

Policy for Post-conflict Societies: Reducing the Risks of Renewed Conflict

Paul Collier
World Bank

March 17, 2000

Prepared for The Economics of Political Violence Conference, March 18-19, 2000, Princeton University, cosponsored by the Center of International Studies, Princeton University, and the Development Research Group, World Bank

The findings, interpretations, and conclusions expressed in this paper are entirely those of the author. They do not necessarily represent the views of the World Bank, its Executive Directors, or the countries they represent.

1. Introduction

Both post-conflict governments and the international community need to formulate post-conflict policies. These should naturally focus upon a reduction in poverty and a reduction in the risk of conflict. These are related but not identical objectives. In Collier (1999) I analyzed the effects of conflict and post-conflict peace on the level and composition of economic activity and discussed some policy implications for post-conflict economic recovery. Here I consider the other policy question: the reduction in the risk of renewed conflict.

Appropriate policy for peace in post-conflict situations is likely to be highly context-specific, in part because conflict is highly idiosyncratic. The Collier-Hoeffler (CH) model of conflict (Collier and Hoeffler, 2000), on which this paper is based, explains only around 30% of the variation in conflict experience. This paper addresses only these generic features of post-conflict situations.

The risk of conflict is likely to be high in post-conflict societies for four reasons. First, unless the country was very unlucky, it presumably had risk factors which made it atypically prone to conflict and these are likely to have persisted. Secondly, the conflict is likely to have caused some of these underlying factors, such as per capita income, to deteriorate. Third, the conflict will have changed the consequences of a given set of pre-conflict risk factors: some risk factors have different effects post-conflict than pre-conflict. Fourth, it will have generated grievances which themselves temporarily increase the risk of conflict. In Section 2 I consider how a post-conflict society should prioritize among the factors that were already contributing to risk prior to conflict. A society inherits a set of risk factors from its pre-conflict circumstances, these change during conflict, and their relative and absolute effects are changed by conflict. Between them, these generic effects create risks which can be calculated society-by-society. In Section 3 I consider how these risks can be reduced by policy. In Section 4 I turn to those risks which are found only in post-conflict societies. I discuss what they are and how they might be reduced. Section 5 concludes.

2. Prioritizing the underlying pre-conflict risks

The CH model of conflict identifies three policy-related pre-conflict risks. It also identifies some more structural risk factors, such as population size and the geographic concentration of the population which I will not discuss further because they are not readily amenable to policy.

The most powerful of the three policy-dependent risk factors is the extent of natural resource rents: unless these rents are very large, greater dependence upon them strongly increases the risk of conflict. The peak danger level is when natural resource exports constitute around 25-30% of GDP. Natural resource rents attract both quasi-criminal rebel activity, in which the rebel organization is directly predatory on the rents, and

political rebellion, in which a political leader mobilizes the population of a resource-rich region to secede, analogous to tax exodus by the rich (see Collier, 2000).

The second risk factor is a lack of alternative economic opportunities. These opportunities, implicitly for young men, are proxied by the level of per capita income, male secondary school enrolment, per capita GDP growth, and population growth. The two former both, in effect, measure the level of poverty among potential recruits: the more severe is poverty, the greater are the risks of conflict. Per capita GDP growth and population growth both measure the change in economic opportunities, and so might be thought of as proxies for the tightness of the labor market, or for the ability of new laborforce entrants to find productive employment. CH find that a one percentage point increase in the rate of population growth is around four times more potent in increasing risk than a one percentage point reduction in the growth of per capita GDP. Population growth may be proxying changes in access to land. Possibly the contraction in opportunities brought about by reduced access to land is more important than more generalised reductions in economic opportunities caused by slow economic growth.

The final risk factor is if the society is characterized by ethnic dominance. Ethnic dominance is defined in CH as occurring when the largest ethno-linguistic group has between 45% and 80% of the population. Both the lower bound of 45% and the upper bound of 80% are empirically determined but are consistent with the predictions of analytic models of political economy. The lower bound of 45% is likely to be sufficient to give the ethnic group a stable winning coalition even in a democracy and is indeed close to the 50% lower bound which would be predicted by simple voting models. The upper bound of 80% is consistent with the prediction that subject to constituting a winning coalition, the smaller is the group the more likely it is to exploit minorities, even if this is at the expense of the general good. Approximately 40% of post-conflict societies are characterized by ethnic dominance so defined. CH estimate that ethnic dominance approximately doubles the risk of conflict.

Since these three characteristics each increase the risk of conflict, most post-conflict countries tend to have had some or all of them prior to conflict: post-conflict societies were on average already atypically prone to conflict prior to that conflict. However, while a post-conflict country will usually have started from unfavorable risk characteristics, they may have been further accentuated by the conflict.

Dependence on natural resource rents may increase have increased. Collier (1999) suggests that the structure of the economy is powerfully changed by conflict, with some activities being much more conflict-vulnerable than others. It is therefore possible that despite the conflict being predatory on natural resource rents, the economy actually becomes relatively more dependent upon natural resource exports rather than less dependent.

Economic opportunities are liable to have contracted as a result of conflict. Recall that empirically, the lack of economic opportunity as a significant risk factor is a complex combination of four components. The first of these, per capita income, will obviously be

reduced by conflict. Collier (1999) finds that on average incomes fall by around 2.2% p.a. during conflict. The enrolment of young men in secondary schooling is also likely to have been reduced by conflict as non-military public expenditure is reduced. The third component of economic opportunities, the growth rate of per capita income, is more complex. Post-conflict economic growth can be both much faster and much slower than prior to conflict. Collier (1999) shows that long conflicts tend to produce a post-conflict recovery effect, whereas short conflicts tend to lead to continued decline. The difference in growth during the first five years of post-conflict between a society emerging from a 15 year conflict and one emerging from a one year conflict is on average eight percentage points on the per capita growth rate. This differential growth effect raises the risk of renewed conflict by around 60%. Hence, other things equal, economic recovery is considerably easier after long conflicts. However, a long conflict will have depressed the level of income: for example, a 15 year conflict will typically have reduced income by around 25% as compared with a one-year conflict. This lower level of income will cause a partially offsetting increase in the risk of conflict. The final component of economic opportunities, population growth, is likely to have been reduced by conflict as mortality and emigration rates rise. However, post-conflict there could be a large return of population will increase competition for economic opportunities.

The third risk factor, ethnic dominance, might also have changed as a result of conflict, since ethnic minorities might have emigrated or become refugees. In the worst case this may transform the ethnic composition of the society from fragmentation to dominance. For example, the conflict in Yugoslavia gradually transformed the political map from one in which no group constituted as much as 45% of the population in the federation, into a series of independent countries each of which was characterized by ethnic dominance. However, if emigration intensifies an existing situation of ethnic dominance, it may conceivably reduce the underlying problem. Recall that as the dominant ethnic group increases its population share its incentive to exploit the minority diminishes.

Prioritization as between these three possible areas for intervention should differ between countries, depending upon which of the risk factors is particularly high by the end of the conflict. This will be a combination of inheritance from the pre-conflict era and changes brought about during the conflict.

However, these are not the only influences on post-conflict prioritization. Post-conflict economies do not necessarily respond to risk factors in the same way as pre-conflict economies, so that even were the risk factors identical before and after the conflict, the priorities for risk reduction will need to change. Ideally, the efficacy of post-conflict policies should probably be analyzed in a hazard model which treats the post conflict period as continuous. However, at present I utilize the CH model which analyzes the risks of conflict, including post-conflict, in five year episodes. To determine how conflict alters the relative and absolute importance of the three types of risk factor, I add three interaction terms in turn to the integrated greed-grievance CH model of conflict. The integrated CH model has two variants, depending upon whether the level of economic activity is proxied by per capita income, or by the enrolment rate of young men. Here I adopt the latter, although the results are not affected by this choice. The terms interact

the risk factor with the post-conflict experience. I test two ways of specifying this interaction. The first is the simple one of interacting the risk factor with a dummy which takes the value of unity if the society is post-conflict. The more sophisticated specification allows the effect of post-conflict to be dependent upon the length of time which has evolved since the conflict, dividing the risk factor by the number of post-conflict months. Thus, the longer the duration of peace the smaller is the potential influence of the risk factor. I find that this latter specification is always statistically superior and focus on these results in Table 1.

Table 1: How Risk Factors differ in Post-Conflict Societies

| Risk factor | coefficient | t-statistic | coefficient | t-statistic |
|-----------------------------------|-------------|-------------|-------------|-------------|
| Resource exports: | | | | |
| Resource exports | 31.98 | 3.72 | 31.29 | 3.68 |
| Resource exports ² | -63.86 | -3.23 | -62.33 | -3.30 |
| Lack of Opportunities: | | | | |
| Male secondary enrolment | -0.033 | -2.98 | -0.033 | -2.97 |
| Growth | -0.061 | -1.76 | -0.68 | -1.98 |
| Exogenous Grievance: | | | | |
| Ethnic dominance | 0.82 | 2.17 | -0.81 | 2.14 |
| Endogenous grievance: | | | | |
| Peacetime (months) | -0.003 | -2.45 | -0.003 | -2.58 |
| Post-conflict interaction: | | | | |
| Resource exports/peacetime | | - | -0.52 | 1.59 |
| Growth/peacetime | -0.14 | -1.88 | - | - |
| Technology: | | | | |
| Geographic concentration | -4.06 | -3.36 | -4.01 | -3.33 |
| Population (ln) | 0.93 | 4.58 | 0.92 | 4.53 |
| Ethno-Religious fractionalization | -0.00036 | -3.38 | -0.00036 | -3.40 |
| Constant | -16.43 | -4.80 | -16.19 | -4.76 |
| Log likelihood | -111.44 | | -112.21 | |
| Pseudo r ² | 0.31 | | 0.30 | |
| N | 688 | | 688 | |

Notes:

For a full definition of variables and data sources see CH (2000)

Resource exports = primary commodity exports/GDP

Growth = per capita economic growth in the five years prior to conflict, minus four times the rate of population growth

Two of the risk factors are shown to have significantly different effects in post-conflict societies than in pre-conflict societies. A given level of natural resource dependence is found to be significantly more dangerous in post-conflict societies. However, the effect is not large: one year into peace, natural resource exports are around one fifth more dangerous than in pre-conflict societies. Similarly, a given rate of growth of economic opportunities (per capita income growth minus population growth), is significantly more effective in reducing risk in post-conflict societies. Again, the effect is not large. The other risk factors do not have significantly different effects in post-conflict societies than in pre-conflict societies. Thus, given that a post-conflict society has a particular composition of pre-conflict risk factors, it should attach somewhat more attention to the effect of natural resource rents and the growth of economic opportunities than implied by the pre-conflict risk analysis.

To summarise, for each society it is possible to estimate the structure of the generic post-conflict risks. These combine the pre-conflict inheritance, changes to that inheritance brought about by the conflict, and changes in the effect of different risk factors which make post-conflict reactions to the same characteristics somewhat different from those pre-conflict. The structure of these risk factors in a specific society provides some guidance to policy prioritization: which risks should be targeted, to the extent that it is feasible to change them.

3. Reducing the Pre-conflict Risk Factors

I now consider the policy options in reducing the three risk factors in post-conflict societies.

Recall that natural resource dependence is both the most important driver of conflict and that its effects are even stronger in post-conflict societies. The relationship is quadratic, so that in principle, some post-conflict societies may reduce risks by increasing their resource dependence. However, most post-conflict societies have levels of natural resource exports under the level of peak danger, so that their best policy is to reduce dependence. In the medium term it is possible to reduce natural resource dependence by diversifying the economy. To the extent that there is a trade-off between diversification and growth, a post-conflict society has some rationale for favoring diversification. However, since reduced growth will directly increase risk even on the criterion of reducing the risk of conflict, the choice is not clear a priori but must be calculated depending upon the extent of the growth-diversification trade-off. In the short term, natural resource dependence cannot be changed. Hence, in the early post-conflict years the task of reducing risks from natural resource rents is to reduce the incentive for natural resource predation by rebels, given the continued importance of the natural resources. One approach is to concede substantial control of natural resource rents to rebels without requiring them to fight for it. This is effectively the solution recently found in Sierra Leone, where the rebel leader demanded and was granted the post of Minister for Natural Resources. However, one difficulty with this approach is that if rebellion is profitable for one rebel leader, it is likely to be profitable for another, so that buying off the current

leader may not be sufficient for sustainable peace. An alternative approach is to reduce the attractions for rebellion by raising its costs and lowering its expected pay-off. One way of raising the costs of rebellion is by reducing the willingness of the population to support those who seek to be predatory on natural resources. Presumably, one reason why natural resource rents increase conflict is because many people are dissatisfied with the way they are being utilized. Government policy might aim to increase the transparency with which natural resource rents are distributed, trying to ensure that there are sufficient evident beneficiaries to make rebel attempts at predation unpopular.

In addition to government action to reduce the incentives for natural resource predation, there is scope for action by the international community. One way of reducing the pay-off to rebel capture of natural resources is the international community to reduce the access of rebels to the international markets in natural resources. Most commodity marketing channels have some point at which the number of transacting agents is quite small, and where the need to verify quality provides an opportunity to establish origin. For example, diamond cutting is an expert undertaking with relatively few skilled workers, and at this stage it is possible to establish the origin of the diamond. Several civil wars are evidently related to rebel access to the diamond market. The effort which the OECD societies currently put into denying access of illicit drugs producers to their markets is massive by comparison with their efforts to deny access to rebel groups predatory on other natural resources. Yet the consequences for the risks of conflict in developing countries are probably similar.

A lack of economic opportunities is important in increasing the risk of conflict through each of the four proxy measures: the level of per capita income, male secondary school enrolment, per capita economic growth, and population growth. Further, two of these, per capita economic growth and population growth, are jointly even more important in post-conflict societies. The level of per capita income is a slow-changing variable, whereas secondary school enrolment and economic growth can change considerably over a few years. We do not yet know whether secondary school enrolment is important because it raises income-earning opportunities, or because of its 'jail effect', whereby young men in secondary school are less likely to be recruited for rebellions. The former route would imply that the risk-reducing effect would be lagged, whereas the latter would be coincident. On present econometric evidence, substantial secondary school expansion may be an effective early post-conflict policy. Raising economic growth is an obvious priority for reasons other than risk reduction. The scope for both governments and the international community to raise growth in post-conflict societies is not the subject of this paper (see Collier, 1999). However, it is encouraging that if achieved, growth indeed contributes to risk reduction. As noted above, population may grow rapidly post-conflict if there are returning refugees. There are evidently powerful arguments for the early return of refugees, which probably override any considerations of the effects on economic opportunities for the already resident population.

If the society is characterized by ethnic dominance then the political solution cannot be unrestricted democracy. Dominant ethnic groups have a rational self-interest in exploiting minorities. Minorities therefore need either constitutional group rights to minority

protection, or constitutional individual rights to equal treatment. Presuming that the post-conflict government reflects the power of the ethnic majority, its only interest in granting either of these rights is that they significantly reduce the risk of further conflict. As noted above, if the government can convincingly solve the problem of ethnic dominance by constitutional rights the underlying risk of conflict will be approximately halved, which is surely a substantial effect. Partly, the government may simply need to be convinced, and to convince its supporters, that constitutional change has the potential to be so effective. However, especially in post-conflict societies, minorities may have little trust in constitutions and so even when convinced, the ethnic majority may lack the power to commit itself in a credible manner.

The international community has a role in reducing the risks generated by ethnic dominance in two potential circumstances. First, it may be needed to coerce or persuade the government to provide constitutional protection to its minorities. This might be achieved through donor conditionality, requiring constitutional minority rights in return for aid or peace-keeping. Secondly, even if the government is fully persuaded of the need for constitutional rights for minorities, such rights may lack credibility with minorities. The international community may then have a role as a guarantor of these rights. Recall that other than in circumstances of ethnic dominance, ethnic and religious diversity is not a risk factor. Collier (2000) argues that ethnic politics in the context of ethnic fragmentation, with no group being dominant, is unlikely to generate political outcomes markedly different from non-ethnic democratic politics.

4. New post-conflict risk factors

The CH integrated greed-grievance model of conflict includes a 'bootstraps' effect. Whereas natural resources, a lack of economic opportunities, and ethnic dominance are the causes of initial conflict, once conflict has arisen it generates grievances which themselves increase the risk of subsequent conflict. In turn, the extent to which conflict augments the risk of further conflict depends upon two factors: time and diasporas.

The CH model unsurprisingly finds that time heals. Quite how fast it heals is difficult to determine with any precision in the model, especially in the extreme range of the model, namely the first few months of post-conflict experience, because in this range the results are highly sensitive to minor changes in functional form. Outside the extreme range the results are probably more trustworthy: for example, after ten years of peace the risks of conflict are about half of those after five years of peace at the mean of the characteristics of post-conflict countries. Hence, it makes sense, on these figures, for donors to invest in the early years of peace. If during the first ten years peace can be maintained, for example by military peacekeeping forces in the early years and by aid-augmented economic growth in subsequent years, then the society may attain a level of risk sufficiently low for peace to be self-sustaining.

Perhaps the most striking finding of the CH model is the importance of US-resident (and by implication OECD-resident) diasporas of conflict countries. They find that after five

years of peace, a society with the largest observed diaspora relative to its resident population has a six-fold greater risk of renewed conflict during the next five years than a society with the smallest observed diaspora: 36% versus 6%. Further, they show that this effect cannot be explained by the size of the diaspora proxying the intensity of conflict. They decompose the size of the diaspora of post-conflict societies into a conflict-induced component and an exogenous component. They find that the exogenous component has a large and significant effect in increasing the risk of conflict and indeed, that the effects of the two components of the diaspora are not significantly different. As with the more general risk of renewed conflict, time heals. CH do not investigate whether time heals less rapidly for diasporas than for the resident population. Some case study evidence suggests that diasporas harbor grievance for much longer than resident populations. Even without such an effect, diasporas appear to be major additional risk factors in post-conflict societies. In the CH model, the reason why diasporas are predicted to affect the risk of conflict is financial. Diasporas are much wealthier than resident populations in the countries which they have left, and so are much better able to finance conflict. Further, being themselves small minorities in their host societies, they have a strong incentive to organize for collective action, for example, to preserve their cultural heritage for their children. The same organizations which preserve culture can be used to overcome the free-rider problem which besets fund-raising for rebellion in the post-conflict country itself. Further, diasporas do not themselves suffer any of the costs of conflict, and so have a greater incentive to purchase vengeance than the resident population. Rebellions need finance, especially at the start-up stage, where they may need to achieve a certain scale before they can become self-financing from natural resource predation (Collier, 2000a). Hence, both empirically and analytically, post-conflict countries with large diasporas are likely to have substantially higher risks of renewed conflict.

The evident implication is that both governments in post-conflict countries and the international community should develop strategies for reducing the damage done by diasporas in post-conflict societies. Such strategies might focus upon co-optation, persuasion, and penalties. Diasporas can perhaps be co-opted by being brought into the peace process at the stage of negotiation. This may make it harder to reach a settlement, but may make the settlement more durable once it is reached. Once a settlement has been reached, post-conflict governments may need to mount targeted public relations campaigns in the USA and other countries with large diaspora communities to persuade their diasporas of the benefits of peace and of the acceptability of the peace settlement. Finally, there are important lessons for the international community. Diasporas are sometimes influential in their host societies, and so each OECD government may be individually reluctant to take action which will arouse diaspora opposition. However, collectively, OECD governments could surely be far more effective than they are currently in discouraging the diasporas which they host from financing conflict. Just as OECD governments have recently collectively criminalized bribery by OECD companies in developing countries, so they could collectively criminalize the finance of rebel movements by diaspora organizations. The free-rider problem suggests that much of the diaspora funding for rebellion must flow through diaspora organizations, rather than being simply the outcome of uncoordinated contributions. Since it is much easier to control the behavior of such organizations than to control individual action, it should be

possible effectively to enforce new OECD legislation. As with the other risk factors, the importance of diaspora management will vary enormously between societies. However, in those societies with large diasporas, the successful management of the behavior of the diaspora may contribute more to peace than any other policy intervention.

5 Conclusion

Post-conflict societies usually have high risks of renewed conflict during the first decade after conflict has ended. There is, however, much that can be done by both post-conflict governments and the international community to reduce these risks.

First, it is possible for each society to identify the structure of risks and so to establish the priorities for risk-reduction. The structure of risks can be expected to differ massively between post-conflict societies, so that policy must be country-specific. Further, the structure of risks change during the post-conflict peace. We can distinguish between three groups of risk. The management of ethnic dominance, and the level of per capita income become relatively more important over time because they do not decline in absolute importance: time does not heal these effects. At the opposite end of the spectrum the absolute effects of post-conflict diaspora grievance, and post-conflict resident grievance, both fade reasonably rapidly. In between, the absolute effects of natural resource rents and the growth of economic opportunities decline somewhat, but less rapidly than the two induced grievance effects. This suggests that as the post-conflict peace is sustained, the policy agenda should shift from managing induced grievances to the underlying problems of ethnic dominance and poverty.

Secondly, once priorities are established, it is possible to reduce the largest risks. Both post-conflict governments and the international community have scope for a range of actions. Natural resource dependence can be reduced in the medium term and the rents managed more transparently in the short term. International action can reduce access by rebels to commodity markets. Economic opportunities can be improved both by appropriate government economic policies and by donor aid programs. Ethnic dominance can be made less alarming for minorities by constitutional safeguards and by guarantees by the international community. Because the risks of conflict renewal are highest in the early post-conflict years, there is a role for temporary intervention by the international community, both military and financial, to invest in subsequently sustainable peace. Finally, because diasporas so drastically increase the risk of conflict, post-conflict governments should focus on persuading their diasporas of the benefits of peace, while the international community should police diaspora organizations to prevent them from funding renewed rebellion.

Civil war is obviously a terrible experience. Tragically, most societies which experience a civil war and restore peace, collapse into further conflict. I have tried to show how policy interventions by post-conflict governments and the international community could reduce the risk of conflict repetition. No one policy is the key, but cumulatively, better policy

offers considerable scope for making conflict repetition an exceptional event instead of the normal pattern which it has been to date.

References

Collier, P. (1999) 'The Economic Consequences of Civil War', *Oxford Economic Papers*, 51, pp. 168-183.

Collier, P. (2000) 'Implications of Ethnic Diversity', paper for presentation at the CEPR Economic Policy panel, Lisbon, April 2000.

Collier, P. (2000a) 'Rebellion as a Quasi-Criminal Activity', mimeo, World Bank.

Collier, P. and A. Hoeffler (2000) 'Greed and Grievance in Civil War', mimeo, World Bank.