Democracy Under the Gun: Understanding PostConflict Economic Recovery

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Abstract

Why do some countries' economies recover from domestic armed conflicts more quickly than others? This paper answers this question by developing a set of propositions regarding the effects of political transitions, economic factors, and the nature of the conflicts themselves. It then tests these propositions via duration analysis of an original dataset of economic recovery. Among key results regarding international aid and the length and resolution of conflicts, this paper finds that rapid postconflict democratization retards economic recovery. This result reinforces a growing sense amongst political scientists that democracies built rapidly at the conclusion of civil conflicts face stark challenges that threaten peace and prosperity (Ball 1996; Walter 1997, 1999; Paris 2004). The policy implications of these findings suggest that organizations involved in postconflict reconstruction should promote gradual rather than rapid transitions to democracy in order to reinforce inevitably weakened political institutions.

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Since the end of World War II, domestic armed conflict has eclipsed interstate war as the most frequent and deadly form of political violence. According to the International Peace Research Institute (PRIO), 42 armed interstate conflicts occurred between 1946 and 2003, compared to 165 domestic armed conflicts, 22 of which became "internationalized" (*i.e.*, at least one other country intervened). During this period, civil conflicts killed nearly 4.8 million soldiers in battle and a nearly countless number of civilians, as well as causing irreparable harm to the lives of those left behind.[1]

A broad consortium of peace science scholars, economists, comparative political scientists, and policy practitioners have responded to these trends by studying the causes, conduct, and human consequences of civil conflict. As with interstate war, the scientific study of civil conflict first concentrated on identifying the root causes of the onset of civil war (Collier and Hoeffler 1998; Collier and Hoeffler 2002b; Collier et al 2003; Fearon and Laitin 2003; Fearon 2005; Walter 2004), closely followed by analysis of the duration and termination of conflicts (DeRouen and Sobek 2004; Fearon and Laitin 2003; Fearon, 2005; Licklider 1993; Regan 2002; Walter 2002), the causes and consequences of major power interventions (Regan 1996, 1998), and, most recently, the human and economic consequences of civil conflict (Artadi and Sala-i-Martin 2003; Blomberg and Hess 2002; Collier 1999; Collier et al 2003; Ghobarah et al, 2003; Gupta et al 2004; Imai and Weinsten 2000; Kang and Meernik 2005; Koubi 2005; Lacina 2006; Murdoch and Sandler 2002a, 2002b).

As this research program has matured, scholars have increasingly turned to examination of the aftermath of civil conflict, seeking mechanisms by which governments and international actors can aid the victims of violence in re-building their lives during the postconflict period (Ball 1996; Hartzell et al 2001; Hoddie and Hartzell 2005; Kang and Meernik 2004; Licklider 1993, 1995; Regan 1996, 1998, 2002; Walter 2002). A growing consensus exists that the state

[1]Battle deaths figure based on authors' calculations based on PRIO's and Uppsala University's Armed Conflict Dataset (Version 3.0) and their data on battle deaths (Strand et al 2004; Lacina and Gleditsch 2005).

of the economy plays a special role in rebuilding societies; governments that can generate a rapid return to economic growth during the postconflict period lower the risk of recidivism substantially. For those governments that cannot, the alternatives seem grim. Collier and his co-authors (2003) propose that countries experiencing civil conflict easily can fall into a "poverty-conflict trap," in which economic losses from a first civil conflict increase the likelihood of future conflict unless a strong postconflict economic performance breaks the vicious cycle.

Though valuable, the existing literature leaves unanswered the question of how best to maximize the economic growth prospects of post-conflict countries. Kang and Meernik (2005: 89) identify two challenges facing economic policymakers at the conclusion of a civil conflict. First, policymakers must engineer a rapid economic recovery in the immediate postconflict period. Second, they must transform this short-term recovery into stable long-term economic growth. This paper investigates the former policy challenge by asking the following question: *why do some countries' economies recover from domestic armed conflicts more quickly than others?* In this article, we present a series of testable hypotheses on the timing of postconflict economic recovery. We test these propositions by employing duration analysis techniques on a newly created dataset of economic recovery from civil conflict. That analysis leads to four primary conclusions. First, countries that undergo extensive democratization in the immediate postconflict period recover more slowly than countries that do not. Second, international aid speeds time to recovery, especially when aid is funneled to postconflict countries soon after the conclusion of hostilities. Third, outright military victory in civil conflict leads to a faster recoveries and longer peace (although these results are more tentative). Finally, longer civil conflicts tend to delay the recurrence of conflict and can shorten the recovery process (although the latter finding is less conclusive).

This paper proceeds as follows. We begin by reviewing the state of our knowledge regarding the economic consequences of civil conflict and the consequent danger of a "poverty-conflict trap." In the next section, we present a series of testable hypotheses about economic

recovery, focusing on three areas of analysis — political institutional transitions, economic factors, and the nature of the conflict itself. We describe our research design for testing these hypotheses, and present results from an event history analysis of a new dataset on postconflict economic recovery. Our conclusion discusses the implications of these results for future research on postconflict reconstruction.

The Poverty-Conflict Trap

Domestic armed conflict typically results in significant and sometimes long-term damage to a country's economy.[2] There are at least two distinct channels through which such damage occurs exist. The first involves the destruction of physical capital, while the second concerns the reduced capital stock resulting from lower investment due to higher uncertainty caused by the conflict (see Koubi 2005 for a recent summary of this literature).

The physical capital argument is straightforward. The Solow growth model describes the change in physical capital as $\Delta K = I - \delta K$, where ΔK is the change in the capital stock, I is investment, and δ is the depreciation rate. Destruction due to the conflict immediately reduces the capital stock. However, it can also increase the depreciation rate and lower investment. Thus, conflict can reduce both the level and rate of growth of the physical capital stock (Artadi and Sala-i-Martin 2003; Blomberg and Hess 2002; Collier 1999; Gupta et al 2004; Imai and Weinstein 2000; Kang and Meernik 2005; Koubi 2005; Mohammed 1999; Murdoch and Sandler 2002a).

Paul Collier and other economists have investigated the impact of conflict on investment more specifically (Collier 1999; Gupta et al 2004; Imai and Weinstein 2000; Mohammed

[2]We focus below on the impact of having a domestic armed conflict within a country's borders. However, as Murdoch and Sandler have shown, there is a significant risk of contagion, such that one country's conflict might adversely affect the economic performance of its neighbors, particularly in the short-run (Murdoch and Sandler 2002a). These economically harmful spillover effects appear to be more prominent in Asia and Latin America than in Africa (Murdoch and Sandler 2002b).

1999). In Collier's research, the loss of investment interacts with the length of the conflict to determine the path of post-war growth. After shorter conflicts, the capital flight induced by the conflict does not cease and, as a result, the capital stock continues to decline and post-conflict economic growth stagnates. After longer conflicts, however, investors infer that the country's capital stock has fallen significantly below optimal levels and that there are immediate profits to be made from re-investing. Thus, longer wars, Collier argues, should yield an immediate peace dividend (Collier 1999).

A more recent trend is to emphasize the impact of conflict on the human capital a country possesses (see also Lacina and Gleditsch 2005; Lacina 2006). For instance, Ghobarah, Huth, and Russett demonstrate that civil wars not only kill and maim potentially productive workers, but continue doing so long after the end of warfare. Infectious diseases thrive in post-conflict environments, which, coupled with diminished state capacity to provide adequate sanitation and public health services, also put noncombatants and especially women and children at risk (Ghobarah et al 2003).

In addition to the evidence surveyed above, other arguments suggest that conflicts might reduce the time horizons and accountability of political leaders, which leads to irresponsible fiscal policy, corruption, and the diversion of expenditures away from output-enhancing activities (Collier 1999; Collier et al 2003; Imai and Weinstein 2000).

The preceding models suggest that civil conflict can inflict grave damage to people's economic lives that can linger or even worsen after the conclusion of hostilities. Recent research at the World Bank summarizes this body of research by referring to armed conflict as "development in reverse" (Collier et al 2003). Nevertheless, even this assessment of the economic devastation of civil conflict may be too optimistic. Since a lack of economic development is one of the best predictors of the initiation of civil conflict, the negative economic consequences of a first war can result in a "poverty-conflict trap." In the trap, a country's first entry into civil conflict not only reverses development during the conflict, but also retards economic growth during the postconflict period. This failure of economic

recovery increases the risk that the country will slip back into civil conflict, and the cycle begins again. Engaging in civil conflict not only engenders a temporary economic setback, therefore, but also risks the establishment of a permanent cycle of violence and poverty.

However, there is a way out. As Collier and his co-authors (2003) write in their comprehensive survey *Breaking the Conflict Trap: Civil War and Development Policy*,

> The level and growth of per capita income are important risk factors for conflict. Faster growth tends to reduce the risk of further conflict directly, but also cumulatively by raising the level of income. Are the effects of growth different in postconflict situations? A study that examines this finds that a given rate of growth is significantly more effective in reducing risk in postconflict situations (Bigombe, Collier, and Sambanis 2000). *Hence a sensible approach is for governments to pay considerable attention to reviving the economy.* (Collier et al 2003: 152-153; emphasis added)

Formulating policies to help developing countries escape this vicious poverty-conflict trap requires researchers to shift their focus from documenting the negative effects of conflict to asking how countries recover economically from conflict and what factors hasten this recovery. It is to this task that we now turn.

Understanding Postconflict Economic Recovery

Why do some countries' economies recover from domestic armed conflicts more quickly than others? The World Bank's research on postconflict reconstruction suggests at least four channels through which recovery might be hastened. First, counter to conventional wisdom in peaceful societies, Collier's World Bank team argues that "social policy is relatively more important and macroeconomic policy is relatively less important in post-conflict situations than in normal situations" (2003: 154). Specifically, education and health care should be given relatively more weight in post-conflict economies because emphasizing such policies

might credibly signal the government's priority for social inclusion (154); by the same token, military spending should be reduced both because it puts a drag on the recovery process and because it threatens former combatants. Moreover, "if the government attaches a high priority to inclusive social policies, this may be interpreted, not just by the rebel organization but by the wider population, as the government actively honoring the spirit of the settlement" (154).

Second, a credible signal of the government's commitment to peace should assuage investor concerns that the country is likely to relapse into conflict, encourage higher private investment, and promote the repatriation of funds moved abroad as part of the capital flight that accompanies violent conflict (Collier et al 2003: 157).

Third, governments should clarify property rights in postconflict societies (Ibid.: 156; see also Korf 2005). Owners flee during conflicts, and people without legitimate title, often rebel soldiers, seize their land. But until the government intervenes to clarify the interpretation and enforcement of property rights, private investors will be reluctant to resume economic activity on the scale required to generate recovery.

Fourth, international aid should be targeted carefully to where and when it is most likely to be effective (Collier and Hoeffler 2000; Kang and Meernik 2004). Particular attention must be paid to providing aid to governments that are honest and transparent in their use of the aid. Not only does corruption and opacity result in the waste of aid, but it can also re-open old wounds amongst rebel groups whose original grievances are often that they felt excluded from their share of the national wealth.

While the World Bank's recommendations provide valuable guidance to postconflict governments striving to re-build fragile economies, they generate a number of additional questions. What kinds of political institutions will encourage the fiscal policies Collier and his co-authors recommend? How can former combatants design political settlements that will inspire credible commitments to a just peace? Does the nature of the conflict (e.g., conflicts over the control of the state versus wars over the secessionist impulses of one region) shift the

context in which these recommendations are implemented? The remainder of this section discusses how political and economic factors influence the record of postconflict economic recovery, keeping the World Bank team's policy suggestions in mind. In doing so, we concentrate our efforts in three spheres: the nature of political institutional transitions, economic influences, and the nature of the preceding conflict.

Political Institutional Transitions

The World Bank team's emphasis on fiscal policy and the state's commitment to the peace as keys to economic revival suggests that the postconflict political institutional climate will play an important part in the pace of recovery. Unfortunately, we known precious little about institution-building and its effect on the stability of the peace and economic reconstruction [3] Political institutions surely "matter" — but how?

We suggest that the speed of economic recovery depends critically on the political institutional transition that a country undertakes in the immediate postconflict period. For the purposes of this paper, we define "political institutional transition" as change in a country's political regime type either during or as an immediate result of the civil conflict. A country may, as a result of civil conflict, rid itself of an authoritarian leader and democratize. Alternatively, the conflict may result in the overthrow of a democratic regime and its replacement by a mixed regime comprised of both democratic and autocratic elements.[4]

We focus first on regime type in the postconflict period. If we observed a country emerging from a civil conflict, what kind of postconflict regime might we prefer? The *level of*

[3]The World Bank team does identify 'political architecture' as potentially playing an important role in postconflict societies. However, this discussion merits just two paragraphs in their book-length report, and offers little by way of specific findings (Collier et al 2003: 163).

[4]We do not imply that this definition represents the only useful conceptualization of political transitions during civil conflicts. For example, one may concentrate instead on whether a conflict overthrows the executive or whether it induces regime change years after the conclusion of hostilities. However, as shall be seen, we do maintain that our definition has important implications for postconflict economic recovery.

democracy for a country indicates the degree to which the rules of the game for government are dictated by the acceptance of principles of contestation for government office, alternation of power, and popular participation in decision-making. Aside from any intrinsic value such practices might have, there is good reason to believe that democratic governance should enhance a country's post-conflict recovery prospects. Three aspects of democracy strike us as plausible reasons for believing that democracies should recover more often and sooner than non-democracies. First, democracies provide institutionalized mechanisms for aggrieved groups to participate in the political arena, which should dampen their demands for secession and/or control of government. By being more inclusive of minority groups, and by allowing minority representation, democracies also allow minorities a greater level of decision-making power that should assuage their grievances. Second, democracies should be better able to make credible commitments to postconflict peace settlements. As is well documented in the international relations literature, democratic leaders incur audience costs for backing down from publicly made commitments, which should reassure rebel groups of their sincerity (Fearon 1994, 1997). The World Bank's endorsement of increasing spending on socially inclusive policies such as education and health care also bodes well for democratic prospects. There exists considerable evidence that democratic governments allocate larger shares of their budgets to such 'social policies' than non-democratic governments (Brown and Hunter 1999; Avelino, Brown and Hunter 2005; Lake and Baum 2001; Nooruddin and Simmons 2006; Stasavage 2005). Third, democratic governments are more transparent than their non-democratic counterparts, which makes it easier for international agencies, bilateral lenders, and domestic watchdogs to monitor the use of international aid for reconstruction. There is therefore good reason to believe that international aid should be more effective at hastening recovery in democracies. This set of arguments suggests our first testable hypothesis:

H1 (Democracy): *The speed with which a country's economy recovers economically from conflict should increase in the level of its democracy.*

Note that nothing in the preceding argument should be taken to suggest that we think democracies or their leaders are paragons of virtue and without limitations. Regrettably, some democratic governments do exclude minority groups from effective power, repress citizens, and engage in corrupt behavior. Rather, our emphasis rather is on the comparative static of the advantages of democratic governance *relative* to non-democratic governments, holding constant the preconflict regime type; in the postconflict period, democracy's inherent traits suggest that it is uniquely positioned to manage the postconflict economic re-building.

Nevertheless, a growing number of prominent political scientists have questioned whether democracy can deliver the above-mentioned effects in the postconflict context (Ball 1996; Walter 1997, 1999; Paris 2004). These authors' critique grants that established democracies indeed make more credible commitments to peace, include minority groups, legislate more socially inclusive fiscal policies, etc. Furthermore, all advocate for the eventual implementation of democratic reforms in postconflict countries, for both normative and instrumental reasons. However, the authors differentiate the benefits of *mature democracy* from the dangers of *immature democracy* in the immediate postconflict period. Paris (2004: 6, 156-157) reasons that mature democracies rely on political competition — through the intense competition of rival ideas in civil society and rival political factions in elections — to include citizens in political decisions, thus funneling political conflict into non-violent arenas (156-7). However, rapid democratization as a response to civil conflict involves two closely related risks. First, the new democracy will inevitably lack the institutional strength to limit competition to peaceful means. Elections likely exacerbate societal conflict, setting the stage for potential autocrats to hijack the electoral process (161-166). Second, these countries will large lack the kind of civil society, present in mature democracies, that restrains citizens from resorting to arms to pursue political goals (160-161). Therefore, political liberalization at the conclusion of conflict unleashes potentially violent political conflict precisely at the time when democratic institutions are least prepared to control it. Instead, Paris advocates "institutionalization before liberalization," in which policymakers delay elections, build in-

stitutions that can moderate the negative effects of political competition, concentrate on designing more effective electoral institutions and build a strong civic society, among other goals (188-207).

In research on the success of negotiated settlements of civil conflicts, Walter (1999) stresses that democratic political institutions cannot be expected to provide a sound basis for peace. Democracy requires years to coalesce; in the interim, it suffers from institutional weakness and a weak civic culture (139-140). Democratization that reconciles former combatants through an inclusive political process, she argues, can form the basis for long-term settlement of political conflicts (Walter 1997: 353). However, in the short-run, democratic political institutions will fail to guarantee former combatants that their enemies will respect the peace. The only manner in which the goals of negotiated settlements can be upheld (and democratic institutions given the time to develop), Walter argues, is third-party security guarantees to all former combatants (1999: 129-130).

Similarly, Ball (1996) also concurs that the long-term implementation of democracy should constitute a major goal for postconflict countries and international agencies. However, countries emerging from civil conflict too often lack any experience with democratic political processes, so that elections often exacerbate rather than soften political antagonisms (Ball 1996: 31-32). To solve these problems, Ball proposes at least five years of caretaker governments before democracy is phased in.

In summary, this growing body of literature does not dispute that mature democracies ultimately hold the keys to the peaceful resolution of political conflicts. Imagine, for example, a mature democracy that fell into civil war and survived that conflict intact. In that case, we might expect **H1** to hold. However, as the above discussion emphasizes, that is rarely the case. Rather, former combatants and international agencies usually find themselves building democracy from scratch in war-torn countries. These fragile democracies will find it difficult to rebuild their economies and ensure political peace. Therefore:

H2 (Democratization): *The positive effect of postconflict democracy on the speed with*

which a country's economy recovers from conflict reverses when the country was a non-democracy prior to the conflict.

Economic Influences

Broadly speaking, the preconflict level of economic development helps us understand a country's post-conflict ability to recover. It defines the country's baseline economic potential. A relatively advanced preconflict economy characterized by stable growth will more likely recover after the conflict because it already possesses the infrastructure in physical and human capital required for growth. Furthermore, investment should recover sooner in such societies since investors possess evidence of the country's innate growth potential. Therefore, we hypothesize:

H3 (Economic Development): *The speed with which a country's economy recovers from conflict should increase with its pre-conflict level of economic development.*

Another economic factor affecting the ability of postconflict societies to recover is the amount of aid they receive that can be used to revive a depleted economy (Ball 1996; see Kang and Meernik 2004 for a more complete review of this research). International aid is particularly useful if the conflict induced capital flight as domestic elites sought to protect their resources from predation. Based on these arguments, we expect:

H4 (International Aid I): *The speed with which a country's economy recovers from conflict should increase with the level of international aid it receives.*

However, previous research suggests that although aid does matter for postconflict economic development, its effectiveness is highly conditional on the timing of the aid. Collier and Hoeffler (2000, 2002a) have argued that the effect of aid is *conditional on its timing* and, specifically, that aid is most effective when given in the latter half of the decade following the cessation of violence. Their findings suggest that postconflict countries tend to enjoy "supra-normal" economic growth in the few years immediately following the onset of peace, regardless of the level of international aid (2002a: 11). During that period, their "absorptive

capacity" for aid is no higher than in countries that have not experienced conflict. However, between the fourth and seventh years after conflict ends, the effect of international aid on growth is exceptionally high.[5] This suggests that:

H5 (International Aid II): *The effect of international aid on the speed of recovery will increase substantially after the fourth year of the recovery period.*

Conflict Attributes

Next, we consider the basis of the conflict, its duration, and the nature of its resolution. Consider first the underlying issues that provoked the conflict. Territorial conflicts typically involve demands for secession or autonomy and are geographically specific. Conflicts fought for the control of the central government, on the other hand, tend to have a much greater geographic scope and are therefore potentially more damaging. However, from a post-conflict perspective, the underlying grievances surrounding territorially-based conflicts are less likely to be resolved once and for all, and the grievances are more likely to simmer. By comparison, control-of-center conflicts should typically end with either one side as victor and the other vanquished, or a power-sharing agreement that resolves the underlying grievance (Licklider 1993). Accordingly, while the stakes underlying control-of-center conflicts might be more intensely felt by the government, the political issues causing them are more easily addressed than are the often identity-based issues underlying territorially-concentrated conflicts. In other words, we expect territorial-based conflicts to persist in the postconflict environment and to hinder recovery efforts:

H6 (Issue Basis): *The speed with which a country's economy recovers from conflict decreases if the underlying issue causing the conflict was about territorial autonomy.*

The logic underlying **H3**, **H4**, and **H5** suggests we pay attention to just how much damage was inflicted as a result of the conflict. Longer conflicts isnflict greater damage

[5]Given this finding, it is troubling that Collier and Hoeffler also find that donors tend to exhibit "aid amnesia," their attention peaking in the first years after a conflict and decreasing rapidly afterwards.

on the domestic economy. As the fighting continues, combatants turn their attention to destroying physical infrastructure, and the human toll mounts. On the one hand, this might lead us to expect that the duration of recovery after longer conflicts should be longer. On the other hand, a more counter-intuitive proposition is worth considering. The greater the damage inflicted, the more likely investors will see that investment levels are far below the optimal levels, and rush to make large gains associated with being the first-movers (Collier 1999). Also, if the damage forces the replacement of older infrastructure with more modern technologies, post-conflict economic growth might be hastened. Koubi (2005) finds support for the latter hypothesis, which was first articulated by Organski and Kugler (1977) in their seminal work on the 'Phoenix Factor'. This suggests another testable proposition:

H7 (Phoenix Factor): *The speed with which a country's economy recovers from conflict increases in the duration of the conflict episode.*

Lastly, having discussed why the conflict began, and how long it lasted, we now generate two hypotheses based on the way the conflict ended. Domestic armed conflicts typically conclude in one of three ways: outright military victories for one side, negotiated peace agreements, or ceasefires.[6] Licklider (1995) and Atlas and Licklider (1999) argue that the outright military victory of one side or the other in civil conflict greatly reduces the risk of recidivism for at least two reasons. First, it destroys the organization of one side of the civil war, thus making a return to arms more difficult (Licklider 1995: 685). Second, negotiated settlements create a new axis of conflict *within* former armed groups, as more extremist elements seek to continue to violence while the leadership of the armed group adheres to the agreement (Atlas and Licklider 1999). Peace agreements, by contrast, require a credible commitment by all parties involved to maintain the peace. Peace agreements must therefore be policed and rogue elements of either side may still force a return to arms. But, as Walter (2002) shows, peace agreements are difficult to sustain and only survive when third-party guarantees are made. Still, to the extent that peace agreements reveal

[6]The ceasefire need not be explicit but could result from extended lulls in the violence.

that actors were willing to come to the negotiating table and were able to agree to terms, even if they eventually fail in the implementation phase, we would argue that we should expect such situations to be better for recovery than where no explicit agreement is reached on how to deal with the postconflict situation. For instance, cease fire agreements might be agreed upon that involve a cessation of fighting but without a resolution of the central issues. Or, in some cases, fighting might just fade without any formal agreement to do so. We therefore expect conflicts that end with a clear resolution of the issues through outright military victory as conceptualized above to have the greatest chance of a quick and successful recovery. Similarly, the conclusion of a peace agreement between the warring sides represents a commitment of all parties to peace, which should facilitate postconflict recovery (although we recognize Walter's caution about the importance of third-party guarantees for making such agreements credible). Therefore, treating ceasefire agreements and low activity situations as the reference category, we propose the following testable hypotheses:

H8 (Victory): *The speed with which a country's economy recovers from conflict increases if the underlying issues causing the conflict were resolved effectively via unilateral victory versus other means.*

H9 (Peace Agreement): *The speed with which a country's economy recovers from conflict increases if the underlying issues causing the conflict were resolved by negotiated peace agreements.*

The hypotheses outlined in this section provide a framework for understanding the dynamics of postconflict economic recovery, and focus primarily on the ability of post-conflict governments to commit credibly to peace. In the next section, we describe our research strategy to test these propositions.

A Duration Model of Postconflict Economic Recovery

Formal empirical testing of the hypotheses discussed in the previous section necessitates a carefully designed research strategy with demanding conceptual and empirical requirements. These include identifying a comprehensive list of civil conflicts, developing an empirical definition of recovery, and choosing an appropriate statistical technique to analyze these data.

To generate a list of conflicts, we turn to the Uppsala Conflict Data Project (UCDP), which contains data on domestic armed conflicts from 1946 to 2003, inclusive. Our final data set covers 1960 to 2002 since that is the temporal coverage of the World Bank's World Development Indicators (2004), which is our source for economic data.[7] When multiple civil conflicts existed simultaneously within the same country, we combined them into a single *conflict episode*, which begins with the onset of the first conflict and ends with the conclusion

[7]The decision of which set of conflicts to study has important consequences (Sambanis 2004). An earlier version of this paper used the Correlates of War listing of civil wars, but this list is very restrictive. To broaden the universe of cases under consideration, we we turned to the Uppsala dataset. We then created four alternative versions of the dataset: minor conflicts only, intermediate conflicts, civil wars, and internationalized civil wars. We did not focus much on the last of these because of the selection issues inherent in why some conflicts result in international intervention, but this remains an interesting question for future research. As for intermediate conflicts and civil wars, there were not enough of each to sustain a full-fledged multivariate analysis, but our descriptive statistics were supportive of the findings from the pooled dataset (Results available upon request). To get at the issue of whether pooling of different types of conflicts is appropriate, we include in the analysis below a control for the 'intensity' of the conflict, which essentially captures the tripartite categorization of conflicts in the Uppsala dataset. In analyses not reported here, we have also utilized the 'battle deaths' dataset of Bethany Lacina and Nils Petter Gleditsch (Lacina and Gleditsch 2005; Lacina 2006). Including the casualty variable does not change the results, but we are concerned about selection issues here too. Our intuition is that anocracies in particular are more likely to have bloodier conflicts. And the correlation between conflict duration and casualty count is high, as one might expect. Therefore, we omit the casualty variable here, but urge future researchers to seek to disentangle the various selection issues we've identified in order to build a more comprehensive model of postconflict recovery.

of the last remaining conflict.[8]

Dependent Variable: What is Recovery?

How would we know that a country has recovered economically from a conflict episode? Studying post-conflict recovery requires an explicit theoretical and empirical demarcation of the end of the immediate postconflict period and the beginning of a the transition to long-term economic recovery, what we think of as the arrival of "normal" political and economic activity. Conceptually, we propose that a country has achieved these goals when it reaches and maintains a level of per capita economic activity that equals or exceeds preconflict levels. The achievement of this goal indicates minimally that economic actors have reestablished patterns of consumption and investment to an extent that, in terms of total economic activity on a per capita basis, the economy has at least returned to its preconflict state.[9]

This conceptualization of recovery involves choosing the appropriate threshold to be regained for a country to be considered 'recovered.' One possibility is to use the level of GDP per capita in the year before the onset of conflict. But, if conflict resulted in part due to an economic downturn or if an economic downturn accompanied the road to conflict, this would imply that such a threshold would capture a local minimum and therefore be too low. An alternative is to use the highest level of GDP per capita obtained by the country in the five-year period preceding the conflict. This approach has two advantages. First, it averts the concern of setting the bar for recovery too low. Second, it captures better the "true potential" of the economy, which accounts at least in part for the idea of the counterfactual level of development possible for the country. In the results presented below,

[8]The UCDP Conflict Termination data set assembled by Joakim Kreutz also uses the 'conflict episode' as the unit of analysis.

[9]This is similar in spirit to analyses of recovery from stock market crashes, where the market is considered to have recovered when it regains its pre-crash level on some index of performance (for example, the Dow Jones index in the USA). For a recent example, see Nordhaus 2002. A classic study in this vein is Heard and Beede 1933.

we use this alternative higher threshold for coding recovery, but all our results are robust to using the year prior to conflict as the threshold.[10] The *per capita GDP* data required to code economic recovery were obtained from the World Bank's *World Development Indicators CD-Rom* (2004). Since a primary requirement of this analysis is to compare levels of per capita GDP over time, we use constant figures of GDP per capita, where 1995 is the base year.

To illustrate the empirical coding of the dependent variable, imagine a country emerging from a civil conflict episode. The *recovery episode* begins in the first year after the conflict episode concludes. When the country's GDP per capita matches its pre-conflict level, we code the country as having *recovered* and the recovery episode terminates. A country may fail to recover for one of two reasons. The first is *conflict recidivism*. As Collier et al (2003) have argued, some states are unable to escape from the conflict trap. If another conflict episode commences before recovery from the previous conflict episode has been achieved, the country is coded as failing to recover. The second is more mechanical: some states are still in the process of recovering when our data end, leading their on-going recovery episodes to be *right-censored*. A complete listing of all conflict episodes, recovery episodes, and their outcomes, is provided in the appendix.

One possible critique of this approach is that it ignores the 'opportunity costs' of conflict. That is, in the absence of conflict, if the country had maintained its normal growth rate, its GDP per capita would have increased too, which suggests that some counterfactual level should be the threshold for recovery. A second critique is that fluctuations in the economy immediately preceding the conflict episode might influence our threshold for recovery. The robustness of the results presented below to using either the five-year high or the immediately-prior-to-onset values of GDP per capita as thresholds for recovery assuages any concerns

[10]We have also utilized a more stringent measure of recovery, which required countries to have post-conflict levels of GDP per capita equal to or higher than their pre-conflict levels for three consecutive years. Results utilizing this measure are consistent with those reported in the text.

about the second critique. And, while we recognize the first critique's validity, we believe our definition's advantages outweigh its potential disadvantages. Most importantly, our approach does not require us to speculate about the country's counterfactual growth rate, which is particularly important because high levels of growth-rate volatility in the developing world make speculations about future growth paths tenuous at best (Nooruddin 2003; Pritchett 2000).

Independent Variables

The explanatory framework developed in the previous section described three sets of factors that we argue should affect the timing of economic recovery. These are: 1) political institutional transitions; 2) economic influences; and 3) conflict attributes. Here we discuss how we operationalize each of the variables required to test our hypotheses.

Political Institutional Transitions

Together, **H1** and **H2** state that, while well-established democratic governance effectively shortens the recovery process, newly instituted democracies will tend to experience longer recoveries. These hypotheses thus imply an interaction effect between the pre and postconflict regime types. Since much of the logic underlying **H1** and **H2** emphasizes the importance of competition and participation in the democratic process for reducing grievances, we choose the Polity measure of regime type, rather than measures of civil and political rights (Gurr and Jaggers 1995; Marshall et al 2004). This measure is widely used in both comparative and international politics scholarship, and consists of a series of indicators designed to capture the competitiveness and openness of the political system. We use the combined Polity indicator which we scale from 1 (perfect non-democracy) to 21 (perfect democracy).[11]

Using the Polity data allows two empirical specifications of political institutional transitions. In each, we compare preconflict political institutions (i.e., in the year preceding the

[11]For an important critical evaluation of the Polity Index's utility, see Treier and Jackman (2005).

onset of the conflict episode) with postconflict political institutions (i.e., in the year after the conclusion of the conflict episode). First, one may think of political institutional transitions as alterations to political institutions made during time of civil conflict. These may include a complete change in regime (e.g., from an authoritarian to a democratic political system) to smaller changes to the political "rules of the game" (e.g., a dictator leader allowing the creation of a legislature with only limited ability to check her rule). Given that the Polity scale provides an incremental measure of the level of democracy, we can easily evaluate both the level of postconflict democracy and the degree to which changes towards or away from perfect democracy occurred as a result of the conflict, comparing the effects of minor political change to major regime transitions.

Alternatively, one may think of political institutional transitions as important only inasmuch as a broad change in the regime type occurs, whether through democratization or through backsliding towards dictatorial rule. Fortunately, the Polity scale also allows such a comparison. We follow Gurr and Jaggers (1995) in using the Polity measure to code three *regime types*: democracy (scores of 17 to 21 on the Polity scale), autocracy (scores of 1 to 7 on the Polity scale), and mixed regimes (scores of 7 to 17 on the Polity scale)[12] In this empirical specification, there are nine potential political institutional transition types: three infer regime type stability (autocracy to autocracy, mixed to mixed, democracy to democracy), three infer moves towards democratization (autocracy to mixed, autocracy to democracy, mixed to democracy), and three infer moves towards autocracy (democracy to mixed, democracy to autocracy, mixed to autocracy). This coding allows a flexible comparison of the impact of various political institutional transition types on the speed of recovery.

[12]Throughout this text, we also refer to mixed regimes as "anocracies" and "anocratic regimes." Gurr and Jaggers (1995) also refer to these as "incoherent regimes."

Economic Factors

Since **H3** predicts that richer countries should have an easier time restarting their economies, we control for the preconflict level of per capita GDP using the World Bank's *World Development Indicators CD-Rom* (2004) measure of GDP per capita in constant 1995 US dollars.

We also expect that international aid should affect recovery outcomes by providing additional resources to capital-strapped societies (**H4**). Our measure of official development assistance (ODA) to the developing world comes from the OECD, and is measured in constant US dollars. We expect a diminishing marginal return to aid, and therefore include a logarithmic transformation of the raw aid figures in our model. However, **H5** states that the effect of aid is dependent on its timing. To probe these alleged aid-timing effects, we create three time category variables. The first captures the first three years of the recovery episode; the second captures the next three; and the last captures years 7 and over. Next, we interact the level of aid with these time categories, creating a set of variables that capture the time trend of aid during the recovery process.[13]

Conflict Characteristics

Our third set of variables concerns characteristics of the conflict episode. **H6** states that the political issues underlying conflict will affect the speed of recovery. The Uppsala Armed Conflict Data base distinguishes broadly between two issues that cause any given conflict: territory and control of government. We create a dichotomous indicator variable where conflicts over territory are coded 1 and conflicts over government control are coded 0.

We include a variable for the length of the conflict episode in years to code **H7**, which

[13]We also used natural resource dependence (measured as the share of merchandise exports comprised of oil and mineral ores) with data drawn from the World Bank's *World Development Indicators CD-Rom* (2004). However, since these data are quite frequently missing, we report estimates from models without this variable as a control to avoid the bias of missing data patterns. The inclusion of this control does not substantively alter the results reported here.

states that longer conflict episodes will result in speedier recoveries.[14]

Finally, **H8** and **H9** state that recovery will also depend on the nature of the termination of civil conflict. A new data base from PRIO codes the nature of termination for all conflicts in the Uppsala data base (Kreutz and Mack 2005). This data set distinguishes between five termination types on the basis of whether the warring sides had resolved the underlying conflict and the explicitness of the agreement with respect to disarmament and demobilization. We create two mutually exclusive dummy variables for whether the conflict ended in *unilateral victory* or in a *peace agreement*. Thus, the reference category is comprised of those conflicts that ended in ceasefires or where the level of violence tapered out without explicit resolution of the underlying grievances (DeRouen and Sobek 2004; Hoddie and Hartzell 2005; Licklider 1993; Walter 2002, 2004).[15]

Models & Results

To analyze the timing of recovery after violent domestic conflict, we utilize event history analysis (Box-Steffensmeier and Jones 2004). Specifically, as described above, recovery episodes can end in one of three ways: successful recovery, conflict recidivism, or right-censoring.

[14]In analyses not reported here, we did use Uppsala's total battle deaths measure as an alternative indicator for the severity of conflict. When we do include a control for battle deaths (we used the `tbdeadbest` measure — total battle deaths, best estimate), our results do not change (though the sample size does reduce from 334 to 291). To take one example, consider Column 1 in Table 1: adding the battle deaths measure changes the coefficients of our variables-of-interest (the first three in the column) to 0.12 (se=0.05), 0.02 (se=0.05), and -0.01 (se=0.003) respectively. None of the other results changes either. As in the table in the text, the only other factors that appear statistically significant are official development assistance (beta=-0.23; se=0.12) and peace agreements (beta=0.82; se=0.40).

[15]That is, the other three ways in which conflicts end, as coded by Kreutz and Mack, are ceasefire agreements signed and/or accepted by the main actors in the conflict, ceasefire agreements not signed and/or accepted by the main actors, and low levels of conflict activity. Roy Licklider has suggested that recent conflicts might experience a new termination type, which he terms 'forced settlement' (personal communication).

Therefore, a competing risks model is appropriate. To account for multiple recovery episodes within a single country, we follow Beck, Katz, and Tucker's suggestion (1998: 1272) and include in the specification a variable that counts the *number of previous recovery episodes*.

To identify the correct specification for the duration analysis, we begin by estimating the baseline hazard rate of recovery from our data. Figure 1 graphs this hazard rate, and provides both a substantive and statistical insight. Substantively, Figure 1 indicates that the hazard rate peaks slightly after 4 years from the end of the conflict, and then falls away steadily, which suggests that most successful economic recoveries occur within 4 years. Statistically, the nonmonotonic shape of the hazard function suggests the use of the lognormal distribution for the duration portion of our model, since the alternative exponential and Weibull models assume constant and monotonic hazards respectively.[16]

/INSERT FIGURE 1 ABOUT HERE/

In the language of event history analysis, countries in a postconflict environment face a multistate competing risks problem. Any given recovery episode ends with either successful recovery or recurrence of conflict. States experiencing neither outcome are right-censored. As such, a competing risks analysis is suitable. Summary statistics for all variables included in the analysis are reported in the appendix.

We report two sets of results in Tables 1 and 2.[17] As discussed previously, two empirical specifications of political institutional transitions are possible. Current theory on the effect of postconflict governance on economic recovery does not lend specific guidance as to which

[16]The lognormal distribution also generates the lowest Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) scores. Following Box-Steffensmeier and Jones (2004), we also estimated Cox non-parametric equations for each of the models presented in this text. Our results hold and are available upon request.

[17]Because the models reported in Tables 1 and 2 use a log-normal parameterization, we should note that positive coefficients indicate that increases in the independent variable *increase* the time to the event. Therefore, in recovery findings, if the goal is to facilitate the quickest possible recovery, then the smaller the coefficient value the better. In models of recurrence, we normatively prefer a long and stable peace and thus larger coefficients.

approach is to be preferred; consequently, we employ both empirical strategies. The first strategy assumes that democracy can be measured somewhat continuously. Accordingly, civil conflicts may result in only minor political institutional alterations or major shifts in regime characteristics; these changes can be quantified with a comparison of preconflict and postconflict Polity scores. **H1** and **H2** jointly propose that democratic governance in the immediate postconflict period aids recovery, but that effect itself depends on previous (i.e., preconflict) experience with democracy. Therefore, Table 1 presents results from a model that includes the interaction of the country's preconflict and postconflict Polity scores. This empirical specification allows a direct evaluation of the extent to which democracy's effect on postconflict recovery is contingent on its preconflict level of democracy.[18]

The second specification alternately proposes conceptualizing of democracy as three regime types, rather than a linear scale of non-democracy to democracy. Therefore, the pertinent question regarding civil conflicts is whether the regime type changed as a result of the conflict. Thus, Table 2 presents the results of the competing risk analysis with a series of nine indicator variables for transition types as regressors.[19] This specification allows not only a direct comparison of how the effect of postconflict democracy depends on preconflict regime type, but also a flexible analysis of whether specific types of institutional transitions advance or hinder recovery. In summary, these two specifications offer us complementary perspectives on the role of political institutional transitions on economic recovery.

/INSERT TABLE 1 ABOUT HERE/

/INSERT FIGURE 2 ABOUT HERE/

[18]We also estimated a model in which the postconflict democracy score is instead interacted with the change in Polity score due to the conflict. That model is mathematically equivalent to the model we present; however, we prefer the model in Table 1 for presentational purposes.

[19]For each of the three preconflict regime types, there are three possible postconflict scenarios: stability (*i.e.*, status quo) or shifts to either of the other types, giving us nine possible transition types in all.

Political Institutional Transitions

Concentrating first on the testing of the political institutional transition hypotheses, we can draw several conclusions from Table 1. First, political institutional transitions do matter for economic recovery. The coefficient on postconflict democracy indicates it slows economic recovery, but that this effect decreases in the degree of preconflict democracy. Figure 2 clarifies these findings, graphing the effect of a one-point increase in postconflict democracy on recovery time for the full range of values of preconflict democracy, as well as the confidence interval (at $\mathrm{p} = .05$). It shows that postconflict democracy lengthens the recovery process for most values of preconflict democracy; however this "democratic drag" on recovery decreases in the level of democracy of the preconflict regime. Nevertheless, the effect is statistically significant only up to a preconflict Polity score of about 8. Interestingly, postconflict democracy does speed economic recovery if the preconflict regime type was a democracy with a Polity score over 15; nevertheless, that effect remains statistically insignificant. Therefore, Column 1 partially supports a rather unfortunate version of **H2**: when the country was a nondemocracy prior to the conflict, democratization lengthens recovery efforts and, in fact, postconflict increases in democracy only hasten recovery when the preconflict regime was already highly democratic — furthermore, this effect is not statistically significant. As such, scholars and practitioners such as Ball (1996), Licklider (1993), Paris (2004), and Walter (2002) advocating a patient approach to postconflict political liberalization should be bolstered by our results.[20]

/INSERT TABLE 2 ABOUT HERE/

Table 2, which models political transitions as nine indicator variables, reinforces these results and provides some context to their interpretation. The estimated coefficients presented in Column 1 essentially allow us to rank the political institutional transition types according

[20]We might also add that very few cases begin and end civil conflicts as democracies. This may be because stable democracies are less likely to experience civil wars and/or because stable democracies better manage civil conflicts so that they do not harm the economy.

to their effect on the speed of recovery and provides statistical evidence as to the strengths of those rankings. Accordingly, Table 3 reproduces the relevant effects from Table 2 by rank-ordering the various transition types according to the size of their effect on recovery time. Recall again that, because of the log-normal parameterization, larger coefficients indicate longer predicted recoveries.

/INSERT TABLE 3 ABOUT HERE/

Table 3 reveals some general patterns in the effects of political transition on recovery. Countries that end civil conflicts as mixed regimes tend towards longer recovery periods, ranking sixth (mixed regime stability), seventh (democratic to mixed), and last (authoritarian to mixed) in terms of speed of recovery. We also observe that countries that end civil conflicts as democracies rank high if they began their conflicts as democracies (ranked first) or mixed regimes (ranked third). However, countries that transition from authoritarian to democratic regimes rank quite low (eighth). These findings echo the results discussed in Table 3 and Figure 2.

In addition, the strength of the indicator-variable specification is the flexibility it allows in testing the effect of specific political institutional transitions on recovery.

/INSERT TABLE 4 ABOUT HERE/

Table 4 presents a series of Wald (or joint-hypothesis) tests to answer various substantive questions about the effect of political institutional transitions on recovery. Four trends are noticeable from our findings. First, regime stability matters for economic recovery; holding the preconflict regime constant, we prefer regime stability as a means to economic recovery. Second, postconflict democracy matters for economic recovery and its effect depends heavily on preconflict regime type. We can say with statistical confidence that postconflict democracies perform better when preceded by preconflict democracies rather than autocracies. However, we cannot make such a claim about the difference between preconflict democracy versus anocracy or preconflict anocracy versus autocracy. Third, the performance of postconflict autocracies is statistically ambiguous. We cannot say with statistical confidence

that postconflict authoritarian regimes differ in their economic performance. This finding may result from grouping together very different types of authoritarian regimes As Bueno de Mesquita and his co-authors (2003) argue, authoritarian regimes will perform quite differently from each other, depending on the size of their "selectorates." We also find that authoritarian performance during the recovery period does not depend on preconflict regime type. This fact, combined with the finding that the postconflict performance of democracies does depend on preconflict democracy provides further evidence that democratic institutions take a longer period of time to coalesce as opposed to autocratic regimes, a point illustrated by Paris (2004). Fourth, mixed regimes do affect economic performance and this performance also relies on preconflict regime type. Anocracies perform better when succeeding a preconflict anocracy than when succeeding a preconflict autocracy.

In terms of the recurrence of civil conflict, it appears that there are few political institutional guarantees against recidivism. However, in Table 2, it appears that moves away from democracy to either anocratic or authoritarian governance increase the time until the recurrence of conflict. These results are both statistically significant.

Economic Factors

We find that international aid speeds economic recovery in both specifications of political transitions, providing evidence in support of **H4**. However, international aid does not appear to forestall the recurrence of civil conflict (see Table 1 and 2). Neither does the preconflict level of GDP per capita significantly affect the speed of economic recovery or the recurrence of conflict.

/INSERT TABLE 5 ABOUT HERE/

H5 states that the effect of international aid on the speed of recovery increases substantially after the fourth year of the recovery period. As discussed earlier, we test this hypothesis by the level of aid in some year of recovery with a series of three time category variables. We present the results of a competing risks analysis with this coding of the time dependence of

aid in Table 5. The results suggest that the timing of international aid does matter. Aid in the first three years of the recovery episode reduces time to recovery. Aid in the next three years also speeds recovery, though our estimate of this effect is extremely imprecise. Finally, aid given in year 7 and on of a recovery episode *increases* time to recovery[21] One finding that complicates this empirical picture is that aid given after the sixth year of the recovery episode seems to delay the recurrence of civil conflict. Thus, the effect of aid timing appears mixed. This suggests that a more detailed investigation of aid's effects and of *where* and *when* aid is allocated is warranted. We leave this for future research but for now reiterate that our results suggest that, in terms of economic recovery, aid has its greatest positive impact early in the recovery process.

Conflict Attributes

Tables 1 and 2 provide mixed support for the role of conflict attributes in subsequent economic recovery. The political issue underlying conflicts — here posed as a comparison of control-of-center versus secessionist conflicts — exert little effect on recovery. The duration of conflict merits a greater degree of empirical support. In both of the basic models, longer conflicts delay the recurrence of civil conflict; this may point to a kind of "conflict exhaustion" that occurs after longer episodes of civil violence or that longer conflicts tend to resolve the underlying political issues more effectively. Furthermore, in the indicator variable model (Table 2), longer conflicts also significantly decrease time to recovery, lending

[21]These results might seem at odds with Collier and Hoeffler (2000, 2002a), who find that aid benefits postconflict countries most when given after the fourth year of the recovery period. We caution against such an interpretation for at least two reasons. First, countries still in recovery after six years (*i.e.*, neither recovered nor relapsed) are likely to be countries recovering from extremely intense conflicts. Second, the focus of our study diverges from that of Collier and Hoeffler (2000, 2002a); whereas their work emphasizes longer-term postconflict economic growth patterns, we concentrate on explicitly on the more short-term challenge of economic recovery. Taken together, this underscores the importance of further investigations of how and when aid works in postconflict situations.

tentative support to Collier (1999).

H8 and **H9** suggest that the nature in which civil conflicts end will affect the speed of economic recovery. These hypotheses receive tentative empirical support. In both Tables 1 and 2, military victories significantly lengthen time to recurrence of conflict, as Licklider (1993, 1995) and Atlas and Licklider (1999) have argued. However, military victories do not significantly alter time to recovery in either equation. Peace agreements seemingly have an even more confused effect on recovery. In both sets of estimates, peace agreements significantly *increase* time to economic recovery but in Table 1, peace agreements also delay recidivism. Therefore, peace agreements have a sharply mixed record in postconflict economic recovery. While these results are suggestive of the advantages of outright military victories, a fuller evaluation of the effect of termination type on recovery would need to account for problems of non-random assignment.

Licklider (1993, 1995) and Atlas and Licklider (1999) hypothesize that outright military victories more effectively prevent conflict recurrence than do peace agreements. To test this hypotheses, we directly compare the coefficients for peace agreements and outright military victory. Table 6 shows the results of Wald tests of whether the coefficients on the two indicator variables are statistically different. Outright military victories consistently lead to a longer period of time before a slide back into conflict; however, these differences are only marginally significant. In terms of economic recovery, outright military victory also seems to outperform peace agreements; its smaller coefficients indicate a shorter time to economic recovery. However, this effect is also statistically insignificant, though in one equation, the difference approaches statistical significance. Therefore, the evidence presented here supports the argument that outright military victory is to be preferred to peace agreements, though the evidence is fairly tentative.

Conclusions and Implications for Future Research

Scholars and policy analysts have long noted the devastating impact of violent conflict on economic development. The question of how best to sustain peace and foster economic recovery is particularly pressing given recent findings of a "poverty-conflict trap" from which many states are unable to escape. In this paper, we have presented new research on the determinants of postconflict economic recovery. We conclude by reviewing our results, and considering their implications for the direction of future work in the field of postconflict reconstruction specifically and comparative politics generally.

Our research yields four principal findings. First, postconflict political transitions shape the success of economic recovery. Major changes in regime from autocracy to democracy retard economic recovery; indeed, democracy has been shown to improve time to recovery only when democracy was already practiced in the preconflict era. These findings are robust to different specifications of political institutional transitions. Furthermore, mixed regimes have a largely negative effect on postconflict recovery. Second, international aid speeds time to recovery, especially when that aid is funneled to recovering countries early after the conclusion of hostilities (i.e., within three years). Third, outright military victory seems to lead to faster recovery and a longer peace when compared to peace agreements (although these results are tentative). Finally, longer conflicts delay the recurrence of conflict and, in one specification, lead to faster economic recovery (though the latter result is more tentative).

We pay special attention to the academic and policy implications of our findings on political transitions and economic recovery. Paris (2004) emphasizes that a consensus in the policy community advocates the institutionalization of democracy immediately after the conclusion of civil conflicts. That consensus is rooted in the belief that in addition to its normative desirability, democracy is uniquely positioned to usher in new eras of peace and prosperity in previously war-torn countries. Paris's own research into peacebuilding missions (2004) indicates that hastily-built democracies face special difficulties in maintaining the peace after civil wars, echoing the logic of Walter (1997, 1999) and Ball (1996). Our research rein-

forces these lessons, suggesting that national and international government agencies and non-governmental organizations (NGOs) involved in postconflict reconstruction promote gradual rather than rapid transitions to democracy in order to reinforce inevitably weak political institutions. Accordingly, future research on postconflict reconstruction would do well to delve more deeply into political transitions. Our measure of democracy, while widely used, is an aggregate index of different aspects of a country's regime type. The next step therefore is to develop arguments about exactly which aspects of democratization endanger stability in the postconflict period and how those dangers can be managed successfully. Are elections inherently destabilizing when held soon after the conclusion of hostilities or does freedom of speech exacerbate residual hatreds from the conflict? What steps can be taken to smooth the democratic transition?

Furthermore, scholars should especially tackle issues of non-random selection. As we have noted, the countries that enter our dataset certainly form a non-random sample. For example, mature democracies rarely suffer from the kind of violent civil conflict that qualifies countries to enter our analysis. Additionally, not all countries that experience civil conflict experience economic decline to the same extent. Thus, research on domestic civil conflict should move toward developing a more integrated framework of analysis. Given the relatively recent attention paid to domestic armed conflict, our advances in knowledge in the causes of its onset, participants, nature, duration, termination, and consequences are impressive. Each of these topics has typically been studied in isolation, an important first stage of a research program. However, we will achieve a deeper understanding of civil conflict and economic development only when we consider how each of these stages depends on the others.

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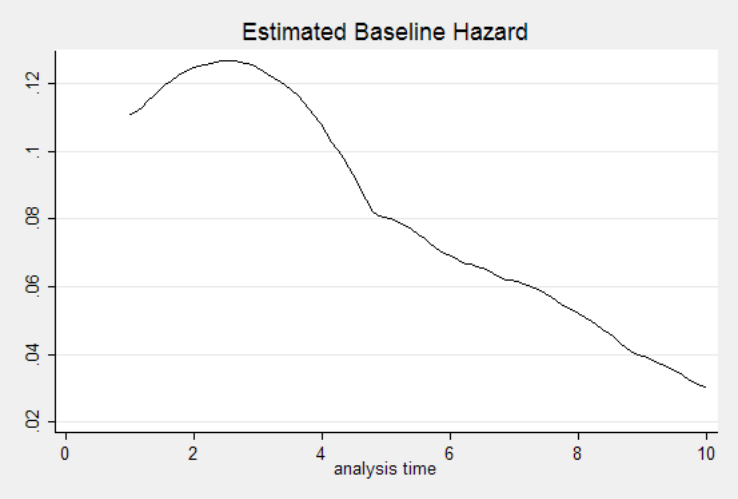

Figure 1: Baseline hazard rate of economic recovery

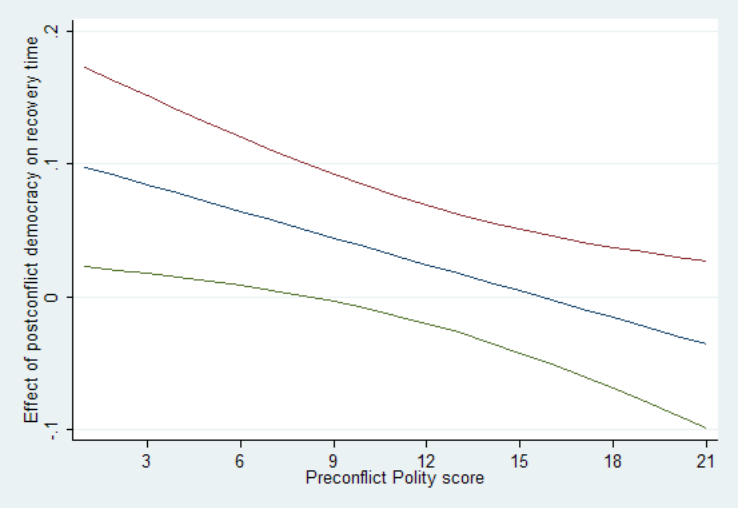

Figure 2: Effect of postconflict democracy on recovery time

Table 1: **Log-Normal Competing Risks Estimates — Interaction Term Equation**

	Recovery	**Recurrence**
Postwar Polity score	0.10***	-0.02
	(0.04)	(0.04)
Prewar Polity score observation	0.02	0.07
	(0.04)	(0.05)
Interaction of postconflict and preconflict Polity scores	-0.01**	-0.00
	(0.00)	(0.00)
Pre-conflict GDP per capita (High)	-0.17	0.09
	(0.12)	(0.13)
Official Development Assistance (Log)	-0.22**	-0.04
	(0.11)	(0.13)
Secessionist Conflict	0.06	-0.46
	(0.28)	(0.30)
Conflict Duration	-0.03	0.03*
	(0.02)	(0.02)
Termination: Victory	0.34	1.43***
	(0.26)	(0.31)
Termination: Peace Agreement	0.78**	0.73*
	(0.37)	(0.39)
Recovery Number	0.21	0.28**
	(0.22)	(0.12)
Constant	2.52*	-0.20
	(1.30)	(1.28)
N	334	334
AIC	255.76	161.96
BIC	301.49	207.69

Notes: * p<0.10, ** p<0.05, *** p<0.01; Standard errors in parentheses.

Table 2: **Log-Normal Competing Risks Estimates — Indicator Variables Equation**

	Recovery	**Recurrence**
Authoritarian stable	2.67**	0.66
	(1.24)	(1.36)
Authoritarian to anocratic	4.57***	0.17
	(1.37)	(1.34)
Authoritarian to democratic	3.83**	0.64
	(1.58)	(1.96)
Anocratic to authoritarian	2.48**	0.95
	(1.21)	(1.41)
Anocratic stable	2.80**	0.86
	(1.31)	(1.55)
Anocratic to democratic	2.62*	1.17
	(1.52)	(1.88)
Democratic to authoritarian	2.78**	5.77***
	(1.42)	(1.40)
Democratic to anocratic	3.26***	5.11***
	(1.25)	(1.44)
Democratic stable	2.08*	1.04
	(1.19)	(1.47)
Pre-conflict GDP per capita (High)	-0.14	0.06
	(0.13)	(0.15)
Official Development Assistance (Log)	-0.19**	-0.10
	(0.10)	(0.13)
Secessionist Conflict	0.00	-0.51
	(0.29)	(0.32)
Conflict Duration	-0.04**	0.03*
	(0.02)	(0.02)
Termination: Victory	0.15	1.35***
	(0.30)	(0.30)
Termination: Peace Agreement	0.81*	0.63
	(0.46)	(0.45)
Recovery Number	0.19	0.28**
	(0.22)	(0.12)
N	333.00	333.00
AIC	254.98	169.49
BIC	319.72	234.23

Notes: * p<0.10, ** p<0.05, *** p<0.01; Standard errors in parentheses.

Table 3: **Comparison of Political Institutional Transition Types I**

Rank	Transition Type	Coefficient	Std. Error
1	Democratic stability	2.08	1.19
2	Anocratic to authoritarian	2.48	1.21
3	Anocratic to democratic	2.62	1.52
4	Authoritarian stability	2.67	1.24
5	Democratic to authoritarian	2.78	1.42
6	Anocratic stability	2.80	1.31
7	Democratic to anocratic	3.26	1.25
8	Authoritarian to democratic	3.83	1.58
9	Authoritarian to anocratic	4.57	1.37

Source: Table 2.

Table 4: **Comparison of Political Institutional Transition Types II**

Question	**Answer**	**p-value**
General		
Do political institutional transition types matter?	Yes	$p = 0.004$
Is regime stability good for economic recovery?	Yes	$p = 0.033$
Democracy		
Does postconflict democracy make a difference?	Yes	$p = 0.091$
Does the effect of postconflict democracy depend on the preconflict regime type?	Yes	$p = 0.088$
Do postconflict democracies perform better when preceded by preconflict democracies than preconflict autocracies?	Yes	$p = 0.029$
Do postconflict democracies perform better when preceded by preconflict democracies than preconflict anocracies?	No	$p = 0.486$
Do postconflict democracies perform better when preceded by autocracies than anocracies?	No	$p = 0.220$
Autocracy		
Does postconflict autocracy make a difference?	No	$p = 0.190$
Does the effect of postconflict autocracy depend on the preconflict regime type?	No	$p = 0.894$
Mixed regimes		
Do postconflict mixed regimes make a difference?	Yes	$p = 0.001$
Does the effect of postconflict anocratic governance depend on the preconflict regime type?	Yes	$p = 0.023$)
Do postconflict anocracies perform better when preceded by anocracies rather than autocracies?	Yes	$p = 0.007$
Do postconflict anocracies perform better when preceded by democracies rather than autocracies?	No	$p = 0.440$

Source: Table 2.

Table 5: **Does the Timing of International Aid Matter?**

	Recovery	**Recurrence**
Postwar Polity score observation	0.07***	-0.01
	(0.03)	(0.03)
Prewar Polity score observation	0.01	0.06
	(0.03)	(0.04)
Interaction of postconflict and preconflict Polity scores	-0.00**	-0.00
	(0.00)	(0.00)
Pre-conflict GDP per capita (High)	-0.11	0.06
	(0.09)	(0.10)
Aid: 1 to 3 Years	-0.19**	-0.04
	(0.08)	(0.09)
Aid: 4 to 6 Years	0.01	0.08
	(0.09)	(0.10)
Aid: 7 Years+	0.28**	0.24*
	(0.12)	(0.13)
Secessionist Conflict	0.11	-0.32
	(0.20)	(0.23)
Conflict Duration	-0.02	0.02*
	(0.01)	(0.01)
Termination: Victory	0.21	0.95***
	(0.18)	(0.22)
Termination: Peace Agreement	0.52**	0.51*
	(0.25)	(0.29)
Recovery Number	0.12	0.14
	(0.14)	(0.09)
Constant	2.05**	0.14
	(0.93)	(0.98)
N	334	334
AIC	234.69	158.01
BIC	288.04	211.37

Notes: * p<0.10, ** p<0.05, *** p<0.01; Standard errors in parentheses.

Table 6: **Comparison of Outright Military Victory and Peace Settlements**

Equation	**Coefficient on outright military victory**	**Coefficient on peace agreements**	**Statistically different?**
Recovery			
Table 3, Column 1	0.34	0.78	p = .22
Table 4, Column 1	0.15	0.81	p = .11
Recurrence			
Table 3, Column 2	1.43	0.73	p = .11
Table 4, Column 2	1.35	0.63	p = .11

Appendix

Table 7: **Summary statistics**

Variable	Mean	Std. Dev.	Min.	Max.	N
Postwar Polity score observation	9.880	5.861	1	21	357
Prewar Polity score observation	8.983	5.889	1	21	360
Pre-conflict GDP per capita (High)	6.804	1.091	4.739	9.569	430
Official Development Assistance (Log)	5.219	1.167	0.77	7.895	422
Secessionist Conflict	0.151	0.359	0	1	430
Conflict Duration	3.46	5.366	1	31	430
Termination: Victory	0.624	0.485	0	1	423
Termination: Peace Agreement	0.199	0.399	0	1	423
Recovery Number	1.551	0.853	1	5	430

Table 8: **List of Cases**

		Previous Year[a]		**5-Year High**[b]	
Country	Conflict Episode	Recovery Period	Outcome	Recovery Period	Outcome
Afghanistan	1978-01	2002-	Censored		
Angola	1960-2002	na	-	na	-
Argentina	1963	1964	Recovered	1965-65	Recovered
	1973-77	1978-79	Recovered		
Azerbaijan	1992-95	1996-	Censored		
Burundi	1965	1966	Recovered		
	1991-92	1993	Relapsed		
	1994-02	na	-	na	-
Burkina Faso	1987	1988	Recovered		
Bangladesh	1974-1992	1993	Recovered		
Bosnia-Herzegovina	1992-95	1996	Recovered		
Bolivia	1967	1968-75	Recovered		
Cent. African Rep.	2001-	na	-	na	-
Chile	1973	1974-79	Recovered	1974-80	Recovered
Cote d'Ivoire	2002-	na	-	na	-
Cameroon	1984	1985	Recovered		
Congo, Rep.	1993-94	1995-96	Relapsed		
	1997-99	2000-01	Relapsed		
	2002-	na	-	na	-
Colombia	1965-	na	-	na	-
Comoros	1989	1990-96	Relapsed		
	1997	1998	Recovered	1998-	Censored
Cuba	1961	-	-	-	-
Djibouti	1991-94	1995-98	Relapsed		
	1999	2000-	Censored		
Dominican Rep.	1965	1966-70	Recovered		
Algeria	1991-	-	-	-	-
Egypt	1993-98	1999	Recovered		
Eritrea	1997	1998	Recovered		
	1999	2000-02	Relapsed		
	2003-	-	-	-	-
Ethiopia	1960	1961	Relapsed		
	1962-1992	1993-95	Relapsed		
	1996-	-	-	-	-
Gabon	1964	1965	Recovered		
Georgia	1991-93	1994-	Censored		
Ghana	1966	1967-70	Recovered		
	1981	1982	Relapsed		
	1983	1984-87	Recovered	1984-02	Recovered
Guinea	1970	-	-	-	-
	2000-01	2002	Recovered		

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		Previous Year[a]		5-Year High[b]	
Country	Conflict Episode	Recovery Period	Outcome	Recovery Period	Outcome
Gambia	1981	1982-83	Recovered		
Guinea-Bissau	1998-99	2000-	Censored		
Equatorial Guinea	1979	-	-	-	-
Guatemala	1965-95	1996	Recovered		
Croatia	1992-93	1994-95	Relapsed		
	1996	1997	Recovered		
Haiti	1989	1990	Relapsed		
	1991	1992-	Censored		
Indonesia	1960-61	1962	Recovered	-	-
	1965	1966-68	Recovered		
	1975-92	1993	Recovered		
	1997-	na	0	na	-
India	1961-72	1973	Recovered		
	1978-	na	-	na	-
Iran	1966-68	-	-	-	-
	1979-88	1989	Relapsed		
	1990-93	1994	Recovered	1994-95	Relapsed
	1996-97	1998	Recovered	1998	Relapsed
	1999-01	2002	Recovered	2002	Censored
Iraq	1961-70	-	-	-	-
	1973-96	-	-	-	-
Israel	1960-	na	-	na	-
Kenya	1982	1983-87	Recovered		
Cambodia	1967-75	-	-	-	-
	1978-98	1999	Recovered		
Laos PDR	1960-61	-	-	-	-
	1963-73	-	-	-	-
	1989-90	1991	Recovered		
Lebanon	1975-90	1991-93	Recovered		
Liberia	1980	1981-88	Relapsed		
	1989-95	1996-99	Relapsed		
	2000-	na	-	na	-
Sri Lanka	1971	1972-73	Recovered		
	1983-01	2002	Recovered		
Lesotho	1998	1999-	Censored		
Morocco	1971	1972	Recovered		
	1975-89	1990	Recovered		
Moldova	1992	1993-	Censored		
Madagascar	1971	1972-	Censored		
Mexico	1994	1995	Relapsed		
	1996	1997	Recovered		
Macedonia	2001	2002-	Censored		
Mali	1990	1991-93	Relapsed		
	1994	1995	Recovered	1995-98	Recovered

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		Previous Year[a]		5-Year High[b]	
Country	Conflict Episode	Recovery Period	Outcome	Recovery Period	Outcome
Myanmar	1960-	na	-	na	-
Mozambique	1976-92		Recovered		
Malaysia	1960	1961	Recovered	-	-
	1963-66	1967	Recovered		
	1974-75	1976	Recovered		
	1981	1982	Recovered		
Niger	1992	1993	Relapsed		
	1994	1995	Relapsed	1995	
	1996-97	1998	Recovered	1998-	Censored
Nigeria	1966-70	1971	Recovered		
Nicaragua	1978-79	1980	Relapsed		
	1981-1989	1990-	Censored		
Nepal	1960-62	1963	Recovered	-	-
	1996-	na	-	na	-
Oman	1972-75	1976	Recovered		
Pakistan	1971	1972-73	Relapsed		
	1974-77	1978	Recovered		
	1990	1991	Recovered		
	1995-96	1997	Recovered		
Panama	1989	1990	Recovered	1990-93	Recovered
Peru	1965-66	1967	Recovered		
	1980-99	2000-	Censored		
Philippines	1970-	na	-	na	-
Papua New Guinea	1989-90	1991	Relapsed		
	1992-1996	1997	Recovered		
Paraguay	1989	1990	Recovered	1991-	Censored
Romania	1989	1990-	Censored		
Russia	1990-91	1992	Relapsed		
	1993-96	1997-98	Relapsed		
	1999-	na	-	na	-
Rwanda	1990-94	1995-96	Relapsed		
	1997-	na	-	na	-
Saudi Arabia	1979	1980	Recovered	1980-	Censored
Sudan	1963-72	1973-75	Relapsed		
	1976	1977	Recovered		
	1983-	na	-	na	-
Senegal	1990	1991	Relapsed		
	1992-93	1994	Relapsed		
	1995	1996	Recovered	1996	Relapsed
	1997-01	2002	Recovered		
Sierra Leone	1991-2000	2001-	Censored		
El Salvador	1972	1973	Recovered		
	1979-91	1992-	Censored		
Somalia	1978	-	-	-	-

Continued on next page

		Previous Year[a]		5-Year High[b]	
Country	Conflict Episode	Recovery Period	Outcome	Recovery Period	Outcome
	1981-96	-	-	-	-
	2001-02	-	-	-	-
Suriname	1986-88	1989-91	Recovered	1989-	Censored
Syria	1966	1967-69	Recovered		
	1979-82	1983	Recovered		
Chad	1965-94	1995-96	Relapsed		
	1997-	na	-	na	-
Togo	1986	1987-90	Relapsed		
	1991	1992-	Censored		
Thailand	1974-82	1983	Recovered		
Tajikistan	1992-96	1997	Relapsed		
	1998	1999	Recovered	1999-	Censored
Trinidad & Tobago	1990	1991	Recovered	1991-00	Recovered
Tunisia	1980	1981	Recovered		
Turkey	1984-	na	-	na	-
Uganda	1971-72	-	-	-	-
	1977-79	-	-	-	-
	1981-91	1992	Recovered		
	1994-	na	-	na	-
Uruguay	1972	1973-74	Recovered		
Uzbekistan	2000	2001	Recovered		
Venezuela	1962	1963	Recovered		
	1992	1993	Recovered		
Yemen	1962-70	-	-	-	-
	1980-82	-	-	-	-
	1994	1995	Recovered		
Serbia & Montenegro	1991	-	-	-	-
	1998-99	2000-02	Recovered		
South Africa	1966-88	1989	Recovered		
Zaire	1960-62	1963	Recovered	-	-
	1964-65	1966	Relapsed		
	1967	1968-69	Recovered	1968-73	Recovered
	1977-78	1979-95	Relapsed		
	1996-91	1992-	Censored		
Zimbabwe	1972-79	1980-81	Recovered		

[a]: Using GDP per capita in year prior to onset of conflict as threshold for recovery.
[b]: Using highest level of GDP per capita in 5 years prior to onset of conflict as threshold for recovery.