Aid is considerably more effective in augmenting growth in post-conflict situations than in other situations, but the pattern of aid matters. Key post-conflict priorities should be social policies first, followed by sectoral policies and macro policies last.

Introduction

Since the needs of post-conflict situations compete for the same pool of resources devoted to aid for development, it is useful to benchmark the efficacy of aid in post-conflict situations relative to development assistance more generally.

The general effectiveness of aid in reducing poverty can be benchmarked using the analysis of Collier and Dollar (2001). However, post-conflict situations are not explicitly considered in the Collier-Dollar analysis: "poverty-efficient" aid for post-conflict countries makes no allowance for their special circumstances other than what is already reflected in the Country Policy and Institutional Assessment (CPIA) rating. The economic circumstances of post-conflict societies are distinctive in several respects, and this is likely to change the relationship between aid, policy and growth. Typically, post-conflict societies face substantial financial needs for reconstruction, implying that they might be able productively to absorb more aid than in peaceful societies. However, they also tend to have high levels of opportunism, making the management of aid more difficult. Hence, a priori, aid might be more or less productive in post-conflict societies.

Reflecting the presumed need for differential treatment, the IDA allocation formula has recently been revised to allow post-conflict countries to receive additional temporary resources. However, at present, this is based on judgment rather than quantitative analysis. The primary purpose of this paper is to bring post-conflict situations explicitly into the poverty-efficiency framework of aid allocation. The resulting benchmarks are all the more necessary given the highly politicized nature of aid allocation in post-conflict situations. Of course, aid in post-conflict situations has legitimate objectives other than poverty reduction. There is a considerable risk that conflict will resume and aid might directly reduce this risk beyond any effects via growth and poverty reduction. However, a benchmark in terms of the objective of poverty reduction can at least provide guidance to donors as to the lower bound for appropriate response.

Since growth and poverty reduction tend to reduce the risk of conflict (Collier and Hoeffler, 2001), the aid allocation warranted on the criterion of poverty reduction will also contribute to peacebuilding.

The second purpose of the paper is to investigate whether and how priorities for the reform of policies, governance and institutions might differ in post-conflict societies from those in other developing countries. At the most obvious level, priorities might differ because some problems are atypically severe. For example, if inflation were to be atypically high in post-conflict situations, then improved macroeconomic management would be atypically important. Less obviously, some reforms might be atypically important not because the attained level of performance is worse than in other societies, but because the economy is atypically sensitive to them. We use a new data set on disaggregated ratings of different aspects of policy, governance and institutions to test for differential priorities.

The Pattern of Post-Conflict Recovery

We first investigate whether there are exogenous forces for economic recovery from conflict, in the sense that growth is more rapid during the post-conflict phase, controlling for policies and for aid inflows. For the growth relationship we rely upon the analysis and database used in the Collier-Dollar growth regression (Collier and Dollar, 2001). This analyzes the per capita growth rate over each four-year period from 1974 to 1997 for 62 countries. We introduce conflicts into this analysis using the database of Collier and Hoeffler (2001), which provides a comprehensive listing and dating of civil wars for 1960-99. They use a definition of civil war that is conventional in the academic literature: namely, an internal conflict between a government and an identifiable rebel organization that results in at least 1,000 combat-related deaths, of which at least 5% must be incurred on each side. Most of these 73 wars did not end within the period analyzed by Collier and Dollar, or, due to data limitations, were in countries other than the 64 included in their analysis.


We have investigated the time-profile of post-conflict growth through two approaches. The first defines three four-year episodes: peace onset and the two subsequent periods. The second allows us to date the onset of peace more precisely but encounters some difficulties of interpretation. Both approaches reveal an inverted-U pattern. On the first approach supra-normal growth peaks in the second period. This period will range from being virtually the first four years of peace to virtually the second four years of peace. The second approach dates the peak growth phase more precisely as being from the fourth to the seventh year of peace. Such a pattern of recovery is not a priori surprising. In the immediate aftermath of conflict there are probably many uncertainties, and basic functions of government have yet to be re-established. If peace is maintained there is then a phase of catch-up, but this peters out and the economy reverts to its long-run growth rate.

Aid During Recovery

It does not necessarily follow from this that post-conflict countries should get more aid than other countries with similar levels of poverty. Allowance must be made for the unsurprising fact that policies and institutions tend to be less satisfactory in post-conflict situations. Hence, the greater absorptive capacity conditional upon policy, is qualitatively offset by worse policy. To quantify this, for the 1990s we compare the average CPIA score for all countries with that for those countries in their first full period of post-conflict peace. The former is 3.00 and the latter is 2.88. The typical country in its first full four-year period of post-conflict peace thus has a saturation point around 2.36 times that for the typical country in other circumstances.

During the first full period of post-conflict, the typical country experiences a temporary growth spurt of around two percentage points per year in excess of normal growth. This growth spurt is largely, or entirely, dependent upon aid: for given policies aid is more than twice as productive in post-conflict circumstances, and so at normal levels of aid, growth is higher. In the absence of aid there would be no growth spurt.

We next consider whether these effects of aid are distinct to the first full period of post-conflict peace, or whether they apply both earlier and later. The end of a civil war creates a temporary phase during which aid is particularly effective in the growth process. Our results suggest that during the first full peace period the absorptive capacity for aid is around double its normal level and that some such effect extends at least qualitatively into the second full peace period. As with aid in more normal circumstances, absorptive capacity depends upon policy, but, conditional upon policy, aid is considerably more effective. Although policy is worse in post-conflict societies than in most other societies, this is insufficient to offset the greater absorptive capacity, so that post-conflict societies constitute an important exception to the proposition that for given levels of poverty, aid should be lower in societies with worse policies.

Our results also suggest that the increased scope for effective aid absorption does not occur immediately. There is neither a supra-normal growth effect nor a supra-normal effect of aid in the peace onset period. Since the moment of peace onset is randomly distributed across the four-year peace-onset episode, its average length is two years. We have also found that there appears to be no supra-normal growth effect during the first three years of peace, or beyond the seventh year of peace. Hence, there is some presumption that the key period during which aid absorption is exceptionally high is approximately between the fourth and the seventh year of peace. From the perspective of effective use of aid for economic recovery, aid volumes should gradually build up during the first few years of peace, and gradually revert to normal levels after around a decade. We should stress that these results are tentative: as data for the episode 1998-2001 become available, the sample of post-conflict countries will increase and the results should be re-assessed.

An implication of the above analysis is that donors have not responded appropriately to post-conflict situations. The initial response during the peace-onset period – typically the first two years – has indeed restored lending, perhaps (on the narrow criterion of poverty reduction) even excessively, but thereafter aid should have continued to taper in whereas it has tended to taper out. The recent experiences of Afghanistan and East Timor suggest that donor behavior may be changing: the volume of aid allocated to post-conflict situations may well have increased substantially, which on our analysis would be appropriate. However, the timing of the inflow may not be appropriate, arriving too soon and tapering out too early. For example, the present rules concerning IDA allocation to post-conflict countries allow for supra-normal aid allocations only in the first three years of peace, which on our analysis is too early for effective absorption. Of course, the benchmarks provided by regression analysis, especially on such a small sample of episodes, can provide only limited guidance. Each situation will appropriately be assessed using much richer country-specific information. However, given the highly politicized context of aid allocations in post-conflict situations, it would not be surprising if historically they have not been appropriately aligned with the opportunities for reinforcing the opportunities for economic recovery.

Policy Priorities During Recovery

We now turn to the question of whether policy priorities for growth should be distinctive in post-conflict societies. The previous analysis has already implicitly answered this at the aggregate level of policy captured by the overall CPIA rating, which is an average over ratings of twenty different particular policies. Since the effect of aid is dependent upon policy, as measured by the CPIA, the better is policy, the larger is the growth spurt. Thus, when policy reform is coordinated with aid flows, it is atypically effective in promoting growth in post-conflict situations. The previous analysis has also found that the interaction term between policy and the
three post-conflict variables is insignificant. Hence, other than through its effects on enhancing aid absorption, policy is neither more nor less important for growth in post-conflict situations than in other situations. Policy matters more in post-conflict situations because it differentially augments the effectiveness of aid.

We now investigate whether particular policies are differentially important in post-conflict situations. For this, we disaggregate the overall policy rating into four components: macro, structural, social and governance. This disaggregation is dictated by the availability of data, but it corresponds to important broad categories of policy and so is potentially useful. The data on macro, structural and social policies are from the components of the CPIA ratings and are available since 1990. Prior to this the CPIA was only an aggregate indicator of policy. Within the CPIA each of these three components is scored on a scale of 1-5. Thus, if one component has a lower score than another this has no intrinsic meaning. However, in practice, the mean values of the three components are all very similar: during the 1990s the average rating for macro policies was 4% higher than for structural policies, and 6% higher than for social policies. This suggests that each component of the scale was approximately ordinal, with a country that was average for macroeconomic policies, getting approximately the same rating on these policies as the rating for social policies for a country that was average for those policies.

In addition to the CPIA, which is measured on a common basis by World Bank staff, the ICRGE is used to measure governance. Again, this is a subjective assessment on a scale of 1-6. Unsurprisingly, post-conflict societies have worse CPIA scores than other societies. The scores by post-conflict episode reveal a steady improvement as long as peace is maintained. In the peace-onset period the CPIA is only 2.50, in the first full period of peace it is 2.88, and in the second full peace period it has risen to 3.05 and so is in effect back to normal. Hence, the phase of distinctively problematic policy is the first 4-8 years of post-conflict. However, although the level of overall policy is distinctly poor during this period, there appears to be no systematic difference between policies. Macro, structural and social policy scores are all equally discounted in post-conflict countries and show fairly uniform improvements during the three post-conflict periods. Governance, as measured by the ICRGE, is markedly worse during the peace onset period, than other developing countries. However, in contrast to the CPIA components, it actually appears to deteriorate over the ensuing decade.

We now return to the regression analysis, introducing terms which interact each of the four components of policy with a post-conflict dummy variable. This tests whether any of these policies is differentially important for growth in post-conflict situations and hence provides some guidance as to priorities for policy improvement. Since our analysis can only be conducted for the period since 1990, the number of post-conflict observations is too small to permit disaggregation into the three distinct post-conflict episodes analyzed above so that the post-conflict dummy refers to all three episodes. We then add the interaction term for governance. The interaction term is insignificant, so that governance is approximately as important for growth in post-conflict situations as in other contexts.

Macro, structural and social policy scores on the CPIA are too highly correlated with the overall CPIA to be entered together in the same regression. To overcome this problem, we measure each relative to the average CPIA score. Thus, we retain the overall CPIA score in the regression and add variables showing how the components deviate from the overall score. Evidently, since the overall score is simply the average of its three components, once the deviation of any two of the components from the average is specified, the deviation of the third component is also determined. Hence, only two of the deviations in the components can be entered together in the regression. We introduce the deviations for the macro and social components of the CPIA as additional variables, and also the interactions of these terms with the post-conflict dummy, so that structural policies are the excluded term and so the benchmark.

Since the regression is run for all episodes since 1974, but the disaggregated CPIA data is only available for the 1990s, we initially include both a dummy variable for the 1990s and an interaction of this dummy with the overall CPIA score. This allows both that exogenous growth might have been different during this period and that the effect of policy might have been different. Without these terms the CPIA component terms might be spuriously picking up such effects. In the event, neither term is significant and they are dropped from the regression.

The regression includes the direct effect of the macro and social components of the CPIA (i.e. without being interacted with the post-conflict dummy). These terms are necessary in order to determine how the effects of these components of policy are distinctive in post-conflict situations, through their interaction with the post-conflict dummy. However, the temptation to interpret these direct effects as showing which components of policy are most important for growth outside the context of post-conflict should be resisted. All they show is what would happen if the three component parts of the CPIA score were to be varied in such a way as to keep the aggregate score constant. At the most, these results will tell us that the reforms represented by a one point increase in one component are more valuable for growth than the reforms represented by a one point increase in another component. They are therefore a comment not upon the relative importance of macro, structural and social policies, but upon the scoring systems for them. There is no reason why a one point change in one component should be in any sense commensurate with a one point increase in another component.

While the direct effects of the three policy components must therefore be dismissed, the variables generated by interacting the policy components with the
post-conflict dummy are readily interpretable. They test for whether policy priorities should be distinctive in post-conflict situations when compared to other circumstances.

Both the interaction terms are significant, with macro negative and social positive. Further, the coefficients on both terms are large. Given the objective of promoting growth, consider priorities as between macro, structural and social reforms in two societies with identical CPIA scores on each component, one society being post-conflict and the other having no history of conflict. The results tell us that the post-conflict society should pay more attention to improvements in social policy than the other society, and less attention to improvements in macro policy. This formulation of the result is not only meaningful, it is pertinent. Post-conflict situations constitute only a small minority of the situations on which IFI experience is based. Hence, in the absence of such knowledge, IFI staff are likely to advise for post-conflict situations those policy priorities that are effective in normal circumstances. While the broad direction of such advice might be correct, our results suggest that priorities based on general experience are likely to be misplaced. For example, suppose that a post-conflict society starts with each component – macro, structural and social – rated at 2.5, and the matter for judgment is whether a small improvement in social policies at the expense of a small deterioration in macroeconomic policies would be advisable from the perspective of growth. To be specific, let these small changes in policy amount to an improvement in social policies to 2.6 and a deterioration in macroeconomic policies to 2.4. The coefficients on the direct effects of these components of policy suggest that were the situation not post-conflict, such a change would reduce growth. By contrast, in a post-conflict situation growth would be increased by around one percentage point.

We can also distinguish to an extent between the two possible ways by which policy priorities might be distinctive – differential severity of policy problems and differential effects of policies. Recall that the three components of the CPIA are all equally poor in post-conflict situations. There does not appear to be differential deterioration. Hence, it appears that the differential importance of social policy is not because social policies are differentially bad in post-conflict situations, but rather that they are differentially important. This is indeed consistent with much of the practical policy work in post-conflict situations which tends to prioritize social issues. However, recall that the policy ratings tend to improve through the various phases of post-conflict in tandem. Our analysis suggests that it would be desirable if social policy could improve at a faster rate than structural policy, which in turn should improve at a faster rate than macro policy. This is decidedly not to say that macro does not matter. In post-conflict, as elsewhere, everything matters. But the practical process of reform is always a matter of priorities.

Conclusion

Countries coming out of conflict are in atypical need of both financial resources and policy advice. Their societies are often extremely fragile and so it is important that the response of the international development community should be as appropriate as possible. Although such situations are becoming more common, they still constitute a small minority of development experience, and so there is a danger that they will receive both finance and advice that largely ignores their special characteristics. Most donors now have units specially dedicated to post-conflict, but to date the learning process has largely been highly context-specific. Indeed, a common assessment from policy practitioners is that each situation is so distinctive that there are no general lessons. In this paper we have investigated post-conflict economic recovery statistically, using all episodes for which data are available. Since the number of such observations is quite limited, the degree of confidence in the results must be correspondingly discounted. The basis for our analysis has been to incorporate post-conflict situations explicitly into the existing analysis of the relationship between aid, policy and growth as undertaken in Collier and Dollar (2001).

Two general patterns have emerged from this analysis.

First, we find that aid is considerably more effective in augmenting growth in post-conflict situations than in other situations. For “poverty efficiency,” aid volumes should be approximately double those in other situations. The pattern of aid disbursements should probably gradually rise during the first four years, and gradually taper back to normal levels by the end of the first post-conflict decade. Actual aid practice has not, historically, followed this pattern.

Second, we find that among policies the key priorities for improvement, relative to an otherwise similar society without a history of recent conflict, should be social policies first, sectoral policies second, broadly with the same priority as in other contexts, and macro policies last. Again, actual improvements in policies during the first decade of peace do not appear to reflect these priorities: all policies other than governance appear to improve more or less in tandem.

CPR Unit

This note was prepared by Paul Collier, of the Development Research Group (DECRG) This note series is intended to disseminate good practice and key findings on conflict prevention and reconstruction. The series is edited by the Conflict Prevention and Reconstruction Unit in the Social Development Department of the Environmentally and Socially Sustainable Development Network of the World Bank. The views expressed in these notes are those of the authors and do not necessarily reflect the views of the World Bank Group. CPR Dissemination Notes are distributed widely to Bank staff and are also available on the CPR website.