# The Institutional Basis of Intercommunal Order: Evidence from Indonesia's Democratic Transition

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*When authoritarian regimes break down, why does communal violence spike and why are some locations more prone to violence than others? To understand violence during transitions, it is necessary to understand what sustains order when regimes are stable. While existing theories attribute order to formal or informal security institutions on their own, I argue that intercommunal order obtains when formal and informal security institutions are aligned. During authoritarian breakdowns, the state's coercive grip loosens, exposing mismatches between formal and informal institutions and raising the risk of communal violence. Formal-informal mismatches emerge in communities accustomed to heavy state intervention since they will have developed more state-dependent informal security institutions. I apply an instrumental variables approach on a nationwide dataset of village-level data to show that prior exposure to military intervention, proxied by the distance to security outposts, led to Indonesia's spike in violence during its recent democratic transition.*

The first three decades of Suharto's authoritarian regime in Indonesia were characterized broadly by intercommunal peace amid bouts of heavy, state-led violence. But in 1996, two years before the end of his 32-year regime, incidence of communal violence began to increase nationwide. Here, communal violence refers to group violence between two or more communities, including both ascriptive identity groups (e.g., ethnic or religious groups) and locational groups (e.g., village or neighborhood groups). As Suharto's regime gave way to democratic rule, the violence peaked in 2000 and subsided thereafter (Varshney, Panggabean, and Tadjoeddin 2004). Indonesia's experience with communal violence is not uncommon among countries experiencing breakdowns in authoritarian rule (Gurr 1994). Transitions from authoritarian regimes including decolonization, political liberalization, and interregna have been identified as prone to spikes in communal violence (Horowitz 2001, 333–34). Cross-national evidence of communal violence in the period 1989–2007 shows that transitions from authoritarian rule are associated with a significantly elevated risk of communal violence (Kreutz and Eck 2011). In this article, I aim to provide an explanation of why communal violence spikes during transitions from authoritarian regimes by examining Indonesia's recent transition. To address this question, I consider a more fundamental question: What are the origins of local order? For, if we are to explain why order gives way to communal violence during transitions, we must also understand what sustains order during ordinary times.

## Statist and Nonstatist Theories of Order

The problem of order has spawned two rich theoretical traditions that can be classified broadly as either statist or nonstatist explanations. Statist theories in the Hobbesian tradition suggest that order is a function of state capacity and their formal institutions. Although statist approaches have gained widespread acceptance in explaining communal violence (Horowitz 2001; Posen 1993; Wilkinson 2004) and civil wars (Bates 2008; Fearon and Laitin 2003; Hegre and Sambanis 2006) as a product of weak states, there is a lack of causally identified statistical evidence for

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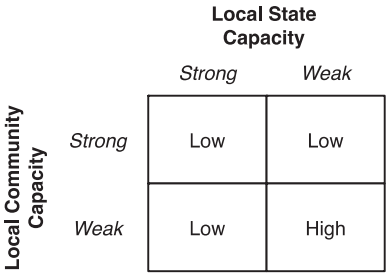
**FIGURE 1 The Predicted Risk of Communal Violence in Equilibrium**




statist theories. There are two fundamental reasons for this: (1) it is difficult to systematically measure variation in state capacity, and (2) it is difficult to isolate the effect of state capacity on order since they are endogenous.

On the other hand, nonstatist theories contend that order can be explained by community capacity and informal institutions. Scholars have also long observed that order is possible where states are weak or absent and have pointed to the role of informal institutions (Evans-Pritchard 1968, 181). In this theoretical tradition, scholars have attributed stateless order to various forms of informal institutions, focusing on community capacity (Taylor 1982), institutions of self-policing (Fearon and Laitin 1996), and interethnic civic associations (Varshney 2002). Like statist theories, empirical studies of nonstatist theories suffer from the difficulty of measuring variation in community capacity and informal institutions as well as the problem of endogeneity between community capacity and security outcomes. A third challenge for testing both statist and nonstatist theories of order is revealed if we consider their predictions in equilibrium together as in Figure 1. As the figure shows, order can result from strong states, strong communities, or both, while communal violence is predicted to be elevated only when both state and community capacities are weak. Thus, when order is observed, it is difficult to distinguish whether it is due to statist or nonstatist theories.

While it is difficult to deny that statist and nonstatist theories can each explain some variation in local order, they overlook the considerable variation in state capacity both between and within countries. Even in states with the greatest of coercive capacities, local order is maintained not only by the state, but also communities and their myriad informal institutions. At the same time, formal institutions shape the local security environment even in countries with very weak states. I therefore explore a third theoretical possibility: intercommunal order and violence are products not only of formal and informal institutions, but also their interactions. I argue that variation in the degree to which informal institutions are interdependent with formal institutions can explain variation in the robustness of local security to changes in formal security institutions. Where formal and informal institutions have coevolved to be more interdependent of each other, dramatic changes to formal institutions can render the complex of formal and informal institutions to be less able to maintain intercommunal order. In contrast, informal security institutions that are more independent of formal institutions should be more robust to shocks to formal institutions or state capacity.

## A Theory of Aligned and Mismatched Institutions

The institutions literature offers a number of theoretical possibilities for how formal and informal institutions coevolve and why they may become interdependent.[1] Regardless of the various mechanisms by which formal and informal institutions coevolve, in areas with a heavy state footprint, informal institutions will likely be more interdependent with formal institutions than in areas with a light or nonexistent state presence. When there are shocks to formal security institutions, I argue that this interdependence renders such institutions more vulnerable to insecurity than more self-reliant informal institutions. In particular, by acting as a guarantor against security disturbances such as communal violence, heavily interventionist states can create a moral hazard of security, which can incentivize communities to adopt informal security institutions that are more dependent on state intervention to manage communal violence and are therefore not robust to fluctuations in state intervention, ceteris paribus. In contrast, where the state cannot be relied upon to maintain intercommunal security, communities have an incentive to develop informal institutions that manage the risk of both crime and communal violence and are therefore more robust to fluctuations in state intervention, ceteris paribus. This is not to say that security is

[1]Informal institutions may constrain how formal institutions develop—for example, as in colonial state-building projects (Boone 2003)—or affect compliance with formal institutions (Levi 1988; Levi, Sacks, and Tyler 2009). On the other hand, formal institutions also shape informal institutions. Individuals and communities respond to formal institutions by developing informal institutions that help them to complement, substitute for, or flee formal institutions (Helmke and Levitsky 2006; North 1990; Scott 2009).

necessarily better with less state intervention since locations with well-functioning formal security institutions can clearly maintain order effectively. Rather, I argue that local order can be achieved through a mixture of formal and informal institutions and that insecurity may arise when formal and informal institutions are mismatched.

To illustrate theoretically how institutional mismatches can emerge during authoritarian breakdowns and produce spikes in communal violence, I begin with an insight from the literature on stateless order of the linkage between crime and communal violence. In the absence of effective policing by the state, institutions of out-group punishment (e.g., vigilantism) are often used to deter outsiders from committing crimes (Bates 1983; Taylor 1983; Fearon and Laitin 1996). While out-group punishment may help reduce crimes, it can also raise the risk of a retaliatory cycle of communal violence if out-group punishment norms in two communities are triggered against each other. In stateless societies, this tension between the goals of deterring crimes and preventing communal violence has been characterized as a prisoner's dilemma game between two communities (Bates 1983; Fearon and Laitin 1996). That is, while retaliating against outsiders may help communities to deter crimes, mutual retaliation raises the risk of communal violence. Thus, mutual retaliation can be more costly than mutual restraint since the latter may reduce the risk of communal violence despite the higher risk of crime.

The presence of a state alters intercommunal interactions. As states begin to intervene in stateless societies, the formal institutions they introduce affect the incentives of local communities. For a state extending its influence over a formerly stateless locality, security problems with the potential to escalate into more significant threats to the state (such as rebellions, communal violence, and foreign threats) will be prioritized over those that are more easily localized, such as crimes (Herbst 2000, 79–80). Thus, it is useful to examine the scenario in which state builders introduce institutions that minimize the potential for communal violence while leaving the problem of crime to locals. I therefore represent in Figure 2 intercommunal interactions as a modified repeated prisoner's dilemma game whose payoffs change with state intervention against communal violence.

Here, $B < D < A < C$, which captures the ordinal payoffs of a prisoner's dilemma game in which two communities can choose in-group restraint or out-group punishment to manage their security. The parameter $M \geq 0$ represents the impact of state intervention against communal violence that can occur if both communities adopt out-group punishment. In the stateless case ($M = 0$), if both communities adopt out-group punishment, the risk of communal violence increases due to the possibility of a retaliatory cycle of violence. However, with government intervention against communal violence ($M > 0$), the risk of a retaliatory cycle of communal violence is reduced, thereby making out-group punishment more attractive since it would deter crimes without the risks of communal violence. Although states may modify the degree of intervention $M$ strategically, for simplicity, I treat $M$ as exogenous here.

**FIGURE 2 Intercommunal Security as Prisoner's Dilemma**

| | | Community 2: *In-Group Restraint* | Community 2: *Out-Group Punishment* |
|---|---|---|---|
| Community 1: *In-Group Restraint* | | (A, A) | (B, C) |
| Community 1: *Out-Group Punishment* | | (C, B) | (D+M, D+M) |

Given the difficulty of distinguishing whether order in equilibrium is due to formal or informal institutions, it is useful to examine the observable implications of the model after exogenous shocks render local systems out of equilibrium. Specifically, what institutional equilibria are supported after the degree of state intervention $M$ changes, and, in turn, how do these changes affect local security? I will present the main implications of this model and leave the formal derivations to the online Appendix A.

If we begin with the stateless case, there exists a cooperative subgame perfect Nash equilibrium (SPNE), which we will call the *trigger equilibrium*, in which both sides adopt in-group restraint as long as the other side reciprocates, given a sufficiently high discount factor (Appendix A: Lemma 1). Suppose two communities in a stateless context begin in the trigger equilibrium. Now consider the process of state building in which a state is introduced that intervenes to reduce the risk of communal violence. The payoff in which both communities adopt out-group punishment will improve because the state now reduces the risk of communal violence. There exists a level of state intervention $\bar{M}$ above which the payoffs for sustaining the cooperative equilibrium are outweighed by the payoffs for defection, and both communities will adopt out-group punishment (Appendix A: Lemma 2). We can refer to the equilibrium of unconditional mutual

out-group punishment as the *vigilantism equilibrium*. If we assume that there will be a nonempty set of communities that will adopt the trigger equilibrium, we have the following:

**Proposition 1**. *Communities with heavy state intervention against communal violence ($M > \bar{M}$) should be more likely to have out-group punishment institutions than communities with light state intervention ($M \leq \bar{M}$), ceteris paribus.*

Let us now consider the implications of the model when the state is restrained from intervening, which is a common outcome during an authoritarian breakdown or democratic transition (Davenport 2007). For communities that are accustomed to the state intervening to stop communal violence, a restrained state implies that the parameter $M$ will decrease again as the state is less able to prevent the risk of communal violence. This decreased state intervention will cause the risk of communal violence to spike as both communities continue with out-group punishment since the vigilantism equilibrium remains a SPNE even at lower values of $M$. Combined with Proposition 1, we can infer the following:

**Proposition 2**. *When interventionist states become restrained, the risk of communal violence should spike where there was previously greater state intervention, ceteris paribus.*

That is, given some latent potential for communal conflict, the weakening of the coercive capacity of the state will have a more deleterious effect on security where the state was previously more interventionist than where the state was less interventionist.

Notice that even if the stream of payoffs associated with out-group punishment is now worse than the cooperative equilibrium, neither community has an incentive to unilaterally switch to in-group restraint since reciprocation is not guaranteed. If the communities lack the ability to coordinate with each other (as under the assumptions of noncooperative game theory), they cannot switch back to the cooperative equilibrium (Appendix A: Lemma 3). However, there is case evidence that communities in Indonesia during the transition coordinated to more restrained security arrangements after out-group punishment spiraled unexpectedly into communal violence, often within the span of days (Tajima 2004). More generally, the importance of intercommunal coordination for the adoption of more cooperative institutions has been highlighted by Varshney (2002) and Fearon and Laitin (1996), who have argued that ties between intercommunal elites are instrumental in cauterizing outbreaks of communal violence. Indeed, the overwhelmingly rare incidence[2] of communal violence even in Africa, where states are comparatively weak (Fearon and Laitin 1996), suggests that institutions that sustain a high risk of communal violence are replaced by institutions that reduce the risk of communal violence. Based on the cross-national and Indonesia-specific evidence, I suggest the following proposition:

**Proposition 3**. *After the risk of communal violence has risen due to the reduction in state intervention, communities that were previously more accustomed to heavy state intervention will reduce the risk of communal violence by adopting institutions of in-group restraint for communities.*

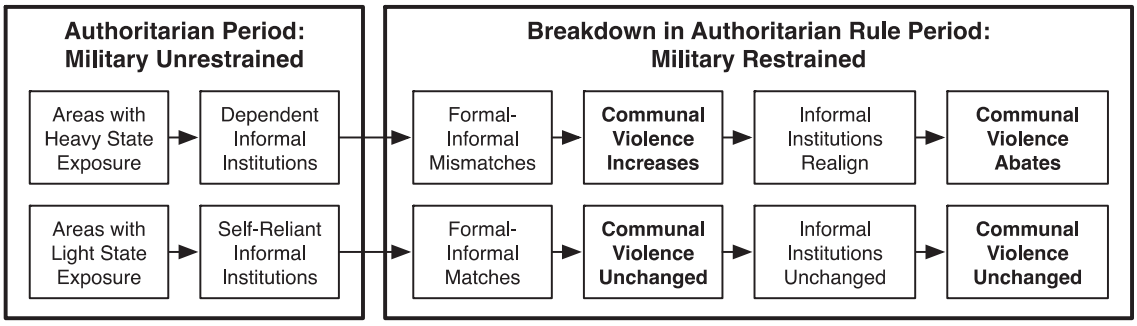
To summarize the argument, greater state intervention can create incentives for communities to adopt informal institutions that are more dependent on formal institutions than in communities with less state intervention. During authoritarian breakdowns, as the state becomes less able to intervene in local security, formal-informal mismatches will emerge in communities that are accustomed to greater state intervention, causing the risk of communal violence to spike. Over time, communities with formal-informal mismatches will reequilibrate by adopting institutions that are better adapted to a less interventionist state. Figure 3 summarizes the observable implications of the theory for communities that differ in the initial level of state intervention.

## Empirical Strategy

Testing this theory requires an identification strategy that can account for the three aforementioned empirical challenges: (1) the difficulty of measuring variation in state and community capacity and formal and informal institutions, (2) endogeneity between institutions and security outcomes, and (3) the difficulty of determining whether order has statist and nonstatist origins in equilibrium. To address the third empirical challenge, I assess the observable implications of the three theories *out of equilibrium*. In particular, I examine the implications of these theories in the context of Indonesia's transition from authoritarian rule, which experienced a decrease in state intervention in local security. I argue that Indonesia's transition from authoritarianism placed successively greater constraints on the military's ability to intervene in local security.

[2] Fearon and Laitin (1996) estimate that only 0.05% of all potential cases of ethnic violence in Africa actually resulted in violence. They suggest that in-group policing, which is a specific type of the more general category of in-group restraint where criminality is policed within each group, is one mechanism for maintaining communal order.

**FIGURE 3 Communal Order during Authoritarian Breakdown**




To address the difficulty of measuring state capacity, I use village-level variation in the distance to the nearest police and military posts as microlevel proxies for the coercive capacity of the state rather than crude country-level measures of state capacity (such as GDP per capita) common in cross-national studies. The empirical analysis examines an extensive nationwide dataset of village head surveys conducted in all of Indonesia's villages (known as the PODES village census) in 2002 and 2005 and village-level variables compiled from individual-level data from the 2000 Indonesian population census.

To address concerns of endogeneity, I employ an instrumental variables approach that identifies a plausibly exogenous source of variation in the capacity of the Indonesian state. In particular, I exploit the Indonesian government's policy for the placement of health stations to use the distance to health stations as instrumental variables for the distance to police posts. The empirical design identifies the effects of distance to police posts on the probability of communal violence during the middle and latter parts of the transition period.

## Order in Suharto's Indonesia

Indonesia serves as an ideal setting in which to assess theories of intercommunal order and violence with advantages of both a cross-national study and a single-country, microcomparative study. Indonesia's population of over 240 million (the world's fourth largest) is segmented into 300 distinct ethnolinguistic groups and spread across an archipelago of 17,000 islands that spans a distance equivalent to that between London and Tehran. With this diverse population and sprawling terrain, Indonesia has had a long history of communal violence and ethnonationalist regional rebellions. Furthermore, with populations in some of its 33 provinces (e.g., West, East, and Central Java) roughly equal to medium-sized European countries such as Spain and Poland, Indonesia as a context to study offers a scale and an ethnic diversity comparable to a cross-national regional study. At the same time, focusing on Indonesia offers the advantages of microcomparative studies that other seminal works on communal violence have exploited, namely: (1) controlling for unobservable variation across countries and (2) uniform data (Varshney 2002; Wilkinson 2004).

Indonesia is a particularly fitting case to test my theory because of significant spatial and temporal variation in the coercive capacity of the state. From its outset in 1965, Suharto's New Order regime relied on the heavy hand of the military to quell and deter threats to regime stability. By extending the military's presence to every administrative level via a nationwide network of military garrisons, police posts, and intelligence agents, the regime established an unprecedented capacity to monitor and coerce its citizens. Despite this increased capacity, there still existed significant spatial variation in the capacity of the security forces. While some communities were located near large military garrisons that could be reached via accessible terrain, others were more distant or isolated by rough terrain (Crouch 2007, 222–44; Mietzner 2009, 52–53).

With its history of regional ethnonationalist rebellions, the regime prioritized counterinsurgency, suppression of regime opponents, and communal violence over the less existentially threatening problem of crime. Over the first two decades of the New Order, while the military grew in capacity and intervened heavily against rebellions and communal violence, the police were relegated to a weak, junior branch of the military (van Dijk 2002; Honna 2003). Although the New Order did develop an extensive nationwide network of police stations and posts throughout the country, these police posts were

more adept at monitoring the local population for potential security disturbances than law enforcement. Not surprisingly, local communities turned to their own institutions, such as neighborhood watches (*ronda*) and vigilantism (*keroyokan massa*), to prevent crimes (Barker 2001; Colombijn 2002; van Dijk 2002; van der Kroef 1985; Siegel 1993). Indeed, the New Order regime continued a long history of explicit and implicit state-sanctioned lynching as a less costly means by which communities could deter crimes. At the same time, the state prevented retaliation against lynching in order to contain the risk of escalated communal violence (Colombijn 2002, 312–14).

## Transition from Authoritarianism: Restraining the State

By the early 1990s, intraregime rivalries and an increasingly bold civil society set Indonesia on a path that began with a relaxation of restrictions against regime criticism known as *Keterbukaan* (or political openness). In 1997, the Asian Financial Crisis spawned a widespread protest movement that eventually led to Suharto's ouster in 1998 and gave way to a democratic transition period known as *Reformasi*. According to a database of collective violence in half of Indonesia's provinces from 1990 to 2004, there was a nationwide spike in communal violence that began in 1996, peaked in 2000, and abated thereafter that spanned the late New Order and early *Reformasi* period. This database found that 16.6% of such incidents were ethnic riots, 59.4% were lynchings and intervillage conflicts, while state-community clashes and conflicts fought over economic interests were 11.7 and 12.3%, respectively (Varshney, Panggabean, and Tadjoeddin 2004, 25).

To explain this spike in violence, scholars have pointed to various changes associated with the *Reformasi* period, namely: (1) economic shock from the Asian Financial Crisis, (2) regime change, (3) increased ethnic competition due to electoral liberalization, (4) greater competition at the local level due to decentralized government resources, and (5) new opportunities for renegotiating the status of different ethnic groups (Bertrand 2004; van Klinken 2007; Sidel 2007; Welsh 2010). While each of these theories may have exacerbated the violence, they cannot account for key temporal patterns of the violence: why the incidence of violence began to rise in 1996 and why it eventually subsided. Since the violence began in 1996, a year before the financial crisis, two years before Suharto's resignation, and three years before electoral and decentralization reforms, these theories cannot explain the timing of increased violence. Furthermore, theories that attribute the violence to the national-level status renegotiation of various ethnic groups cannot explain their highly localized emergence prior to merging into broader narratives of intergroup conflict.[3]

One national-level factor that predates the rise in communal violence and can therefore plausibly explain the nationwide spike in violence is the piecemeal restraining of the military's ability to use force starting in the *Keterbukaan* period. In 1991, after the violent suppression of a proindependence demonstration in Dili, East Timor, the regime came under heavy international criticism, including from the United States, which was reassessing its relationships with authoritarian allies after the end of the Cold War. Responding to the criticism, Suharto court-martialed 19 soldiers, forced two generals into retirement, and established a national human rights commission in 1993 (Honna 2003, 92–97). In 1994, the U.S. Senate passed the Leahy-Feingold Amendment, which conditioned continued military aid on an improved human rights record.[4]

After Suharto's ouster in 1998, the military was restrained further. In 1999, the police were separated from the military to more clearly demarcate internal security for the police and external security for the military. In the same year, electoral liberalization led to a greater diffusion of power and a more vigorous press and civil society sector. The disciplining of soldiers, the human rights commission, the removal of local security from the military's portfolio, and political liberalization significantly changed the incentives of soldiers to intervene and use force in local security. In the context of the theory, the successive constraining of the military can be viewed as a reduction in state intervention $M$ against communal violence.

## Data

I test the observable implications of the theory on a representative sample of all of Indonesia's villages (*desa*) and urban neighborhoods (*kelurahan*), excluding Aceh and Papua provinces, which were the site of separatist insurgencies. The Indonesian Central Bureau of Statistics (BPS) carries out a village census, called PODES (*Potensi Desa*), roughly three times per decade in every official village and neighborhood in the country. For the PODES dataset, village officials are surveyed on a range of economic, social, and political variables, including a measure

[3] Brass (1997, 9–10) has argued that retrospectively viewing local-level violence through the lens of national-level conflicts often overlooks the timing of events and the parochial nature of the early stages of communal violence.

[4] See Leahy (and Others) Amendment No. 2288, 1994.

of communal violence. The population census is carried out every 10 years at the household level, which provides basic demographic data at the individual level. Using individual census observations from the 2000 Population Census, I derived various population, wealth, inequality, and diversity measures at the village, subdistrict, and district levels. I merged the 2003 PODES data, village variables constructed from the 2000 Population Census (192 million individual observations), and a crosswalk that tracks village identifiers across different years to produce a cross-sectional dataset of 51,913 observations (89% of Indonesia's villages excluding Aceh and Papua provinces).[5] I created a separate dataset using the 2006 PODES village census and the 2000 Population Census, 2003 PODES, and an additional crosswalk, yielding a dataset of 49,644 observations or 81% of all villages (excluding Aceh and Papua provinces). To correct for data attrition during the merger of the three datasets, I use probability weights calculated from a probit model (see online Appendix B).

## Dependent Variable

The dependent variable, which is the incidence of communal violence, $CV_i$, is derived from the following question in the 2003 and 2006 PODES surveys: "Has there been any conflict in the village over the past year?"[6] A follow-up question asks: "If yes, what is the conflict type that has most frequently occurred over the past year? (1) Intergroup fighting, (2) Fighting between villagers and the security apparatus, (3) Student fighting, (4) Interethnic fighting, (5) Other."[7] To capture communal violence, which I have defined as including both ascriptive and locational communities, $CV_i$ is given a value of 1 if either intergroup fighting or interethnic fighting was recorded in the previous year and 0 otherwise.[8] Because the 2003 and 2006 PODES surveys were carried out in August 2002 and May 2005, the communal violence measures pick up violence for the periods September 2001 to August 2002 and June 2004 to May 2005, respectively.

[5]Barron, Kaiser, and Pradhan (2009) were the first to analyze the conflict data in the 2003 PODES and 2000 Census.

[6]2003 PODES Survey, Question 1703; 2006 PODES Survey, Question 1202a.

[7]2003 PODES Survey, Question 1704; 2006 PODES Survey, Question 1203a.

[8]I included both types of fighting in one measure of communal violence since the ethnic component of some conflicts that occurred between different ethnic groups is often downplayed.

## Empirical Model

Given that the theory predicts a relationship between a community's prior exposure to the military and its risk of communal violence during different periods, I estimate the following structural equation at different points in time during the transition period:

$$CV_i = \alpha_0 + \alpha_1 PME_i + \mu W_i + \varepsilon_i, \qquad (1)$$

where $PME_i$ refers to village $i$'s degree of prior military exposure, $W_i$ is a vector of exogenous covariates, and $\varepsilon_i$ is the error term. Throughout the article, I use a linear probability model due to its more intuitive interpretation and because probit models did not alter the results substantively.

### Measuring Microspatial Variation in the Coercive Capacity of the State

Because prior military exposure is not directly observable, $PME_i$ is a latent variable, which can be modeled as a function of observables. I model $PME_i$ as a function of the distance to the nearest police post, $DP_i$, since the military relied on a nationwide network of police posts to monitor potential security problems. As a subsidiary branch of the military until 1999, police officers would notify nearby military garrisons whenever security problems threatened to escalate beyond their capacity, including communal violence. Thus, the distance to the nearest police post can serve as a useful proxy for the prior exposure of a community to the military and therefore the penetration of the coercive capacity of the state. I use $DP_i$ instead of the distance to the nearest military garrison because (1) the PODES dataset lacks a direct measure for distance to military garrisons, and (2) police posts provide a more fine-grained proxy for the military's coercive capacity since they are deployed even below the lowest level for military garrisons. I model prior military exposure as follows:

$$PME_i = \varphi_0 + \varphi_1 DP_i + \lambda T_i + u_i, \qquad (2)$$

where $T_i$ is a vector of exogenous covariates that we can expect to affect community $i$'s prior exposure to the military, and $u_i$ is an error term. Equations (1) and (2) yield the following reduced form equation:

$$CV_i = \beta_0 + \beta_1 DP_i + \kappa X_i + \varepsilon_i. \qquad (3)$$

Here, $X_i = W_i \cup T_i$ is a vector of the union of exogenous covariates in $W_i$ and $T_i$, and $\varepsilon_i$ is the error term. Because shorter distances to police posts proxy for greater prior military exposure, the theory predicts

a negative effect of $DP_i$ on the probability of communal violence.

The proxy for prior military exposure can be further refined if we account for the accessibility of the community by conditioning it on characteristics of the terrain. Thus, $PME_i$ can alternatively be modeled as an interactive function of $DP_i$ and $Accessible_i$:

$$PME_i = \varphi_0 + \varphi_1 DP_i + \varphi_2 Accessible_i + \varphi_3 DP_i \cdot Accessible_i + \lambda T_i + u_i. \quad (4)$$

Since states are believed to have difficulty projecting power in hilly, elevated areas, $Accessible_i$ is a function of whether the terrain is flat or low in elevation (Fearon and Laitin 2003; Scott 2009). Specifically, I use the following conditioning variables about whether the village terrain is (1) flat ($Flat_i$), (2) at a low altitude ($Low_i$ indicates altitude below the weighted mean of 253m), (3) low and flat ($Low_i \cdot Flat_i$), or (4) flat at varying altitudes ($Flat_i \cdot Altitude_i$). Equations (1) and (4) yield the following:

$$CV_i = \beta_0 + \beta_1 DP_i + \beta_2 Accessible_i + \beta_3 DP_i \cdot Accessible_i + \tau X_i + \varepsilon_i. \quad (5)$$

In communities with accessible terrain, the negative effect of distance to police posts should be stronger since distance to police posts should correspond with significant variation in prior military exposure. In contrast, communities with inaccessible terrain would have little variation in prior military exposure since even in communities that are close to police stations, inaccessible terrain would limit their military exposure.

## Testable Predictions

The theory therefore implies the following testable predictions that follow from Propositions 2 and 3 and equations (3) and (5):

**Prediction 1**: *As the military is initially restrained, $DP_i$ should have a negative effect on $CV_i$.*

**Prediction 2**: *The negative effect of $DP_i$ on $CV_i$ should be stronger in areas with more accessible terrain (i.e., the coefficient for the interaction between $Accessible_i$ and $DP_i$ should be negative).*

**Prediction 3**: *Over time, the negative effects of $DP_i$ on $CV_i$ will diminish.*

## Endogeneity: Identifying a Plausible Source of Exogenous Variation

An OLS estimate of equations (3) and (5) would result in biased coefficient estimates since the relationship between communal violence and distance to police posts is endogenous. Specifically, police posts may be established where security forces anticipate greater communal tensions. Indeed, a senior police official responsible for the countrywide, community policing policy (including the placement of police posts) noted that police posts are placed in (1) the population center of each subdistrict, (2) secondary subdistrict population centers with limited access to primary police posts, and (3) locations with greater security risks.[9] The third criterion clearly suggests endogeneity between police posts and communal violence.

To account for this endogeneity, I employ a two-stage least squares (2SLS) estimator using the distance to health stations as instrumental variables. The first stage of the model is as follows:

$$\widehat{DP}_i = \alpha_0 + \alpha_1 Z_i + \kappa X_i + v_i, \quad (6)$$

where $Z_i$ is a vector of instruments. The interactive models include an additional first-stage equation:

$$DP_i \cdot \widehat{Accessible}_i = \alpha_0 + \alpha_1 Z_i + \kappa X_i + v_i. \quad (7)$$

Here, $Z_i$ would also include additional interactive instruments.

The second-stage equation can be expressed in the following equation:

$$CV_i = \beta_0 + \beta_1 \widehat{DP}_i + \gamma Z_i + \kappa X_i + \varepsilon_i, \quad (8)$$

where $\gamma \equiv 0$ is imposed, and where $\beta_1$ is the effect of the distance to police post on the probability of communal violence. I make explicit the exclusion restriction $\gamma \equiv 0$ since I will relax this assumption later to examine the robustness of the 2SLS results to violations of the exclusion restriction (i.e., where $\gamma \neq 0$). The second-stage equation of the interactive model is as follows:

$$CV_i = \beta_0 + \beta_1 \widehat{DP}_i + \beta_2 Accessible_i + \beta_3 DP_i \cdot \widehat{Accessible}_i + \gamma Z_i + \kappa X_i + \varepsilon_i. \quad (9)$$

The identification strategy exploits the fact that each subdistrict in Indonesia is required to have a police station and a health station (known as *puskesmas*) located in their population centers. Specifically, I use the distance to the nearest government health stations ($DH_i$) as an instrumental variable for $DP_i$. In addition to health stations

[9] Confidential Interview, National Police Headquarters, Jakarta, May 23, 2007.

located at subdistrict centers, the Indonesian Health Department uses satellite health stations (called *puskesmas pembantu*) that serve other population clusters in other parts of each subdistrict that have difficulty accessing the primary health stations.[10] I use the distance to the nearest satellite health station ($DSH_i$) as an additional instrument. For estimates of the interactive model, additional instruments are constructed from the interactions of $Accessible_i$ with $DH_i$ and $DSH_i$.

To establish whether these variables plausibly meet the exclusion restriction, I interviewed the National Police and Health Department officials responsible for the placement policies of police posts, health stations, and satellite health stations. The exclusion restriction implies that there is no direct correlation between $CV_i$ and any of the instrumental variables. According to a Health Department official, primary health stations must be located in every subdistrict at their population centers, regardless of the propensity for violence of those locations. Indeed, despite a greater propensity for violence in densely populated areas, primary health stations are located in subdistrict population centers. They are also not purposefully located near flashpoints of communal violence since they are the backbone of Indonesia's permanent health care infrastructure, rather than ad hoc responses to crises. Although satellite health stations are also not deployed for crisis response, their placement may be more responsive to violent conflict than primary health stations because they are housed in smaller, less permanent facilities and are not required to be in the main subdistrict centers.[11] To further strengthen our confidence in the IV results, I will assess the sensitivity of the results to relaxations in the exclusion restrictions.

## Covariates

I include exogenous covariates $X_i$ in both stages of the models to control for observable factors that can affect the underlying propensity for violence and the placement of government facilities. In addition to the brief descriptions of these variables below, I include a more detailed description of the covariates in online Appendix C. I also include province dummies to control for unobserved heterogeneity.

To account for demographic variables that may affect the propensity for violence and the placement of government facilities, I include measures of the *log of village population*, *log of population density*, and *urban status*. Using individual census data, I construct measures for *ethnic fractionalization* and *religious fractionalization* at the village, subdistrict, and district levels. I also include measures of the degree of *ethnic clustering* and *religious clustering* at the subdistrict and district levels. To account for the potential influence of religious institutions and their fragmentation, I include a measure of the *number of places of worship per household* in each village and a variable for whether the majority of the village is Muslim. To account for potential tensions between Javanese migrants and indigenous groups, I use a variable for *majority Javanese villages that are outside of Java*.

Economic variables may also confound the estimates. I therefore include a measure of the village *poverty rate* using the proportion of villagers who possess a government health insurance card that is targeted at poor households. I also use this to construct a measure for *relative poverty* of the village compared to the district poverty rate (Foster, Greer, and Thorbecke 1984). Due to a lack of individual wealth measures, I use the educational attainment for men ages 24 to 33 to construct the coefficient of variation of educational attainment as a measure of village *inequality*. To account for inequality between groups, I use educational attainment to construct measures of *horizontal inequality* for ethnic and religious groups at the village, subdistrict, and district levels (Stewart, Brown, and Mancini 2005). Because the presence of *natural resources* may also confound the results, I include a variable that indicates that natural resource extraction is the most significant industry in a village. Furthermore, to account for whether *natural disasters* may also confound results, I include a variable for the existence of a natural disaster (i.e., flood, earthquake, or landslide) within the previous three years.

Finally, I accounted for political variables that could potentially confound results. The decentralization of government resources to the district level led to incentives to split districts and served as a common locus of conflict. To account for this, I include variables that indicate *district splitting* and *village splitting* for the periods 2000–2002 and 2003–2005. One alternative explanation for communal violence during transitions from authoritarianism that produces similar predictions for the outbreak of violence is that authoritarian institutions may exacerbate intercommunal grievances, and transitions from such regimes provide opportunities for those tensions to play out in violence (Kreutz and Eck 2011). In the grievance-opportunity theory, regime transitions weaken the state temporarily, allowing violence to occur until the state restrengthens as it exits the transition phase. By contrast, my theory explains the abatement of violence as a

[10] Confidential Interview, Health Department Headquarters, Jakarta, May 24, 2007.

[11] Ibid.

result of a reequilibration of institutions so that security may improve even if state capacity does not recover. To control for this grievance-opportunity theory, I include the *change in the distance to police posts from 2002 to 2005* as a proxy for increased police capacity during the period.

To account for potential measurement bias due to the political orientation of the village officials surveyed, I include a variable for whether *Golkar*, the ruling party during the Suharto era, was first in the list of parties with the most votes in the most recent election and a similar variable for *Partai Demokrasi Indonesia-Perjuangan* (*PDI-P*), the party that was in power from July 2001 to October 2004. I also include a variable indicating whether the top party reported in the 2005 data changed from PDI-P or Golkar in the 2003 data to capture some measure of *electoral competition*. As the exogeneity of the party variables may be questionable, I report the coefficients for the models both with and without these control variables. Inclusion of these variables does not alter the significance or sign of the coefficients of interest (see online Appendix Tables A4 and A6).

# Results

The 2SLS strategy rests in part on sufficient correlation between the instruments and the endogenous regressors. First-stage regressions of $DP_i$, $Flat_i \cdot DP_i$, and $Low\&Flat_i \cdot DP_i$ (online Appendix Table A2) show strongly significant correlation with the excluded instruments, controlling for the above covariates. In each of the 2SLS models, the strength of the instruments is assessed using the Kleibergen-Paap rk Wald F statistic, and the null hypothesis that the instruments are weak is strongly rejected far beyond available critical values of a 10% maximal IV size (Kleibergen and Paap 2006; Stock and Yogo 2002).

We can now assess the observable implications that communities that were more accustomed to military intervention would be more vulnerable to spikes in communal violence after the military was restrained. Table 1 presents linear probability models that estimate the effect of the distance to police posts on the probability of communal violence. In each of the models, although I include each of the covariates and the province dummies, I report only the coefficients of the main explanatory variables that pertain to the predictions of the theory. Following Gelman (2008), I standardize the continuous variables by two standard deviations, which allows for comparisons of the size of the coefficient for continuous, dichotomous, and interactive variables. The standard errors are reported in the parentheses and are robust to both heteroskedasticity and intradistrict clustering. Columns 1 through 3 are the OLS models, while 4 through 9 are 2SLS models.

## Assessing Prediction 1: The Effect of Distance to Police Posts on Communal Violence

In Columns 1, 4, and 5, I model the unconditional effect of $DP_i$ on communal violence and show that, consistent with Prediction 1, the coefficient on *DP* is negative and significant. Rather than simply asserting that the instruments meet the exclusion restriction, it is possible to assess whether the negative and significant effect found is robust to relaxations of the exclusion restriction. Recall that the exclusion restriction for equation (8) imposes the condition $\gamma \equiv 0$, which corresponds to the independent effect of $DH_i$ on $CV_i$. Following a parametric sensitivity analysis developed by Conley, Hansen, and Rossi (2010), I examine the extent to which the exclusion restriction for $DH_i$ can be relaxed and still maintain the significance of the results in the just identified model in Column 4. I find that for the effect of $DP_i$ on $CV_i$ to remain significant at the 5% and 10% levels, the independent effect of $DH_i$ on $CV_i$ would have to reach $\gamma = -0.00059$ and $\gamma = -0.00078$, which correspond to 14.4% and 19.0%, respectively, of the current estimate of $DP_i$ on $\mathrm{CV}_i$. In other words, if the direct effect of the excluded instrument $DH_i$ reaches these levels, the results will still remain significant despite not meeting the exclusion restriction perfectly. Given that the primary purpose of police posts is to respond to insecurity, a direct effect of health posts on communal violence that reaches these levels would be a strong assumption. To the extent we have established confidence in this instrument through argumentation and sensitivity analysis, it is now possible to use overidentification tests to assess whether additional instruments as a set meet the exclusion restriction. The overidentification tests of the overidentified models in Columns 5, 7, and 9 suggest that the instruments meet the exclusion restriction. While the just identified and overidentified models in Columns 4 and 5 have similar results, the magnitudes of the OLS and 2SLS results are somewhat different.[12] This may reflect the fact that the 2SLS model estimates the effects of police posts insofar as they are responsive to the presence of health stations.[13] To account for the possibility that the effects may be artifacts of the differences between urban and rural areas, I also estimate the same models for a sample

[12] I provide an analysis of the importance of the effect of *DP* relative to the other covariates in online Appendix F.

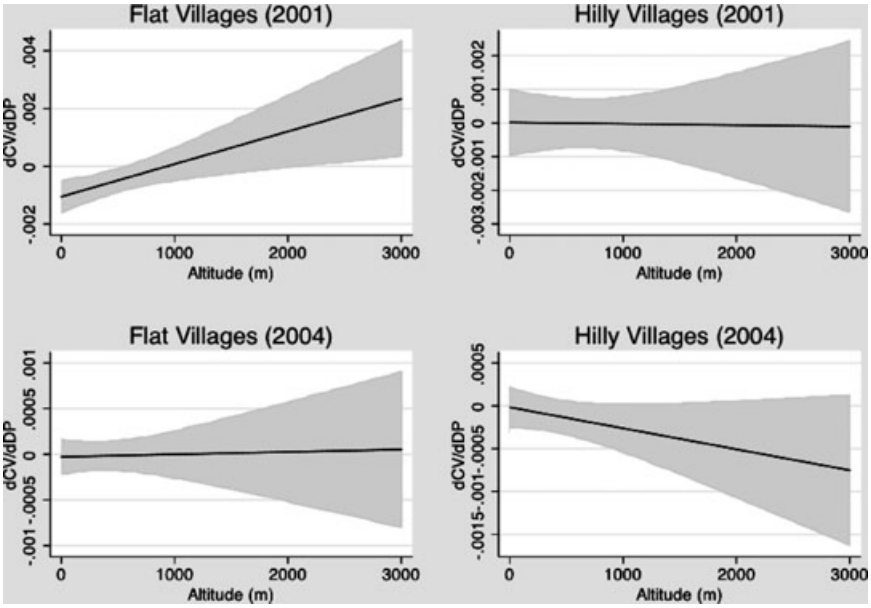
[13] See Angrist and Imbens (1995) on a discussion of average causal response.

**TABLE 1 Incidence of Communal Violence (9/2001–8/2002)**

| | (1) OLS | (2) OLS | (3) OLS | (4) 2SLS | (5) 2SLS | (6) 2SLS | (7) 2SLS | (8) 2SLS | (9) 2SLS |
|---|---|---|---|---|---|---|---|---|---|
| DP | −0.0024*** | −0.0013 | −0.0016** | −0.0041*** | −0.0040*** | −0.0008 | −0.0008 | −0.0011 | −0.0010 |
| | (0.0006) | (0.0010) | (0.0008) | (0.0014) | (0.0014) | (0.0020) | (0.0020) | (0.0017) | (0.0016) |
| DP·Flat | | −0.0015 | | | | −0.0044** | −0.0044** | | |
| | | (0.0012) | | | | (0.0021) | (0.0020) | | |
| DP·Low & Flat | | | −0.0016 | | | | | −0.0057*** | −0.0058*** |
| | | | (0.0011) | | | | | (0.0021) | (0.0020) |
| Flat | 0.0056* | 0.0060* | | 0.0052* | 0.0052* | 0.0063* | 0.0064* | | |
| | (0.0031) | (0.0032) | | (0.0031) | (0.0031) | (0.0033) | (0.0033) | | |
| Altitude | −0.0021** | −0.0021** | | −0.0020** | −0.0020** | −0.0020* | −0.0020* | | |
| | (0.0010) | (0.0010) | | (0.0010) | (0.0010) | (0.0010) | (0.0010) | | |
| Low & Flat | | | 0.0120*** | | | | | 0.0117*** | 0.0117*** |
| | | | (0.0039) | | | | | (0.0039) | (0.0039) |
| R-squared | 0.028 | 0.028 | 0.029 | 0.028 | 0.028 | 0.028 | 0.028 | 0.028 | 0.028 |
| H0: β_DP + β_Interaction=0 | – | <0.001 | <0.001 | – | – | <0.001 | <0.001 | <0.001 | <0.001 |
| Instruments | None | None | None | DH | DH, DSH | DH, DH·Flat | DH, DSH, DH·Flat, DSH·Flat | DH, DH·LF | DH, DSH, DH·LF, DSH·LF |
| Weak Ident. Test | – | – | – | 204.6 | 167.0 | 96.9 | 75.8 | 76.6 | 70.0 |
| Overident. Test | – | – | – | – | 0.74 | – | 0.96 | – | 0.87 |

*Note*: All models are linear probability models that include, but do not report, the control variables and province dummies. Standard errors are robust to heteroskedasticity and intradistrict correlation. Weights of the inverse probability of full-data observations using a probit model are used. Observations from Aceh and Papua provinces were dropped. The p-value for the Wald test of the null hypothesis H0: β_DP + β_Interaction=0 is presented. Instruments are Distance to Health Station (DH), Distance to Satellite Health Station (DSH), and their interactions with whether the terrain of the village is Flat or Low & Flat (LF). Weak identification test corresponds to Kleibergen-Paap rk Wald F-statistic. The overidentification test is the p-value for the Hansen J test under the joint null hypothesis that the instruments are uncorrelated with the error term. *p < 0.10, **p < 0.05, ***p < 0.01, two-tailed tests. 51,913 observations.

**FIGURE 4 Heterogeneous Effects of Distance to Police Post over Altitude**




of rural villages only. The results hold in the rural-only sample (see online Appendix Table A3).[14]

## Assessing Prediction 2: Heterogeneous Effects of Distance to Police Posts over Terrain

To assess Prediction 2, I estimate the heterogeneous effects of $DP_i$ conditional on flat terrain ($Flat_i$) in Columns 2, 6, and 7 of Table 1 and the heterogeneous effects of $DP_i$ conditional on low-elevation, flat areas ($Low$ & $Flat_i$) in Columns 3, 8, and 9. Consistent with Prediction 1, the marginal effect of $DP_i$ on $CV_i$ remains significant for the interactive models. Consistent with Prediction 2, the marginal effect of $DP_i$ on $CV_i$ is significantly stronger for flat areas and flat areas that are also low in elevation (below the weighted mean altitude of 253 meters). I also estimate the heterogeneous effects of $DP_i$ at different altitudes for flat and hilly areas and present the coefficients and 95% confidence intervals in the upper two panels of Figure 4. This figure provides further evidence consistent with the theory. For flat villages at altitudes less than roughly 500 meters above sea level (which represents 89.1% of all flat villages and 80.8% of all villages), the effect is negative and is weaker above 500 meters in altitude.

[14]The urban-only subsample has little variation in the distance to police posts, which limits the applicability of the model for that subsample.

## Assessing Prediction 3

To assess Prediction 3, I estimate the reduced form equations for communal violence occurring during the period from June 2004 to May 2005, the distance to police posts as measured in 2002, PODES covariates as measured in 2005, and covariates derived from the 2000 Census. Since the 2005 covariates cannot be used as exogenous variables to generate predicted 2002 values for the distance to police posts, I estimate only OLS models. Although the OLS estimates preclude any causal interpretation, we can assess whether the relationship has weakened over time. Consistent with Prediction 3, the results in Table 2 and the lower two panels in Figure 4 show that the magnitude and significance of the coefficients on the distance to police posts and their heterogeneous effects over different terrain all weakened significantly by 2005. As I show using Wald tests for the equivalence of coefficients for $DP_i$ in the unconditional 2001–2002 and 2004–2005 estimates (Columns 1–4), these differences are significant at the 1% level. In the interactive models, the differences are significant at the 5% level. When I control for shorter distances to police posts in Columns 3, 4, 7, and 8, the differences in the coefficients of interest have p-values of 0.004 for the unconditional models and 0.096 and 0.059 for

**TABLE 2 Incidence of Communal Violence (6/2004–5/2005)**

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|---|---|---|---|---|---|---|---|
| DP | −0.0004 | −0.0004 | −0.0008 | −0.0008 | −0.0015** | −0.0009* | −0.0012 | −0.0011* |
| | (0.0005) | (0.0005) | (0.0005) | (0.0005) | (0.0007) | (0.0005) | (0.0008) | (0.0006) |
| DP·Flat | | | | | 0.0014* | | 0.0007 | |
| | | | | | (0.0008) | | (0.0010) | |
| DP·Low & Flat | | | | | | 0.0009 | | 0.0006 |
| | | | | | | (0.0008) | | (0.0009) |
| Flat | 0.0006 | | 0.0006 | | 0.0002 | | 0.0004 | |
| | (0.0021) | | (0.0021) | | (0.0021) | | (0.0021) | |
| Altitude | −0.0005 | | −0.0005 | | −0.0005 | | −0.0005 | |
| | (0.0004) | | (0.0004) | | (0.0004) | | (0.0004) | |
| Low & Flat | | 0.0009 | | 0.0009 | | 0.0009 | | 0.0009 |
| | | (0.0018) | | (0.0018) | | (0.0018) | | (0.0018) |
| Δ DP | | | −0.0006 | −0.0006 | | | 0.0008 | −0.0003 |
| | | | (0.0004) | (0.0004) | | | (0.0010) | (0.0006) |
| Δ DP·Flat | | | | | | | −0.0018* | |
| | | | | | | | (0.0011) | |
| Δ DP·Low & Flat | | | | | | | | −0.0006 |
| | | | | | | | | (0.0008) |
| R-squared | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| H0: β_DP + β_Interaction=0 | – | – | – | – | 0.932 | 0.942 | 0.361 | 0.529 |
| H0: '01 & '04 Equivalent | | | | | | | | |
| β_DP | <0.001 | <0.001 | 0.004 | 0.004 | 0.987 | 0.193 | 0.836 | 0.321 |
| β_Interaction | – | – | – | – | 0.024 | 0.026 | 0.096 | 0.059 |
| β_DP+β_Interaction | – | – | – | – | <0.001 | <0.001 | 0.002 | 0.003 |

*Note*: All models are OLS linear probability models that include, but do not report, the control variables and province dummies. Standard errors are robust to heteroskedasticity and intradistrict correlation. Weights of the inverse probability of full-data observations using a probit model are used. Observations from Aceh and Papua provinces. ΔDP refers to the change in DP from 2002 and 2005. DP is the distance to police post as measured in 2002. Interaction test refers to the p-value for Wald test of the null hypothesis H0: β_DP+β_Interaction=0. The p-values for Wald tests of the equivalence of coefficients of interest between 2001–2002 and 2004–2005 are presented. *$p < 0.10$, **$p < 0.05$.

the interactive models. By controlling for increased police capacity and therefore accounting for the grievance-opportunity theory, these results are still consistent with the theory that institutions reequilibrated over time.

## Scope Conditions

According to the theory, there is no ex ante reason to circumscribe the scope conditions of the theory beyond cases in which states become less interventionist over time. It therefore remains an empirical question what the scope conditions are. For example, does the theory that mismatched institutions cause spikes in violence apply to communities with a higher baseline potential for violence, or are the effects orthogonal to the baseline potential for violence? To assess this, I examine whether there are heterogeneous effects across ethnic fractionalization, religious fractionalization, poverty, and inequality and find no heterogeneous effects for each of these variables (see online Appendix G). This suggests that the theory is not conditional on latent conflict potential and may apply more generally to cases in which state intervention against communal violence decreases.

# Discussion

In this article, I have argued that intercommunal order is a function of not only formal and informal institutions on their own, but it is also a function of how they interact. By examining village-level data during Indonesia's transition from authoritarianism, I have provided evidence for this theory by showing that communities that had been exposed to greater military intervention were less robust

to changes in state intervention in local security. Over time, the risk of communal violence in these communities decreased, consistent with the prediction that local institutions would reequilibrate. To my knowledge, this is the first quasi-experimental research design that tests theories of intercommunal order. Building on recent advances in microlevel studies of violence, it introduces a measure of state capacity to assess the state and nonstate sources of communal order and violence.

The theory I have proposed provides an explanation of the large spike of localized cases of communal violence that have remained unexplained in the existing literature on Indonesia. The theory is consistent with macrotemporal and microspatial patterns in local violence, whereas alternative theories that attribute large-scale communal violence to economic crisis, electoral liberalization, decentralization, and shifting group status are not (Bertrand 2004; van Klinken 2007; Sidel 2007). This article also builds on previous empirical work by Barron, Kaiser, and Pradhan (2009), who have also examined the 2003 PODES and 2000 Census data to identify a number of correlates of the violence. The goal of my analysis departs from theirs by developing this institutional theory of intercommunal order, establishing a more causal interpretation of the data, and examining the 2006 PODES dataset. Despite differences in the goals of the studies, the covariates of my models are consistent with the correlates of violence they find in their work (e.g., economic variables and ethnic clustering).

A cross-national analysis would help to establish both the external validity and the scope conditions of the theory. Newly available cross-national data on communal violence from the Uppsala Conflict Data Program (UCDP) provide an excellent opportunity to assess the theory beyond Indonesia (Sundberg, Eck, and Kreutz 2012). Consistent with my theory, a recent study of the UCDP data has found that countries that transition from less institutionally constrained authoritarian regimes experience spikes in communal violence. This study attributes the violence to grievances stoked by authoritarian regimes that can escalate due to state weakness during regime transitions (Kreutz and Eck 2011). My theory can be distinguished from theirs by examining whether the violence in the cross-national data abates even when states remain weak or constrained after transitions, similar to what I have done with the Indonesian data. Finally, to establish whether the theory is applicable to particular types of authoritarian regimes and transitions, its predictions could be tested on subsamples of authoritarian regimes disaggregated into civilian, military, or monarchic types (Gandhi 2010) as well as different types of transitions, such as decolonization, interregna, and political liberalization (Horowitz 2001, 333–34). Such an exploration of this theory would help us to understand the roots of communal violence during transitions and intercommunal order during ordinary times.

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## Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's web site:

**Appendix A:** Formal Model
**Appendix B:** Accounting for Data Attrition during Merging
**Appendix C:** Details of the Variables

- Demographic Controls
- Economic Controls
- Political Controls
- Table A1: Summary Statistics

**Appendix D:** First Stage Results of the 2001–2 Data

- Table A2**:** First Stage Results of 2SLS (9/2001–8/2002)

**Appendix E:** Robustness of Results

- Table A3**:** Incidence of Communal Violence—Rural Villages (9/2001–8/2002)
- Table A4**:** Incidence of Communal Violence—With Political Controls (9/2001–8/2002)
- Table A5**:** Incidence of Communal Violence—Rural Villages (6/2004–5/2005)
- Table A6**:** Incidence of Communal Violence With Political Controls (6/2004–5/2005)

**Appendix F:** Importance of Explanatory Variables for Prediction