

Spending to Save?

An Analysis of the Cost Effectiveness of Conflict Prevention

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Executive Summary

It is often argued that it is more cost effective to tackle conflicts before they reach the point of mass violence. But further evidence is needed in order to make an assessment of this claim. This study, commissioned by DFID, seeks to make a contribution to this process. It concludes that:

- Conflict prevention is (or would have been) a cost effective investment for the international community in all the case studies chosen, even allowing for large margins of error in the estimation of costs and benefits;
- A spend of £1 on conflict prevention will, on average, generate savings of £4.1 to the international community (with a range of 1.2 to 7.1);
- Some of the most cost-effective ‘packages’ take place in the gestation phase of conflict. But estimates of impact depend critically on the willingness of local political authorities to allow implementation;
- The cost-effectiveness of preventive military action is greater when the potential for resistance is small and the scale of deployments is limited;
- The balance of CP components, the timing of their use, and the availability of entry points are all critical to cost-effective intervention.

The approach adopted in the study takes into account the predicted probabilities of conflict onset (both in the absence and presence of proposed CP measures), together with estimates of the expected costs of war and of preventative actions. It involves six case studies, three retrospective (on the Western Balkans, Afghanistan, and Rwanda) and three prospective (Afghanistan, Uzbekistan and Sudan).

All twelve CP Packages (two for each case study) are calculated to be cost-effective for the international community: i.e., the anticipated cost savings from avoiding conflict exceed the costs of the CP Packages. In all but one of these cases, moreover, the breakeven reduction in conflict probability is less than half the estimated reduction in probability. This provides strong evidence for the finding that, in these studies, conflict prevention is significantly cheaper than cure.

Breakeven Probabilities for cost-effectiveness of CP Packages

Probability of conflict (over 15 year period)	Breakeven Probability for international community: CP Package 1	Breakeven Probability for all parties (IC, territory & neighbours): CP Package 1	Breakeven Probability for international community: CP Package 2	Breakeven Probability for all parties (IC, territory & neighbours): CP Package 1
Balkans	11%	1%	27%	3%
Afghanistan Past	7%	5%	50%	32%
Rwanda	16%	3%	15%	3%
Sudan	7%	1%	29%	5%
Uzbekistan	10%	1%	28%	2%
Afghanistan Future	7%	6%	12%	9%

Two of the more cost-effective Packages are Sudan Package 1 and Uzbekistan Package 1, both of which take place in the ‘gestation phase’ of conflict. But estimates of conflict probability reduction depend critically, in both cases, on the willingness of political authorities to allow implementation. The ability of the IC to carry out cost-effective CP packages in the ‘gestation phase’ may therefore depend on its willingness to incur unquantified costs, e.g. arising from trade-offs between short-term interests in cooperation with existing governments and long-term CP objectives.

Perhaps the most effective CP package amongst those studied is the second Rwanda package. The proposed military action was clearly feasible, did not depend on host government approval, and would almost certainly have achieved its defined objective of stopping the genocide, with all the other consequences that followed. More generally, the cost-effectiveness of preventive military action is likely to be greater when the potential for effective resistance is relatively small, and the size and duration of deployments can consequently be more limited.

In determining the cost-effectiveness of CP to the IC, costs are divided into ‘discretionary’ and ‘non-discretionary’ costs. The willingness of the IC to incur ‘discretionary costs’ is usually proportional to the level of ‘non-discretionary costs’ that could be incurred. Countries with oil supplies, terrorist bases, high levels of foreign investment or large populations of potential (but undesirable) migrants are more likely to be candidates for CP by the IC than countries with few of these global linkages.

In all the studies, the costs of conflict to the directly-affected territory exceed those to the IC and to neighbours, usually by a very large margin. While the main focus of this study is on the benefits and costs to the IC, taking into account the levels of costs to the directly-affected territory and its neighbours has a dramatic effect on the cost-effectiveness of CP. The ‘breakeven probability’ for all parties is less than 10% in eleven of the twelve cases being studied, and 5% or less in nine out of twelve. In all the non-Afghan case studies, the costs of conflict to the directly-affected territory exceed those to the IC and to neighbours, usually by a very large margin.

One consequence of basing costs to the directly-affected territory on GDP loss is that it leads to higher per capita cost estimates for middle-income conflict-affected countries, compared with low-income countries. Further work is needed to generate more equitable cost-estimation methods, perhaps including the development of direct indicators of conflict impact on human security.

The framework outlined here provides a new way to think about how to conceptualise CP policy, and thereby can assist in the prioritising of activities, and in processes of reflecting on lessons learnt from previous successes and failures. At the same time, further work is still needed to develop the methodology used in this study, e.g. in relation to conflict probability estimates, GDP costs to directly-affected territories, and non-discretionary costs to the international community. An initial discussion of these topics is included in the three Briefing Papers.

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1. INTRODUCTION

The objective of this study is to provide an evidence base concerning the costs and benefits of conflict prevention (CP) activities (defined as those activities undertaken primarily to reduce the risk of conflict), compared with those of engaging after large-scale conflict has begun.

It is often argued that it is easier and more cost effective to tackle conflicts before they reach the point of mass violence. It is now widely argued that it is easier and more cost effective to tackle conflicts before they reach the point of mass violence. The UK Government, for example, recently argued that ‘preventing conflict is better and more cost-effective than resolving it.’¹ Yet this claim is comparatively under-researched. Existing studies on the cost-effectiveness of prevention tend to point to cases where *ex post* the cost of inaction considerably outweighed the cost of hypothetical conflict prevention.² Yet the results of such analysis can be misleading, since the results of inaction can never be known in advance and so the *estimated* costs are likely to be very different from the *actual* costs. Conversely the benefits of prevention are also unknown. Preventative actions may be unsuccessful or may simply delay the onset of violence. Alternatively, even without preventative action, conflict may not have taken place.

While the general argument for more resources for prevention and peace-building has considerable attraction at first sight, therefore, a more rigorous approach to estimating its cost and benefits is needed in order to be able to operationalise the concept. Such an approach needs to take into account the predicted probabilities of conflict onset (both in the absence and presence of proposed CP measures), together with estimates of the expected costs of war and of preventative actions.

The primary objective of this project is to be forward-looking, helping to inform decisions on investments on CP. On a macro-level, it should contribute to discussions about the overall effectiveness and efficacy of conflict prevention, and to assessments about the circumstances in which particular instruments might prove more or less effective. At a micro-level, it may also suggest lessons about how the international community might shape its current responses to particular potential conflicts.

2. KEY FEATURES OF METHODOLOGY

The project involves six geographical case studies, which are attached as Annexes to this report. This synthesis report summarises their results. Three are retrospective case studies (for the period 1988-2003) on the **Western Balkans**, **Afghanistan**, and **Rwanda**. All three locations experienced major conflicts during this period, but the nature of international response differed widely. In Rwanda, response was limited and took a primarily humanitarian form. In the Western Balkans, there was a wide-ranging international engagement in the conflict from the beginning, culminating

¹ DFID, FCO and MoD, *The Global Conflict Prevention Pool: A joint UK government approach to reducing conflict*, The Stationery Office, London, 2003, p. 3.

² M. E. Brown and R. N Rosecrance (eds), *The Costs of Conflict: Prevention and Cure in the Global Arena*, Carnegie Commission on Preventing Deadly Conflict, 1999; M. Renner, *Budgeting for Disarmament; The Cost of War and Peace*, World Watch, Washington DC, World Watch Paper 122, 1994; Hugh Miall, Oliver Ramsbotham and Tom Woodhouse, *Contemporary Conflict Resolution; the prevention, management and transformation of deadly conflicts*, Cambridge, Polity Press, 2000.

in the deployment of international military force to bring the conflict to an end after 4 years of bloodshed. In Afghanistan, the international community's involvement was limited in character during 12 years of large-scale internal conflict, despite the massive flows of refugees into neighbouring countries. Large-scale military intervention only took place in response to the events of September 11, 2001.

Three prospective case studies (for the period 2004-2018) have also been completed, on **Afghanistan, Uzbekistan** and **Sudan**. For each of these, we ask the question: what mix of CP measures and instruments adopted by the international community would be most cost-effective in preventing conflict if adopted now? And how do these compare with the possible costs of conflict? The prospective studies were chosen to represent the range of scenarios with which international CP policy is expected to deal. Sudan and Afghanistan have experienced protracted conflicts, but have now seen, or expect, important peace agreements. There are, however, very different current levels of international engagement. Uzbekistan, by contrast, is not currently experiencing major armed conflicts. Yet it faces serious governance and development challenges, which could over time create the conditions for large-scale conflict.

For each of the geographical case studies, we have calculated the net benefit/cost of particular hypothetical 'CP Packages' to the international community. The international community (IC) is defined to be all countries outside the immediate neighbourhood of the territories 'directly affected' by conflict. For the purposes of the calculations in the study, the IC is assumed to be a unitary actor. As we discuss in a later section, however, many of the obstacles to effective CP may arise because this is often far from being the case.

The study also calculates the net benefit/cost of conflict and CP to the directly affected territories and to neighbouring territories. These territories are defined in each case study.

For each of the case studies, the specialist authors (working closely with the team leader, Malcolm Chalmers) constructed two plausible packages of CP measures that could have been (or could still be) undertaken by the international community, over and above actual or current efforts. The packages are chosen so as to be reasonably representative of the main choices which, in principle, might have been (or still are) open to the international community.

Each package is then broken down into its main components, and its annual additional costs for the whole international community over the period of the study is estimated. It is not assumed that any CP package would definitely have prevented, or will prevent, conflict. Rather, case study authors are asked to estimate by how much the package in question would have reduced the probability of conflict, and to justify their estimate.

In order to estimate the costs of conflict to the international community, as well as to the directly affected territory and its neighbours, two scenarios are constructed for each case study: a 'peace scenario' and a 'conflict scenario'. These are chosen to be representative of a much wider range of possibilities. The peace scenario sketches a plausible path to avoidance of large-scale violent conflict (although smaller-scale localised conflict is not excluded). The conflict scenario sketches a plausible path to the emergence of large-scale violent conflict (or, in the case of the retrospective studies, what actually took place).

In order to facilitate standardised comparisons between them, all case studies are limited to a study of a period of 15 years: 1989-2003 (inclusive) for the retrospective studies, and 2004-2018 (inclusive) for the prospective studies. This has meant that some of the CP packages that have been suggested to us (for example, in relation to Yugoslavia or Rwanda in the early 1980's) could not be considered. In some cases, a significant part of the costs of conflict (and of CP) fall outside the 15-year time frame. This is less of a problem in the retrospective studies, where the major conflict episodes occurred in the early 1990's (though Afghanistan is a partial exception to this rule). In those prospective studies where major conflict is more likely to take place after 2010 (e.g. Sudan and Uzbekistan), however, this may tend to understate the costs of conflict. Where the 15-year rule significantly affects our findings, therefore, we make this clear.

All the financial data used has been converted into 2004 US dollars, using the US GDP deflator index to convert from cash dollar figures for retrospective case studies. In accordance with recommended HMT practice, we have also used a 3.5% real discount rate to calculate the Net Present Value (NPV) of costs and benefits.³ This reflects the value that society attaches to present, as opposed to future, consumption. In principle, it would be possible to apply a different discount rate for directly-affected territories and neighbours, compared with the international community. This is unnecessarily complicating for a study of this nature, and we therefore assume a uniform discount rate for all actors.⁴

On the basis of available information and the elaboration of the relevant peace and conflict scenarios, each case study estimates annual cost figures over a 15-year period, which are then translated into NPV figures (in \$2004) for the following:

- Total NPV costs of conflict to the international community.
- Total NPV costs of conflict to the directly-affected territory.
- Total NPV costs of conflict to neighbouring territories.

Each of these are calculated by estimating the net additional costs of the conflict scenario to the parties in question, compared with the peace scenario.

Each case study also estimates the following:

- Total NPV costs of CP Package 1 to the international community.
- Total NPV costs of CP Package 2 to the international community.

A methodological annex summarises the mathematical representations of these variables.

This is not a study of possibilities for CP measures by the directly-affected territory or by neighbours. No estimate is therefore made of costs of CP Packages to these parties (though in some cases, co-funding might be a key part of the process).

³ HMT, *The Green Book*, Annex 6.

⁴ In countries with higher rates of consumption growth and/or lower life expectancy, one might expect higher real discount rates.

The spreadsheet in Annex H to this report summarises the cost estimates made for these variables in the six case studies. It then shows how these estimates are used to assess the cost-effectiveness of the CP Packages in question. To do this, each case study estimates the probability of large-scale violent conflict (represented by the conflict scenario) taking place (at some time during the 15 years) in the absence of the Package being studied. In the case of the retrospective studies, this probability is, by definition, 100%. In the case of the prospective case studies, the probability varies somewhat, from 70% in Uzbekistan to 80% in Sudan. Each case study then estimates the reduction in conflict probability that is achieved by the package under study. In Sudan, for example, CP Package 1 reduces this probability from 80% to 30%, and CP Package 2 reduces it from 80% to 15%. In the special case of Rwanda, where the second package is intended only to prevent the 1994 genocide (and not the 1990-94 civil war) the estimate of a 78% probability reduction refers to the estimated reduction in the NPV cost of the total conflict scenario.

The case studies have drawn on various sources (including lessons learned from other conflicts, and understanding of key conflict actors and events) to estimate these probabilities. Yet the margins of uncertainty in these estimates (shown below) are, in some cases, considerable. The margins of uncertainty are relatively lower, for example, in two of the cases (Balkans CP2 and Rwanda CP2) where the preventive deployment of well-equipped military force is a central element of the package, but not in the second Afghanistan package, where this is also an important element. This will be discussed further later in this paper.

Table 1: Conflict Probabilities and CP Packages

Probability of conflict (over 15 year period)	Without CP Packages	With CP Package 1	With CP Package 2
Balkans	100%	40%	20%
Afghanistan Past	100%	80%	40%
Rwanda	100%	17%	22%
Sudan	80%	30%	15%
Uzbekistan	70%	25%	10%
Afghanistan Future	80%	40%	20%

In order to further assess the cost-effectiveness of various CP packages, and reduce dependence on the specific probability estimates made above, the study also calculates a ‘breakeven probability’ for each of the packages. This is the reduction in probability of conflict which a given CP Package has to achieve in order for its additional cost to be equivalent to the likely savings to the international community. Thus, in most cases, the estimated cost of a conflict to the IC is much greater than the cost of a Package designed to prevent it. Yet if a package only reduces the probability of conflict by x%, the average savings to the international community are only x% of the NPV costs of conflict, while the full costs of the Package will have to be met.

It is important to emphasise that it is the difference in probabilities brought about by the Packages that is of relevance to an assessment of their cost-effectiveness. The example of Sudan CP Package 1 may help here. In the absence of either of the Packages, the estimated cost to the IC of this

conflict, if it takes place, is \$18.2 billion. But there is an estimated 20% probability that conflict will not take place, thereby reducing the total mean estimated cost to $0.8 \times \$18.2\text{bn} = \14.6bn . If Package 1 is put in place, it costs \$1.3bn, but reduces the probability of conflict to 30%. The total mean estimated cost to the international community is then $\$1.3\text{bn} + 0.3 \times \$18.2\text{bn} = \$6.8\text{bn}$: a savings of \$7.8 bn. Thus the methodology employed here takes account of both (a) the possibility that conflict might not have occurred, even without the CP Package, and therefore that the Package turns out to have been ‘wasted’; (b) the possibility that conflict will still take place, even with the Package, and therefore that, again, it might be seen as a failure.

Calculations of breakeven reductions in probability of conflict have been calculated only in relation to the costs to the IC. Yet all the conflicts studied impose costs on the directly-affected territory that are significantly higher than those that fall on the IC. To a much lesser but still significant extent, costs also fall on neighbours. The assessment of the net benefits of the packages therefore estimates the likely savings to these parties of the Packages being examined, adjusted for the estimated reduction in conflict probability as a result of those Packages. Thus, for example, Sudan Package 1 is estimated to save the international community a total of \$7.9 bn, but it would also save the directly-affected territory (i.e. Sudan) \$37.8bn and its neighbours \$2 bn. We have not sought to weight the benefits accruing to these different parties.

3. KEY FINDINGS: COST-EFFECTIVENESS OF CP PACKAGES TO THE INTERNATIONAL COMMUNITY (IC)

Of the twelve CP Packages examined, all are estimated to be cost-effective for the IC: i.e., the anticipated cost savings from avoiding conflict exceed the costs of the CP Packages. **In all except one of these cases, moreover, the breakeven reduction in conflict probability is less than half the estimated reduction in probability.** This adds to the robustness of the finding that conflict prevention would have been significantly cheaper than cure in all these cases.

The one exception to this latter finding relates to the second retrospective CP package for Afghanistan (a similar finding is anticipated for the prospective Afghanistan study). In this case, it has been assumed that the most propitious time for CP would have been in the immediate aftermath of the withdrawal of Soviet troops in February 1989, when a unified international intervention might have prevented the subsequent descent into a new civil war. But the main reason for the relatively high level of expense of CP in this study, and thus its poor cost-effectiveness, is that Afghanistan had already experienced a decade of civil war, had been heavily armed (on both sides) by foreign powers, and was facing considerable obstacles to a negotiated peace, not least because of this preceding conflict. The sheer scale of the second CP Package (involving an initial deployment of 30,000 troops, and the provision of a level of ODA that would probably have made Afghanistan the world’s largest aid recipient in absolute terms) means that its projected costs are almost four times as great as those of the next largest of the other eleven Packages (the second Balkans package).

The cost of this CP Packages may have been overstated, and it is worth noting that it is still marginally cost-effective to the IC, on the assumption that the probability of conflict can be reduced by 60%. Crucially, however, the case for the retrospective cost-effectiveness of CP for the international community in Afghanistan rests entirely on the assumption that Afghanistan’s war had

a significant effect on the scale of international terrorism (including the 9/11 attacks) and/or the global drugs problem. If such a relationship did exist, making even modest inroads into the costs of these global problems would have made CP worthwhile. In this study, we assume that the creation of a peaceful Afghanistan in the 1990's would have reduced the probability of 9/11 by 50%, reduced the total costs of dealing with international terrorism by 20%, and reduced the total costs incurred as a result of the international drugs trade by 5%. On these assumptions, both CP Packages would have been worthwhile to the IC at relatively low breakeven probabilities of success. If these costs are excluded, on the other hand, the retrospective cost-effectiveness of intervention to the IC in Afghanistan is very low indeed.

It is also possible to devise a measure of relative cost-effectiveness, based on the ratio between expected NPV cost savings to the IC and estimated CP costs. This is summarised below:

Table 2: Cost-effectiveness of CP Packages

Comparison of CP costs with anticipated savings to IC (NPV, 2004\$ b)	Cost of CP Package	Net saving to IC as a result of Package	Gross Saving/Cost Ratio ⁵
Balkans CP1	15.4	66.7	5.33
CP2	37.1	72.4	2.95
Rwanda CP1	1.5	6.0	5.00
CP2	1.4	5.6	5.00
Afghanistan Retro CP1	19.9	36.2	2.82
CP2	139.4	28.8	1.21
Sudan CP1	1.3	7.9	7.08
CP2	5.3	6.6	2.25
Uzbekistan CP1	0.2	0.7	4.50
CP2	0.5	0.6	2.20
Afghanistan Prosp CP1	21.1	93.9	5.45
CP2	34.1	138.5	5.06

On the basis of these figures, two of the more cost-effective Packages are Package 1 for Sudan and Package 1 for Uzbekistan. From this, **one might be tempted to draw the general conclusion that CP is particularly cost-effective when it takes place in the ‘gestation phase’ of the conflict cycle**, i.e. well before an anticipated conflict (even in Sudan, the probability of a revival of the central conflict in the short-term is assessed to be relatively low). In both cases, the proposed CP Packages focus primarily on a combination of measures intended to promote accountable government, develop security sector reform processes, and encourage peaceful conflict resolution. This conclusion should, however, be treated with some caution. We believe that the estimates of cost are reasonable in both cases, and the confidence margins are not especially large. **But the estimates of conflict probability reduction depend critically, in both cases, on the willingness of local political authorities to allow their implementation.** For example, external support of any kind to opposition groups, human rights groups or independent media in Uzbekistan might well meet resistance. Similarly, the government is unlikely to view favourably the opening of OSCE field offices in the Ferghana Valley. The ability of the IC to carry out highly cost-effective CP

⁵ The net savings figures in the Annex are calculated by subtracting Package costs from gross savings. For the purposes of calculating a benefit/cost ratio, however, the gross figure is more appropriate.

packages in the ‘gestation phase’ of conflicts, may therefore often depend on its willingness to incur unquantified costs, e.g. arising from possible trade-offs between short-term interests in friendly cooperation with existing governments and longer term prospects of CP. These other costs should not be overstated, and our view is that (in Sudan and Uzbekistan at least) there are many potential entry points for effective CP that could be exploited given sufficient IC commitment. If the IC is unwilling or unable to incur these other costs, the prospects of effective CP of this sort will be correspondingly reduced.

Both the proposed CP packages for Rwanda also have very high benefit/cost ratios to the IC. Package 1 is designed to take advantage of the opportunity that existed to terminate the civil war in late 1990, before it escalated and before it led to the militarization / radicalisation of Rwandan society. It consists of a united international initiative to broker a peace settlement, backed up by an arms embargo, a small peacekeeping force and some limited financial support designed to soften the social impact of the economic crisis. Package 2 is a military intervention in 1994 that would have terminated the genocide in Kigali before it spread to the rest of the country, thereby avoiding not only mass killing, but also the subsequent destruction of infrastructure and the refugee crisis. The key to understanding the high (retrospective) cost-effectiveness of these packages is that 92% of the costs of the conflict scenario to the IC relate to the genocide and its consequences, and only 8% to the civil war that had been underway since 1990.⁶ The first CP Package is estimated to have only a 50% probability of stopping the civil war, but would have reduced the risk of the genocide by 90%. Without the risk of the latter, the first package would have had a benefit/cost ratio to the IC of only 0.5: well below break-even point.⁷

Perhaps the most obviously effective CP package amongst those studied, therefore, is the second Rwanda package. The proposed military action was clearly feasible, did not depend on host government approval, and would almost certainly have achieved its defined objective of stopping the genocide, with all the other consequences that followed.

The nearest parallel to the second Rwanda CP Package is the second Balkans CP Package. This involves the provision of a security guarantee to Bosnia and Croatia in 1991, as part of the decision to recognise them as independent states, and to underpin this with the deployment of sufficient military force to ensure the credibility of this guarantee against both external and internal opponents. It is supported by a substantial programme of long-term development assistance, designed to consolidate the peace and prepare for the integration of the region into the wider European community of states. This package is similar to the Rwandan one insofar as both involve the deployment of robust military force in order to contain an immediate crisis, neither required prior permission of all the parties to the conflict, and both are assessed to have had a high probability of successfully achieving their objectives.

Yet the second Balkans Package is also by far the most expensive of all the clearly profitable CP packages examined here. The high cost of its military component reflects the assumption of a force equivalent in size and capability to the NATO force eventually deployed in Bosnia in 1995/96. By comparison, the Rwandan ‘Package 2’ force is a tenth of the size and less heavily-equipped. This

⁶ By comparison, 23% of the costs to Rwanda itself relate to the civil war.

⁷ The first CP Package would, however, have been cost-effective if the costs to Rwanda itself are taken into account.

may partly reflect undue caution in the Balkans case study, and arguably even a force half the projected size could have had the required deterrent effect if deployed early enough. But it largely reflects the greater military capability of potential adversaries in the Balkans compared with Rwanda. A similar consideration applies in the retrospective Afghanistan study, where the large military force deployed in CP Package 2 reflects the perception (reinforced by US and NATO experience since 2001) that Afghanistan is a very difficult military environment in which to deploy. Insofar as there is a lesson from these studies, therefore, it is that **the cost-effectiveness of preventive military action is likely to be greater when the potential for effective resistance is relatively small, and the size and duration of deployments can consequently be more limited.**

There may be another factor that explains the disparity in estimated costs of military intervention. In both the Balkans and retrospective Afghanistan studies, the military costs of CP are derived, in considerable measure, by reference to the costs of later post-conflict interventions (in 1995 and 2001 respectively). By contrast, studies that assume forceful military intervention in cases where none has taken place (e.g. Rwanda Package 2 and Sudan Package 2) generally assume a much lower level of cost. Whereas this difference may have led to over-caution in estimating Balkan and retrospective Afghanistan costs, it may have led to over-optimism in Sudan, where the exact nature of the military challenges faced in Package 2 are hard to specify or cost.

Both the Balkans packages illustrates the considerable expense that can be involved in using economic assistance as a CP tool. The first package is designed to stabilise the Yugoslav economy in its period of crisis in 1989-91, and thereby prevent the rise of extreme nationalism that subsequently led to war. The second package also involves, in addition to security guarantees, substantial development assistance to the newly independent republics of former Yugoslavia. In both cases, however, the costs involved in immediate economic stabilisation are relatively modest, and mostly take the form of partial write-off and rescheduling of external debts. More crucial than the absolute size of the development programme provided in addition to this stabilisation package, moreover, would be its allocation in a conflict-sensitive manner. Indeed, given the continuing potential for intra-republican and inter-republican conflict, it would be essential that the programme is managed in such a way as to reduce rather than increase these tensions.

By far the biggest component of the economic assistance component of the Balkans packages lies in their commitment to finance a move towards now-current levels of development assistance to the region. Such a high level of assistance can be justified as CP insofar as it contributes to the long-term prosperity of the region, and helps in support its integration into the European Union, whose continuing enlargement is often, with some justice, described as its main contribution to CP. Yet arguably a much lower level of economic assistance would have been enough to produce equivalent CP gains, once the immediate constitutional crisis of the early 1990's had passed. Of course, such an investment might well have been justified in terms of the other non-CP benefits to the IC of a prosperous (ex-) Yugoslavia. Yet it also highlights **the importance, especially when examining the use of large-scale economic assistance as a CP tool, of being clear as to whether CP is the primary objective being sought.**

This leads us to some general remarks, based on the case-study research, that may shed some light on the relative cost-effectiveness of different CP instruments:

- First, all the case studies showed that **the timing of the CP Packages is critical to the chances of success in the retrospective studies**. In the case of the retrospective studies, this involved the creation of packages focused on particular ‘windows of opportunity’ for external intervention, often coinciding with the perceived failure of domestic authorities to prevent the worsening of political, economic or security conditions. Characteristically, this occurred either (a) when the gravity of the national political and economic crisis was already apparent to many key actors, but before mobilisation for armed conflict had got under way (as in both the Balkans packages); or (b) when limited armed conflict had already begun, but had not yet escalated (as in the first (and to an extent the second) Rwanda package). This concern with windows of opportunity also informs the timing of the retrospective Afghanistan Packages, both of which focused on the opportunity, slight though it might have been, of a viable peace process in the immediate aftermath of Soviet withdrawal in 1989. Perhaps because of the timing of the conflicts in all three locations, the packages in the retrospective studies tended to give a relatively lower priority to longer-term ‘structural’ CP, reflecting the limited time frame in which (with the benefit of hindsight we know) they had to operate.
- The packages in the prospective case studies for Sudan and Uzbekistan, by contrast, are more concerned to promote longer-term processes of institutional and normative change that can reduce the future resort to political violence, reflecting the assessment that large-scale conflict is primarily a medium-term, rather than short-term, risk. Both packages emphasise, however, that such longer-term processes must also be flexible and capable of rapid adaptation if they are to be successful in CP. Rather than a single fixed package of measures, they suggest a set of overarching objectives, under which a range of specific, and constantly adapting, measures are then developed as circumstances develop.
- **Both retrospective and prospective case studies, written in relation to both imminent and longer-term risks of conflict, emphasise the need for CP packages to be timely and flexible.** This in turn has important implications for the IC’s capability for rapid reaction across the board of CP instruments, including diplomacy, financial assistance, and military engagement. Such a capability, in turn, requires the IC to have a sophisticated real-time understanding of the dynamics of conflict in the countries in question, together with mechanisms for identifying and contacting key actors, and for feeding ‘early warning’ of conflict into strategic decision making.

4. KEY FINDINGS: VARIATIONS IN COSTS OF CONFLICT TO INTERNATIONAL COMMUNITY

So far, our focus has been on comparing the merits of different CP packages in different circumstances. In determining the cost-effectiveness of CP to the IC, however, the costs of conflict are an equally important part of the equation. These costs can broadly be divided into ‘discretionary costs’ and ‘non-discretionary costs’, corresponding roughly to the distinction between ‘wars of choice’ and ‘wars of necessity’.

‘Discretionary’ costs refer to the costs which the IC (i.e. the donor community or ‘the West’) incurs by responding to conflicts in other parts of the world. It includes the costs of refugee support,

humanitarian aid and post-conflict reconstruction, as well as post-conflict military intervention. The cost-effectiveness of CP can be analysed solely in relation to these discretionary costs. Yet the IC often declines to incur many of these costs, as the experience of Afghanistan in the 1990's illustrates. Moreover, a strategy for CP that is based solely on reducing the discretionary costs of conflict to the IC faces the paradox that **increased investment in CP can actually incur increased costs if conflict still breaks out, if only because some forms of preventive action often ties the intervening states into obligations (military, political, economic) from which it is not easy for them to extract themselves.** If the sole motive of CP was to save discretionary costs, therefore, the best strategy might be to entirely disengage from countries and regions in crisis, thus saving on both pre-conflict and post-conflict costs.

Yet such a strategy, apart from being callous in its indifference to the human costs of conflict to those directly affected, also ignores the *'non-discretionary'* costs of conflict to the IC, i.e. those costs which the IC will be forced to incur, whether it likes it or not, or at least will find it very hard to avoid. Examples in our case studies include:

- Increased migration of asylum seekers from countries at war (e.g. into the EU as a result of the Balkans war);
- The direct consequences of international terrorism developing safe havens in 'failed states' (e.g. al Qaeda in Afghanistan);
- The loss of oil company profits, and reduced international welfare more generally, as a result of disruptions to supplies from countries in conflict (e.g. from Sudan);
- The increased availability of narcotics as a result of conflict and state failure (e.g. in Afghanistan).

If properly foreseen, non-discretionary costs are often likely to be greater in magnitude than discretionary costs, and may consequently be given more weight in IC deliberations. This tendency may, in some cases, be offset by the greater difficulty involved in costing non-discretionary costs to the IC compared with discretionary costs. Some 'costs' have offsetting benefits (e.g. increased immigration can have economic benefits, and increased oil prices may contribute to environmental objectives). Other costs may be difficult to quantify, especially when (as in the cases of narcotics, and to a lesser extent international terrorism) production is geographically mobile and therefore relatively impervious to 'supply side' control. On the other hand, **the willingness of the IC to incur 'discretionary costs' is usually directly proportional to the level of 'non-discretionary costs' that are being incurred.** In the Balkans, the spillover effects of conflict on Western Europe (in migration, organised crime, disruption of trade) had a direct bearing on the willingness of the EU and NATO to devote considerable resources to post-conflict stabilisation. Despite the depth of the humanitarian crisis, the IC was unwilling to intervene in Afghanistan, and incur 'discretionary costs', until the massive 'non-discretionary' costs of international terrorism reached the US. In Rwanda, similarly, the failure to intervene to prevent the genocide derived in large measure from the perception (fuelled by events in Somalia) that the IC could refuse to act without incurring any costs to itself.

If the main driving force in calculations of the costs of conflict to the IC is the prospective level of ‘non-discretionary’ costs, it follows that the IC will be more willing, other things being equal, to invest in CP in those territories from which such costs are most likely to be generated. **Countries with vulnerable oil supplies, terrorist bases, high levels of foreign investment or large populations of potential migrants are therefore more likely to be candidates for cost-effective CP by the IC than countries with few of these global linkages.**

Yet one would have thought that these considerations would have led to the focusing of CP efforts on larger countries (like Nigeria, Ethiopia, India, Pakistan and Indonesia), since their descent into conflict would be likely to have much greater economic, strategic and humanitarian consequences than similar events in smaller countries. In practice, however, both ODA and military intervention (and indeed the UK’s own CPPs) have tended to be disproportionately focused on smaller countries. Our five case study countries have not bucked this trend, consisting of one small country (Rwanda) and four medium-size ones (Afghanistan, Balkans, Sudan, Uzbekistan), all with populations less than 35 million.

5. KEY FINDINGS: COST-EFFECTIVENESS TO DIRECTLY-AFFECTED TERRITORIES AND NEIGHBOURS

Although the main focus of this study has been on the benefits and costs to the IC, taking into account the levels of costs to the directly-affected territory and its neighbours has a dramatic effect on the cost-effectiveness of CP. As Table 3 shows, once costs to all parties affected by a conflict are taken into account, the ‘breakeven probability’, i.e. the level of reduction in conflict probability at which CP becomes cost-effective, is reduced dramatically. The resulting breakeven for all parties is less than 10% in eleven of the twelve cases being studied, and 5% or less in nine out of twelve cases. **In all the non-Afghan case studies, moreover, the costs of conflict to the directly-affected territory exceed those to the IC and to neighbours, usually by a very large margin.**

The main methodology used to estimate the costs to the directly affected territory and its neighbours is to compare the level of national income in the conflict scenario with the level of income that it is estimated would have been achieved, over the 15 year period in the peace scenario. In addition, the case studies also estimate the additional costs, in conflict, of diverting some part of national income into conflict-related uses, including military spending and reconstruction. This methodology helps us encompass the wide range of economic effects of conflict, while avoiding the perils of double-counting. It also takes into account the powerful effect of differential growth rates on the relative prosperity of countries (or scenarios, in this case).

This methodology could be further refined, for example by including the costs of the human capital lost through deaths and injuries incurred as a result of the conflict.⁸ Yet a significant part of this cost (up to the end of the 15-year time period) should already be included, insofar as it impacts on projected or actual national income.

⁸ A useful example of such a calculation is contained in Nisha Arunatilake and Sisira Jayasuriya, ‘The Economic Cost of the War in Sri Lanka’, *World Development*, Vol 29, No.9, 2001, p. 1494.

Table 3: Break-even probabilities for CP Packages

Country	Balkans	Afghanistan Past	Rwanda	Sudan	Uzbekistan	Afghanistan Future
total NPV costs of conflict to IC	136,921	280,509	8,957	18,239	1,930	287,652
total NPV costs of conflict to territory	843,182	98,660	35,261	75,506	27,289	51,144
total NPV costs of conflict to neighbours	260,159	49,935	344	3,931	2,383	23,656
total NPV costs of CP Package 1 to IC	15,379	19,896	1,472	1,268	191	21,097
break-even reduction in conflict probability for international community	11%	7%	16%	7%	10%	7%
break-even reduction in conflict probability for all parties (IC, directly affected territory and neighbours) combined	1%	5%	3%	1%	1%	6%
total NPV costs of CP Package 2 to IC	37,117	139,457	1,385	5,287	542	34,098
break-even reduction in conflict probability for international community	27%	50%	15%	29%	28%	12%
break-even reduction in conflict probability for all parties (IC, directly affected territory and neighbours) combined	3%	32%	3%	5%	2%	9%

One potentially worrying consequence of basing costs to the directly-affected territory on national income loss (which applies equally to calculations of the value of life based on lost potential output) is that it leads to much higher per capita figures for costs in relation to middle-income countries affected by conflict, compared with low-income countries. This is illustrated below:

Table 4: National income levels and costs to directly-affected territory and neighbours

Country	Balkans	Afghanistan Past	Rwanda	Sudan	Uzbekistan	Afghanistan Future
total NPV costs of conflict to territory	843,182	98,660	35,361	75,506	27,289	51,144
Per capita annual cost of conflict	\$2,550	\$263	\$149	\$157	\$73	\$136
Per capita annual income (2002)	\$2,480	\$185	\$230	\$350	\$450	\$185
total NPV costs of conflict to neighbours	260,159	49,935	344	3,931	2,383	23,656
Per capita annual cost	\$403	\$50	\$0.2	\$3	\$14	\$24
Per capita annual income (2002)	\$2,630	\$1,710	\$160	\$130	\$240	\$1,710

Of the conflicts studied, both the costs of the conflict to the directly-affected territory and the costs to neighbours are far higher in the Balkans than in any of the other cases: 9 and 3 times as high respectively compared with Afghanistan, and 12 and 40 times as high respectively compared with Sudan. Yet the death tolls in Afghanistan and Sudan were, or are projected to be, as high as those in the Balkans, and all three territories have comparable total populations (22m for former Yugoslavia, 25m for Afghanistan and 32m for Sudan). The main reason why the estimated monetary costs of the conflict in the Balkans are so much higher, therefore, is that its per capita income (even after a decade of war) is between 7 and 14 times as high. As a consequence, the value of lost production, or destroyed infrastructure, is much higher. A similar picture emerges when the economic impact on neighbours is examined. Albania, Bulgaria, Hungary and Romania are estimated to suffer three times as much cost from the effects of the Balkans war on their rate of growth as Iran does from hosting 3 million Afghan refugees at its own expense. As a lower-middle income country, the cost of hosting refugees in Iran (the main cost of the Afghanistan conflicts included above that relates to neighbours) is significantly higher than in low-income countries bordering Rwanda and Sudan.

While the intention of focusing more attention on this variable may be a humanitarian one, therefore, the consequence of doing so (at least if a methodology using income loss is used) would be to prioritise CP in middle-income conflict zones. In the light of these comparisons, it is clear that **further work is needed to generate more equitable methodologies for comparing potential costs to directly-affected territories if it is to become a more central criterion in comparing the cost-effectiveness of CP Packages.** Possibilities for doing so are discussed further in the Briefing Paper 3.

With these misgivings in mind, each case study has also summarised available data on more direct indicators of human security (lives lost, serious casualties, refugees) and human development (life expectancy, education enrolment and HDI levels). Yet the extent to which such data provides a useful means of comparing the costs of conflict to directly-affected territories remains uncertain. **Further work is needed, in particular, to develop direct indicators of the impact of conflict on**

human security. The UNDP's Human Development Index, while a useful corrective to an exclusive focus on GDP data, fails to take into account the crucial role that violence, and fear of violence, plays in determining the welfare of the poor.

Some important health warnings are also appropriate in relation to costs to neighbouring territories. In some cases, estimates of these costs can be remarkably small, for example in Rwanda and Sudan. This partly reflects the relatively self-contained nature of the conflict in those territories, or at least the complex nature of any possible spillover effects. But it also reflects the reality that the IC often picks up most of the cost of dealing with cross-border refugee flows, with migrants as a consequence often having net positive effects on their adopted homes. As the case study of Rwanda's subsequent interventions in Congo illustrates, moreover, spillover effects can be economically beneficial, at least for the intervening state. Nor are neighbours usually passive victims of conflict. Like the IC, they are often active participants in the conflict, with a stake in a particular outcome and/or particular factions involved in the conflict. Indeed, for example in the case of Afghanistan, one of the main obstacles to the success of the retrospective CP packages is the difficulty in reaching a consensus between Afghanistan's neighbours (Russia, Iran and Pakistan) as to the best political solution for that country. Intervention by an outside power (the US) can sometimes override this regional conflict dynamic, but only at considerable cost.

6. BURDENSARING, LEADERSHIP AND IMPLICATIONS FOR THE UK

Our framework is based on the assumption of a single international actor. Yet no such unitary actor exists, making it more difficult to generate the international and inter-organisational agreement that is needed to undertake timely CP. In practice, therefore, prompt action is more likely if a single powerful state (or, in some circumstances, organisation) takes a leading role in organising a response. One of the clear conclusions from the literature on international intervention and CP is that prompt action is more likely if a single powerful state (or, in some limited circumstances, organisation) takes a leading role in organising a response: the US in Sudan and (in 2001) in Afghanistan, the UK in Sierra Leone, France in Ivory Coast. Where national stakes are relatively limited, governments often seek to free-ride on the efforts of others, and nothing gets done. This was certainly a key obstacle to effective CP in all three of our retrospective case studies. Yet the problem is not simply one of apathy and free-riding within the context of shared objectives. In some cases, for example Rwanda in 1991-94 and Afghanistan in 1990, the key international actors involved were pursuing objectives that were in direct conflict with each other, making any unified IC response impossible and greatly increasing the chances of conflict.

States therefore undertake their own national cost-benefit calculations on the relative merits of different forms of intervention and non-intervention. In order to assess whether the national cost/benefit relationship for CP measures for the UK (or indeed another outside power) is different from that for the international community as a whole, it is therefore necessary to estimate what share of costs and benefits are met by, or accrue to, the UK. Were the UK to consider taking a leading role in CP in one or more countries, it would find itself meeting most of the costs of CP, but only benefiting from a relatively small share of the benefits of peace, most of which would accrue to other international and domestic actors. 'Spending to Save' is therefore difficult to operationalise for the UK in isolation, unless it is able to mobilise IC partners to fully share the CP burden. UK leadership is most likely to be viable where the UK has a strong stake in a particular territory, e.g. as

a result of ongoing ODA programmes and economic interests. At the same time, however, UK CP initiatives can arguably have wider benefits to the UK beyond the conflict in question, enhancing its global standing, responding to domestic political pressures for humanitarian actions, and building up credit with partners that can be spent on other issues of value to the UK.

It is not easy to assess whether the UK currently contributes disproportionately to global CP, given its economic weight, and might thus feel others are ‘free-riding’ on its efforts.. When CP is financed through multilateral organisations, such as the UN or OSCE or EU, costs are shared on the basis of standard scales of assessment, and the UK's share of the costs is therefore roughly proportional to its economic weight. When the UK provides other resources on a bilateral basis, its share varies considerably. The UK spends more than the EU average or than Japan on defence, but less than the US. It spends above the OECD average on ODA, though below the EU average. In any case, most defence and ODA spending does not have a connection to CP, and it is therefore hard to estimate what share of global CP spending is met by the UK.

The area in which the UK contribution to international security, including CP, is most clearly disproportionate is involvement in military operations. During the last ten years, the UK has borne a share of the costs of overseas military operations that is well above its relative economic weight, and it maintains a higher proportion of its armed forces outside national territory than any other state in the world. Were this trend to continue, the UK has more to gain than other countries from measures that reduce the need for future military operations. On the other hand, it means that the UK could also be called upon to make a disproportionate contribution to the military dimension of CP activities. This is especially the case for the initial high-intensity phase of peace enforcement operations, in which the UK retains a significant comparative advantage.

In principle, given the UK's high share of military intervention costs, a particularly cost-effective form of CP expenditure might therefore be programmes designed to provide other countries with increased capacities for peace support operations. Whether this is true in practice, of course, depends on whether the programmes deliver on their objectives.

UK overseas military operations and ODA flows are geographically focused, and the extent of UK contributions to CP efforts will often depend on the synergy with, and between, these and other policy instruments. The extent of the UK involvement in CP will also vary depending on the extent to which the region/country in question is seen to be of particular strategic/economic/etc interest. Yet the scope of these interests at present are very broad, with, e.g., MDG interests in sub-Saharan Africa and South Asia, strategic and economic interests in the Greater Middle East, and growing economic and geopolitical interest in China and India. A more helpful criterion may therefore be: where can a distinctly UK contribution to CP add value to efforts led by others? In some cases, e.g. in North-East Asia, it may be that UK (and indeed European) contributions will remain marginal to those of more deeply engaged powers.

7. AREAS FOR FURTHER DEVELOPMENT

Further work is required to refine the methodology and sources used for the case studies. We have identified three areas in particular where more research might be of value:

- a. **Non-discretionary costs to the IC.** Much of the increased interest in CP relates to the possibility that conflict might generate costs to the IC that are unrelated to post-conflict intervention, for example through international terrorism, narcotics supply, oil supply disruption, etc. Yet there is very little literature available that seeks to quantify these costs in relation to CP decisions.
- b. **Objective and subjective measures of conflict probability.** Econometric literature is already available on the correlates and incidence of conflict (e.g. Collier et al). It should be possible to situate the findings of this study in the context of this literature, explore how far econometric results can be used to inform conflict probability estimation in the model, and suggest 'rules-of-thumb' that might be used to systematise conflict probability estimation.
- c. **Valuing the costs of conflict to the directly affected party.** This study uses loss of GDP as its main proxy for the cost of conflict to directly affected territories and neighbouring states. This has the effect of valuing the cost of conflicts to directly-affected middle-income countries at a higher rate than in low-income countries. Further work could explore whether this relative weighting is consistent with other IC policy commitments (e.g. the MDG's), and could explore how an alternative valuation methodology might be developed. This has important implications, not only for this study, but across the range of UK and international CP activities.

Table 5: Summary of Findings (all values at \$m NPV, 2004 prices)

Country	Balkans	Afghanistan Past	Rwanda	Sudan	Uzbekistan	Afghanistan Future
total NPV costs of conflict to IC	136,921	280,509	8,957	18,239	1,930	287,652
total NPV costs of conflict to territory	843,182	98,660	35,261	75,506	27,289	51,144
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total NPV costs of Package 1 to IC	15,379	19,896	1,472	1,268	191	21,097
break-even reduction in conflict probability	11%	7%	16%	7%	10%	7%
estimated reduction in probability as result of package	60%	20%	83%	50%	45%	40%
net savings to IC as result of package	66,774	36,205	5,962	7,851	678	93,964
savings to directly affected territories	505,909	19,732	29,267	37,753	12,280	20,458
savings to neighbouring territories	156,095	9,987	286	1,966	1,072	9,462
total NPV costs of Package 2 to IC	37,117	139,457	1,385	5,287	542	34,098
break-even reduction in conflict probability	27%	50%	15%	29%	28%	12%
estimated reduction in probability as result of package	80%	60%	78%	65%	60%	60%
net savings to IC as result of package	72,420	28,848	5,601	6,568	616	138,493
savings to directly affected territories	674,546	59,196	27,504	49,079	16,373	30,687
savings to neighbouring territories	208,127	29,961	268	2,555	1,430	14,194

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- **The Balkans 1989-2003**
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- **Briefing Paper 3: Valuing the costs of conflict to the directly affected party**

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