

Explaining Urban Social Disorder and Violence: An Empirical Study of Event Data from Asian and Sub- Saharan African Cities¹

Henrik Urdal

Peace Research Institute Oslo (PRIO) and Harvard University

and

Kristian Hoelscher

Peace Research Institute Oslo (PRIO) and University of Oslo

Abstract

By 2050, two thirds of the world's population will live in cities, and the greatest growth in urban populations will take place in the least developed countries. This presents many governments with considerable challenges related to urban governance and the provision of services and opportunities to a burgeoning urban population. In the current article, we use a new event dataset on city-level urban social disorder, drawing upon prominent theories in the conflict literature. The dataset spans the 1960-2009 period, covering 55 major cities in Asia and Sub-Saharan Africa and includes data on non-violent actions such as demonstrations and strikes, and violent political actions like riots, terrorism and armed conflict. We find that urban social disorder is associated in particular with low economic growth rates and hybrid democratic regimes, while level of development, economic inequality, large youth bulges and economic globalization do not seem to affect levels of urban social disorder.

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1. Introduction

Over half the world's population now live in cities (UN 2008a). This trend will continue unabated in the following decades. By 2050, two thirds of the world's population will be urban dwellers and this increase of around 3 billion people will primarily take place in cities around the world. Although cities in developed countries will continue to grow, less developed countries will experience the most rapid urban growth. This particularly applies to Africa and Asia where rural households still account for around 60 percent of the total population, though this is expected to drop to 35-40 percent by 2050 (UN 2008a:1).

The transition to increasingly urbanized societies creates considerable challenges for governments in terms of managing urban development sustainably, and providing economic opportunities and basic services. There are also growing concerns about the security implications of potentially unsustainable urban development (Goldstone 1991; Homer-Dixon 1999; Sachs 2008). However, despite the broad interest in the security implications of the global urban transformation, research in this field is remarkably scarce (Jütersonke, Krause, and Muggah 2007; Staniland 2010).

This article addresses this research gap by introducing a new urban-level dataset measuring urban social disorder (henceforth USD). Our event dataset is compiled from electronic news reports in the Keesing's Record of World Events (KRWE)² and covers 55 major cities in 49 Asian

² The KRWE was selected as the sole source for the dataset as it contains summary reports based on a broad selection of original news media reports, covering a very extensive time period. The editorial policy of the KRWE explicitly states a devotion to covering significant events in all countries of the world, and their sources include regional news media in multiple languages (including German, French, and Spanish). While we hold that the KRWE both represents a consistency in reporting that enables comparison over time and across contexts, and that their broad source base helps reducing reporting bias likely to be present in major English-language news sources, the list of individual events should not be understood as a comprehensive list of all violent and nonviolent events, but rather as illustrating trends that are broadly representative of actual patterns in urban social disorder.

and Sub-Saharan African countries from 1960-2009. The data includes events that are not typically covered by standard conflict datasets, ranging from non-violent demonstrations and protests, to riots, terrorist acts and organized armed conflict.

We also empirically assess certain correlates of USD, drawing upon prominent theories in literatures on civil and social violence. This is a crucial first step as urban violence is an increasingly important social phenomenon for which there is a dearth of empirical evidence. Firstly, we consider relative deprivation approaches which understand political violence as means to redress (perceived) injustice or deprivation (Gurr 1970). Second, we consider opportunity, or rationalist utility approaches (Collier and Hoeffler 2004) focusing on structural conditions that provide opportunities for unrest. Third, we consider modernization theory (Huntington 1968) which suggests that transitional processes are inherently conflictual.

To the best of our knowledge this is the first cross-sectional time-series study to address political instability and violence at the city level, contributing to the growing empirical literature on the disaggregation of conflict (Buhaug and Gates 2002; Buhaug and Lujala 2005; Buhaug and Rød 2006; Raleigh, Linke, Hegre, and Karlsen 2010; Urdal 2008a). It further contributes to debates over whether long-term declines in conventional armed conflicts (Themnér and Wallensteen 2011) are countered by an increase of other forms of violence (Fox and Hoelscher 2012). We find that low economic growth rates and hybrid democratic institutions are strongly and consistently associated with USD. Conversely, we find no support that low levels of economic development, large urban male youth shares, economic transitions, globalization or inequality are associated with urban social disorder.

2. Urban Social Disorder Dataset

The study introduces an original dataset on violence in urban areas, covering 55 major cities, 23 in Sub-Saharan Africa and 32 in Central- and East Asia, in 49 different countries for the 1960-2009 period.³ *Social disorder* captures a broader range of politically relevant events than are normally included in the relatively narrow studies of organized armed conflict. The term is understood to encompass inherently political events, directed against a political target and challenging political authority, but which range considerably in organization, participants, use and extent of violence, and target. Such events are distinguishable from crime in that they are politically motivated. While a crucial theoretical separation, political motivation is empirically challenging to establish, and urban criminal and political violence often overlap (Jütersonke et al., 2007). In practice, if the nature of the target is political we consider it a social disorder event.

Gathered specifically for this project, the USD event dataset was collected in city-year format using electronic news reports in ‘Keesing’s Record of World Events’ (KRWE), and builds on similar work by the State Failure Task Force (Marshall 2001). All electronic searches were done manually by human coders, using a specific search algorithm containing terms associated with political violence and disorder. Each returned report was then screened manually to determine relevance.⁴ For all relevant events, information was coded for: name of country and city; type of

³ The selection criteria for cities in Asia and Africa differ somewhat due to an initial project focus on Asia (see Urdal 2008a for details and online Appendix A for the list of cities covered). For Asia, the dataset covers all capital cities with a population of more than 100,000 in 2005, covering the area from Iran in the west to Japan in the east, excluding the Middle East. In addition, the largest non-capital cities of Pakistan (Karachi) and India (Calcutta and Mumbai) are included, as are the two former capitals cities Almaty (Kazakhstan) and Saigon (South Vietnam) and the capitals of Tibet (Lhasa) and Taiwan (Taipei). A total of 32 Asian cities are coded. For all Sub-Saharan African countries with at least one city with a population of above 1 million in 2005, we selected one city per country. For most countries, the city selected was the capital however for three countries we selected former capitals with populations considerably greater than the de jure capitals, namely Lagos (Nigeria), Dar es Salaam (Tanzania), and Abidjan (Côte d’Ivoire). A total of 23 cities in Sub-Saharan Africa are included. The temporal domain is determined by the span of the Keesing’s Record of World Events electronic database, starting in 1960. Updates of the dataset will provide data beyond 2009.

⁴ Some reports in KRWE, especially older, contain references to several different events. On the other hand, in some cases there are multiple reports referring to the same event. While these factors work in different directions, it is difficult to assess the actual number of relevant reports. However if we compare the number of events to the number

event; day, month and year for the beginning and the end of an event; actor(s) and target(s); number of participants and number of deaths; and location of event. Event type was chosen from a pre-defined list of 12 categories, while no pre-defined categories were developed for actors and targets.

Given the sometimes limited information provided by the news reports, a set of coding rules were developed to determine whether an event should be included in the dataset. First, it was established whether the event took place within the bounds of the city in question. Events were generally included if the location was reported as having happened 1) in the city itself, or in a location clearly defined as part of the city; 2) in the ‘suburbs’ or ‘outskirts’ of the city in question; 3) near or in a central government building when coding a national capital; 4) at a location that the coders were able to locate as being within the city (for instance a specific palace or monument). Second, events that appeared to have a purely criminal, non-political motive were excluded, although in some cases it was not possible to establish firmly whether an event was of political or criminal nature. Third, it was necessary to develop procedures to distinguish between discrete events in a series of related disorder. Events were coded as discrete events if (in decreasing order of importance): 1) it was possible to distinguish between different actors and targets; 2) events took place in different locations; 3) reported motives for the events were clearly different. As a rule of thumb, at least two of these criteria had to be met before an event was coded as a separate event. However, if a report clearly identified different actors and/or targets, events were coded separately. Furthermore, the time period within which a series of events happened determined whether events were coded as discrete. If a series of events involving the same actors and targets

of reports returned by our search string we find that across the dataset, on average 0.25 events are coded per report, or a ratio of 1:4. Kabul has the highest ratio of events per report, with 0.85 events, while Dar es Salaam has the lowest at 0.045 events (except for Astana and Singapore with no registered disorder events).

happened within a short period of time, this would normally be coded as one event (typically several bombs against government targets happening within few days). If events involving the same actors and targets were spaced by at least seven days, they would normally be coded as different events.

While news reports in the KRWE do not cover all relevant social disorder events, we assume that the levels of social disorder reported are representative for trends between cities and across time. However, there are potentially important biases in such event data. First, more autocratic regimes may succeed in censoring information about disorder events, yet they may also be relatively successful in preventing disorder events from happening. Distinguishing between bias and regime effect is inherently difficult.⁵ A second potential bias may be due to certain geographic areas receiving better media coverage than others. Events in countries low on the international agenda may be less likely to be reported than similar events in countries of greater strategic importance. Finally, improvements in communications technology over time and increasing international presence in more locations generally, could lead to temporal bias in the data. Such time trends may also vary geographically, as economic or geopolitical importance of regions may wax and wane over time.⁶

The dataset covers different forms of violent and non-violent politically motivated disorder, including demonstrations, rioting, terrorism and armed conflict. To the extent that information in the news sources allow, each event is coded with a precise date, location, and number of casualties. We use two count measures of USD aggregated to the annual level for each city, separating *lethal events*, which were reported to have resulted in at least one death, from *non-*

⁵ Pyongyang, North Korea, has been excluded from this dataset since it represents an extreme case in point.

⁶ These biases are unfortunately inherent to all datasets that are primarily based on news reports.

lethal events where no deaths were reported. While we assume that most non-lethal events are also *non-violent* events, we cannot rule out that for some events deaths may have occurred which were never reported in news sources. We also employ a count measure for *total events*, and a sub-measure for *mass events*, capturing riots and demonstrations which typically included high numbers of participants.

There are a total of 4,003 events coded, of which 1,627 (40.6 per cent) reportedly led to fatalities. Aggregating events over time, there has been an increasing trend in both total and lethal events, albeit with considerable yearly variation (Figure 1). As indicated by the linear trends, the number of total events has increased more rapidly than lethal events. This may indicate events being reported to a greater extent in the media over time. When considering per capita trends, however, there is a clear decline in rates of urban social disorder (Figure 2). Rates for both lethal and total events have halved in the past 50 years. While urban populations are increasing, per capita social disorders are decreasing.

FIGURE 1 Urban Social disorder: Trends in all and lethal events, 1960-2009

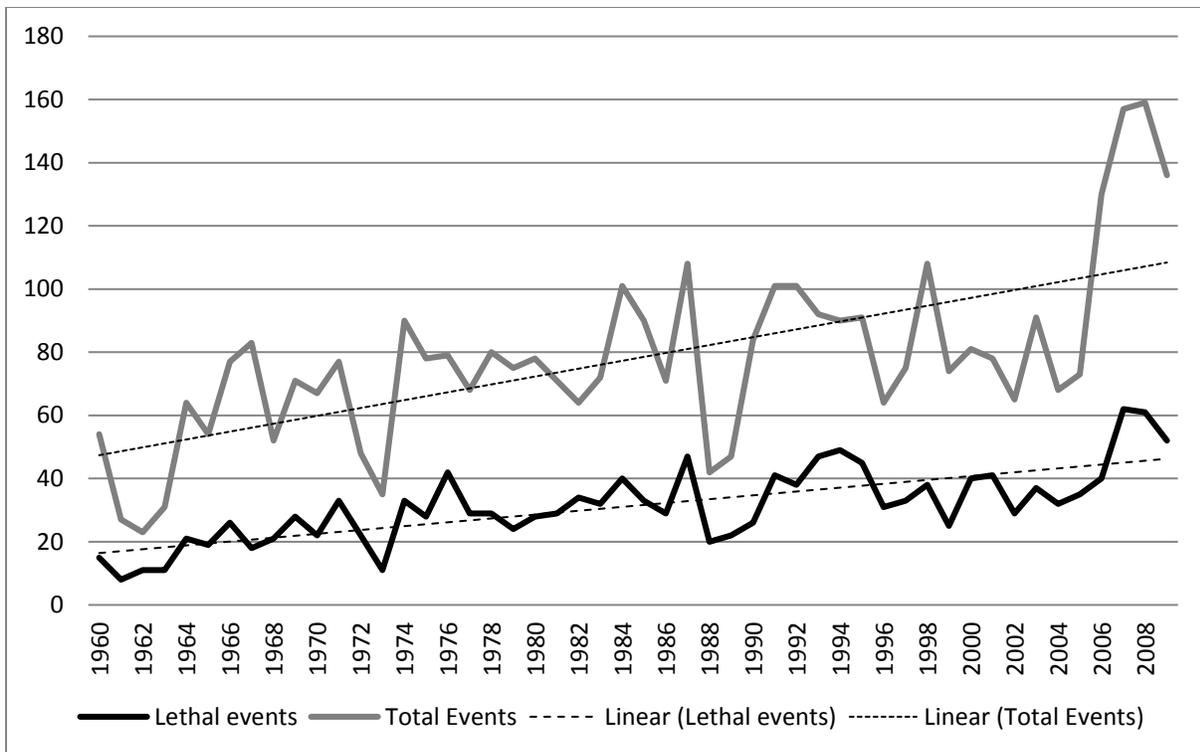
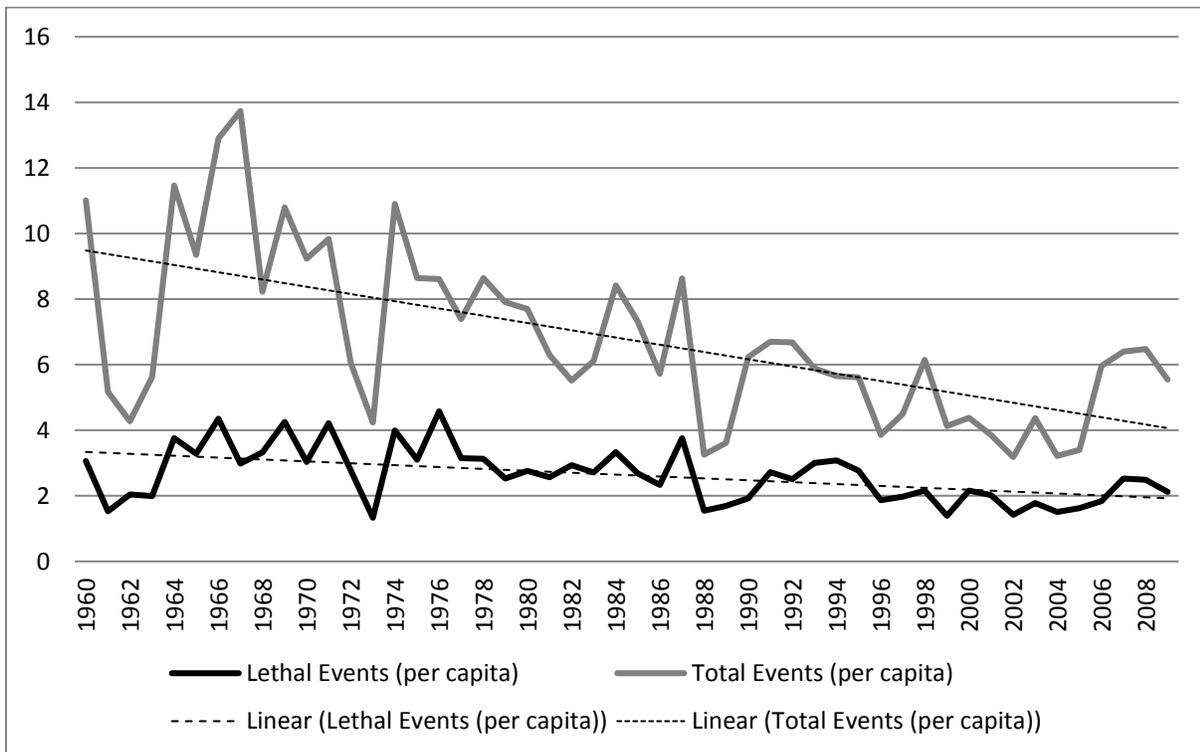


FIGURE 2 Urban Social disorder: Trends per capita (100,000 population), 1960-2009



While no other dataset on urban social disorder exists that we are aware of, we have compared our data with national level event counts for riots, protests, and demonstrations in the Cross-National Time-Series Data Archive (Banks 2011). While such a comparison presents some inherent challenges due to the different resolution of the dataset, we nevertheless found the two sources to be in general agreement with a correlation of almost 0.5 over the entire period. The USD dataset contains almost 17% more events just in urban centers compared to what the Banks dataset contains for the same countries in total. See online Appendix E for more details on the comparison.

3. Empirical Tests

No coherent theoretical framework explains urban violence, nor do we attempt to offer one here. Rather, we acknowledge that urban issues are addressed in prominent theoretical frameworks assessing civil and social violence (Fajnzylber, Lederman, and Loayza 2002; Goldstone 1991; Gurr 1970; Homer-Dixon 1999). While largely drawing upon theoretical frameworks addressing civil war, we also refer to literatures on urban crime and social violence (Fox and Hoelscher 2012; Pratt and Cullen 2005) which may share similar traits with urban social disorder.

Deprivation

Central to relative deprivation theory is that grievances arise from discrepancies between what people have, and perceptions of entitlement. While absolute poverty may lead to apathy, relative deprivation may inspire radical action (Davies 1962; Gurr 1970). Such feelings could easily motivate less organized and costly USD events. We consider two key aspects that arguably gauge levels of relative deprivation: economic growth, and economic inequality.

Lower economic growth may proxy increased relative deprivation. Theoretically, economic shocks will be felt most sharply by the poor as they are less able to insulate themselves against effects. Sharp declines in living standards are strong indicators of relative deprivation (Boswell and Dixon 1990) and are typically accompanied by unemployment and higher food prices which can disproportionately affect budgets of poorer households. Additionally, several studies have found low economic growth to be associated with increased risk of civil war (Collier and Hoeffler 2004; Hegre and Sambanis 2006), or reduced risk of falling back into conflict (Quinn, Mason, and Gurses 2007). We propose that lower economic growth is related to higher levels of USD.

Greater inequalities between individuals and groups may arguably also exacerbate relative deprivation and induce conflict (Østby 2008; Stewart 2000). The role of inequality in shaping political violence is unclear (Collier and Hoeffler, 2004; Muller and Seligson 1987), while in criminology and social violence literatures, inequality is consistently identified as a key determinant of crime and violence (Fajnzylber et al. 2002; Fox and Hoelscher 2012). We propose that greater inequality in societies will be related to greater occurrences of urban violence and social disorder.

Opportunity

Utility and rational decision making frameworks are frequently used to explain participation in civil violence, focusing on the perceived costs and benefits of engaging in conflict (Collier and Hoeffler 2004; Gates 2002). Here engagement in political violence is likely to be higher where there are high rents gained by controlling the state, low costs of rebel labor, and limited state

capacity (Collier and Hoeffler 2004; Fearon and Laitin 2003).⁷ Similarly for urban crime and violence there is rational assessment of the costs and benefits such as quality of policing, likelihood of incarceration, and material gains (Becker 1968). We consider two factors determining opportunity: level of economic development, and the proportion of young men in the urban population.

More economically developed countries have a significantly lower risk of conflict (Hegre and Sambanis 2006). This relationship may represent greater capacity to contain conflict (Fearon and Laitin 2003, for a slightly contrarian view, see Thies 2010); or lower opportunity cost for conflict participants (Collier and Hoeffler 2004). We follow Becker (1968), assuming such relationships also apply regarding potentially less organized forms of violence. Here greater income should indicate greater state capacity such as more effective military or police forces and a better judicial system, while lower income levels would increase individual incentives to engage in low-intensity social disorder events⁸. We expect lower levels of per capita GDP to be related to greater USD.

The literature on youth bulges and political violence has in particular focused on spontaneous and low-intensity disorder and violence similar to what we may expect to find in urban settings (Goldstone 1991; Hudson and den Boer 2004) Relatively large youth cohorts arguably reduce the opportunity cost of young persons, and increase the likelihood of engaging in political violence or social disorder (Collier and Hoeffler 2004). The empirical evidence both supports (Esty, Goldstone, Gurr, Harff, Levy, Dabelko, Surko, and Unger 1998; Urdal 2006;

⁷ See also Hendrix (2010) for an in-depth discussion of state capacity and civil conflict.

⁸ USD events may involve opportunities for personal benefit like looting, protection money and ransoms.

2008a) and questions (Collier and Hoeffler 2004; Fearon and Laitin 2003) this relationship.⁹ We propose that greater numbers of young men in the urban population will be associated with an increased risk of urban social disorder.

Transitions

Modernization theory suggests conflict is an essential part of the transition from traditional to modern societies due to shifting norms and institutional changes (Huntington 1968). Conflict may emerge between supporters of traditional and modern institutions (Feierabend, Feierabend and Nesvold 1969), from a breakdown of institutions governing political representation (Olsen 1963), the dissonance between expectations and realities under new social orders (Gurr 1970), or economic globalization more generally (Olzak 2011). The centrality of major cities as centers of political and economic change suggests that this framework may also be relevant to understanding urban disorder and violence more generally.

While violence may emerge due to the unequal distribution of gains from economic development (Russett 1964), conflict is curbed over time as more groups are integrated into the modern economy. Here countries at intermediate stages of development are likely to experience more conflict than those at earlier or later stages. Empirical support for the relationship with civil conflict is mixed (Hegre and Sambanis 2006; Moaddell 1994), yet we propose that USD should be higher in societies at middle stages of economic development. A more recent, but related

⁹ However, both Collier and Hoeffler (2004) and Fearon and Laitin (2003) employ a measure of youth bulges (15-24 year-olds as share of the total population) which fails to appropriately capture the youthfulness of rapidly growing populations and as such is inappropriate.

concern, regards the potentially conflict-inducing effects of economic globalization (Apter 2008; Olzak 2011). As developing countries are opening their economies to increasing global competition over labor, resources and capital, groups that are disadvantaged by the increasing globalization may react violently. However, the empirical results diverge. Olzak (2011) reports some support for the globalization-conflict nexus while Gartzke (2007) and de Soysa and Fjelde (2010) find a pacifying effect. We propose that greater economic openness will be associated with higher levels of USD.

Political transitions may also be conflict inducing. Recent scholarship has suggested that there exists an inverted U-shaped relationship between civil conflict and political institutions or regime repressiveness (Bleaney and Dimico 2011; Hegre, Ellingsen, Gates, and Gleditsch 2001). Here autocratic regimes fend off political opponents before potential conflicts escalate, while fully democratic regimes offer individuals to voice their opinions through regular elections and peaceful protest. In partly free societies, the semirepressive nature of government could make political violence more likely as ‘mobilisation is possible and peaceful opposition is typically ineffective’ (Muller and Weede 1990: 627). Fox and Hoelscher (2012) also find a relationship between social violence and hybrid political institutions, and we propose that the same general relationship applies to low-intensity disorder and violence.

Data and Method

We analyze event count measures using random-effects negative binomial regression. This accounts for the skewed distribution of our data given there are relatively few high-violence

observations and a majority of relatively peaceful ones.¹⁰ The unit of analysis is city-year. In our sample of 2,975 city-years, 35.4% are coded with one or more non-lethal events, while 26.1% have at least one lethal event.

A major advantage of the city-level dataset is that it is the first of its kind to enable time series analysis of USD. While a significant step forward, there are certain caveats regarding the availability of relevant and comparable time-series data at the city level.¹¹ Due to the general lack of reliable data, we are forced to use national-level measures to operationalize some of our explanatory variables. While this raises ecological fallacy concerns, there is currently no viable alternative.

For our explanatory variables, *level of economic development*¹² is measured by real GDP per capita in 1,000 USD and *economic growth* as the lagged inter-annual percentage change in real GDP per capita (Heston, Summers, and Aten 2011). To account for the assumed increased risk in societies at *medium levels of economic development* we include a squared term for real GDP per capita. *Economic inequality* is measured using GINI income inequality coefficients (Solt 2009). *Urban male youth bulges* are defined as the urban male population aged 15-24 as a percentage of the urban male population 15 years and above (UN 2008b). *Economic openness* is measured using the KOF index of economic globalization, which accounts for capital flows and restrictions (Dreher 2006). *Hybrid political institutions* are measured using the squared value of the ‘Polity2’

¹⁰ As a robustness check, models were also run with a *lagged dependent variable* and with city fixed effects, neither of which changed the main results (see online appendix D for details).

¹¹ UN Habitat’s (2008) Global Urban Observatory (GUO) data, which in principle includes relevant urban level data for around 200 cities globally, was considered unfit for a cross-sectional time-series study of cities due to high rates of missing observations.

¹² Estimates of Infant Mortality Rates yielded very similar results.

variable from the Polity IV dataset (Marshall and Jaggers 2000). Three control variables are added to all models. *City population size* accounts for increasing per capita risk of disorder¹³ (UN annual). We also include *decadal dummy* variables to capture temporal variation due to changes in reporting; and a dummy for whether a city is a *de jure capital*.¹⁴

As discussed, the validity of nationally aggregated data as indicators of city-level conditions is questionable. While not ideal, we assume that the measures included here also reflect conditions in the cities in question, and as such do have some validity. Despite having significant agricultural sectors, the economies of most countries in our dataset are driven by urban based manufacturing or service sectors, and national economic data is likely to reflect urban economic activity. We further assume that the age and gender composition is relatively similar between urban areas within a country. Our political institutional and economic openness variables may of less concern as they theoretically will have equal influence in all parts of a country.

Results

Table 1 displays our major empirical results. Initially, we hypothesized that greater USD would be associated with different aspects of relative deprivation, opportunity, and modernization frameworks. We assume that USD will be positively related with economic inequality, young male populations, economic globalization and political and economic transitions; and negatively related with economic growth and economic development. Models 1-3 contain the variables that are

¹³ See online appendix C for coding details

¹⁴ Certain cities function as de facto capitals while not being the de jure capital, such as Dar es Salaam (Tanzania), and may be the largest and economically and politically the most important cities

available for the vast majority (52) of cities. We analyze lethal, non-lethal and total events respectively, assuming there may be different drivers of lethal and non-lethal violence. Model 4 adds economic globalization to the all-events model, while Model 5 adds economic inequality. Model 6 uses a different dependent variable, a count of all *mass events*, defined as all demonstrations and riots. The major results are very consistent across the models. Lagged economic growth rates are negatively and significantly related to different operationalizations of USD across all six models. This clearly indicates economic decline may trigger both non-violent and violent USD events. While this offers some support to relative deprivation perspectives, it is clear that economic inequality is unrelated to USD.

TABLE 1 Explanations for urban social disorder, 1960-2009

Explanatory Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	<i>Lethal events</i>	<i>Nonlethal events</i>	<i>All events</i>	<i>All events</i>	<i>All events</i>	<i>Mass events</i>
<i>Relative deprivation</i>						
Real gdp per capita growth β z	-0.012** (-3.01)	-0.015** (-4.58)	-0.012** (-4.35)	-0.013** (-3.80)	-0.013** (-3.40)	-0.016** (-4.72)
Income inequality					0.0003 (0.00)	
<i>Opportunity</i>						
Real gdp per capita	-0.039 (-1.03)	0.032 (1.24)	0.026 (1.28)	0.021 (0.76)	0.005 (0.18)	0.003 (0.12)
Urban male youth bulges	0.022 (0.75)	-0.038 (-1.58)	-0.008 (-0.40)	-0.28 (-1.09)	-0.036 (-1.22)	-0.021 (-0.81)
<i>Transition</i>						
Real gdp pc, squared	0.0003 (0.24)	-0.0005 (-0.71)	0.0003 (0.24)	0.00002 (0.02)	0.0004 (0.50)	0.0004 (0.47)
Economic globalization				0.0003 (0.07)	0.006 (1.12)	
Regime type	0.007 (0.74)	0.012 (1.62)	0.009 (1.41)	0.006 (0.78)	-0.001 (-0.13)	0.020 (2.48)
Regime squared	-0.009** (-4.85)	-0.008** (-5.15)	-0.007** (-5.70)	-0.009** (-5.71)	-0.010** (-5.95)	-0.008** (-5.08)
<i>Control variables</i>						
City pop	0.005* (2.13)	0.006** (3.58)	0.005** (3.14)	0.005** (2.77)	0.004* (2.06)	0.005** (2.83)
1970s	0.440** (7.70)	0.148 (1.15)	0.216 (1.91)	0.003 (0.02)	-0.033 (-0.20)	0.074 (0.55)
1980s	0.532** (3.27)	0.046 (0.35)	0.219 (1.94)	-0.015 (-0.12)	-0.014 (-0.10)	-0.041 (-0.30)
1990s	0.621** (3.72)	0.045 (0.34)	0.292* (2.51)	0.033 (0.34)	0.0006 (0.01)	0.123 (0.88)
2000s	0.618** (3.43)	0.024 (0.16)	0.257* (2.03)			0.055 (0.36)
Capital	-0.254 (-1.38)	-0.180 (-1.08)	-0.217 (-1.52)	-0.258 (-1.58)	-0.210 (-1.24)	-0.180 (-1.07)
Constant	-0.730 (-1.20)	0.591 (1.17)	0.103 (0.23)	0.846 (1.48)	1.036 (1.45)	-0.339 (0.63)
N	2,176	2,176	2,176	1,589	1,365	2,176
No. of cities	52	52	52	42	41	52
Log Likelihood	-1945.67	-2480.43	-3187.80	-2455.84	-2177.69	-2333.23

** : statistically significant at 0.01; * : statistically significant at 0.05.

Contrary to empirical civil war research, economic development and urban male youth bulges are statistically insignificant in all models. We find support that USD is significantly higher in countries with hybrid political institutions, while we find no relationship between USD and mid-level economic development or economic globalization.¹⁵

Among control variables, city population is positively associated with disorder events of all kinds, reflecting a certain per capita effect. Unexpectedly, capital cities are negatively associated with disorder, though insignificant. Decadal dummies are statistically significant for lethal events, possibly indicating an undercount in the reference category (the 1960s).¹⁶ This is surprising given that we expected the historical undercount to be more serious for the less intense, non-lethal events. One possible explanation could be lack of confirmed casualties in the 1960s.¹⁷

While we assume that decadal dummies largely capture biases due to differences in reporting over time,¹⁸ other biases might still influence the results. We expected that autocratic countries would generally be more capable of suppressing information, although it would be difficult to empirically distinguish this from the ability to suppress disorder events. If there was a considerable bias we should expect to see that democracies are significantly more susceptible to disorder than autocracies. This is not the case. Similarly, economically open countries may also have more press freedom, and thus more reported cases of disorder. However, the insignificance

¹⁵ As a robustness test we also run models 1-3 with fixed effects and a lagged dependent variable (see online Appendix D). This procedure does not change any of the main results.

¹⁶ In Models 4 and 5, the dummy for the 2000s is dropped due to collinearity.

¹⁷ Many old entries in Keesing's report multiple events in one entry, and detailed information about time, place, perpetrators and victims may not always be available for individual events. An event is coded as lethal only if the report specifically mentions casualties.

¹⁸ This bias would mostly affect variables that primarily develop linearly, such as per capita income and population.

of the globalization variable suggests that this problem is negligible. A final bias concerns selection of cities and countries. The selection of primarily poorer countries greatly reduces the variance on economic development variables, and could explain the insignificant results for the two development level variables. Including more cities in highly developed countries may yield different results.

4. Applications for future research

This article introduces a new dataset on social disorder events for 55 large urban centers in Asia and Sub-Saharan Africa for the 1960-2009 period, and offers some preliminary analyses. To the best of our knowledge, this is the first quantitative study of political instability and violence looking only at cities. The study suggests that higher levels of urban social disorder are associated with lower levels of economic growth and hybrid political regimes. Level of development, large urban youth bulges, economic inequality and economic globalization do not appear to affect disorder in cities.

The USD dataset may be useful for future scholarship within several areas of study. First and foremost it represents a contribution to the disaggregation of conflict studies, allowing the field to further move beyond the over-aggregation of country-level studies. The data may be particularly useful for studying conflict escalation, by addressing how urban protest and other forms of politically relevant disorder relate to the outbreak of conventional internal, or even international, conflict. A further issue is how politically motivated disorder may relate to social or criminal violence, and whether drivers of these different types of instability and violence are the same or different. Recent works suggest that some common causes, like partially democratic political institutions, may underlie different types of violence (Fox and Hoelscher 2012; World

Bank 2011), underscoring the difficulty of disentangling political, and social violence. The data also provide opportunities for studying how regionally based insurgencies may affect security in major political centers of various states. Furthermore, little systematic research has been done on the conditions under which separatist groups decide to strike in urban centers in order to undermine the government against which they fight. The USD dataset may be used to study these dynamics.

There is a growing interest in urban political violence and disorder. The USD dataset allows researchers to address potential drivers of urban violence, and to study its dynamics. An area of particular current interest is how the very strong urban population growth rates will affect the stability of cities, an issue that is also central in the debates about the security implications of climate change (Gleditsch 2012). A related concern is the effect that food price increases may have on disorder in urban centers. The dataset arguably also provides a new platform for studying ethnic conflict. Urban centers are often melting pots of ethnic and religious populations, and a pertinent question is under what conditions multiethnicity in cities may or may not lead to increased violence. A related issue, which has received little attention in the literature, is how the local governance of cities may affect the security situation. Rapid unplanned growth can weaken state presence, and alternative forms of non-state governance and informal institutions can emerge to fill these local governance voids (Moser and Rogers 2005).

As the dataset is extended to other world regions, it will be possible to contribute to answer whether the long-term decline in conventional armed conflicts (Themnér and Wallensteen 2011) is countered by an increase in other forms of violence. While it is difficult to answer this question definitively with the current selection of cities, there is some indication that urban social disorder is increasing in absolute numbers (Figure 1), while declining on a per capita basis (Figure 2).

The greatest challenge to the study of urban violence is the lack of reliable city-level indicators. While there are a number of disaggregated data collection efforts, particularly geospatial, not all of these are applicable to the study of urban dynamics. Additional sources, like individual-level data from household surveys such as Demographic Health Surveys, or the World Values Surveys, may be used to construct social, economic, and environmental indicators. Given the increasing attention paid to issues of urban governance and new forms of violence (World Bank 2011), collecting city-level data is crucial in order to monitor urban development and further analyze the causes of urban social disorder.

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