

# Intertwined Inequities: Micro-Level Economic Determinants of Civil Conflict

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## **Intertwined Inequities**

*The human motivation of the participants is clearly at the heart of any violent situation. If a conflict is to be avoided or stopped, this motivation must be understood, and the predisposing conditions reduced or eliminated.... [Unfortunately], it is rarely possible to disentangle political, cultural and economic elements, as each is embedded in the other.<sup>1</sup>*

- Frances Stewart

## **Introduction**

“Conflict is bad.”<sup>2</sup> Simplistic though it is, this categorical statement by a deputy director in the State Department’s Office of the Coordinator for Reconstruction and Stabilization (S/CRS) offers a concise view of the developing U.S. stance toward international security. Worldwide sensitivity to civil conflict’s contribution to cyclical patterns of poverty, humanitarian disasters, global lawlessness, and regional instability is growing rapidly. From a U.S. geopolitical perspective, increasing levels of localized violence threaten severe spillover effects, such as preventing access to foreign trade outlets, undermining freedom of the seas and global commerce, and creating safe havens for terrorist development.<sup>3</sup> This last concern in particular has prompted the United States to explore assuming more responsibility for controlling global civil conflict. However, the conditions that enable the outbreak of civil conflict and sustain it are difficult to distinguish.

## **Globalization and the Spread of Localized Violence**

Among the key determinants Frances Stewart highlights, economic distribution has gained prominence in the context of widespread globalization. Conventional economic thought credits the process of globalization with equalizing national economies. Trade liberalization and similar

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<sup>1</sup> Frances Stewart, “Crisis Prevention: Tackling Horizontal Inequalities,” *Oxford Development Studies* 28, no. 3 (2000), 246.

<sup>2</sup> S/CRS Deputy Director, personal interview at U.S. Department of State, Office of the Coordinator for Reconstruction and Stabilization (S/CRS), April 10, 2009.

<sup>3</sup> For further discussion of safe havens and ungoverned areas, see Robert D. Lamb, “Ungoverned Areas and Threats from Safe Havens: Final Report of the Ungoverned Areas Project” (Office of the Deputy Assistant Secretary of Defense for Policy Planning, 2008), 17-20.

policies have spurred per capita growth rates in developing countries, resulting in convergence with the developed world. Recently, however, the convergence thesis has come under intense scrutiny. Household-level analysis by the World Bank's Branko Milanovic reveals that "openness" (an indicator for trade liberalization and the factors of globalization more broadly) increases inequality within severely underdeveloped states, and only after a country reaches a certain threshold of development does openness diminish inequality.<sup>4</sup> This reinterpretation of the impact of globalization is fundamental to any analysis of contemporary civil conflict.

According to data collected by the Center for International Development and Conflict Management (CIDCM), the incidence of violent conflict worldwide has been declining significantly since 1987.<sup>5</sup> At first glance, this trend signals the emergence of a more united global community and corroborates the globalization convergence thesis. However, the decline is more likely a result of the end of the Cold War and the abandonment of great power proxy wars. In fact, violent conflict spiked in the late 1990s and again in 2005. The number of inter-state conflicts, meanwhile, dropped to zero in 2004 and has remained constant, revealing that an eruption of internal conflicts drove the recent, sharp increase in global violence.<sup>6</sup> This latest trend contradicts the image of a global transformation toward a more peaceful world. Rather, it suggests a transition to a different kind of conflict that is dominated by internal strife, localized violence, and global insurgency (international terrorist networks).

Milanovic's and CIDCM's findings imply that a complex relationship exists between global and local dynamics. Coincident to the spread of globalization, internal inequalities have increased in underdeveloped states, and localized violence and internal conflicts have flared. Understanding this link between global economic dynamics and local outbreaks of violence has significant policy implications for restraining international conflict.

## **Economic Inequity and Civil Conflict**

It seems intuitive that economic inequity would encourage conflict, but empirical evidence for such a conclusion is inconsistent at best. Most analyses that test the effects of economic inequality on civil conflict take a macro-level approach, using variables like the Gini coefficient to measure aggregate inequality against a state's aggregate violence. These cross-national

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<sup>4</sup> Branko Milanovic, "Can We Discern the Effect of Globalization on Income Distribution?: Evidence from Household Budget Surveys," *Policy Research Working Paper 2876*, The World Bank (August 2002), 20.

<sup>5</sup> J. Joseph Hewitt, Jonathan Wilkenfeld, and Ted Robert Gurr, *Peace and Conflict 2008* (College Park, MD: The Center for International Development and Conflict Management (CIDCM), 2008), 12. Also see online resource for detailed graphs of trends in conflict at <http://www.cidcm.umd.edu/pc/chapter03/>.

<sup>6</sup> Ibid.

studies miss the micro-level dynamics of economic inequity within a state, such as the relative composition of municipalities that suffer more or less violence during civil conflict. These dynamics could offer significant insight into the effectiveness of conflict prevention strategies. Macro-level approaches fail to account for the variation of conflict over time and space, such as the seemingly temporary dip in worldwide conflict evident in the CIDCM data. Micro-level analysis, however, has significant explanatory potential, as local inequities can reflect the impact of changing global dynamics.

While macro-level evidence for the effect of economic inequity on the incidence and severity of civil violence is inconclusive, micro-level economic factors have been too difficult to systematically isolate. The scarcity of comprehensive data contributes to analytical reliance on macro-level studies. Furthermore, researchers have struggled to disentangle the effects of economic inequity from ethnic/cultural relationships and political motivations. Ultimately, however, this may prove to be unimportant. Rather than forcing data with clear limitations through a systematic quantitative framework, piecing together anecdotal snapshots of conflicts that have reliable micro-level data may provide the most useful picture of global civil conflict. This puzzle-piece approach would enable a more comprehensive evaluation of the complicating sociopolitical factors at play in a conflict. Understanding the dynamic interplay between economic inequity and other micro-level sociopolitical identities and grievances offers the most comprehensive picture of localized violence, and the most relevance for policy prescriptions aimed at preventing civil conflict in a global context.

## Macro-Level Studies

In a 1989 paper, Mark Lichbach reviewed 43 macro-level quantitative studies of economic inequality (measured alternately by land distribution, income, and economic repression by government) and political conflict, finding that conclusions were wildly contradictory.<sup>7</sup> Two distinct, and opposing, models of conflict emerged. The first model observes civil conflict increasing with economic inequality:

When economic inequality is high, (1) the poor are envious, have nothing to lose, and thus resort to force (e.g. political violence) to achieve redistributive demands; (2) the rich are greedy, have everything to lose, and possess the resources necessary to use force (e.g. governmental repression) to avoid

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<sup>7</sup> Mark I. Lichbach, "An Evaluation of 'Does Economic Inequality Breed Political Conflict?' Studies," *World Politics* 41, no. 4 (July 1989), 435-445. Studies reviewed by Lichbach include, Edward Mitchell (1968, 1969), Dennis Paranzino (1972), William Morgan and Terry Clark (1973), Walter Barrows (1976), Ted Gurr (1968), Manoucher Parvin (1973), Thomas Havrilesky (1980), Fred Kort (1952), Jack Nagel (1974), Melissa Hardy (1979), Erich Weede (1987), Ernest Duff and John McCamant (1976), G. Bingham Powell (1982), Anthony Russo (1972), Doug McAdam (1982), and Seymour Spilerman (1971).

giving in to redistributive demands; and (3) the middle class, which respects property rights, is small. Hence, as economic inequality increases, the pool of conflict participants (both the rich and the poor) increases.<sup>8</sup>

The second model observes the opposite. Civil conflict decreases with economic inequality because the same aggrieved population in the previous model is, by definition, disempowered:

High levels of economic inequality are associated with powerful elites. These “haves” will be willing and able to use social, economic, and political power to repress, and hence hold down, political dissent.<sup>9</sup>

Both of these models present conflict as a simple equation of economic grievance and sociopolitical empowerment.

Other studies reviewed by Lichbach, however, embraced more complicated explanations. Several observe convex distributions of civil conflict, finding that an “optimum level of income inequality exists” where a society is stable and that, as inequality dips or spikes beyond this equilibrium, violence will increase (creating a U-shaped distribution). Others claim the opposite, suggesting that civil conflict is greatest at intermediate levels of inequality, because the “tendency to compare” diminishes as inequality increases, due to the presence of defined social cleavages (holding other variables constant, this results in an inverted U-shaped distribution). Many other studies cite non-inequality factors, such as absolute poverty, social comparisons, and mobilization processes as the primary determinants of conflict.<sup>10</sup>

Manus Midlarsky offers the most pertinent conclusion regarding the conflicting evidence, asserting that such explorations are “context-specific.”<sup>11</sup> Variations in context and detailed methodology, however, are not sufficient to account for the incongruous results of Cold War-era macro-level studies. Unfortunately, recent cross-national quantitative analyses are just as conflicting.

Alberto Alesina and Roberto Perotti’s 1996 examination of 71 countries for the period 1960-1985 finds that “inequality increases socio-political instability [measured in violence].”<sup>12</sup> Alternatively, James Fearon and David Laitin’s 2003 analysis of civil war in 161 countries

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<sup>8</sup> Ibid., 436-437.

<sup>9</sup> Ibid., 437-438.

<sup>10</sup> Ibid., 438-440.

<sup>11</sup> Ibid., 440.

<sup>12</sup> Alberto Alesina and Roberto Perotti, “Income Distribution, Political Instability, and Investment,” *European Economic Review* 40 (1996), 1209-1225.

during the period 1945-1999 tests inequality using Gini coefficients. They find that inequality does “not come close to either statistical or substantive significance.... There appears to be no powerful cross-national relationship between inequality and onset [of conflict].”<sup>13</sup>

The most influential work done in the past decade on the relationship between economics and civil conflict is by Paul Collier and Anke Hoeffler. Their earliest research framed civil conflict as a simple cost-benefit transaction, weighing personal insecurity against “the potential revenue of the government and hence the taxable base” gained by capturing the state.<sup>14</sup> Several iterations of their quantitative analysis later, their base framework remains relatively consistent that rebellions run on business models—perceiving profits to be made from capturing the state, using grievance language as image promotion, and focusing primarily on financial sustainability. As such, “it is the feasibility of predation that determines the risk of conflict.”<sup>15</sup> Using cross-national data on 161 countries for the period 1960-1999, they find that “inequality, whether of incomes or of assets, has no discernible effect. Unequal societies are not more prone to conflict, although conflicts in unequal societies do seem to last longer.”<sup>16</sup> They argue, rather, that civil conflict depends on the ability to financially sustain a rebellion in order to “loot” the state’s resources. As such, states with GDP concentrated in commodity exports are more susceptible to violence because predatory rebel groups can “tax,” or extort, these industries.<sup>17</sup>

Although Collier and Hoeffler’s work presents robust results, its conclusions are disputable. James Fearon points out that their reliance on natural resources as the primary determinant of civil war overlooks the tendency of such countries to have “weaker state institutions,” thereby making them more vulnerable to violence.<sup>18</sup> Even the connection between primary commodities and civil conflict is not universally accepted. Michael Ross’ 2004 literature review reveals mixed findings on whether GDP concentration in resource exports causes civil war.<sup>19</sup> Among the

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<sup>13</sup> James D. Fearon and David D. Laitin, “Ethnicity, Insurgency, and Civil War,” *The American Political Science Review* 97, no. 1 (February 2003), 85.

<sup>14</sup> Paul Collier and Anke Hoeffler, “On Economic Causes of Civil War,” *Oxford Economic Papers* 50 (1998), 564.

<sup>15</sup> Paul Collier, “Economic Causes of Civil Conflict and Their Implications for Policy,” in *Leashing the Dogs of War: Conflict Management in a Divided World*, ed. Chester Crocker, et al. (Washington, DC: United States Institute of Peace, 2007), 199.

<sup>16</sup> *Ibid.*, 203. For full statistical results, see Paul Collier and Anke Hoeffler, “Greed and Grievance in Civil War,” *Oxford Economic Papers* 56 (2004), 578-579.

<sup>17</sup> Collier, 201-206.

<sup>18</sup> James D. Fearon, “Primary Commodity Exports and Civil War,” *Journal of Conflict Resolution* 49, no. 4 (August 2005), 502.

<sup>19</sup> Michael L. Ross, “What Do We Know About Natural Resources and Civil War?” *Journal of Peace Research* 41, no. 3 (2004), 339. Studies reviewed by Ross include, Havard Hegre (2002), Marta Reynal-Querol (2002), Ibrahim Elbadawi, Nicholas Sambanis (2002), James Fearon and David Laitin (2003), and Indra de Soysa (2002).

studies reviewed, Fearon and Laitin's findings are stark, "Neither the share of primary commodity exports in GDP nor its square is remotely significant."<sup>20</sup> Ross concludes, "The claim that primary commodities are associated with the onset of civil war does not appear to be robust."<sup>21</sup>

Beyond contradictions in statistical analyses, however, Collier and Hoeffler's work suffers from weaknesses characteristic of the macro-level approach they employ. Associating commodity exports with rebel predation paints over potential micro-level dynamics with an overly broad stroke. Commodity exports, for instance, may serve as a proxy for economic inequity, as GDP is concentrated in a few industries that are likely geographically distinct and dominated by an elite ownership class or the central government. Primary commodities are also extremely visible sources of wealth and thereby exacerbate perceived inequality within the state. Furthermore, as isolated, easily dominated physical assets, commodity exports produce what Midlarsky describes as "zero-sum patterns of class polarization" and ruler/ruled social interactions.<sup>22</sup> This zero-sum dynamic enables potentially extreme economic inequities, especially if the split is along sociopolitical lines.

Collier and Hoeffler's most recent work disowns classical categorizations of conflict in favor of the "feasibility hypothesis," though their continued focus on predation places them firmly on the greed side of the ongoing "greed-grievance" debate.<sup>23</sup> In general, this debate continues to dominate political economy approaches to civil conflict. Mats Berdal and David Malone's seminal *Greed and Grievance* focuses on disagreements about the agendas of actors engaged in violence, namely whether civil wars represent legitimate revolutions, or rather, criminal attempts to control state resources and infrastructure.<sup>24</sup>

Olu Arowobusoye, a Nigerian scholar, rejects the paternalistic application of greed theory to West African conflicts, asserting that even "predatory" groups are often motivated not by pure criminality, but simply by a belief "that they can share and provide these resources, goods and services themselves."<sup>25</sup> Similarly, an extensive quantitative analysis performed by Macartan

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<sup>20</sup> Fearon and Laitin, 87.

<sup>21</sup> Ross, 352.

<sup>22</sup> Lichbach, 453.

<sup>23</sup> Paul Collier, Anke Hoeffler, and Dominic Rohner, "Beyond Greed and Grievance: Feasibility and Civil War," *Oxford Economic Papers* 61 (2009), 2.

<sup>24</sup> Mats Berdal and David M. Malone, eds., *Greed and Grievance: Economic Agendas in Civil Wars* (Boulder, CO: Lynne Rienner Publishers, 2000), 3.

<sup>25</sup> Olu Arowobusoye, "Why They Fight: An Alternative View on the Political Economy of Civil War and Conflict Transformation" (Berghof Research Center for Constructive Conflict Management, 2005), 7.

Humphreys (2005) reveals mixed results for various greed-grievance assertions, but “finds stronger support for the weak state structures and grievance hypotheses than for the booty futures or state capture hypotheses.”<sup>26</sup> Humphreys’ conclusion is about as useful as any, as the discourse has become almost purely academic due to the contradicting results flowing from the macro-level nature of the debate.

## **Unconventional Approaches: Exploring Perceived Inequity and Relative Deprivation**

Contemporary approaches to explaining the outbreak of conflict can make important contributions to analysis of economic inequality. Carol Graham explores happiness as an alternative variable to conventional economic indicators. She asserts that measurements such as the Gini coefficient are too static, failing to adequately account for the “intergenerational transmission of opportunities.”<sup>27</sup> Furthermore, such hard economic figures fail to depict the power of perceived inequity. For instance, upward mobility, a classic proxy for economic opportunity, does not tell the whole story of micro-level socioeconomic dynamics. Evidence from Peru reveals that the negative effects of downward mobility, or the “vulnerability of falling into poverty,” outweigh the positive effects of upward mobility, thereby exacerbating perceived inequity. Furthermore, frustration is more highly concentrated among urban and older populations.<sup>28</sup> Highlighting the vulnerabilities of certain populations to fall into poverty *over time* is a distinct economic indicator and requires micro-level analysis. Macro approaches fail to account for the time component and the effect of economic vulnerability—as opposed to economic potential—as these measures rely heavily on sociopolitical perceptions.

Robert MacCulloch uses a similar framework but focuses on discontent. He maps survey preferences for revolt, as a measure of discontent, to people’s economic rank in society. Although recognizing that “low upward mobility in times of rising GDP may increase discontent if the poor perceive their chances of becoming rich are low,” he finds that inequality, more generally, is insignificant as an indicator of discontent and propensity towards civil conflict.<sup>29</sup> Discontent studies incorporate analysis of the psychological and emotional motivations behind

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<sup>26</sup> Macartan Humphreys, “Natural Resources, Conflict, and Conflict Resolution: Uncovering the Mechanisms,” *Journal of Conflict Resolution* 49, no. 4 (August 2005), 534.

<sup>27</sup> Carol Graham, “Happiness and Hardship: Lessons from Panel Data on Mobility and Subjective Well Being in Peru and Russia,” Paper Prepared for World Bank Workshop on Understanding Growth and Freedom from the Bottom Up [DRAFT] (Washington, DC: The Brookings Institution, 2003), 2.

<sup>28</sup> *Ibid.*, 4-5.

<sup>29</sup> Robert MacCulloch, “The Impact of Income on the Taste for Revolt,” *American Journal of Political Science* 48, no. 4 (October 2004), 831.



civil violence. David Keen observes that bottom-up violence, even when classified as non-economically motivated, often results from deep social and economic exclusion. He asserts that “even genocide can have an economic purpose” as alienated perpetrators use “violence to provide [an immediate] sense of ‘worth’ in a society that offer[s] minimal respect or opportunity.”<sup>30</sup> Ted Gurr’s extensive quantitative analyses of such intrinsic aspects of rebellion and civil conflict corroborate Keen’s observations. Focusing on the sociopolitical organization of states, he tests aspects of relative deprivation, value expectations, value capabilities, social control, social facilitation, rebellion, mobilization, grievances, and repression. His results reveal that discontent sparks civil conflict.<sup>31</sup>

Analyzing civil conflict through a criminal justice lens provides further insight into the importance of relative deprivation. In a 2002 study of violent crime, Pablo Fajnzylber, Daniel Lederman, and Norman Loayza test the sociological theory that “inequality breeds social tensions as the less well-off feel dispossessed when compared with wealthier people.”<sup>32</sup> They find that economic inequality “has a positive and significant effect on homicide rates.... If the Gini index falls permanently by the within-country standard deviation in the sample [indicating greater societal equality]... the intentional homicide rate will decrease by 3.7 percent in the short run and 20 percent in the long run.... [Importantly,] it is not the level of income that matters for crime but the income differences among the population.”<sup>33</sup> Although violent crime is not a perfect surrogate for civil conflict, the application of relative deprivation as a determinant of a state’s propensity for violence is instructive. Edward Muller, Henry Dietz, and Steven Finkel (1991) note the significant impact of relative deprivation on societal discontent in their analysis of rebellion in Peru.<sup>34</sup> This micro-level tendency for inter-group comparisons is applicable to studies of economic inequity and its effects on civil conflict.

## Micro-Level Approaches

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<sup>30</sup> David Keen, *The Economic Functions of Violence in Civil Wars*, The International Institute for Strategic Studies: Adelphi Paper 320 (New York: Oxford University Press, 1998), 47-49.

<sup>31</sup> Ted Robert Gurr, *Cross-National Studies of Civil Violence* (Washington, DC: American University, Center for Research in Social Systems, 1969), 76; Ted Robert Gurr and Will H. Moore, “Ethnopolitical Rebellion: A Cross-Sectional Analysis of the 1980s with Risk Assessments for the 1990s,” *American Journal of Political Science* 41, no. 4 (1997), 1091.

<sup>32</sup> Pablo Fajnzylber, Daniel Lederman, and Norman Loayza, “Inequality and Violent Crime,” *Journal of Law and Economics* XLV (April 2002), 2.

<sup>33</sup> *Ibid.*, 17-19.

<sup>34</sup> Edward N. Muller, Henry A. Dietz, and Steven E. Finkel, “Discontent and the Expected Utility of Rebellion: The Case of Peru,” *The American Political Science Review* 85, no. 4 (December 1991), 1280.

Although there has been little systematic research done on micro-level economic determinants of conflict, Frances Stewart's analysis of civil war in Uganda provides a useful theoretical framework. He argues that while most studies of conflict focus on macro-level vertical inequality, micro-level horizontal inequalities are more likely to cause conflict.

The prime cause of conflict arises from inequalities among groups, i.e. their *relative* position [in society]....<sup>35</sup>

Income distribution is a vertical measure, which takes everyone in society from 'top' to 'bottom,' recording incomes and the consequent inequality. What is needed for our analysis is a horizontal measurement of inequality between groups, defined by region/ethnicity/class/religion, according to the most appropriate type of group identification in the particular society....

It is possible to have sharp vertical inequality in any dimension without any horizontal inequality, e.g. if the average income of all groups were the same and distribution within each group was highly unequal. Conversely, it is possible to have considerable inter-group inequality, while overall societal vertical inequality is moderate because intra-group inequality is small.

Strong intra-group vertical inequality may actually reduce the potential for inter-group conflict for any given degree of horizontal inequality because it may be more difficult to get group cohesion where there is high intra-group inequality, and because elite members may identify more with members of the elite from other groups than with lower-income members of their own group. This broadly may be the Kenya situation. However, this is not always the case; strong vertical inequality within groups can lead to intra-group resentments which group leaders "buy" off by directing animosity against other groups—this crudely summarizes the Rwandan case....

The extent of horizontal inequality may be summarized using such measures as the Gini coefficient, the Theil index or the coefficient of variation, applied to groups, not individuals as is normal in measuring vertical inequality, to indicate the dispersion of achievements among groups.... Persistence in inequalities over time, and the trend in the differentials, i.e. whether they are widening or narrowing, are also relevant.<sup>36</sup>

Stewart's premise completely invalidates macro-level approaches. Cross-national inequality measures do not capture the true inequity dynamics within a country, as macro variables could be depicting either inter- or intra-group relationships.

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<sup>35</sup> Stewart, 248.

<sup>36</sup> Ibid., 253.

Identifying a society's sociopolitical cleavages is often as challenging as determining against which economic indicators it is most appropriate to measure relative and perceived inequality (e.g. land, livestock, human capital, and communal resources such as water, minerals, and infrastructure). Nevertheless, Stewart asserts that such horizontal inequity measures represent the key determinants of civil conflict. Qualitative analysis of violence in Uganda for the period of 1959-1991 fits this horizontal inequality framework, as the politically dominant North perpetrated violence on the economically dominant South.<sup>37</sup>

E. Wayne Nafziger and Juha Auvinen (2003) provide further evidence for the impact of horizontal inequity on conflicts in Nigeria, Pakistan, South Africa, and Mexico. They find, "The risk of political disintegration increases with a surge of income disparities by class, region, and community, especially when these disparities lack legitimacy among the population."<sup>38</sup> Randall Blimes (2006) finds that "ethnic fractionalization" has a significant and positive "indirect" effect on the probability of civil war onset. He observes that "ethnic composition itself is not a cause of civil conflict but rather increases the likelihood that other variables that can increase the likelihood of civil war onset will have an effect."<sup>39</sup>

Tim Gulden and Stathis Kalyvas also focus on the micro-level effects of sociopolitical identity. Kalyvas (2006) examines conflict during the post-WWII political upheaval in Greece (1943-1949), finding that violence broke out in towns where the population had an ideological imbalance. Towns with roughly equal populations of each ideological identity, however, enjoyed relative peace.<sup>40</sup> Gulden's (2002) mapping of ethnic distribution and killing during Guatemala's civil war (1977-1986) produces strikingly similar results.<sup>41</sup> Further analysis of Gulden's dataset reveals that the demographic imbalance of ethnic identity caused a significant increase in the severity of violence once it erupted.<sup>42</sup>

Understanding this interaction between sociopolitical identities and economic inequity could provide invaluable insight into identifying states at risk for civil violence. However, data

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<sup>37</sup> Ibid., 249.

<sup>38</sup> E. Wayne Nafziger and Juha Auvinen, *Economic Development, Inequality, and War* (New York: Palgrave Macmillan, 2003), 91.

<sup>39</sup> Randall J. Blimes, "The Indirect Effect of Ethnic Heterogeneity on the Likelihood of Civil War Onset," *Journal of Conflict Resolution* 50, no. 4 (August 2006), 542.

<sup>40</sup> Stathis Kalyvas, *The Logic of Violence in Civil War* (New York: Cambridge University Press, 2006), 288-289.

<sup>41</sup> Tim Gulden, "Spatial and Temporal Patterns in Civil Violence: Guatemala 1977-1986," *Center on Social and Economic Dynamics Working Paper No. 26* (Washington, DC: Brookings Center on Social and Economic Dynamics, 2002), 3-7.

<sup>42</sup> Michael Kniss, "Violence and Ethnic Identity: Quantitative Analysis of Killing in Guatemala 1978-1986" (December 2008), unpublished ms.

measuring horizontal inequality is scarce, and it is yet unclear whether this framework can provide a robust and systematic quantitative model. Nevertheless, the application of Stewart's theory to individual case studies offers perhaps the most promising approach to analyzing micro-level determinants of civil conflict.

Although outside of Stewart's theoretical framework, Klaus Deininger's 2003 work on Uganda from 1992-1999 presents an extensive micro-level analysis of the determinants of civil conflict. He initially assumes that conflict will decrease as the opportunity cost for an individual of joining a rebellion becomes more expensive and that resource concentration will increase conflict. However, citing the inability of macro-level approaches to distinguish "country level fixed effects," he structures his model to assess "the variation in levels of civil strife across communities within [Uganda].... Since the policy regime is the same throughout the country by definition, a large set of possibly influential factors that are generally unobservable in cross-country regressions is eliminated even if cross-sectional estimation is used."<sup>43</sup>

Deininger finds that greed elements (i.e. resources) increase the likelihood of civil conflict, as do lower levels of education, infrastructure access, and asset endowments.<sup>44</sup> He also finds that "physical attacks are estimated to increase with levels of education and wealth inequality... and to be more prevalent in the North and the West, as well as in coffee growing areas" (regions of more distinct inequities).<sup>45</sup> This finding implies that inequity becomes more significant as violence becomes more localized, down to the level of individual violence. Interestingly, the model also produces evidence of the importance of perceived inequity. Despite higher statistical significance on other determinants of civil conflict, "24% of communities viewed poverty as the main issue."<sup>46</sup> Deininger's robust results on the importance of both relative and perceived economic inequity contrast sharply with the blanket conclusions of the macro-level studies.

The one aspect missing from Deininger's analysis is a discussion of horizontal inequality. Addressing internal ethnic, tribal, and/or cultural dynamics in Uganda would make his already robust results even more comprehensive. Even macro-level studies, such as those conducted by Ibrahim Elbadawi and Nicholas Sambanis (2000), recognize the critical role that kin groups play in African society. They represent "long-lasting institutions that have themselves developed rewards and penalties to ensure compliance... [such as] dispens[ing] patronage to their own group."<sup>47</sup> Adding this layer of sociopolitical dynamics is extremely difficult due to data

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<sup>43</sup> Klaus Deininger, "Causes and Consequences of Civil Strife: Micro-Level Evidence from Uganda," *Oxford Economic Papers* 55 (2003), 583-584.

<sup>44</sup> *Ibid.*, 603.

<sup>45</sup> *Ibid.*, 596.

<sup>46</sup> *Ibid.*, 597.

<sup>47</sup> Ibrahim Elbadawi and Nicholas Sambanis, "Why Are There So Many Civil Wars in Africa?: Understanding and

limitations, and there is no definitive understanding of what this complicating relationship would do to quantitative models.

Nevertheless, the key to understanding how global trends affect horizontal inequity lies in the ability to account for the interaction between these micro-level factors. Elbadawi and Sambanis' research suggests that political and economic elites in the developing world receive windfalls from foreign investment and increased trade and often pass on the benefits to a clearly delineated subset of society. Branko Milanovic's studies have similarly shown that economic growth disproportionately benefits sociopolitical elites and is thus anti-poor.<sup>48</sup> These trends interact to exacerbate horizontal inequity and increase relative and perceived deprivation across sociopolitical cleavages, leading to an increased penchant for civil conflict.

## Conclusion

Because macro-level approaches provide incomplete and contradictory explanations of variations in violence between and within conflicts, robust micro-level analysis is required. The horizontal inequity framework offers a promising alternative for illuminating the complex local dynamics that affect the incidence and severity of civil violence. The initial quantitative results from a few case studies reveal the significant explanatory power of this approach. The framework's focus on variables that policymakers can monitor and address for more effective civil violence prevention programs further enhances its practical utility.

Using the horizontal inequity framework for statistical modeling of additional civil-conflict case studies will facilitate policy-oriented conclusions, but robust qualitative analysis is integral to interpreting the quantitative findings. The localized character of civil conflict does not naturally conform to clean regression models. Gulden observes that patterns of civil violence "are generally indicative of 'complex systems' behavior."<sup>49</sup> After observing the importance of perceived inequity in Uganda, Deininger similarly caveats his final regression results: "Variables of high statistical significance are not necessarily the ones that are... the most important."<sup>50</sup> An ample qualitative understanding of the society in conflict can overcome the inability of statistical modeling to account for certain complicating factors, thereby strengthening policy insight.

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Preventing Violent Conflict," *Journal of African Economies* 9, no. 3 (2000), 264.

<sup>48</sup> Branko Milanovic and Lire Ersado, "Reform and Inequality during the Transition: An Analysis Using Panel Household Survey Data, 1990–2005," *Policy Research Working Paper 4780*, The World Bank (November 2008), 17.

<sup>49</sup> Gulden, 2, 16.

<sup>50</sup> Deininger, 593.

This dual-layered analytic approach becomes even more important in a world where extensive compilations of micro-level data are almost nonexistent. Just as qualitative analysis can remedy certain limitations in statistical modeling, so too can it provide a parallel construct to resolve gaps and imperfections present in available data. As conflict case studies with reliable data are pieced together, a comprehensive picture of the impact of global horizontal inequity dynamics on civil violence may emerge. Effectively applying multifaceted micro-level analysis today will be crucial for encouraging future large-scale data collection and collaboration between government bodies and analysts as this process moves forward.

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## Further Reading

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- Briefly summarizes some of the academic discussion of economics and civil war in the context of an Ethiopian conference about applications to Africa.

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- Lengthy analysis of positive and negative effects of strong ethnicity. Finds that "the presence of ethnic minorities may approximate a necessary condition for political violence, [but] it does not constitute a sufficient condition" (24); exception being when one ethnic group is strong enough to exclude others, transforming politics into a zero-sum game (28).

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- Chapter 3 offers policy approaches to addressing the "resource curse," such as cushioning resource revenues, fair allocation, diversifying economies, and promoting a peaceful supply.

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- Surface overview of a few of the economic theories used to approach civil war; special focus given to economic growth.

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- Explores the specific country contexts that affect the severity, or existence, of a resource "curse" and calls for theories to be highly conditional.

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- Explores effects of ethnic fractionalization on the onset of civil war, finding that heterogeneity increases risk, contrary to other economic literature.

Wang, T. Y., William J. Dixon, Edward N. Muller, and Mitchell A. Seligson. "Inequality and Political Violence Revisited." *The American Political Science Review* 87, no. 4 (December 1993).

- Critique of, and response from, Muller and Seligson's statistical methodology in their analysis of inequality and conflict; Wang attacks use of OLS because of Poisson nature of event data, but Muller and Seligson respond with defense of conclusion that inequality increases political violence.