or at least not contradict) Azam's deliberations. They found that, when *combined* with *factional* political competition, the regime forms of weak democracies and autocracies had between eight to thirty times greater probability of experiencing a major form of political instability in the coming year than any of the other possible regime forms. This was the 'variable' with the strongest explanatory power among the many variables considered by this group of researchers. Presumably a large proportion of factional competition will be based on extra-state groups considered above.

While useful for highlighting the effects of group contests for government power, it is somewhat extreme to assume that all the action takes place in the 'backrooms' of ethnic groups and not in the offices of the formal state, however. In most cases, the Weber-like conception of the state will have some validity. Officials will keep some loyalty and the public will hold some expectations towards the state not only to their ethnic leaders.<sup>43</sup>

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We may imagine also other routes along which corruption may have differential but significant impact on the probability of conflict. For example, if the police are exceptionally corrupt and are engaged extensively in commercial corruption,

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<sup>43</sup> The overall results of the surveys of African households' experiences, perceptions and opinions about their country governance as reported in Razafindrakoto and Roubaud (2006b,2007) indicate that overall the Weber state has been accepted by the population under normal circumstances. Nevertheless, when conflicts open up the perception of the formal state may diverge. For example, Razafindrakoto and Roubaud report (2006b: 77-78) that the satisfaction with the state (democracy and effectiveness) diverges between satisfied members of the president's ethnic group and dissatisfied members of ethnic groups in the north of Côte d'Ivoire.

organized crime units are likely to expand in size and scope. Organized crime units may pave the way for the larger-scale violence of rebellions, and later live in symbiosis with it,<sup>44</sup> but it is also quite possible that they may prevent the growth and survival of the organized crime units. Indeed, rebel organizations may themselves police organized crime and gain popularity on that basis. If so, we return to a situation in which police corruption may indirectly stimulate violent rebellion, where initially large-scale crime units indirectly prepare the ground for a larger-scale rebellion that will then crush them. That is, police corruption may either stimulate or frustrate violent rebel movements, depending on the patterns of interaction between organized crime units and potential rebels.

When the ethnic coalitions are centrally controlled and act as units, they may themselves be exposed to commercial corruption. The leaders are not likely to have sufficient information or strength to prevent sub-group corruption when that is too profitable for the single member, whatever the expected consequences for the outcome of the violent conflict in which the coalition is engaged. Unlicensed looting will be difficult to control, particularly in commercially oriented rebel movements after the violence have broken out. Before and after the outbreak the legal authorities may use bribes deliberately to dissuade sub-units from engaging in coming conflicts.<sup>45</sup>

### ***8. Corruption during conflicts***

To explore the possible causal effects of corruption on conflicts we would need to look at reasonable counterfactual situations where conflicts have not occurred. These do not necessarily have to include the whole population of countries (or regions), as desirable in cross-section econometric analyses of conflicts and of corruption, but it seems reasonable to include some non-conflict countries as well.<sup>46</sup> Recently, country-

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<sup>44</sup> Examples that come to mind are Colombia and Afghanistan. Note that we here have disregarded the ethnic composition of the police units themselves. If important, the possible relationship patterns between forms of police corruption and the growth of rebel organizations become even more varied.

<sup>45</sup> From press reports we know that the US government has used bribes extensively in Afghanistan for a wide variety of purposes, including conflict prevention, but to my knowledge this policy and its effects have not been studied from a social science point of view.

<sup>46</sup> Cf. our interpretation of Azam's models. These presuppose fighting between outside-the-state organizations that are not present in many countries. Countries lacking such organizations may become a reasonable counterfactual if we ascribe the outbreak of conflicts to the bribing behaviour of ethnic groups or their like.

level data have been produced that can make such analysis empirically feasible, if the corruption indexes themselves are meaningful and reliable.

In this section I have no budding causal explanations to offer, however. I will simply look at the experiences of a violent conflict and ask what is likely to happen to the level and distribution of corruption across sectors of government and society then. What will be the likely effects of corruption on the properties of the conflict – like its duration and scale, or the number of deaths? Although this is in many ways a simpler question than the causal one, relevant data are even more difficult to obtain.

When a large violent conflict, such as a civil war, actually breaks out, many government and private sector activities will obviously have to change – if they have not done so before as part of their preparations for the conflict. Some of that change will have an impact on the set of corrupt transactions performed by the rebel groups, such as the import and storage of weapons. Presumably many weapons will be smuggled. While smuggling generally involves bribes to the police and border guards, the bribe content will be even higher when the weapons are moved across legal entry points where custom officials are the main beneficiaries.

The ease with which illegal weapons may pass borders is likely to have some impact on the probability of conflict itself, since it will influence how difficult and expensive it will be to organize the arming of the rebel coalition. It will have a definite impact on the level of weapon prices.<sup>47</sup> For reasons difficult to explain, weapon prices often fall in countries where conflicts are taking place.<sup>48</sup> This, combined with the effects of the fluidity of borders related to corruption, is probably the most obvious spillover mechanism from corruption in one country to the conflict probability of another. Of

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<sup>47</sup> It is interesting to note the dramatically lower prices of hand weapons (Kalashnikovs) in Africa (cf. Table 4 in Killicoat, 2006) – about half the cost of hand weapons elsewhere. The most likely explanation given by Killicoat is the existence of porous borders (p.17). Corruption is one of the mechanisms that can ensure that they stay porous. In addition to the lower transport costs it may increase the actual price-determining stock in any conflict country, since what is available may include the stock of hand weapons in neighbouring countries. What is less of a mystery is that the prices may vary greatly due to the exigencies of war, where the closing of border may also have the opposite effect. When the Islamist groups in Somalia were temporarily defeated, prices of Kalashnikovs dropped severely because the borders of Somalia were no longer so porous. Then, after the panic subsided, prices increased almost seven-fold. (<http://www.shabelle.net/news/english.htm>, 30.January 2007).

<sup>48</sup> (Ibid) Perhaps a conflict may signal a large-scale demand and a shift in the delivery system?

course, this is a fairly weak neighbourhood spillover effect compared to those ones induced by the armed conflict itself.

In a rare systematic analysis of the use of violence in civil wars from a micro-perspective, Kalyvas (2006) underlines the role of information (and its scarcity) as a key feature in fighting for physical and political control of areas. The distribution of the degree of control in a geographical area, he argues, is a key factor in explaining the incentives for the form and incidence of violence, the resultant number of deaths. He divides the geographical space of a civil war conflict into five major types: (1) wholly controlled by the government, (2) mainly government-controlled, but with significant rebel activity, (3) approximately divided control, (4) controlled mainly by rebels, but with significant government presence, and (5) controlled wholly by rebels. The highest rates of selective killings can be expected in areas of types (2) and (4), he argues.

Selective violence is used to gain information through direct threats and torture of individuals. However, given the public nature of most violence, the killing of potential informants or enemy informants may create new informants. I will not here delve into Kalyvas' models of the use of violence, only note that illegitimate buying and selling of scarce information is normally a key corrupt activity. Why, in most civil-war situations, does the use of violence appear to crowd out the illegitimate selling and buying of information about enemy organizations when information is the key to military survival?<sup>49</sup>

In his detailed analyses of the process of acquiring actionable information through violence, Kalyvas hardly discusses the possibility of market transactions in the valuable information at all. Only in passing does he mention that 'Intimidation, blackmail and bribes work better in urban environments, where regular and sustained contacts between handlers and informers are possible, than in rural environments, where such contacts are either impossible or easier to detect' (2006: 175). Since much of the actual fighting in most civil wars takes place in rural environments, this may be

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<sup>49</sup> Regular civilians are not employed by either organization: hence their illegitimate selling /buying of information may not be considered as corruption, except if they pay soldiers or officers of one of the contesting organizations, whether to improve their own security or as middlemen for the competitor.

part of an explanation, but it does not go very far. We may surmise that information from a member of organization A about its plans and activities may have low credibility (even if it is true) and hence have low value, when secretly resold to the enemy organization, organization B. If the information is true, it may harm the seller himself and decrease his survival probability as a member of organization A. After having received the payment, it may be safer for the seller to kill the buyer. Hence we may expect few buyers, civilian middlemen, to show up under such circumstances. The alternative for organization B – acquiring the information by the threat of force – may, despite its problems of credibility, still have some positive public signalling properties that may assist in controlling the population, compared to the buying of resold information.<sup>50</sup>

Especially during a civil war, the enhanced role of military actions will create new arenas for corrupt transactions. Looting, when performed by government soldiers and recognized by the military organization, is not ‘corruption’ in the strict sense, but either a form of organized plundering or ad hoc taxation. However, if they are less disciplined, the local officers (and/or) soldiers will simply embezzle the loot. More difficult in terms of classification is whether it should count as ‘corruption’ when the same actions are performed by rebel organizations, or ‘plunder’ whether or not the soldiers are allowed to do so or not..

In any case, the degree of discipline in the armed organizations will be a major factor in determining overall levels of corruption during the actual armed conflict. Situations and consequences may differ. Perhaps only the government forces are poorly disciplined, or only the rebel forces, or both. In addition to the various forms of embezzlement allowed by the exigencies of war,<sup>51</sup> officers may receive bribes for procurement; officers and soldiers may demand extortion and bribes in connection with road blocks – and so on.

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<sup>50</sup> More research is needed here, but it is probably true that the use of violence dominates corrupt transactions with respect to the core activities of fighting in civil wars, and is not due solely to its scanty public exposure that may make it *appear* less common than violence. To go further into the incentive structure of corruption, it may prove fruitful to distinguish between the five different control situations which Kalyvas outlines and holds to be important for the use of violence.

<sup>51</sup> One of the most extreme form of embezzlement mentioned in the conflict literature was the case in Liberia, where some soldiers from the army supposedly joined the rebels at night and shared in their plundering. Here they embezzled government time.

If one military organization is more corrupt than the other, the conflict is likely to be of shorter duration.<sup>52</sup> More typical is probably the case when corruption is fairly equally distributed across the violent organizations involved. Then the war will tend to last longer and violent confrontations will be smaller in scale than when the military organizations are more disciplined and less corrupt. This need not imply that fewer individuals will be killed, however. Lack of discipline often may accompany a higher rate of civilian casualties, as documented in Humphreys and Weinstein (2006).<sup>53</sup>

Weinstein (2007) emphasizes that rebel movements tend to develop into different types depending on the initial condition for recruitment. Movements that have access to economic resources that don't rely heavily on local political support, tend to recruit soldiers that are either motivated by the prospects of economic gain or by force. In addition to applying more force to the local civilians than rebel movements that are more ideologically oriented, the commercial ones tend to be plagued by corruption (mainly embezzlement) combined with desertions. His assertions are backed up with four systematic case studies, two of each kind.<sup>54</sup> The point here is that Weinstein's analytical description implies that the extent of corruption that will take place after the onset of a conflict will be strongly influenced by the characteristics of the relevant rebel movement (s) in the area. And presumably, by the way the government choose to fight it.

New activities and new sources of corrupt income are induced by war and some old ones are reduced or closed down. To assess the aggregate effect we must consider the

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<sup>52</sup> This assertion may be illustrated with an extreme story told about an Azeri officer in Goltz (1998). This officer procured exercise ammunition instead of regular ammunition since that was cheaper and he could pocket the difference. Naturally, he lost exceptionally many soldiers, another advantage since he could embezzle their wages. Moreover, for a while he received the non-economic bonus of acquiring a reputation for being exceptionally brave. No wonder that Azerbaijan lost the war about Nagorno Karabach against Armenia fairly quickly!

<sup>53</sup> Kalyvas qualifies this observation, suggesting that, in the context of a given war, seemingly undisciplined killing may have precise and rational aims.

<sup>54</sup> In the case of Peru he contrasts how a branch of Shining Path that got located in an isolated area ideal for coca leaves farming and trafficking got transformed into a commercial venture applying military means, behaving in a strikingly different manner than the head organization. Among its characteristics was that both its own soldiers and its civilian informal civil administrators tended to desert with embezzled coca or funds acquired through its sales (ibid. 194), that is corruption according to our definition.

fact that army activities would substitute some of the activities performed by civilian organizations before the war. Those organizations may also have been corrupt – perhaps even more corrupt than the army becomes during the war. For example, roadblocks would then be more likely to be manned by the police, and police organizations are generally considered to be more corrupt than armies in Third World countries. More importantly: while we must expect the corruption propensity of the armed organization to be strongly influenced by their levels before the outbreak of the armed conflict, we may expect the war itself to have impact on the discipline.

The more difficult downward monitoring and the de facto decentralization of military activities that accompanies small-scale wars open up further corruption possibilities for officers. On the other hand, we may imagine that the struggle for military survival may induce the members of the military organizations to increase their mutual monitoring and raise the intrinsic motivation in each fight. This should work in the opposite direction. For example, the selling of valuable information to the enemy may cause your battle-death. To my knowledge no one has attempted to examine this issue within a systematic, empirical framework; most empirical anecdotes tend to support the view that the first factor dominates – that is, that military organizations tend to become more corrupt as the fighting proceeds.<sup>55</sup>

What about the willingness of the citizens to bribe the military or other public organizations during wars? Here again we have little direct information. One study, however, may shed some indirect light on it from peacetime observations. Jennifer Hunt (2006) has examined what happens to households when they experience accidents and various other forms of mishaps, ranging from armed robbery to husbands who disappear. She mainly reports findings from peace situations, with an emphasis on Peru, but we may reasonably surmise that such incidents become more frequent during wars. Hunt finds that victims of misfortune have to bribe more often than people not hit by it. While 19.7% of the victims had to bribe last year only 12.5% of the total population had to do so.<sup>56</sup> Evidence of the same kind- that is, well-

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<sup>55</sup>It is well-known that in the very different warfare of the Second World War, the allied forces in both Italy and West Germany engaged in extensive looting towards the end of the war, as brought to literary fame in *Catch 22*.

<sup>56</sup> Hunt reports data from a household survey in Peru and several International Crime Victimization Surveys in countries where petty bribes are very common. Not all her results may support the claim

documented, but maybe not applicable to situations with more large-scale fighting – has been brought forward in Madagascar (cf. Razafindrakoto and F Roubaud, 2006b: 67). They report that petty corruption doubled after the political crisis in 2001 – 2001.<sup>57</sup> This does not apply to the direct core activities of the war, where we know next to nothing, but where our deliberations around Kalyvas' models of violence may apply.

What about the effects of civil war on bribes paid by private enterprises? Here again we would expect that enterprises will generally experience a stronger need to bribe officials in order to produce and (particularly) transport goods when there is fighting going on.<sup>58</sup> As the perceived level of insecurity rises, the number of roadblocks is also likely to increase, giving the police and the military greater opportunities for bribes and extortion aimed at both personal and business transport. Together they can explain some of the economic decline during violent conflicts caused by the increase in transaction costs.

It would seem reasonable to expect this effect of increasing corruption costs to dominate for most businesses, but in a very interesting study of diamond enterprises operating in Angola during its last outbreak of civil war (1998–2002) Guidolin and Ferrara (2005) present results that seem to indicate the opposite, at least for low transport-cost goods. Briefly stated, they found that diamond companies operating in Angola experienced a decline in stock values around 12% in the aftermath of the

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here: that the demand for bribing officials will increase with the number of mishaps. For, example Hunt did not find any increase during and in the immediate aftermath of natural catastrophes (2006: 2). Perhaps the shared experience of having been exposed to a natural catastrophe creates feelings of solidarity that work against bribery? If so, might civil wars work in similar or opposite directions?

<sup>57</sup> The data from Madagascar was collected as part of the same joint data collection efforts as the one reported by Hunt from Peru where governance modules were ( and are) added to some of the regular household surveys performed by the national statistics institutes. The outcome is, inter alia, more representative data based on larger samples on petty corruption than are available elsewhere. The collaboration covered eight African and four Latin American countries. In the case of Madagascar and Peru even panel data on petty corruption are now available. While about eight percent of households in Madagascar reported that they had been victimized by corruption ('the last year') in 2001, sixteenth percent reported to have been so in 2002. In 2004 when the crisis had passed it was back to eight percent again.

<sup>58</sup> Brown et al. (2004) report on the extensive set of corrupt charges made along the Congo River during the recent conflict. This case is also interesting because of the large number of public organizations that converged upon the ports in order to gain some income, partly as the result of the breakdown of the state's already weak taxation ability during peacetime. The fact that they were allowed to converge, however, could indicate that what seemed to be the breakdown of a state into fragmented pieces of administration was in fact was the converse – a recognition of shared existence.

death of Jonas M. Savimbi, when it was certain that the civil war was about to end. A control group of similar diamond companies composed of firms registered at the same stock exchanges but not operating in Angola experienced no such decrease, but instead a slight increase during the same period. The most reasonable explanation is that during the conflict, the companies operating in Angola had been able to reduce legal and illegal taxation (corruption) through the competition between the warring parties. When the government won, the companies expected the rent extraction from the government to rise to the old levels – and so their stock values fell.

Summing up, the most certain effect of conflict outbreak on corruption is a shift in its composition towards military organizations and activities, but also certain other activities will increase in importance as a consequence of the fighting. All kinds of local barriers and monopolies will arise, some of which will allow bribe collection or extortion. In itself that need not imply any rise in corruption, but the ruling perception that corruption increases is likely to have some basis in facts. Tax collection becomes more difficult. Public employees (even more so than government soldiers) would then have to collect their own private taxes – through bribery or extortion. Central monitoring becomes more difficult, and not only for military organizations – and so on. Physical inspection of outlying offices becomes particularly difficult. Public administrations working in areas with divided control are likely to experience the decline in centralized monitoring most strongly.

Corruption may have significant feedback effects on the war itself. If all military organizations tend to feed corruptly on the public, then war-like situations may last longer, since it will then take longer to gain the military momentum necessary to win. If, however, corruption is skewed strongly towards one side, as in the Armenia–Azerbaijan war, that may shorten the duration of the conflict.

### ***9. Post-conflict corruption***

The role of corruption in the aftermath of conflicts has received considerable attention, particularly by aid organizations but also by some researchers. The focus has been on the effects on foreign aid in post-conflict situations, but even here

analytical questions on the role and causes of corruption are rarely addressed. The discussion has been mainly driven by NGOs and public aid agencies, and has been of a practical or normative nature.

Most attention on post-conflict situations has concerned the amount and timing of aid, and how to supply it so as not to re-ignite the conflict. Here we find considerable analytical work, and separate indicators have been developed for policy purposes, but when corruption is brought into the discussion, systematic research again becomes scarce.<sup>59</sup> When the issue arises of how to develop anti-corruption programmes in post-conflict situations, the discussion again focuses on a mixture of practical experiences, normative claims and pious wishes.<sup>60</sup>

Given the interaction between corruption and conflict probabilities before a conflict and the interaction between war activities and corruption during the conflict, most post-conflict situations are likely to be characterized by high initial levels of corruption and high conflict probability. Common-sense reasons for such outcomes include:

- 1) The central monitoring (and self-monitoring)<sup>61</sup> of most civilian public organizations will have weakened, together with weakened public oversight. This implies that the ability to tax will remain low and many public employees will try to use their positions to grab their own incomes whenever possible.
- 2) Temporary reshuffling of positions in the public sector during a larger conflict may continue for a while, but then they can be expected to freeze and therefore increase in value towards the end of the war, in turn stimulating efforts (including bribery) to gain the better positions.
- 3) Most countries experiencing a civil war have a large share of rural population. Particularly when major power shifts across population groups have occurred,

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<sup>59</sup> For example, the World Bank developed a separate indicator for post-conflict countries (eligible for 'exceptional post-conflict allocations from IDA') by using a stripped-down version of the CPIA indicator, including the corruption sub-index, together with three new indicators of the security situation. When fixing the grades to determine aid eligibility, the evaluators were asked to be less strict than when fixing the CPIA grades. What was implied was either that corruption must be expected to be more severe in post-conflict situations or that post-conflict countries at certain levels of governance were more deserving of aid than non-conflict countries.

<sup>60</sup> A typical work in this genre is Large (ed.) (2005), but see also Bolongaita, (2005) and O'Donnell (2006). Le Billon (2005) is a partial exception in that he addresses analytical issues.

<sup>61</sup> In Andvig (2006b) I have tried to expand on this, arguing that it is this mutual monitoring of committed public employees, reinforced by their monitoring by the immediate superiors, that is the key factor in restraining most forms of public corruption. No one else possesses sufficient information. That information combined with mutual monitoring may either result in organized forms of corruption or its prevention. If colleagues do not care about each others' behaviour, the organization become effectively decentralized, as each office may move into a kind of local monopoly supplier position that can provide considerable scope for exploiting it for private gain.

there will be many land disputes, and competing principles of justice will often be involved. Resettlement of people dislocated by the war may in any case give rise to disputes, particularly in legal systems where access to land is based on a combination of group membership and actual cultivation – as is the case in many parts of sub-Saharan Africa. Double claims will then arise, and the incentive to try to bribe a court will be exceptionally strong.

- 4) The same applies to the demand for revenge and punishment after killings. This will place greater demands on the services of the police and prison system. The harshness of penalties that tends to accompany civil wars raises the value of not being convicted, increasing the income potential for the police and courts through the possibility of bribes and extortion.
- 5) Some of the responsibility for security will be shifted from the military to the police. Without strong growth or considerable agricultural absorbing power, the demobilization of military manpower leads to unemployment. Given their experience during war, organized crime units have few difficulties in recruiting individuals with relevant training. There will often evolve a symbiotic relationship between the police and organized crime, where the scale of the latter is based on its bribing the police. Above a certain scale, however, bribery may go the other way, however, if the authorities are willing to bribe the warlords to dissuade them from joining the rebel coalition – as the USA is known to have done in Afghanistan and Iraq. Any partial dismantling of rebel organizations may initially provide more geographical space for organized crime units.<sup>62</sup>
- 6) The destruction of infrastructure and buildings tends to shift economic activities towards construction, which is recognized as a high-corruption activity. In many cases foreign aid will be involved.
- 7) While aid organizations may have better monitoring systems and less corruption in their projects, the infusion of larger amounts of aid that follows at the perceived end of a conflict tends to increase corruption in more indirect ways. The wide spread in salaries for similar tasks that follows in the wake of foreign aid (1: 150 appears to have been a common Afghani spread (World Bank, 2006:25)) contributes to corruption as a means to succeed in the struggle for gaining the more lucrative positions. Moreover, it causes demoralization in public organizations, weakening the mutual monitoring that is essential if they are to attain any low-level corruption equilibrium.
- 8) Declining production rate, increasing poverty levels, and so on, are general features of civil wars that tend to increase the incidence of corruption at their endpoints. These are also features that may increase the likelihood of outbreak of new civil wars.

Post-conflict countries constitute a fairly large subclass of pre-conflict countries. They have an above-average risk of new conflict, but this risk declines with the length of peace.<sup>63</sup> In fact most of the mechanisms that may involve high corruption propensities will also have impact on the risks of renewed warfare, mostly in the same direction.

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<sup>62</sup> An indication of this is that, according to Collier et al. (2003: 43), practically the whole world's opium production and three-quarters of its cocaine production are localized in either conflict or post-conflict countries.

<sup>63</sup> Collier et al. (2003) construct a 'typical' conflict country on the basis of an extensive set of observations. The risk of a new conflict for a country just after the end of a conflict was estimated to be more than 40% higher than for a country with otherwise similar characteristics.

But again we have several situations where corruption and the use of violence may become alternative strategies. Land disputes may be settled by claimants joining competing, violent organizations, making it unnecessary for them to bribe the courts.<sup>64</sup> Revenge may be more legitimately achieved through joining organized, violent groups than by bribing the courts – and so on.

In the foregoing we have sketched a large number of mechanisms that all work in the direction of exceptionally high levels of corruption in post-conflict societies. Anecdotal evidence as well as the values displayed by the indicators of perceived corruption levels across countries would seem to confirm this view,<sup>65</sup> but the effects of the conflict on post-conflict corruption rates appear less clear-cut than expected from the sketches drawn here. Countervailing forces are likely to be at work in addition to the mechanisms suggested above, where corruption and force may become substitutes. For example, the high likelihood of an outbreak of renewed conflict in the wake of the old one may act to discipline the authorities in various ways.

### ***10. Resource curse: A meeting place of corruption and conflict research?***

Working rather independently of each other,<sup>66</sup> researchers in the field of corruption and of conflict have discovered, surprisingly, that large natural resources can have negative effects on the governance variable within their purview. Leite and Weidmann (1999) found that countries rich in natural resources have higher corruption levels than similar countries with less resources. Moreover, researchers working at the World Bank have discovered that higher levels of natural resources

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<sup>64</sup> If property rights were clearly stipulated and the court non-corrupt, it would of course make no sense to bring the case to court – but it could still make sense to join a violent organization. If the courts were corrupt but the rights clearly stipulated, the agent without rights could still get the land if the rights could be re-allocated through bribery. With competing legitimate claims, both claimants would have an incentive to bribe, while the courts would risk much less by accepting them.

<sup>65</sup> Relying on the WBI corruption perception data we have only data about corruption after 1995. Hence to study the immediate impact of corruption on conflicts we may only look at conflicts that have taken place after 1995. Assuming hysteresis effects we may, however, look further back in time when studying the effects of conflicts on corruption. Looking at the fairly few conflicts that have started after 1995 (Kaufmann et al. (2006a) ) perceived corruption appears on average to be ratched up after a conflict, but not by so much and not for many years. In a later paper we will check this impression more stringently.

<sup>66</sup> A common starting point was studies of economic growth that indicated that natural resources had a negative impact on economic growth; see for example Sachs and Warner (1995).

(estimated by the share of primary goods export in GDP) heighten the probability of outbreaks of civil war.<sup>67</sup> Combining these observations, we would expect that an increase in natural resources would raise both conflict probabilities and corruption levels, whereas a sudden drain of resources would work in the opposite direction. Hence the value of the stock (or the value of the flow of tapping) of natural resources would act as an omitted variable in any equation joining corruption and conflict probability. Their correlation would then become positive.

Mehlum et al. (2006) have generalized the ideas here about the effects of a natural resource on corruption and conflict indirectly by distinguishing between ‘grabbing’ and ‘productive’ entrepreneurs. An increase in a natural resource makes the grabbing strategy more profitable and may increase the share of grabbers in the population. In that case, it impacts negatively on production. With ‘good’ institutions, however, that need not happen, and the economy may remain in a productive equilibrium. If the shift does occur, the composition of grabbers choosing violent versus corrupt strategies is indeterminate, since the institutional characteristics of the grabbing strategy are not specified. Without more specific assumptions, the model seems to imply that both groups will expand in size.

Hanne Fjelde (2006) explicitly addresses the relationship between corruption and civil war in the context of oil wealth.<sup>68</sup> Oil wealth is a reasonable choice of a natural resource asset, as it is normally controlled by the government, even in countries riddled by violent conflicts. In most cases, oil has to be extracted in association with multinational companies that cannot formally challenge the internationally sanctioned allocation of government authority.

Contrary to expectations, Fjelde argues, in oil-rich countries corruption has a preventive effect on the outbreak of conflict. The positive association that follows when we combine the results of the corruption and conflict research seems not to

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<sup>67</sup> The basic results were published authoritatively in Collier and Hoeffler (2004) but had before then been published at the World Bank in several versions since 1998. They and many other researchers have modified this basic relationship, suggesting several mechanisms through which a high share of (or a sudden increase in) natural resources in the economy may contribute to the outbreak of civil war.

<sup>68</sup> This is practically the first such study that I have found, with the partial exception of Goldstone et al (2005) who report that they have experimented with corruption in the context of their large conflict model.

hold. To achieve the result she employs an econometric model by Fearon and Laitin (2003) that supplies the control variables. She then studies the effects of oil production per capita and corruption<sup>69</sup> on the risk of onset of civil war.

When only corruption is added to the Fearon/Laitin model, the model confirms the traditional expectation: corruption increases the risk of outbreak of civil war, as does increasing oil wealth. But their joint effects (studied by adding a multiplicative interaction term in the regression equation) proves significantly negative. Fjelde interprets this as showing that the marginal effect of oil wealth on conflict probability decreases as the corruption level increases. That is, if the authorities are highly corrupt, it is less risky for them to control oil stocks, because they will then tend to spend the resulting oil rents on buying off potential violent competitors.<sup>70</sup>

One implication of this result appears counterintuitive: For a country like Norway, the marginal conflict risk of increasing its oil wealth by 10% should then be higher than for (for example) Sudan. (The absolute level for Norway may remain low, however.) Moreover, GDP per capita is one of the control variables in Fearon and Laitin (2003) that clearly reduces conflict risks, but in most empirical studies of corruption, corruption levels are also heavily influenced, so it would be misleading to let corruption vary independently of the control variable.

This becomes particularly worrisome in conjunction with the general criticism of ‘resource curse econometrics’ voiced by Alexeev and Conrad (2005). They argue that the negative effects of natural resources on growth and governance, the resource curse, is significantly misleading: Assume that oil revenues drop into an economy like manna from heaven, without changing any institutions or any behaviour, except that GDP increases as a matter of national accounting. The conflict risk for that country may well remain unchanged, but compared to other countries with GDP/capita rates similar to its new one, the conflict risks will be higher – likewise for corruption levels, if we have the conventional negative relation between corruption and GDP. In order

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<sup>69</sup> The corruption variable applied is the one sold by the International Country Risk Guide (also a part of the basis for the WBI control of corruption indicator). The main advantage with the ICRG indicator is that it stretches back to 1979, thereby permitting the study of several more conflicts than is possible with the WBI indicator, which goes back only to 1995. It also seems more focused on high-level corruption, which is likely to be more relevant for analysing the distribution of oil rents.

<sup>70</sup> And it should be less risky to be very corrupt if there is a large oil fortune to spend from.

to keep that rate unchanged when the GDP component is ‘forcing’ it down, the oil wealth and corruption component together will have to increase the risk. Similarly, the level of corruption may be unchanged, but since GDP has increased, the estimated corruption level should have gone down. A ‘resource curse’ factor from oil wealth might be needed to keep the real corruption level unchanged.<sup>71</sup>

It is a step forward to expose the present ‘vision’ that all ‘good’ and ‘bad’ governance factors go together to empirical criticism as Fjelde does, but, for several reasons (some of which have been indicated above), the result that corruption reduces the conflict risk in countries with large oil wealth remains so far unconvincing. A single equation regression is not likely to work in this case.

### ***11. Parallel play about GDP? Other meetings of econometric corruption and conflict research***

As pointed out initially, when political scientists and economists (in the case of conflicts), and (mostly) economists (in the case of corruption) started to study their subject matters quantitatively they did this in quite similar manners. Most of the time, one looked for general regularities by means of n-country, cross-section, single equation, linear regression models. In both, GDP per capita has played an important role. The key variable to be explained was in both cases an index number: in corruption research it was a corruption indicator; in the case of conflict, the ‘probability of the onset of conflict’ – a kind of index developed by Collier and others on the basis of regression estimates where GDP levels and other explanatory variables together with data on observed conflicts generate the conflict probability. The outcome, the estimated probability, will obviously rely on more than GDP

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<sup>71</sup> To clarify these issues properly, we would need a different econometric model. It is difficult to allow independent variation of corruption levels in this case. National income variables and resource curse explanations have, for good reasons, become established in corruption research as well. If we continue this ‘manna from heaven’ thought experiment and let both the initial corruption level and conflict risk remain unchanged, the marginal effect of the increase in GDP has to be equal to, but with the opposite sign of, the oil wealth factor in both the regression equation for corruption (not specified by Fjelde) and the conflict probability equation. The ‘manna from heaven’ assumption is, of course, not wholly relevant in the longer run. Part of it will be built into the economy, making the GDP variable less misleading as a proxy for economic development. Nevertheless, to the degree that oil production has enclave characteristics, the GDP level of a country with large oil sector will overstate its productivity. If that is not accounted for when GDP/capita is applied as a control or explanatory variable in the conflict or corruption equations, it must emerge in the estimated effects of oil production on conflict probability and corruption, and also in the effects of the other explanatory variables.

observations. Moreover, the value of the index can always be judged against observable events: In country X, where we estimated a high probability this year, civil war did not occur, while in country Y, where the estimated probability was much lower, it did occur. In principle, such estimates should improve as they get confronted by an increasing number of observable events.

This differs significantly from the corruption indicator, where we may not be certain whether or not the partly perception-based assessment of corruption levels simply shadows GDP levels. Nevertheless, many econometric studies in corruption research have found that low GDP levels may cause high levels of corruption (see e.g. Treisman 2000: 430)<sup>72</sup>. Similarly, in conflict research, several studies have shown that low and decreasing GDP levels serve to increase the probability of civil wars (see e.g. Collier & Hoeffler, 2001). Combining these we reach the already-mentioned ‘result’ that good things go together: Increased GDP gives both lower conflict probability and less corruption.<sup>73</sup> In fact we are back to the Huntington positive co-flux situation, but with a simpler mechanism linking corruption and conflict: instead of ‘modernization’ it is GDP.

A statistical problem in both areas involves the feedback effects from the explained to the explanatory variable: corruption is likely to have an impact on aggregate production, and conflicts (at least those that have broken out) have even more obvious impacts on GDP. This calls for more refined statistical techniques in both areas, and so the search is on for instrumental variables.

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<sup>72</sup> More recently, the assumption that the impact of GDP/capita levels on corruption may explain the strong GDP/capita and corruption correlation has been discarded by most corruption researchers (cf. Lambsdorff (2006), and the causal direction has more often been turned around. I think this shift is premature: for example, when international businesspeople coming to a poor country, where large parts of the infrastructure are not working, are asked whether they believe it is corrupt, they will answer yes.

<sup>73</sup> In most policy discussions where conflicts and corruption are analysed, mutual positive feedbacks are simply assumed. They are both public ‘bads’ – and public ‘bads’ go together. Despite the recent rise in research attention to both phenomena, I have been unable to locate serious research into their possible interaction that develops much more than this triviality. The field has been left to rather loose policy opinions. In one sense, this may not be surprising, even legitimate, since the statistical difficulties involved (including the problem of observing corruption), may prove prohibitive, but the GDP-governance soup has dulled the analytical imagination in concluding that conflicts and extensive corruption must obviously go together.

In the case of conflict research, Miguel et al. (2004) have found that variations in rainfall might be a reasonable instrument for GDP growth rates in a sample of African countries with rain-fed agriculture. Indeed, these variations proved to have a surprisingly strong effect on the outbreak of conflicts.<sup>74</sup>

Working from the corruption end, Kaufmann and Kraay (2002) examined the interaction between GDP and corruption rate movements, also checking for the possibility (or likelihood) of their simultaneous determination. They combined the use of an instrumental variable for the governance variable with non-sample information to get a reasonable identification of the strength of the various economic forces under consideration. Their starting point was the strong negative correlation between GDP and corruption levels. In their econometric model, GDP was influenced by corruption in one equation; and corruption by GDP and ‘history’ – a vector of exogenous variables – in the other.<sup>75</sup> In both equations there are stochastic disturbances, and both GDP and corruption are measured with errors. In addition to an instrumental variable, Kaufmann and Kraay used non-sample information about the size of the error terms.<sup>76</sup> While they found that corruption had a strong negative impact on the GDP level, given reasonable values on the non-sample information, the feedback effect from GDP on corruption was much weaker but still significant. The most surprising result was that this feedback effect was negative, in the sense that increased GDP would cause more corruption. As reported by Harry Seldadyo and Jakob de Haan (2006: 14), a few other studies using panel data support this controversial finding that increased income in isolation may increase corruption.

The most striking feature of the Kaufmann and Kraay (2002) result when combined with the conflict results of Collier and Hoeffler (2001) is the neat causal structure:

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<sup>74</sup> They checked empirically whether variations in rainfall had any direct impact on conflict probability. Finding it had not, they could use it as an instrument, since it then satisfied the exclusion restrictions. Here their discussion appears somewhat superficial: it appears counter-intuitive for very large variations since they may cause famines, floods and major population movements that can be expected to have some impact on conflict probability above and beyond their effects on GDP.

<sup>75</sup> To draw attention to the impact of their model for the influential Acemoglu et al. (2001) article on institutions and growth (that had focused on property rights) they actually used their rule of law index, which had the added advantage that its impact on GDP was somewhat stronger. But as Kaufmann and Kraay point out, all their governance indicators are mutually strongly correlated, and the aspect of governance discussed most in this context has been corruption, so I use corruption in the text.

<sup>76</sup> An advantage of the method by which the WBI governance indicators are constructed is that their standard deviation can be specified.

Corruption causes GDP, causes conflicts! This seems difficult to believe, but it is the most obvious, simple-minded reading of the major results of the two empirical research fields. Why is it so difficult to believe?

It may be qualified in various ways: While Kaufmann- Kray's model should be interpreted as explaining GDP levels in the truly long run, the effects of GDP on conflict probability may catch a more short-term mechanism. Moreover, Miguel's instrument underlines the obvious fact that not all components of GDP may be explained by governance factors. Rain fluctuations explain some. The last argument illustrates some of the general problems involved in using GDP (per capita) in analyses of basically institutional mechanisms. This is a measure intended to summarize the average productivity of an economy, but, by soaking up so many impulses, it lends itself to such a wide variation of interpretations that it is not much help in identifying any causal mechanism.<sup>77</sup> It is the other variables in the model that have to do most of that job.

The corruption index does not assist much in pinpointing any causal mechanism when conjoined with GDP. Even if the WBI 'control of corruption' succeeds in reflecting what is genuinely meant by corruption under the ruling definition (private misuse of public positions), that definition embraces so many different phenomena likely to have so widely different consequences that it is difficult to tell exactly what a correlation covers. This applies also to the case when that correlation is entered as part of the mechanism to explain conflict probability. It is difficult to know what a positive correlation between GDP and corruption may specify. Indeed, things may be even worse. If corruption indexes simply shadow GDP/capita – a real possibility –

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<sup>77</sup> In conflict research, the different interpretations of GDP by Collier and Hoeffler (2001) and by Fearon and Laitin (2003) have received considerable attention. While the former interpret the GDP level as proxy for the opportunity costs of would-be rebels, the latter two authors interpret it as an indicator of state strength signalling to would-be rebels the chances to win in violent contests. If we start to consider many field of economic research where GDP operates as explanatory and explained variable, we may well begin to wonder whether all the accepted results would be consistent if confronted with each other. The intersection of corruption and conflict research is but one of many intersecting fields where GDP is a connecting thread. In terms of econometrics GDP is a kind of variable that is not likely to display much independent variation of whatever other variable we could think of, i.e. it will normally be embedded in an equation system. Single equation econometric estimation will rarely be appropriate. As a dependent variable it is likely to display large degree of variation with most single explanatory variables. The same will happen when it acts as an explanatory variable itself. Hence it is very tempting to use, but when applied it will often prove difficult to distinguish between competing causal mechanisms.

then bringing corruption in will not add anything of value to the study of conflicts. It will simply retell the well-known story of the GDP/capita–conflict probability interaction, introducing a new term.

Despite the Razafindrakoto- Roubaud results for Francophone Africa that reinforce the doubts about the correspondence between the governance indicators and the real governance processes we may have been overly sceptical. After all, a large and sophisticated empirical endeavour lies behind the construction of the WBI governance indexes, as explained in the spirited defence provided by Kaufmann et al. (2007). Although it seems unlikely that all these efforts should succeed merely in coming up with truism it still might be prudent to keep that possibility in mind.

### *12. Miscellaneous research into corruption- conflict interactions*

In the only explicit and general treatment of the pre-conflict relationship between corruption and conflict I have encountered, Le Billon (2003), points out the two major possible effects of corruption – the positive and the negative – on conflict probability. While referring to studies made by the IMF (1999)<sup>78</sup> that indicate a strong positive correlation between the extent of conflict and corruption in the major regions of the world, Le Billon sought to explain why corruption may at times prevent the outbreak of conflicts. In order to do so he relied on a classificatory scheme developed by Johnston (1986) that distinguishes between legitimate and criminal, and monopolistic and competitive, forms of corruption. Just how it is possible to discriminate among them is not clear, but he suggests that while corruption routine-practices – whether ‘market’- or ‘patronage’-oriented – are quite stabilizing, non-routines are not and they are the ones regarded as criminal.

In the case of larger shocks, there is a shift away from legitimate towards criminal forms of corruption. This shift in corruption forms makes the consequences of corruption shift from containing conflicts to triggering them. Le Billon (2003: 413) claims ‘conflict may be engendered more by *changes* in the pattern of corruption than by the existence of corruption itself.’ Changes in the pattern of corruption must refer

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<sup>78</sup> In IMF (1999: 146) are published several ICRG governance indicators at regional (continental) levels in a table together with some references to earlier empirical work on corruption that apparently served as the empirical starting point for Le Billon’s reflections.

to shifts in the composition of the forms of corruption indicated above. Presumably, a change in the forms would imply a larger share of non-routine forms, but it might also mean a shift to more commercial forms (in our terminology). On the other hand, I must admit that the precise meaning of all this, his typology of corruption forms, leading to this or that consequence for conflicts, still eludes me.

While our focus here has been on work that directly seeks to explain empirical observations, it should be mentioned that also purely model-oriented work has been developed. Importantly, Mauro (2004) has published a model that allows multiple equilibria where corruption levels and political instability (including its violent forms) reinforce each other through various forms of strategic complementarities and may lock the economy into low-growth, high-corruption and high-instability equilibria. He also points out that multiple equilibria models may explain a high degree of persistence of ‘bad’ governance situations. That implies that large shocks, like wars, may shift an equilibrium and thereby have lasting effects on governance.

The possible strong persistence of corruption levels, and the possible shifts in equilibria induced by major shocks to the institutional and economic structure of a country, make it potentially fruitful to look for the effects of civil wars on corruption, although we only have recent statistics on corruption indicators. Indeed, violent conflicts have already been used as a way to explain high corruption incidence. In several studies the existence of violent conflicts in Azerbaijan and Georgia has been used to explain the exceptionally high (perceived) incidence of corruption in these countries. In an extensive factor analysis, Seldadyo and de Haan (2006: 44) found that ‘ethnic conflict’ was the only general factor besides ‘regulatory capacity’ that had a robust impact on corruption rates.<sup>79</sup>

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<sup>79</sup> Their third ‘robust’ variable, ‘Scandinavian legal origin’, is of little interest in this context. Incidentally, they find two other robust variables – ‘illiteracy rate’ and ‘government wage rates’ – to be counterintuitive, since high wage rate and less illiteracy increase corruption rates in their statistical study. In fact, this may not be counterintuitive at all. High wage rates may often go together with very high income expectations on the part of state employees – often a striking characteristic of government in countries with extensive poverty. Many forms of bribery presume literacy on both sides of the transaction. Expectations may have been arisen because of the popular belief that all ‘good’ things should go together.

In most of this paper we have focused on the possible effects of corruption on conflicts. In one case – that of Azam’s models – we have also looked at the effect of the prospects of war on present corruption.

Goldstone et al. (2005) report from a major empirical project that seeks to explain (or rather to predict) political instability and violence around the world. (See also Political Instability Task Force (2003) – formerly called the ‘State Failure Task Force’ – which has experimented with a large number of variables and various statistical techniques.) One of the variables used was corruption, but it did not remain in the model, partly because the research group considered the data quality to be poor (ibid. note 19), partly because they found that the effects were weak or were covered by other variables.

From our perspective, the most interesting thing is not this non-result, but rather the large impact on political instability from the variable ‘factionalism’, particularly what they term ‘partial democracy’. Partial democracy is defined as a political regime where the top leadership is chosen by a kind of competitive election, and while the system is not wholly free, some non-controlled political participation takes place. Factionalism is when political competition is performed by groups with exclusive membership that fight for exclusive advantages. They conclude that ‘by far the worst situation in terms of risks of instability were for a political landscape that combined deeply polarized or factionalized competition with open contestation.’ The empirical impact of the factor is stunning. Somewhat surprising, compared to Collier and Hoeffler, is also the strong impact of political regime type, particularly when combined with factionalization. Unexpected is also the fairly weak impact of economic variables.<sup>80</sup>

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<sup>80</sup> Infant mortality was found to have the strongest impact, even more so than GDP/capita. The reason is probably that infant mortality may be an indicator of both GDP levels and the government’s social profile.

Ethnicity is<sup>81</sup>, of course, an important principle in the coagulation of many factions. I have emphasized the significance of relation-based forms of corruption for aggregate corruption as well as the potentially important effect of relation-based principles of organization for the evolution of the struggles of extra-state groups for state power. Hence, when the empirical results of Goldstone et al. (2005) indicate that countries dominated by such power struggles will experience more instability, this suggests that when we investigate how conflicts are related to corruption, one key may be relation-based forms of corruption, as Azam's models emphasized.

### *13. Conclusions*

In this paper I have looked critically into corruption and armed conflict research, two sub-fields within an area of social science that has regained much of the fascination that it lost hundred years ago or so – the economics of institutions. Two problem areas emerged: (1) What has been said and can be said about the impact of corruption on conflict, and its development during and after a conflict. What is the impact of conflicts on corruption? (2) What are the implications of corruption research for the study of conflicts, and vice versa? A subject matter does not set its imprints in a direct manner, but is filtered through specific research traditions. Here we have looked at two fairly small but rapidly growing fields working in very similar ways (at least at the empirical ends), each achieving results that are plausible when considered in isolation. When they are combined, however, problems arise, and some of those have been considered here.

Let us look at the Kaufmann-Collier interaction. We found that if we combined their plausible results we would reach an implausible causal structure: Corruption causes GDP levels – GDP levels cause conflicts, hence, corruption causes conflict. The same may happen if we look at lower-level issues in the conflict–corruption nexus.

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<sup>81</sup> Since Collier and many other others have found little effect of ethnic fractionalization – the only quantitative indicator of ethnicity in use for some years – this has led many researchers to doubt the causal significance of ethnic groups for the outbreak conflicts. Using different methods and different definitions of variables, Montalvo and Reynal-Querol (2005) find a strong impact on conflict potential from their indicator of ethnic polarization, however, supporting Goldstone et al. (2005).

Or we can look at infant mortality. In the Goldstone political instability project, infant mortality is the major economic variable, or rather the main indicator of economic conditions. It proved to have greater impact and higher significance than GDP/capita in determining the likelihood of political instability (Goldstone et al., 2005). Gupta et al. (2000) have shown that corruption is an important driver of infant mortality. Countries characterized by high corruption have infant mortality rates almost twice of those of countries with low corruption (ibid.: 25). That assessment is based on estimates where they had controlled for other factors and various forms of endogeneity. Again we end up with corruption causes – economic factors cause – conflict. And again we reach a conclusion that appears somewhat implausible when we combine results from the two fields. Naturally, new questions arise. Infant mortality is obviously influenced by armed conflicts. One, and probably the most important link, should work directly: for example through the closure or non-functioning of health services, and through war-induced migration. But a second one may work through war-induced corruption, whereby health personnel increase their private taxation.

The use of infant mortality as an *indicator* of broad economic forces raises another question, and one that is even more serious in the case of perception-based governance indexes: It is difficult to believe that any of these can serve as a building block in a set of autonomous relations in the sense of Frisch or Haavelmo<sup>82</sup>: Imagine that foreign aid agencies have become convinced about the linchpin role of infant mortality in the corruption–conflict nexus. By concentrating all aid resources on that issue, they succeed in lowering infant mortality significantly. Is it then plausible that the equation linking conflict probability will remain robust against changes of this kind?

In such a case, it is mainly the indicator that has changed, while most of the conditions and processes of which it is an indicator have remained basically the same. And what are those that may make infant mortality statistically a better indicator of economic (and social) conditions than GDP itself? Here we may surmise: these could be the technical level of the country (like GDP), public bureaucratic efficiency,

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<sup>82</sup> Both Frisch's from 1938 and Haavelmo's 1944 analysis of autonomy of economic relationships are most easily accessible in Hendry and Morgan, eds. (1995) where they are reprinted.

resources invested in health clinics, girls' education, people-friendly government, equal income distribution, and so on. Presumably, these various components will have differing effects on the probability of conflict.

But infant mortality is, after all, a clearly observable variable with direct and strong effects on welfare. Governance indicators are different. Their empirical content is difficult to interpret, and by themselves they have little welfare interest. While infant mortality as indicator may reflect various bureaucratic, economic and social processes, the governance indicators embody them in a kind of soup, and, by being defined so broadly, they provide little assistance in later attempts to specify them. Studied in conjunction with large social and economic changes, governance indexes are likely to shift content. Underlying their registered values are several processes, perceptions to be performed, that are likely to shift as the values of the variables to be explained by, or to explain, the governance indicators also shift. An armed conflict is likely to be a process of this kind.

Here I have argued that changes in composition between commercial and relation-based forms of corruption, for example, may cause significant effects on the conflict-generating ability of a given level of corruption. The implication is not that we should leave the analysis of failed states mired in corruption–conflict nexuses to simple impressionistic opinions, or should abandon all analytical and empirical tools. The governance indexes have, at the very least, stimulated useful, large and systematic data collection. However, there does seem clear that, as things now stand, we cannot expect to be able to uncover much in the manner of stable, autonomous relationships to link, for example, corruption and armed conflicts. More, and not fewer, observation posts into institutional mechanisms should be established.

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