CHAPTER TWO

Let Them Fight It Out Among Themselves?

CHAPTER 1 SHOWED THAT FOR THE COUNTRIES directly affected, civil war is development in reverse, therefore preventing civil war is important for those concerned about the development of low-income countries. However, the constituency for action to prevent war is potentially much larger than this, because civil war has spillover effects for both neighboring countries and the entire international community. This chapter first considers the neighborhood effects and then turns to the global effects.

Neighborhood Effects of Civil War

PEACEFUL COUNTRIES THAT ARE ADJACENT TO COUNTRIES ENGAGED in civil war suffer from direct and long-term effects caused by the civil wars of their neighbors.

Economic Spillovers

Civil wars are not only costly for the countries in which they are fought, but for the entire region. Neighboring countries must usually accommodate large numbers of refugees, because the victims of war do not usually have the means to travel to countries further away from their home country, and, in any case, arrive on foot. For example, Pakistan's burden of accommodating more than 2 million refugees from Afghanistan is considerable. However, this direct burden is probably
not the most important regional economic spillover. Other effects are on the military budget, the costs of transport, and the reputation of the region in relation to investors.

An important route by which civil war affects neighbors is through regional arms races (see box 2.1). Both in response to the risk of a civil war, and especially once it has started, a government tends to increase its military expenditure sharply, typically by around two percentage points of GDP. Unfortunately, one of the strongest influences on the level of military expenditure a government chooses is the level its neighbors have chosen (Collier and Hoeffler 2002d). This may be partly because of a perceived threat, and partly because of norm setting and the emulation and rivalries of military leaderships. On average, if civil war leads a government with two neighbors to increase its military expenditure by 2.0 percentage points of GDP, by the time the arms race is back to equilibrium, the neighboring countries will each have increased their spending by around 0.7 percentage points.

Both a past history of international war and the military expenditure of neighboring countries are highly significant. Because of these neighborhood effects military spending is, in effect, a regional public bad. Controlling for all these risks, military governments still spend more on the military, presumably because they are more susceptible to the military lobby. A wave of democratization, such as occurred in the early 1990s, is thus a regional public good. Finally, the end of the Cold War gradually, but substantially, yielded a peace dividend, as military spending fell by around 0.7 percentage points.

Box 2.1 Regional arms races

A recent study attempts to model what level of military spending governments choose as a share of GDP. On average, governments spend 3.4 percentage points of GDP on the military, but this average varies widely and predictably. The largest increase is if a country is engaged in international warfare, when spending rises by 2.5 percentage points. Civil war raises spending almost as much, by 1.8 percentage points, that is, the military budget increases by 50 percent. The risk of war also matters. Each 10.0 percentage points on the risk of civil war raises military spending by 0.4 percentage points.

Source: Collier and Hoeffler (2002d).
on regional military expenditure. A simulation of a regionwide increase of 10 percentage points in the risk of civil war predicts that regional military expenditure would end up rising by around 1 percentage point of GDP after arms race effects.

A country’s neighbors’ military spending has an adverse effect on the economic growth rate. For each additional 1.0 percentage point of GDP that neighbors spend on the military, the growth rate is reduced by 0.1 percentage point.¹ Recall that during and after a civil war the government directly affected raises its military spending by around two percentage points and that this is liable to trigger a regional arms race that can persist long after the conflict is over. This alone can produce a small but widespread reduction in growth across an entire neighborhood.

Some studies have attempted to estimate the overall effect of a neighboring conflict on growth. Having a neighbor at war reduces the annual growth rate by around 0.5 percentage points.² Murdoch and Sandler (2002) show that civil war reduces not only the country’s own growth rate, but also growth across an entire region. As most countries have several neighbors, this is a major multiplier effect of the economic cost of conflict. Recalling that the growth cost for the country itself is around 2.2 percent, a country with four neighbors is likely to inflict approximately as much economic damage on its neighbors during conflict as it does on itself.

Neighbors’ growth rates may be reduced for a number of reasons. In addition to the direct burden the refugee population poses and the effect on military spending, trade is also disrupted, and this is a particularly severe problem for landlocked countries. For example, the war in Mozambique doubled Malawi’s international transport costs and triggered an economic decline. Similarly, the war in the Democratic Republic of Congo closed the river route to the sea for the landlocked Central African Republic. A further effect is that the entire region is regarded as riskier, which results in a negative reputation effect with investors.

**Social Spillovers**

The most immediate effect of civil war on neighboring countries is the arrival of thousands of refugees and their consequences for the population of the asylum countries. As refugees stay in asylum countries for
long periods after the civil war ends, the social effects of civil war on asylum countries are also persistent. Among all the long-run, indirect effects of civil war, it causes most deaths in neighboring populations through infectious diseases, especially malaria. Large-scale refugee flows put people into crowded conditions in the asylum countries without access to clean water and food, making the camps a perfect environment for the spread of infectious diseases.

Refugees and Malaria. A global effort to eradicate malaria was undertaken in the 1950s and 1960s. By the end of the 1960s these attempts to control the disease had faded in the face of the internal problems of the countries where the incidence of malaria was the highest. The most relevant internal problem was civil war. Civil war has been a basic reason behind the observed increase in the incidence of malaria. Conflict affects the incidence of malaria both directly, when nonimmune refugees come into contact with infected individuals when they flee through rural and rainforest areas to reach a foreign country, and indirectly, when conflict impairs active control measures (Montalvo and Reynal-Querol 2002).

Figure 2.1 shows the flow and stock of refugees. Refugees stay in camps for a long time after civil wars end. Figure 2.2 shows the relationship between the stock of refugees and ongoing civil wars.

Figure 2.1 The flow and stock of refugees, 1951–2002

![Flow and Stock of Refugees](image-url)

**Source:** UNHCR (2002).
The number of countries reporting cases of malaria varies over time. In particular, China and India have a critical influence on the number of cases. China started to report officially to WHO in 1977. Initially it reported close to 4 million cases, but then a rapid decrease took place. Meanwhile India drove the growth of cases during the 1974–77 epidemic period, when it accounted for close to 20 percent of the total cases of malaria in the world. For this reason we exclude China and India. A further reporting problem is Africa, where reporting is irregular. We use last available data before a missing period and first available figures once reporting has resumed.

Figure 2.3 shows the resulting series for cases of malaria compared with the number of refugees worldwide. The high correlation suggests that the increase in the incidence of malaria has been strongly affected by the rise in war refugees. In the Bonga refugee camp in Ethiopia in the mid-1990s: “Malaria remains clearly the main cause of morbidity accounting for 17 percent of total caseload. . . . The profile argues for an active malaria control campaign in the camps to reduce morbidity” (Guha-Sapir and Forcella 2001, p. 34).

Why might there be such a strong connection between refugees and the incidence of malaria? War leads to the movement of people. In general the anarchic situation caused by this social unrest and the military importance of paved roads force people to walk through unfamiliar rural areas and forests to avoid areas of military operations. If the civil war is
extended, this movement will end up in migration to a contiguous country as war refugees. Population movement caused by political conflicts, rural population migrations, or natural disasters is potentially the most important factor in the transmission of malaria (conditional on the dynamics between the vector, the parasite, and the environment).

While refugees move from cities to the borders, if the country has endemic malaria their probability of becoming infected by the malaria parasite increases as a result of their contact with locally immune rural populations and movement through remote areas where the vector is still predominant. The importance of contact with immune individuals is critical. Repeated infection among individuals of rural endemic areas generates an immune response in the host that controls the infection. This implies that the prevalence of malaria could be extremely high among rural populations despite a small number of reported cases.

If the migrants have contracted malaria they will probably not be diagnosed until they have arrived in the host country. These cases will therefore be counted as cases of malaria in the asylum country. The existence of many migrants infected by the malaria parasite in the asylum country increases malaria transmission to citizens of the asylum country and the contagion effect among the refugees themselves. This will happen if the asylum country has the vector, even though it may not originally be malaria endemic. In general, the concentration of refugees in camps where nonimmune and infected individuals live together in-

Figure 2.3  Refugees and cases of malaria, 1962–97

Interpolated number of cases (millions, not including China or India)

Cases of malaria

Refugees


0 10 20 30 40

0 4 8 12 16

Refugees (millions)

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... increases the risk of transmission conditional on the existence of the *Anopheles* mosquito.

Research using annual data for 135 countries between 1960 and 1999 studies the effects of refugee flows from tropical countries with civil war to neighboring tropical countries (Montalvo and Reynal-Querol 2002). It finds that for each 1,000 refugees the asylum countries see 1,406 new cases of malaria. The size of the refugee population coming from tropical countries with a civil war thus has an important impact on malaria in the asylum countries. Preventing civil wars, especially in tropical countries, is therefore important for controlling malaria.

The effect of war-driven refugees on malaria is qualitatively similar to that of other refugees, an effect that is better known but is quantitatively more important. Refugees fleeing from droughts and famines do not have such a significant effect on the incidence of malaria for two reasons. First, the mechanism whereby refugees escaping from war become infected is because civil wars force people to walk through unfamiliar rural areas and forests to avoid areas of military operations, but people displaced by famines and droughts do not have to avoid paved roads, so they are less likely to be exposed to the mosquito. Second, refugees from war stay in asylum camps for long periods after the war ends, whereas once droughts and famines end refugees can quickly return home. Montalvo and Reynal-Querol (2002) find that refugees from drought who come to tropical asylum countries have no significant effect on the incidence of malaria in the asylum country.

**Refugees and the Spread of HIV/AIDS.** Refugees and other displaced populations are at increased risk of contracting HIV/AIDS during and after displacement because of poverty; disruption of family and social structures and of health services; increased sexual violence; and increased socioeconomic vulnerability, particularly among women and youth. Data on HIV prevalence in refugee camps are scarce; however, some examples described in box 2.2 suggest the extent of HIV infection in refugee camps in asylum countries. Ghobarah, Huth and Ruset (2003) find that the most important effect of civil war on neighboring countries is caused by HIV/AIDS, with the groups that are most affected being young children (who are infected by their mothers) and young and middle-aged adults. The average loss of healthy life for these groups ranges from roughly 2 to 10 years.
Civil War Spillover

Civil wars are clustered in particular regions. In the 1980s there were several wars in Central America. In the 1990s there were several civil wars in, for instance, the African Great Lakes area, in Central Asia, and in the Balkans. Civil wars cluster for several reasons. They may share the same historical background: the former Yugoslavia’s wars in Croatia in 1991, Bosnia in 1992–95, Croatia again in 1995, and Kosovo in 1998–99 all shared similar characteristics and were influenced by the ideology of greater Serbia and greater Croatia (Kalyvas and Sambanis 2003). In the former Soviet republics wars clustered around the Caucasus in the early 1990s, taking advantage of war- and region-specific physical and human capital (Zürcher, Kohler, and Baev 2002).

Direct contagion may occur. The civil wars in the African Great Lakes region are examples of this, as recurrent wars in Burundi and Rwanda spilled over their borders in both directions and into the Democratic Republic of Congo. The latter war also provoked interventions by Uganda and Zimbabwe. In all these wars Hutu-Tutsi antagonism was predominant (Ngaruko and Nkurunziza 2002; Prunier 1995). This recurrent ethnic conflict crossed borders and lasted over time, being at the core of around seven episodes of civil war in the two countries. Countries embroiled in civil war also often provide a safe haven for rebel groups of other countries. The wars in Liberia and Sierra Leone alternately served these purposes for the other country’s rebel groups (Davies and Fofana 2002).
Refugee flows caused by civil wars may also be destabilizing to the host country. During the war in the 1990s, Burundian rebels sought refuge in neighboring Tanzania and the Democratic Republic of Congo and recruited among the Burundi refugee population in Tanzania. The provinces in the Democratic Republic of Congo neighboring those two countries had the highest incidence of fighting and displacements of people (Ngaruko and Nkurunziza 2002).

The economic spillover also increases the risk of civil war in neighboring countries (see chapters 3 and 4).

Global Effects of Civil War

CIVIL WAR IS NOT JUST BAD FOR THE NEIGHBORHOOD. DURING THE PAST 30 YEARS THREE MAJOR GLOBAL SOCIAL EVILS CAN REASONABLY BE ASCRIBED IN SUBSTANTIAL PART TO SIDE EFFECTS OF CIVIL WAR. THE GLOBAL COST OF THESE SOCIAL EVILS HAS ALREADY BEEN ASTRONOMICAL, AND THEY ARE PROVING HIGHLY PERSISTENT. THEY ARE HARD DRUGS, AIDS, AND INTERNATIONAL TERRORISM.

The link from civil war to hard drugs is through both production and distribution. The cultivation of hard drugs, coca and opium, nowadays predominantly requires territory that is outside the control of any recognized government. Where territory is under the control of an internationally recognized government it can generally be prevailed upon to enforce anticultivation policies reasonably effectively. A by-product of civil war is that large rural areas cease to be under government control. Currently some 95 percent of the global production of opium is in civil war countries. Not only is production concentrated in civil war territory, but distribution and storage channels rely on the lawlessness civil war generates.

The link between civil war and the spread of AIDS within a nation and a region has already been discussed; however, the most far-reaching claim is that the origin of the global pandemic is a consequence of a particular civil war. The hypothesis, for which credible evidence exists, but which is far from proven, is that the conditions of war enabled what would otherwise have been a routine, localized outbreak to spiral out of control. Even if we attach only a small likelihood to this explanation being correct—say 10 percent—then one-tenth of the global cost of the AIDS pandemic should be added to the estimated global cost of civil war.
The link between civil war and international terrorism has only recently become evident. Civil war provides territory that serves as a safe haven for terrorists, and the illegal products of conflict, notably diamonds, are used both as a source of revenue and as a store of value.

**Civil War and Drug Production and Trafficking**

Table 2.1 shows the production of opium and coca by country from 1990 until 2001. Figures 2.4 and 2.5 group this information according to whether countries are in conflict, are postconflict, or are at peace. As the figures show, virtually all production throughout the period has been in conflict or postconflict countries. When civil war ended in Peru and intensified in Colombia production trends changed.

While production rises sharply during conflict, it is not completely eliminated in postconflict situations. This accords with the discussion in

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<tr>
<td><strong>Opium</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afghanistan</td>
<td>1,570</td>
<td>2,335</td>
<td>3,276</td>
<td>185a</td>
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<tr>
<td>Colombia</td>
<td>71</td>
<td>88</td>
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<tr>
<td>Lao PDR</td>
<td>202</td>
<td>128</td>
<td>167</td>
<td>134</td>
</tr>
<tr>
<td>Mexico</td>
<td>62</td>
<td>53</td>
<td>21</td>
<td>71</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1,621</td>
<td>1,664</td>
<td>1,087</td>
<td>1,097</td>
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<tr>
<td>Other Asian countries</td>
<td>45</td>
<td>78</td>
<td>38</td>
<td>40</td>
</tr>
<tr>
<td>Pakistan</td>
<td>150</td>
<td>112</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Thailand</td>
<td>20</td>
<td>2</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Vietnam</td>
<td>90</td>
<td>9</td>
<td>—</td>
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<tr>
<td><strong>Total</strong></td>
<td>3,760</td>
<td>4,452</td>
<td>4,691</td>
<td>1,626</td>
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<tr>
<td><strong>Coca</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bolivia</td>
<td>77,000</td>
<td>85,000</td>
<td>13,400</td>
<td>20,200</td>
</tr>
<tr>
<td>Colombia</td>
<td>45,313</td>
<td>80,931</td>
<td>266,161</td>
<td>236,035</td>
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<tr>
<td>Peru</td>
<td>196,900</td>
<td>183,600</td>
<td>46,258</td>
<td>49,260</td>
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<tr>
<td><strong>Total</strong></td>
<td>319,213</td>
<td>349,531</td>
<td>325,809</td>
<td>305,495</td>
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— Not available.

a. Opium production in Afghanistan was reported to have dropped by 95 percent from 2000 to 2001, but the UNODCCP (2003) reports that in 2002 opium production surpassed its 2000 level (3,422 metric tons).

*Source*: UNODCCP (2002).
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Figure 2.4 Opium production, 1986–2001

Source: UNODCCP (2002); Gleditsch and others (2002).

Figure 2.5 Cocaine production, 1986–2001

Source: UNODCCP (2002); Gleditsch and others (2002).

county 1 on the persistence of the loss of social capital and the criminalization of society. Production of drugs prevails long after civil war ends. Civil war does not only affect production. The routes traffickers follow from the origin country to American, Australian, and European markets also go through conflict and postconflict countries. “Between 70% and 90% of the heroin found in European markets (both West
and East Europe), which has traditionally been trafficked along the so-called ‘Balkan’ route (Afghanistan – the I.R. of Iran – Turkey – Balkan countries – West Europe) with indications in recent years of the development of an alternative route through Central Asia and Russia” (UNODCCP 2002, p. 11).

Colombian trafficking organizations control the worldwide supply of cocaine, for which North America remains the principal destination. Africa, in particular, the conflict countries of West and Southern Africa, is increasingly used as a transit area for cocaine trafficking from South America to Europe. The production of hard drugs is concentrated in civil war countries for two main reasons. First, civil war creates territory outside the control of a recognized government on which drugs can be cultivated. It also creates an environment in which many people can behave opportunistically with no cost, because the normal policing institutions are weakened and are unable to control illegal activities. Second, during civil war conventional economic opportunities are severely reduced. International crime, of which drug production and trafficking are the prime example, provides a rare instance of a new economic opportunity.

Drug production affects the industrial world through two channels. First, the production of drugs in civil war countries is intimately related to their consumption in industrial countries. Not surprisingly, production and consumption trends follow the same pattern. Figure 2.6 shows the trends for opium production in Afghanistan and heroin seizures in Europe during 1980–2001. The consumption of illegal drugs results in thousands of deaths among young people in Australia, the United States, and Europe. Second, crime in the industrial world is intimately related to drugs.

The supply of drugs has social consequences for the societies of the countries where it arrives that can be divided into three groups: drug use; drug-related crime; and indirect, adverse effects of use (Reuter 2001). Drug use directly results in dependency and such risky behavior as needle sharing. Drug-related crime includes both the violation of drug laws themselves and theft and violence. The indirect, adverse effects of drug use include overdoses, suicides, abuse and discord within families, and poor school or work productivity. Moreover the government faces costs in terms of law enforcement and health expenditures.

The per capita consumption of hard drugs is highest in industrial countries (figure 2.7, table 2.2). The pattern of consumption by continent reflects production. Crossing the Atlantic is expensive and diffi-
cult, so the main market for opium is Asia and Europe. By contrast, North America is the region that has the highest percentage of cocaine consumers (UNODCCP 2002).

Goldstein (1985) proposes three models to explain the connection between drugs and crime. The first, the psychopharmacological link,
argues that crime is linked to the psychopharmacological effects of certain drugs. The second model, the economic-compulsive link, argues that drug users commit crimes to obtain money to buy drugs. The third model, the systematic violence link, suggests that crime among illegal drug users is linked to the drug market.

Little evidence supports the existence of a psychopharmacological link. The second explanation of the relationship between drugs and crime, the economic-compulsive link, is well supported by the literature. Statistical studies show that the rate of use of illegal drugs is much higher among people who have been in contact with the criminal justice system than among the general population (Casavant and Collin (2001). Data on drug-related crimes are scarce. The U.S. Bureau of Justice and Statistics (2002) finds that in 1997, 73 percent of federal prisoners and 83 percent of state prisoners reported prior drug use. The third model suggests that the relationship between drugs and crime goes through the illegal drug distribution market. Violence is part of this market, basically because the drug market affords no legal way of obtaining justice when rules are violated. According to Casavant and Collin (2001, p. 14): "Crime in the drug world is often caused by rivalries among individuals attempting to corner the market. This violence may involve various players—including traffickers, importers, merchants or dealers—and may be intended to control various territo-
ries, such as a neighbourhood, streets or school. Violence is then used as an organizational management strategy.”

This evidence gives an idea of the impact of drugs on crime. The high proportion of convicts who are drug users indicates the potential for crime reduction in the industrial world if illegal drugs were less easily available.

Civil War as an Explanation of the Origins of the AIDS Pandemic

Epidemiological research on the spread of HIV/AIDS points out that the initial spread of HIV is closely associated with the war in Uganda in 1979. Smallman-Raynor and Cliff (1991, p. 78), geographers at Cambridge University, conclude that “the apparent geographical pattern of clinical AIDS in Uganda partially reflects the diffusion of HIV associated with civil war during the first six years of the post-Amin period.” Using regression analysis they find a significant and positive correlation between the spread of HIV infections in the 1980s and 1990s and the ethnic patterns of recruitment into the Ugandan National Liberation Army. Their research supports the following hypothesis. Many rapes occurred along the borders of Tanzania and Uganda in 1979. HIV was in this region, but before 1979 contagion was sporadic and there was still no epidemic. However, because of the continuous rape, promiscuity, and dislocation during and after the war, HIV started to become an epidemic infection. The spread of AIDS from the south to the north of Uganda exhibited the same route as the one Idi Amin’s soldiers followed after the war in 1979.

Civil War and International Terrorism

The link between civil war and Al Qaeda is well established. The main activists in the organization were not Afghani, yet they chose to locate in Afghanistan because it provided territory outside the control of a recognized government and under the control of the Taliban, a recently successful rebel organization. Small-scale international terrorism can hide and survive in most societies. What was distinctive about Al Qaeda when compared with other terrorist organizations was its scale. The large scale of Al Qaeda operations, such as training camps for
thousands of recruits, would have been infeasible except in territory outside the control of a recognized government. Hence the safe havens produced by civil war are not just convenient for large-scale global terrorism, they are likely to be essential. Widespread civil war offers such organizations a choice of location and relocation. For example, there has been speculation that Al Qaeda might relocate in Somalia, another civil war territory with no recognized government.

Evidence indicates that Al Qaeda acquired substantial revenues from trafficking in West African conflict diamonds (Farah 2002). Recent evidence also suggests that in response to greater scrutiny in the international banking system it has shifted its assets into conflict diamonds.

As with AIDS, claiming that without civil war large-scale international terrorism would have been impossible is unnecessary. There is sufficient evidence for a reasonable inference that civil war facilitates such terrorism. If we attribute to civil war only 10 percent of the contributing factors to the September 11 attack, the cost remains enormous. The World Bank has estimated that as a result of September 11 global GDP is currently around 0.8 percent lower than it would have been (World Bank 2002a) and that about 10 more million people worldwide live in poverty than would otherwise have been the case.

**Conclusion**

*Sometimes the international community exhibits an understandable impatience with civil war, taking an it’s-not-our-problem attitude and remarking that the participants should be left to fight it out among themselves. This chapter has tried to show why such an attitude is mistaken. Many of the costs of civil war, indeed, probably most of them, accrue outside the affected country. The active participants in conflict can be presumed to ignore these costs, as they neither bear them nor are even aware of them.*

The costs of civil war can be thought of as forming three ripples beyond the direct effects on combatants. The inner ripple, discussed in chapter 1, is the effect on the civilian population: the loss of income and the severe deterioration in health. Many of these losses accrue after the conflict is over, so that even if the active participants care about the effects on civilians, they are likely to be unaware of them. The second ripple, discussed in the first part of this chapter, is across the neighbor-
hood. The economic costs of conflict suffered elsewhere in the region may be approximately as large as those suffered within the country, and severe health spillovers also occur, predominantly through refugees. The outer ripple is the global costs. In the past 30 years three devastating social shocks have been facilitated by civil war. We have not attempted to quantify the costs of these shocks, but they are clearly huge.

Our point is not to emphasize or inflate the importance of civil war among the world’s problems. Rather, we wish to make the simpler point that decisions about these conflicts should not just be left to the participants. The participants bear such a small share of the costs of their actions that they will systematically indulge in civil war far beyond its likely social value.

Notes

1. Results are available on request.

2. Results are available on request.