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Civil Conflict: Ended or Never Ending?

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Abstract

In many historical cases victory by a challenger for political dominance over an initially dominant group has ended civil conflict. But, in other places victory by a challenger has provided only a temporary respite, a brief intermission before the resumption of civil conflict. This paper uses a theoretical model of civil conflict to identify the factors that determine whether civil conflict is ended or never ending. This theory focuses on how the values that rival groups attach to political dominance relate to each other and to the technology of conflict. These relations determine whether there is civil conflict and, if there is civil conflict, whether civil conflict ends whenever the initial challenger group becomes politically dominant or whether civil conflict is never ending. For example, we find that for civil conflict to be never ending the ratio of values attached to political dominance can be neither too large nor too small. The implications of the theory seem to be consistent with the evolution of twentieth-century civil conflicts in the such diverse places as Russia, China, Iran, South Africa, the Balkans, Israel/Palestine, and many parts of central Africa.

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In many historical cases victory by a challenger for political dominance over an initially dominant group has ended civil conflict. Twentieth century examples include the Bolshevik victory over the White Russians in the Russian civil war, the Communist victory over the Nationalists in China, the overthrow of the Shah and the establishment of the Iranian Islamic republic, and, so it seems, the victory of the African National Congress over the white regime in South Africa. But, in other places victory by a challenger has provided only a temporary respite, a brief intermission before the resumption of civil conflict. Current examples of apparently never-ending civil conflict include the Balkans, Israel/Palestine, and many parts of Africa, such as Angola, the Congo, and Rwanda.

We use the term "civil conflict" to denote an armed confrontation between groups who are contesting political dominance. This paper develops a theoretical model of civil conflict. The theory focuses on how the values that rival groups attach to political dominance relate to each other and to the technology of conflict. We find that these relations determine whether there is civil conflict and, if there is civil conflict, whether civil conflict ends whenever the initial challenger group becomes politically dominant or whether civil conflict is never ending.

THE QUESTIONS

Consider the following model of actual or potential civil conflict. There are two groups, denoted A and B, either one of which can be politically dominant. These groups can be large ethnic rivals who exhaust the relevant population, like the Hutus and Tutsis, who have been involved for a long time in conflict for political dominance in Rwanda. Alternatively, these groups can be small rival elites, like the White Russians and the Bolsheviks, who employed mercenary armies to contest political dominance in the Russian Civil War. In either context we abstract from problems of collective choice and treat each group as a unitary agent.[1]

[1]There is an extensive literature about how rival groups in civil conflicts coalesce and about how they make and enforce collective choices. See Lake and Rothchild (1998) for an overview of research on the

Initially Group A is politically dominant. This initial political dominance of Group A can have various historical causes. For example, Group A can simply have been there first, like the Serbs who lived in Kosovo before the immigration of Albanians. As another example, Group A can have been victorious in an earlier civil conflict, which took place under different conditions, like the victory in 1838 of the Voortrekkers over the Zulus at Blood River, which led to a century and a half of Afrikaaner political dominance in South Africa. As still another example, a colonial power can have made Group A dominant, as in the case of Belgian colonial administration setting the Tutsis over the Hutus.

Our analysis asks the following questions: First, does Group B acquiesce in the initial political dominance of Group A, or does Group B challenge the political dominance of Group A ? In other words, does the political dominance of Group A preclude civil conflict, or does the political dominance of Group A result in civil conflict?

Second, if Group B were to challenge successfully the political dominance of Group A and to become politically dominant itself, then would Group A acquiesce in the political dominance of Group B, or would Group A attempt to regain its political dominance by challenging the political dominance of Group B? Acquiescence by Group A would mean that a successful challenge by Group B would end civil conflict, whereas, if neither group will acquiesce in the political dominance of the other group, then civil conflict is never ending.

THE VALUE OF POLITICAL DOMINANCE

Let X_A be the value that Group A attaches to being politically dominant next period, given that the alternative is that Group B is politically dominant next period. Similarly, let X_B be the value that Group B attaches to being politically dominant next period, given that the alternative is that Group A is politically dominant next period.

formation of ethnic groups and their participation in civil conflict. On the role of leadership in organizing collective action in civil conflicts, see, for example, Grossman (1999), Popkin (1988), Roemer (1985, 1988), and Tullock (1974).

The proximate benefits from political dominance can be either economic or noneconomic or both. For example, political dominance can enable a group to appropriate economic rents, with resulting higher income or wealth. Or, political dominance can enable a group to dictate social or religious policy and/or to avoid having the other group dictate social or religious policy. Control over social or religious policy can have intrinsic value, or it can be valuable because it allows the politically dominant group to obtain ultimate economic benefits.

Importantly, we do not assume that the value that Group A attaches to being politically dominant necessarily equals the value that Group B attaches to being politically dominant. Possible reasons for one group to attach a larger value to political dominance than the other group include the following:

• One group can have a better alternative than the other group in the case that it is not politically dominant. For example, white South Africans have more human capital, which they can employ at competitive wages either in South Africa or as emigrants, than black South Africans.

• One group can value the ability to dictate social or religious policy more highly than the other group. For example, enforcing religious orthodoxy apparently was more important to Khomeini and his followers than it was to the westernized regime of the Shah.

• Appropriable economic rents can be larger if one group is politically dominant than if the other group is politically dominant. For example, the victory of the African National Congress over the white regime in South Africa resulted in the lifting of the economic sanctions that were harming the economy of South Africa.[2]

In order to focus on the implications of differences in the values that the groups attach to political dominance, we make two simplifying assumptions. First, whatever the nature of the benefits from political dominance, we take both X_A and X_B as given. Our analysis implicitly assumes that X_A and X_B already incorporate the possibility that one group

[2]See Gershenson (1999) for an analysis of the effect of sanctions in civil conflicts.

might be willing and able to decrease the value of political dominance to the other group, for example, by guaranteeing the other group a share of appropriable economic rents, or by guaranteeing the other group some degree of religious freedom, whether or not the other group is politically dominant.[3]

Second, we assume that in assessing X_A and X_B the groups consider only the immediate benefits from political dominance. We disregard the continuation values associated with being or not being politically dominant. This simplifying assumption reduces the evolution of civil conflict to a analytically tractable sequence of myopic interactions.

THE CONTEST FOR POLITICAL DOMINANCE

Let P_A denote the probability that Group A remains politically dominant in the next period, with $1 - P_A$ being the probability that Group B becomes politically dominant in the next period. Using a canonical "contest-success function", we assume that

$$P_A = \frac{H_A}{H_A + \theta G_B}. \tag{1}$$

In equation (1) H_A is the nonnegative amount that Group A spends on defending its political dominance, and G_B is the nonnegative amount that Group B spends on challenging the political dominance of Group A. If Group B acquiesces in the political dominance of Group A, then G_B equals zero.

The nonnegative parameter θ measures the effectiveness of spending by the group that is not politically dominant on challenging the political dominance of the politically dominant group relative to the effectiveness of spending by the politically dominant group on defending its political dominance. Note that θ is associated with the status of the group that is not politically dominant rather than with the identity of the group. This specification implies

[3]For analyses of how elites defuse threats to their privileged status by redistributing income or property to less privileged groups, see, for example, Falkinger (1999), Gershenson and Grossman (1999), and Grossman (1994, 1995). Acemoglu and Robinson (1996) and Fearon (1998) emphasize the commitment problems that politically dominant groups face.

that both groups have access to the same technologies for challenging political dominance and for defending political dominance.

Equation (1) relates the probabilistic outcome of a civil conflict to the amounts that the two groups spend on the contest for political dominance.[4] Specifically, equation (1) says that P_A is increasing in H_A and decreasing in G_B. More precisely, equation (1) implies that

$$\frac{\partial P_A}{\partial H_A} = \frac{\theta G_B}{(H_A + \theta G_B)^2} \quad \text{and} \quad \frac{\partial P_A}{\partial G_B} = -\frac{\theta H_A}{(H_A + \theta G_B)^2}.$$

Equation (1), however, is a generic black box. It does not restrict the form of the armed confrontation between the groups who are contesting political dominance. For example, armed confrontations sometimes result in the violent application of force, but sometimes the outcome is a peaceful settlement under the threat of force. Equation (1) is applicable in either case.[5]

We assume that each group maximizes the expected value to it of engaging in the contest for political dominance. For Group A this maximand is the product of its probability of remaining politically dominant and the value it attaches to being politically dominant next period minus the amount it spends on defending its political dominance. Thus, with Group A being initially politically dominant, Group A chooses H_A to maximize U_A, where

$$U_A = P_A X_A - H_A. \tag{2}$$

For Group B the maximand is the product of its probability of becoming politically dominant and the value it attaches to being politically dominant next period minus the amount it

[4]For our purposes it is not necessary to model the random events that, in conjunction with the amounts that the two groups spend on the contest for political dominance, determine the actual outcomes of civil conflicts.

[5]If we thought that rivalries for political dominance either have been resolved or could be resolved through elections, rather than through armed confrontation, then in principle we could apply equation (1) to determine the probabilistic outcome of such elections.

spends on challenging the political dominance of Group A. Thus, with Group A being initially politically dominant, Group B chooses G_B to maximize V_B, where[6]

$$V_B = (1 - P_A)X_B - G_B. \tag{3}$$

To allow for the possibility that by spending enough on defending its political dominance the politically dominant group can deter a challenge to its political dominance we assume that the politically dominant group is a Stackelberg leader in the contest for political dominance. Accordingly, with Group A being initially politically dominant, in choosing H_A Group A takes into account both the direct effect of H_A on U_A and the indirect effect of H_A on U_A through the effect of H_A on the choice by Group B of G_B. In contrast in choosing G_B Group B takes the choice by Group A of H_A as given.[7]

THE POTENTIAL CHALLENGER

To determine whether the initial political dominance of Group A results in acquiescence or conflict we begin by solving the choice problem of Group B. Assuming that H_A is positive, which will be the case as long as X_A is positive, equations (1) and (3) imply either that V_B has an interior maximum at a positive value of G_B that satisfies

$$\frac{dV_B}{dG_B} = 0 \quad \text{with} \quad G_B > 0, \tag{4.1}$$

or that V_B is maximized with

$$\frac{dV_B}{dG_B} \leq 0 \quad \text{and} \quad G_B = 0, \tag{4.2}$$

[6]This analysis implicitly assumes that the initial resources available to Group A and to Group B are sufficient to finance the implied amounts of spending, H_A and G_B.

[7]If the politically dominant group were not a Stackelberg leader, then it would take as given the amount of spending by the other group on challenging its dominance. With the probability that the politically dominant group remains politically dominant given by equation (1) the resulting Nash-Cournot equilibrium would involve never-ending conflict in all cases.

where

$$\frac{dV_B}{dG_B} = -\frac{\partial P_A}{\partial G_B}\, X_B - 1.$$

Conditions (4.1) and (4.2) say that, if Group B chooses a positive value for G_B, then G_B is such that the marginal benefit of G_B in increasing the probability that Group B will become politically dominant equals the marginal cost of G_B. Alternatively, if Group B chooses G_B equal to zero, then at G_B equal to zero the marginal cost of G_B equals or exceeds the marginal benefit.

Substituting for $\partial P_A/\partial G_B$, as calculated from equation (1), conditions (4.1) and (4.2) imply that

$$G_B = \begin{cases} \sqrt{\dfrac{H_A X_B}{\theta}} - \dfrac{H_A}{\theta} > 0 & \text{for } 0 < H_A < H_A^* \\ \\ 0 & \text{for } H_A \geq H_A^*, \end{cases} \tag{5}$$

where

$$H_A^* = \theta X_B.$$

Equation (5) says that, if H_A is smaller than H_A^*, then condition (4.1) obtains. In this case, G_B is positive, and equation (5) implies that

$$\frac{dG_B}{dH_A} = \frac{1}{2}\sqrt{\frac{X_B}{\theta H_A}} - \frac{1}{\theta}.$$

Alternatively, if H_A is as large as H_A^*, then condition (4.2) obtains. In this case, G_B equals zero.

The amount H_A^* is the minimum amount that Group A must spend on defending its political dominance in order to deter a potential challenge from Group B. In other words, if Group A spends at least H_A^* on defending its political dominance, then Group B acquiesces in the political dominance of Group A. The amount H_A^* equals the product of the effectiveness of spending by Group B on challenging the political dominance of Group A and the value Group B attaches to being politically dominant.

ACQUIESCENCE OR CONFLICT?

We consider next the choice problem of Group A. We are interested especially in the conditions under which Group A chooses H_A as large as H_A^*.

With G_B equal to zero equation (1) implies that P_A equals unity, and equation (2) implies that U_A is a decreasing linear function of H_A. Moreover, given equation (5) for G_B, and given that X_A is positive, equation (3) implies that, in the limit as H_A approaches zero, the derivative of U_A with respect to H_A becomes infinite. Accordingly, equations (1) and (2) imply either that U_A has an interior maximum at a value of H_A that satisfies

$$\frac{dU_A}{dH_A} = 0 \quad \text{with} \quad 0 < H_A < H_A^* \tag{6.1}$$

or that U_A is maximized at $H_A = H_A^*$ with

$$\frac{dU_A}{dH_A} > 0 \quad \text{for all} \quad H_A < H_A^*, \tag{6.2}$$

where

$$\frac{dU_A}{dH_A} = \left(\frac{\partial P_A}{\partial H_A} + \frac{\partial P_A}{\partial G_B}\frac{dG_B}{dH_A}\right) X_A - 1.$$

Equations (6.1) and (6.2) say that, if Group A chooses H_A less than H_A^*, then H_A is such that the marginal benefit of H_A in increasing the probability that Group A will remain politically dominant, where the marginal benefit of H_A includes both a direct effect of H_A on P_A and an indirect effect of H_A on P_A via the effect of H_A on G_B, equals the marginal cost of H_A. Alternatively, if Group A chooses H_A equal to H_A^*, then for all values of H_A less than H_A^* the marginal benefit of H_A exceeds the marginal cost.

Substituting for $\partial P_A/\partial H_A$, $\partial P_A/\partial G_B$, and dG_B/dH_A, as calculated from equations (1) and (5), conditions (6.1) and (6.2) imply that

$$H_A = \begin{cases} H_A^o < H_A^* & \text{for} \quad \dfrac{X_A}{X_B} < 2\theta \\ \\ H_A^* & \text{for} \quad \dfrac{X_A}{X_B} \geq 2\theta, \end{cases} \tag{7}$$

where

$$H_A^o = \frac{1}{4\theta} \frac{(X_A)^2}{X_B}.$$

Equation (7) says that, if X_A/X_B is smaller than 2θ, then condition (6.1) obtains. Figure 1 illustrates this case. In Figure 1, U_A has an interior maximum at H_A equal to H_A^o where H_A^o is smaller than H_A^*. Accordingly, Group A chooses to spend only the amount H_A^o, which is less than H_A^*, on defending its political dominance. With H_A smaller than H_A^*, equation (5) implies that Group B spends a positive amount on challenging the political dominance of Group A. Thus, if X_A/X_B is smaller than 2θ, then the initial political dominance of Group A results in civil conflict.

Alternatively, equation (7) says that, if X_A/X_B is as large as or larger than 2θ, then condition (6.2) obtains. Figure 2 illustrates this case. In Figure 2, U_A is an increasing function of H_A for all values of H_A smaller than H_A^*. Accordingly, Group A chooses to spend H_A^* on defending its political dominance. According to equation (5) this amount is sufficient to deter a potential challenge from Group B. Thus, if X_A/X_B is as large as or larger than 2θ, then Group B acquiesces in the political dominance of Group A.[8]

In sum, equation (7) has the following important implication:

> *If and only if the ratio of X_A to X_B is smaller than twice θ, then Group A does* **not** *spend enough on defending its political dominance to deter a challenge from Group B.*

[8]This analysis has focused on the amounts spent on the contest for political dominance, but has abstracted from the possibility that civil conflict is destructive. We could easily generalize the analysis to allow for destruction by assuming that, if Group B acquiesces in the initial political dominance of Group A, then the value to Group A from remaining politically dominant is X_A, whereas, if Group B challenges the political dominance of Group A, then the value to Group A from remaining politically dominant is only $(1-\beta)X_A$, where $0 < \beta < 1$. This extended model would imply that, if with β equal to zero Group B would challenge the initial political dominance of Group A, a sufficiently large value of β would cause Group A to deter Group B.

Recall that θ measures the effectiveness of spending by the group that is not politically dominant on challenging the political dominance of the politically dominant group relative to the effectiveness of spending by the politically dominant group on defending its political dominance.

Substituting equations (5) and (7) into equation (1), we find that the equilibrium value of P_A, the probability that Group A remains politically dominant in the next period, is given by

$$P_A = min\{1,\ \frac{1}{2\theta}\ \frac{X_A}{X_B}\} \tag{8}$$

Equation (8) says that with civil conflict P_A is smaller the smaller is the ratio of the value Group A attaches to being politically dominant to the value Group B attaches to being politically dominant and the larger is the relative effectiveness of spending by the group that wants to become politically dominant.

IS CONFLICT NEVER ENDING?

If the political dominance of Group A results in civil conflict, then, in the absence of an appropriate exogenous disturbance, such as an increase in the value Group A attaches to being politically dominant, or a decrease in the value Group B attaches to being politically dominant, or a decrease in the relative effectiveness of spending by the group that wants to become politically dominant, civil conflict will persist as long as Group A remains politically dominant. Suppose that the challenge of Group B to the political dominance of Group A, which has a positive probability of success in each period, eventually is successful. When Group B becomes politically dominant, how does Group A respond?

The analysis of the implications of Group B becoming politically dominant is analogous to the analysis of the implications of Group A being politically dominant. Specifically, the probability, P_B, that Group B remains politically dominant in the next period is

$$P_B = \frac{H_B}{H_B + \theta G_A}. \tag{9}$$

Recall that the parameter θ is associated with the status of the group that is not politically dominant and not with the identity of the group. Furthermore, Group B is now the Stackelberg leader, and it chooses H_B to maximize U_B, where

$$U_B = P_B X_B - H_B. \tag{10}$$

Group A now chooses G_A to maximize V_A, where[9]

$$V_A = (1 - P_B) X_A - G_A. \tag{11}$$

Performing calculations analogous to the derivation of equation (7), we obtain the analogous implication that, if and only if the ratio of X_B to X_A is smaller than twice θ, then the newly dominant Group B does **not** spend enough on defending its political dominance to deter a challenge from Group A. Accordingly, our analysis has the following implications for the evolution of civil conflict:

$$(I) \qquad If \quad \frac{X_A}{X_B} \geq 2\theta,$$

then the initial political dominance of Group A does not result in civil conflict. As long as condition (I) obtains, Group B acquiesces in the political dominance of Group A.

$$(II) \qquad If \quad \frac{X_A}{X_B} < 2\theta \leq \frac{X_B}{X_A},$$

then the initial political dominance of Group A results in civil conflict. As long as both the first part of condition (II) obtains and Group A remains politically dominant, civil conflict persists. But, if and when Group B succeeds in its challenge to the political dominance of Group A, civil conflict ends. As long as the

[9]This analysis implicitly assumes that the resources now available to Group B and to Group A are sufficient to finance the implied amounts of spending, H_B and G_A.

second part of condition (II) *obtains, Group* A *acquiesces in the political dominance of Group* B.

$$(III) \qquad If \quad \frac{X_A}{X_B} < 2\theta \quad \text{and} \quad \frac{X_B}{X_A} < 2\theta,$$

then civil conflict is never ending. As long as both the first part of condition (III) *obtains and Group* A *remains politically dominant, Group* B *challenges the political dominance of Group* A. *As long as the second part of condition* (III) *obtains, whenever Group* B *becomes politically dominant, Group* A *challenges the political dominance of Group* B. *As long as both parts of condition* (III) *obtain, neither group acquiesces in the political dominance of the other group. In this case civil conflict results in stochastic alternation of political dominance between the two groups.*

Figure 3 illustrates these implications. First, we see from Figure 3 that, either if X_A is sufficiently large relative to X_B or if the technological parameter θ is sufficiently small, then condition (I) obtains. In this case Group B acquiesces in the initial political dominance of Group A. There is no civil conflict. Figure 3 also shows that the larger is θ the larger X_A has to be relative to X_B to cause Group B to acquiesce in the initial political dominance of Group A.

Second, we see from Figure 3 that, if X_A is sufficiently small relative to X_B, then condition (II) obtains. In this case, although Group B does not acquiesce in the initial political dominance of Group A, Group A would acquiesce in the political dominance of Group B. The initial political dominance of Group A results in civil conflict, but civil conflict ends whenever Group B becomes politically dominant. Figure 3 also shows that the larger in absolute value is the difference between $1/2$ and θ the smaller X_A has to be relative to X_B to cause Group A to acquiesce whenever Group B becomes politically dominant.

Third, we see from Figure 3 that, if θ is larger than $1/2$ and if X_A is neither too large nor too small relative to X_B, then condition (III) obtains. In this case neither group would acquiesce in the political dominance of the other group. The initial political dominance of Group A results in civil conflict, but civil conflict does not end whenever Group B becomes politically dominant. Civil conflict is never ending. Figure 3 also shows that the larger is θ the larger the range of values of X_A relative to X_B for which civil conflict is never ending.

EXAMPLES OF CONFLICTS ENDED

We can use this analysis to explicate the evolution of actual civil conflicts. The following discussion is meant only to be suggestive of the explanatory power of the theory. For the purpose of this discussion we assume that in every case θ was greater than $1/2$. In other words, we assume that in none of these cases did the technologies for challenging political dominance and for defending political dominance preclude never-ending conflict.[10]

As examples of major twentieth-century civil conflicts that ended with victory by a challenger over an initially politically dominant group we have mentioned the Russian civil war, the Chinese civil war, the Iranian revolution, and the victory of the African National Congress over the white regime in South Africa. Our theory implies that in each of these conflicts that ended the value that the initially dominant group attached to being politically dominant was smaller than the value that the challenger group attached to being politically dominant.

A cursory historical review suggests that the facts are consistent with this implication. In all of these examples emigration provided a good alternative to political dominance for the initially dominant group. Russian Whites emigrated to western Europe. Similarly the Shah of Iran and most of his ruling elite escaped to Europe and America. In both of these cases most of the emigres brought with them enough capital, including human capital, to live

[10]We have no way of directly observing θ and no reason to presume that θ is not approximately the same in all countries. Hence, we shy away from attributing cross-country differences to differences in θ.

well in their new homes. In South Africa, although the transition to the majority rule has not been associated with a mass exodus of whites, many well-educated whites have left, and those who have stayed have been able to employ their relatively abundant human capital at competitive wages, with emigration as a viable alternative. In a somewhat different scenario the Chinese Nationalists fled to Taiwan, where they reestablished themselves as a politically dominant group.

In addition, in all of these examples the challenger group exhibited crusading zeal to dictate social or religious policy, a zeal that the initially dominant group did not match. Many Bolsheviks as well as Chinese communists, whether or not they were guilty of self-deception, viewed themselves as builders of the new and just society. Many of Khomeini's supporters viewed their cause as a divine mission to create a theocratic state. For the African National Congress the value of political dominance involved not only economic goals, but abhorrence of the odious apartheid system. Finally, although the quantitative effects of international sanctions are hard to measure, it is likely that in South Africa the sanctions imposed on the white regime were harming the economy and, thereby, were decreasing appropriable rents under the white regime.

EXAMPLES OF NEVER-ENDING CONFLICTS

As current examples of civil conflicts that apparently are never-ending we have mentioned the Balkans, Israel/Palestine, and many parts of Africa, such as Angola, the Congo, and Rwanda. Our theory implies that in these never-ending conflicts the rival groups attach similar values to political dominance. Casual observation suggests that this theoretical implication is consistent with the facts. In these examples none of the reasons that we have suggested for why whichever group is politically dominant would attach a smaller value to political dominance than does the other group seems to be present.

Perhaps most importantly, in all of these examples of never-ending conflicts emigration is not a good alternative to political dominance for either of the rival groups. In the Balkans

as well as in Africa the unattractiveness of emigration results mainly from the fact that the rival groups are mostly engaged in agriculture and that they have little capital that is employable outside of agriculture. As Russell Hardin explains,

> Consider the Tutsi-dominated Rwandan rebels, who began their civil war against the Hutu-dominated government about 1990. Three decades ago, most Tutsis and many Hutus hostile to the autocratic Hutu government were expelled from Rwanda and lived in refugee camps just outside Rwanda. Their children are the mainstay of the contemporary rebel force. No matter what happens, they should want to start over, because continuation of the life they have had in the refugee camps is dismal. Indeed, they should perhaps want to start over even if the cost of doing so is waging and winning a bloody civil war in Rwanda. The victorious Hutus of 1959-61 won too much for their own good, and they have since had to pay for it. (Hardin 1997, pages 253-4)

Also, neither of the rival groups in the Israel/Palestine view emigration to be a good alternative. Admittedly, most Israelis have abundant human capital that they could employ at competitive wages anywhere in the world. But, for good historical reasons Israelis view political dominance over the Palestinians to be essential for the viability of a safe Jewish homeland. For most Palestinians emigration offers only a bleak life in refugee camps.

In addition, in all of these examples of never-ending conflicts both of the rival groups seem to attach small importance to the ability to dictate religious or social policy. The never-ending African conflicts clearly result from the economic benefits of political dominance. Also, in the Balkans and in Israel/Palestine, although political leaders have inflamed religious differences in order to rally their followers, even appealing to divine destiny to justify their aim of political dominance, it seems clear from history that these conflicts arose from rivalry over land and other economic resources, rather than from differences over social or religious policy.

Finally, with the possible exception of Israel/Palestine, in none of these examples of never-ending conflicts are appropriable rents likely to be larger when one rival group of the other is politically dominant. In the Congo the Kabila government, which replaced the regime of the notorious kleptocrat Mobutu, seems to be not much different from its predecessor. "Corruption is once more rife among politicians and officials, and ordinary Congolese feel, if anything, poorer than ever." (*The Economist*, "Congo's Bloody-go-round," August 15, 1998, pages 33-34.) Rwanda remains a poor economy based on the subsistence agriculture regardless of which ethnic group is politically dominant. On a more positive note the best chance for ending the conflict in Israel/Palestine seems to be that the conditional economic benefits offered by the global economy, together with the explicit economic incentives offered by the outsiders, mainly the United States, will be large enough to induce the rival groups to agree to share political dominance.

SUMMARY

In many historical cases victory by a challenger for political dominance over an initially dominant group has ended civil conflict. But, in other places victory by a challenger has provided only a temporary respite, a brief intermission before the resumption of civil conflict. This paper has used a theoretical model of civil conflict to identify the factors that determine whether civil conflict is ended or never ending.

This theory focused on how the values that rival groups attach to political dominance relate to each other and to the technology of conflict. The ratio of the value the initially politically dominant group attaches to being politically dominant to the value the potential challenger group attaches to being politically dominant was critical. Specifically, we were concerned with whether this ratio of values attached to political dominance is large or small relative to a parameter that reflects the technologies of civil conflict.

We can briefly summarize the implications of the theory as follows:

- If initially the ratio of values attached to political dominance is relatively large, then there

is no civil conflict.

- If initially the ratio of values attached to political dominance is relatively small, then civil conflict ends whenever the initial challenger group becomes politically dominant.
- If the ratio of values attached to political dominance is neither too large not too small, then civil conflict is never ending.

As we discussed, these implications seem to be consistent with the evolution of twentieth-century civil conflicts in the such diverse places as Russia, China, Iran, South Africa, the Balkans, Israel/Palestine, and many parts of central Africa.

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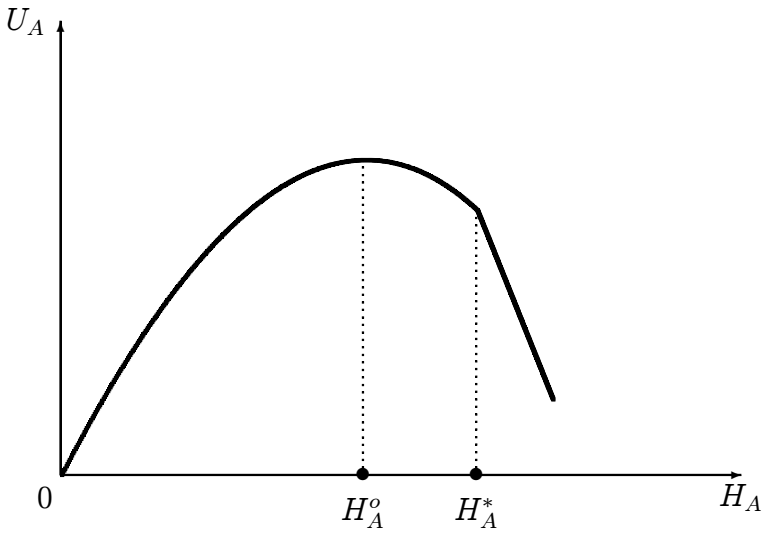

Figure 1: $\dfrac{X_A}{X_B} < 2\theta$ implies conflict.

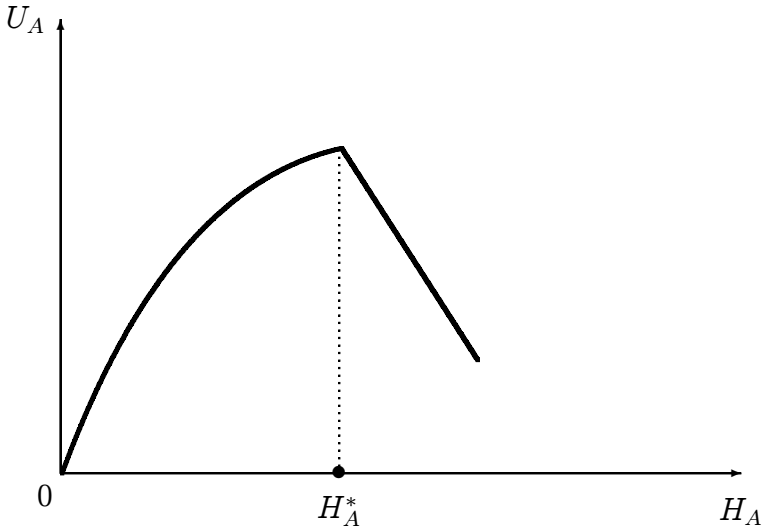

Figure 2: $\dfrac{X_A}{X_B} \geq 2\theta$ implies deterrence.

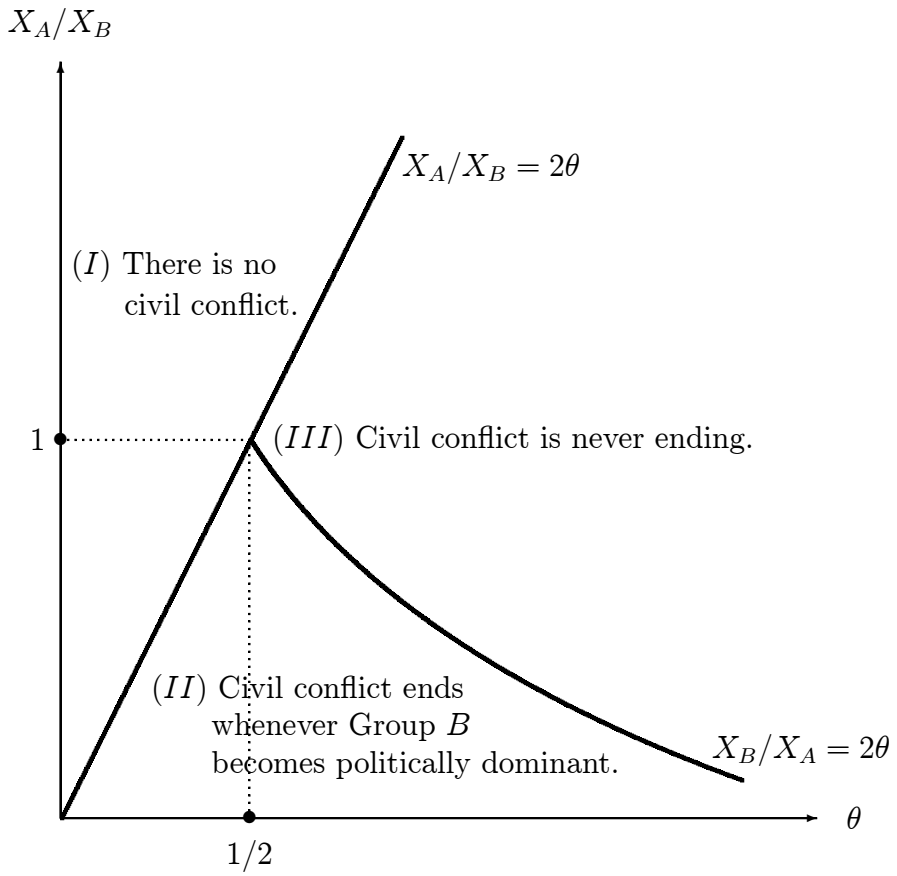

Figure 3: Group A is initially politically dominant.