

Post-conflict employment creation for stabilization and poverty reduction

Darryl McLeod*

Maria E. Dávalos**

April 2008

This paper was originally commissioned by Selim Jahan of UNDP's Poverty Group. He is in no way responsible for its current form and content however. This paper began as a brief summary UNDP post-conflict employment programs for recovery and poverty alleviation (now an appendix of this paper) but with helpful suggestions and excellent comments of Selim Jahan, Nora Lustig, Ad Melkert, Remco Van Vigngarten it became something quite different. This paper also benefitted from comments by participants in two meetings of the advisory committee on post-conflict economic recovery (Greentree in New York and at the Bellagio Conference Center in Italy). Maria Dávalos and Valeria Luselli provided excellent research assistance on first draft. The views expressed in this report are, of course, solely those of the authors, and should not be attributed to Poverty Group or other participants in the MDG data quality project.

*Consultant to UNDP-BDP Poverty Group and the UNDP BCPR, Summer 2007, and Associate Professor of Economics, Fordham University, Rosehill Campus, comments, corrections welcome: please contact mcleod@fordham.edu.

**PhD. Candidate, Department of Economics, Fordham University, New York, davalos@fordham.edu

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Summary

Recent civil conflicts are increasingly concentrated in very poor countries with large rural populations (see Table 1). In very poor and often economically isolated rural areas, combat provides an occupation of sorts, especially for young males. This means employment or livelihood creation post-conflict is vital for re-directing the efforts of ex-combatants as well as those displaced from jobs and communities by war. Many of these economies were not performing well before lapsing into conflict, so creating large numbers of productive, decent jobs is very challenging. Despite these difficulties a number of economies have managed to move to a higher growth path post-conflict. Cambodia, Mozambique, Uganda and Vietnam for example have managed to create jobs and reduce poverty. Though these are still poor countries, incomes are rising much faster than pre-conflict suggesting they have broken out of the poverty-conflict trap. Ethiopia, El Salvador and Rwanda have also shown signs of sustained growth, though in some cases the rural poor have not benefitted from recovery and the economy has not matched its pre-conflict performance.

This paper examines the role of employment programs in promoting inclusive and sustained growth. The first part of the paper focuses on public employment programs in the immediate aftermath of conflict when direct employment programs for example initially focus on demobilized ex-combatants. As security improves and the private sector recovers, the programs are scaled back, but can also evolve into targeted workfare programs, conditional cash transfers or even food for work programs in very poor areas. Ravallion (1998) and others argue that in high poverty countries, direct employment or workfare programs may not be an efficient way to target assistance. However, in the immediate aftermath of conflict the indirect social benefits of public employment programs are high, in part because the private sector earnings forgone by program participants are very low and even negative if ex-combatants turn to violence or illegal activities. Second, the direct private and social benefits of direct employment schemes are also higher in post-war settings, as unskilled workers are needed for reconstruction and cleanup.

Public employment schemes may also provide youth with their first encounter with organized employment. Even if young workers return to school, the experience of organized employment can have lasting impacts on earnings and employability. Third, depending on the cause of war, creating employment can be a particularly effective way of maintaining the peace. If conflict is driven by ethnic grievances or religious differences, large scale employment programs can mitigate conflicts over scarce jobs by various ethnic groups, providing valuable time for the private sector to recover and for all regions to enjoy the benefits of peace. If conflict is driven by resource rents, it is important that at least for a time rebels be employed in somewhat remunerative jobs, making it more difficult for war entrepreneurs to recruit new fighters. Finally, if recent patterns hold, employment programs can be generally financed using outside aid funds as opposed to distortionary and often regressive taxes such as the inflation tax.

As the economy recovers and per capita income rises the traditional arguments for and against public employment safety-net programs take hold. To avoid rationing of jobs and political favoritism compensation rates in public employment programs should be low enough to discourage participation by all but the neediest workers. Self-targeting public employment programs are both cost effective and consistent with making space for private sector employment growth. In principle public employment programs including labor intensive public works could be reoriented from employers of first resort for ex-combatants, to employers of last resort targeting poor and vulnerable workers in rural areas. In practice, however, experience in India and South Africa suggests this may be difficult, unless an explicit accord with labor can be reached, as in Argentina for example.

Part 2 of this paper turns to macroeconomic constraints on employment creation. In particular, we examine some evidence of the strength of recovery, on the importance of stabilizing inflation and on the effects of aid surges on the real exchange rate. The evidence review here suggests that a number of countries have successfully broken out of the conflict trap, especially since 1990. Cambodia, Ethiopia, Mozambique, Rwanda and Uganda have all staged relative successful post-conflict recoveries. In fact, average per capita growth among twelve conflict countries has increased to over 4%, up from negative rates in the 1990s. Over the same period average inflation for these twelve countries has fallen from over 50% to about 8% on average. In fact, higher growth has been accompanied by lower inflation. That said, immediately after conflict inflation remains high for the first 3-5 years, and then falls into single digits. Among conflict countries inflation is higher on average, and there is a wide range of experience. Mozambique in particular has grown rapidly despite inflation hovering in the low double digits.

All of the African countries that have staged strong post-conflict recoveries have had large surges in foreign aid inflows following the end of conflict.¹ Despite widespread fears that these large aid inflows would cause exchange rate appreciation and a loss of competitiveness similar to the Dutch Disease, this has not been the case, mainly because these countries have managed to avoid exchange rate appreciation. In some cases countries took clear steps to avoid exchange appreciation, none of them used aid only to finance net imports for example, in other cases good luck or effects of aid on the productivity of labor and other non-tradables may have played a role. Since there is some evidence that exchange rate appreciation did reduce growth in El Salvador,² for example, the policies and circumstances that allowed these countries to avoid a loss of competitiveness deserve further study.³

While not the main cause of conflict, youth and poverty can be a lethal mix. In the growing empirical literature on conflicts' roots, poverty is the common factor. Poor countries have more conflicts because

¹ Cambodia received substantial aid inflows as well, averaging about 10% of GNI annually, but aid flows were fairly uniform starting at about 11% of GNI in 1992 and peaking at 16% in 1995.

² Even El Salvador's exchange rate appreciation was not correlated with large aid flows, aid to El Salvador fell quickly after war ended: appreciation of the colon seems instead to have been driven by strong inflows of remittances and a fixed exchange rate (dollar peg).

³ On the question of how and why aid did not appreciate the real exchange rate see Berg et al. (2006) and Elbadawi et al. (2007).

combatants have little to lose. Post conflict employment programs by necessity initially focus on security, humanitarian relief and reconstruction, but the ultimate goal of employment is to point young, inexperienced workers, including ex-combatants, in new directions. Many countries that slip into prolonged conflict did poorly before war started, so it is important to change the direction of economic policy as well. Both of these tasks are very challenging, even without the risk of renewed conflict lurking on the horizon. That said, a number of countries appear to have broken out of the conflict trap: Cambodia, Ethiopia, Mozambique, Rwanda, Uganda and El Salvador have all staged respectable recoveries.

An important conclusion of Part 1 is that employment programs should start early and be integrated into DDR⁴ programs and should immediately focus on employment and training. This is not just because this is what ex-combatants say they want (see Box 11), but because cash for work schemes can speed the transition to private sector employment or livelihood creation, and make better use of aid dollars. The principle benefit of cash for work programs is not “self-targeting”. This is largely irrelevant in a post-conflict setting, since ex-combatants and victims of conflict can be identified using other means. DDR programs that are viewed as severance pay or pure cash transfers can delay the transition to private employment or self-employment.⁵

⁴ DDR stands for disarmament, demobilization and reintegration. The consensus is that disarming and demobilizing programs work fairly well, but that reintegration often fails, which is where more effective employment programs come into the picture.

⁵ A common report from the field, for example, is that micro-credit loans dispensed by early DDR programs are considered “grants” or cash payments instead of loans. This may in part be due to the lack of community networks necessary to make these programs work, but the “unconditional cash transfers” or severance pay atmosphere created by DDR programs may also be part of the problem. By stressing employment and small business training from the beginning, DDR programs can better achieve the promised critical “reintegration” objective.

Part 1: Post-conflict Labor Market Interventions

1.1 Conflict and Labor Markets

The effect of war on the labor market depends on whether it is mainly a shock to labor demand or labor supply. War can reduce labor supply as prime age workers enter the military even as demand for equipment and supplies increases. During World War II labor shortages drove up wages, drew women and minorities into the labor market and greatly increased the share of wage earners in the labor force. Picketty and Saez (2003) document the sharp increase in the number of U.S. wage earners, as the unemployed and self-employed joined the military (wage employment declined sharply during the Great Depression). The sharp expansion of the formal wage earning workforce helped pull the United States and much of Europe out of the Great Depression. In fact, Picketty and Saez (2003) argue both World Wars had long lasting and sharp drops in inequality in both the U.S. and France. Goldin and Margo (1992) also find the war greatly reduced wage inequality; they call it the “great compression” even as capital incomes fell. Many feared the war’s end would bring a return of high unemployment, but it did not. U.S. post-war aid and then the Marshall Plan helped speed recovery in Europe and Japan. Post war reconstruction sharply increased labor demand and drove up real wages even in devastated Germany and Japan.⁶ Eichengreen and DeLong (1991) credit the Marshall Plan with fundamentally altering the social contract in continental Europe, setting post-conflict France and Germany on permanently higher growth paths (to be joined later by Italy and Spain).

World War II was immensely destructive, but its impact on labor markets were not all negative, especially adding in the post-war reconstruction booms. Unlike international wars however, civil conflicts in agrarian economies appear to be mainly shocks to the demand side of the labor market, and hence much more harmful.⁷ Rural labor markets are dominated by agriculture, which in turn relies on a fragile transportation system, vulnerable livestock and critical seasonal labor activity, all of which are easily disrupted by war. Mining operations may be less vulnerable, but then these activities are often not labor intensive. Military service provides wage employment of sorts, but only to a limited number compared to the large populations of young workers in poor conflict prone countries. Rather than improving, the income distribution worsens, as workers are pushed into the informal sector, agricultural production contract and as capital flees the country. Conflict

⁶ World War I was also followed by an investment boom, except in Austria and Germany, but Keynes (1919) argues this was largely due to post-war policy mistakes. The collapse of the Austro-Hungarian Empire led to mass layoffs of civil servants and hyperinflation. G.W. Pabst's 1925 silent film "The Joyless Street" shows how hyperinflation and shortages drove Vienna's middle class into desperate poverty: the daughter of an unemployed public servant, Asta Nielsen (Greta Garbo's first film role) is almost driven to prostitution, only to be saved at the last moment by a foreign aid worker.

⁷ Von Braun (1995) makes a similar argument regarding the impact of natural disasters on rural labor markets, citing labor market case studies in Horton et al. (1993) showing unskilled rural labor markets work all too well: competition for jobs can drive wages to very low levels. A similar super competitive labor market underlies the nutrition based efficiency wage models of Bliss and Stern (1978) and Dasgupta (1997).

leads to a collapse in private and public investment, particularly in infrastructure and equipment. Schools and health clinics close, pushing more people into the contracting labor market. Unemployment remains high and wages low, all too frequently setting the stage for renewed conflict. Collier and Hoeffler's (2000) "conflict cycle" is characterized by persistent poverty and high probability of renewed conflict. Civil conflicts in poor countries undermine already weak public revenues and destroy many more economic opportunities than they create. With or without large injections of post-war aid, very few civil conflict economies stage sharp recoveries. One reason economic recovery is the exception lies in the inability of policy-makers and donor programs to revive private and public investment.

Poor agricultural or resource based economies with an abundance of youth and a scarcity of jobs are particularly vulnerable to civil wars and regional conflicts. Employment is primarily in rural areas, agriculture, and forestry and fishery enterprises dispersed and vulnerable to the breakdown of fragile transportation networks. Most civil conflicts are not fought by formal militaries; instead, government troops pursue dispersed but often well-armed guerrilla fighters. Weapons and equipment are for the most part imported (four wheel drive pick-up trucks for example). Food is often imported as well, or provided by relief agencies concerned by the humanitarian consequences of civil conflicts: poor households may have few assets to cushion the impacts of disruption of commerce caused by war and may lack even the means of transportation necessary to move their families out of harm's way. In other words, violent conflict disrupts the economic base of poor dispersed rural communities that depend on fragile transportation and communication networks. The impact of job destruction on wages and employment can be severe. The demand for workers, limited before the conflict, falls even further pushing down already low real wages. Private individuals and firms who can do so, move their assets out of harm's way.

During the cold war countries could often obtain aid or arms from interested third parties (see Part 2 below), but increasingly aid inflows contract during conflict. With traditional sources of tax revenue disrupted, especially tax on trade and agricultural exports, governments still need to pay their armies. Sometimes they do so by printing money so that even those who hang on to their jobs in urban areas for example find their purchasing power eroded by high inflation. The usual response to rising prices by hard pressed governments is price controls, often creating shortages that hit poor workers hardest. The Democratic Republic of Congo and Nicaragua experienced near hyperinflations as governments struggled to pay soldiers. The collapse of urban real wages feeds conflict and poverty forcing workers to join the conflict just to get basic necessities.

Job destruction and a collapse in real wages means conflicts in poor countries can also lead to humanitarian disasters including famine and epidemics. Montalvo and Marta Reynal-Querol (2007) estimate that 13% of all malaria cases reported by the World Health Organization (WHO) occur in populations displaced by conflict. Sen (1973) argues famines are typically caused by loss of earning power and entitlements due to the failure of government and communities rather than food shortages. Armed conflict disrupts poor rural economies, destroys livelihoods, reduces real wages and sets the stage for malnutrition and famine.

Table 1: Changing Patterns of Civil Conflict^{1/}

Wars Starting Pre 1989				Poverty and Human Development			Agricultural Employment	
Country	Start	End	Years	\$1/day Poverty	Income per capita	HDI Index	Total	Female*
Vietnam	1965	1975	11	31	1,184	62	75	70
Guatemala	1966	1996	31	47	3,339	56	38 ^b	17 ^b
Uganda	1971	1985	15	77	881	41	80	88
Angola	1975	1995	21	28	2,079	45		
Cambodia	1975	1992	18	34	1,333	53	75	55
Ethiopia (a)	1975	1990	16	33	821	29	93	91
Mozambique	1976	1992	17	55	636	30	83	96
Afghanistan	1978	2001	24		3,024	35		
Nicaragua	1978	1990	13	48	4,132	60	39	10
El Salvador	1979	1992	14	21	3,714	61	20	6
Zimbabwe	1980	1987	8	33	2,577	57		
Lebanon	1982	1990	9		2,038	68		
Sri Lanka	1983	2002	20	34	658	68	49	54
Sudan	1984	1995	12		1,183	38		
Somalia	1988	2006	19	na	na	na		
Average Pre-1989			17	40%	\$1,971	50	64	59
Wars Starting after 1989 (post cold war)								
Afghanistan	2003	2004	2	NA	939	35		
Chad	1989	1992	4	54	950	34	83	91
Liberia	1997	2003	7	76	NA	NA	72	84
Rwanda	1990	1994	5	52	1,131	34	92	98
Sierra-Leone	1991	2001	10	57	633	30	67	81
Bosnia/Herzegovina	1992	1996	5	NA	2,539	79		
Tajikistan	1992	1995	4	14	1,111	70		
Burundi	1993	2000	8	55	651	35		
Congo, Dem. Rep.	1996	2005	10	80	702	39	68	81
Congo, Rep. of	1997	1999	3	50	930	53	49	69
Ethiopia (b)	1998	2000	3	33	757	32	93	91
Guinea-Bissau	1998	1999	2	88	738	34	85	96
Post-1989 War Averages			5	56%	\$1,014	43	75	83

1/ This Table updates and expands a similar one from Staines (2004) page 165. Additional information is from Stewart (2002) and Upssala/Prio and CSP conflict civil war data base.

1.2 Assessing the Benefits of Post-Conflict Employment Programs

One certainty in a post-conflict environment is that the economy will change rapidly, so employment policy must adapt accordingly. Early on governments and donors are likely to place a high priority on security as opposed to equity or fairness. Because they can do the most harm, ex-combatants, their commanders and even warlords are likely to receive special treatment. As the United Nations Department of Peacekeeping Operations (DPKO)'s staff put it, it is sometimes necessary to "park" people in government jobs, though under other circumstances these would not be considered the best public employees. Instead of an employer of last resort for the poor and unemployed, the government becomes an employer of first resort for some of the least deserving. The peace process must be perceived as fair, but this just means ex-combatants on both sides receive equal treatment. This "security first" approach to public employment creation may well make sense in

the immediate post-conflict period, but if fiscal resources are limited it may also shift burden of helping the victims of conflict, the displaced and the injured falls on NGOs and specialized agencies.

The security situation generally improves with time: the longer peace lasts the lower the probability of conflict reigniting. Abundant external assistance is generally available early on, but diminishes over time. Moreover one can be reasonably confident that private sector employment demand will recover as the economy moves to a normal growth path. The largest share of employment growth will come as usual from the private sector, though a significant share of these jobs may involve self-employment or work in the informal sector. However, the priorities of the government and aid agencies will shift from security and recovery to long term development and poverty reduction. Finally, we hope and assume some of the programs created to cope with post conflict challenges will become institutionalized.

An example may help at this point. Early in post-conflict recovery, public employment programs may be quite extensive, paying high to market wages, especially to those considered a security risk. As immediate threat of renewed conflict wanes, emphasis is shifted to rebuilding communities, especially in rural areas. Meanwhile the private economy is recovering in both rural and urban areas.

Table 2 summarizes this transition to normalcy, with its demands on employment policy. As the legal and illegal wartime economy fades away (or is dismantled) external assistance becomes crucial for the reasons discussed above. With planning and pilot programs, post-conflict intervention starts before conflict ends, as with Mozambique's Feeder Road Program (see Box 2).

Widespread job destruction and a lack of job creation during conflict raises the relative return to violence and the potential for humanitarian disaster. For these reasons employment programs should begin even before the conflict ends. This may be difficult for political and practical reasons, the most obvious being lack of security, but for example Mozambique's Feeder Road Program (FRP) began even before conflict ended. When civil war broke out in Mozambique in 1983 workers on the pilot projects were forced to relocate to safer areas of the country, where labor-intensive road building continued. When the conflict wound down in 1992, the program was already operating and could be scaled up rapidly (with additional infusions of aid from Sweden, the United Nations Development Program, UNDP, and the International Labour Organization, ILO). The FRP provided millions of hours of employment, repairing and rebuilding roads vital to the recovery of Mozambique's rural agricultural economy. Before the conflict, wages paid by the FRP were about \$2.50 per day, but during and after the conflict wages fell to just \$1.25 as the official minimum wage was eroded by inflation (consistent with the collapsing real wages and employment phenomenon discussed above). Starting in 1996 efforts were made to incorporate women into the program as well (with some success, see Box 2).

Similarly, UNDP's Transition Program in Sri Lanka began rebuilding rebel controlled Tamil areas after ceasefire but before a formal peace agreement was negotiated. Resettling those displaced by conflict, this DDR

but mainly “reintegration” program begins with identification of a target group, in this case displaced persons, and an available tract of land in “no man’s land.” Newly relocated residents are provided with building materials and paid to build their own modest houses. Once the houses are built, a small community finance association is established which in turn funds loans to start small businesses or to recreate livelihoods (mainly new fishing boats in this case). Since this last phase involves loans and voluntary participation (and the conflict has not really ended), the new jobs created are in the private sector.

Table 2: Phases of Post-Conflict Employment Intervention

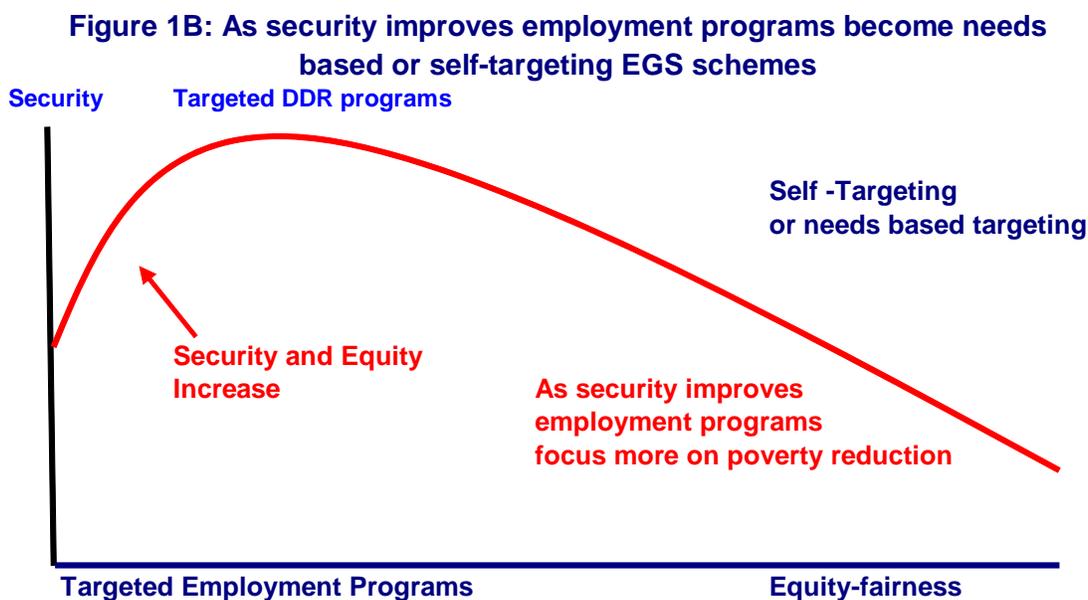
	Plannign Phase Pilot Projects	Phase I Relief and Reintegration	Phase II Livelihood Generation	Phase III Safety-Net / Enabling Policy
Policy Interventions	Pilot training, public works and IDP programs start in safe areas	Public works reconstruction/ Assistance to DDR	Micro-credit, job training and placement/ self-employment training	Export Growth, Private Sector Partnerships and labor market reforms (EPZs)
Policy Objectives	Plan for rapid scaling up once conflict ends	Relief, reconstruction and conflict prevention (youth employment training)	Promote sustainable employment and self-employment growth	Poverty Reduction and foreign exchange earning activities to replace declining aid inflows
Public Employment Program Focus	Planning and Capacity Building: training of Expatriates, DPs	Government "employer of first resort" reconstruction and relief: cash for work programs	Facilitating Transition to sustainable private sector employment	Providing seasonal and employer of last resort safety net for poor/ vulnerable groups
Examples of Programs discussed in this paper	Mozambique FRP pilot in Maputo Province 1989-91	Sierra Leone, Sri Lanka DDR Employment & Training; Job Corps (youth unemployment)	Specialty Exports / Cambodia's EPZs / Tourism	Argentina's Trabajar, MEGs
Social Benefit of Direct employment Cash for work schemes	High but limited by lack of Security	High due to low market wage and conflict prevention benefits	Falling due to rising private wages and reduced probability of renewed conflict	Target poorest and most vulnerable groups-- provide EGS type jobs of last resort
Target Group	Non-combatants	Ex-combatants, victims of conflict.	Men and women house-head I communities	Women with families
Duration	unpredictable	6 months to 2 years	3-5 years	Ongoing
Aid Inflows	Limited by insecurity and low absorptive capacity	High as social benefit and absorptive capacity peaks if diversion safeguards in place	Declining but shifting to sustainable sources	Normal levels given per capita income of the country

One reason to begin public employment programs before conflict begins, immediately after or even during conflict (where possible), is that the social benefits of job creation are high. Adapting the standard analysis of the net benefits of cash for work programs, Table 3 and Figures 2 and 3 outline three stages in employment intervention, as priorities shift from direct employment creation financed with high aid flows toward targeted safety net.

As peace and security are reestablished and the private economy begins to recover, private employment opportunities increase and real wages begin to rise (especially if there is an infusion of cash aid). At some point the net social benefits of public employment can become negative. In southern Sri Lanka, immediately after the Tsunami, the value of clean up and emergency road, rail and housing reconstruction was high and required lots of unskilled labor. Aid and government financed reconstruction was vital for recovery of

the private economy.⁸ However, as road and rail lines reopened the private tourist and coastal export industries began to rapidly rebuild using private funds and loans, creating many new jobs both in construction and tourism. At the same time, the local authorities implemented stricter building codes to prevent future Tsunami damage. Some buildings built early with aid dollars had to be torn down and rebuilt, the demand for labor shifted toward more skilled workers experienced in modern construction techniques. Similarly, apparel export firms near Galle reopened and staffed its factory. Workers occupied in public sector employment programs may have missed new entry level job openings. Both aid financed and private reconstruction began to compete for the same limited pool of skilled construction workers and contractors, real wages of skilled workers and construction materials can be bid up. The local wages of skilled construction workers and inflation rose by about 50% from 2004 to 2005 (the Tsunami reconstruction year). Rising prices of basic foodstuffs created by the aid and reconstruction boom can of course be dangerous for poor workers who do not live in the reconstruction zone, but who have to pay higher prices for basic necessities.

Figure 1: As security improves employment programs become needs based or self-targeting EGS schemes



⁸ After the tsunami fishing, a key source of employment for many along the coast essentially shut down. To provide rapid assistance and relief UNDP started “cash for work” programs in seven districts paying tsunami victims for debris clearing. According the UNDP Sri Lanka these programs created about 77,000 days of work for over 3,750 beneficiaries (source UNDP Sri Lanka Web page, 2006, [“Some Key Tsunami Recovery Projects.”](#))

Figure 2: Evolving Post Conflict Employment Policy

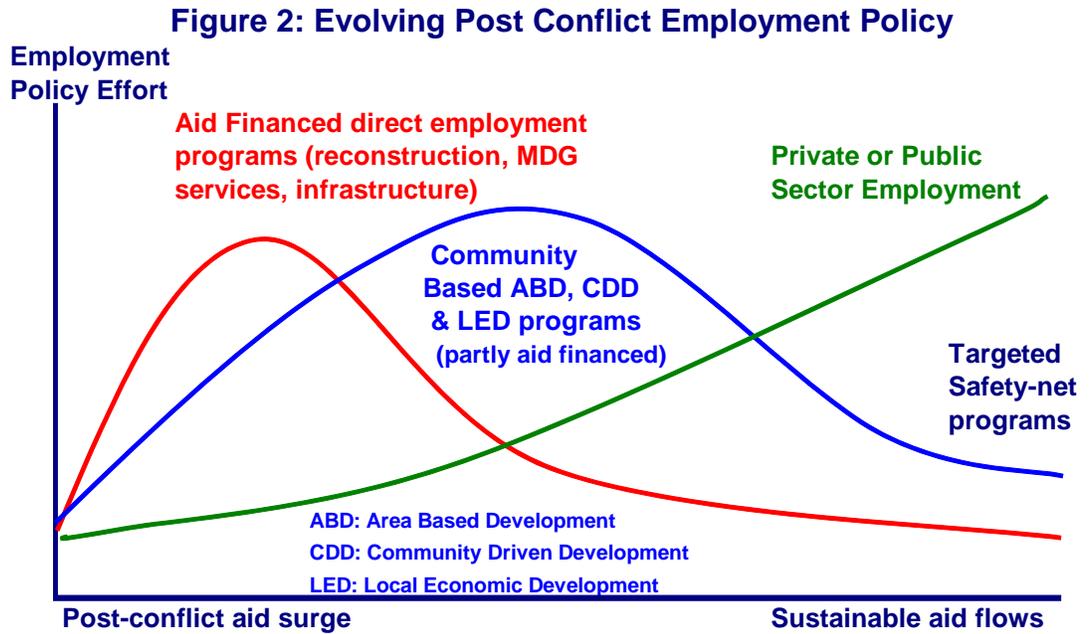
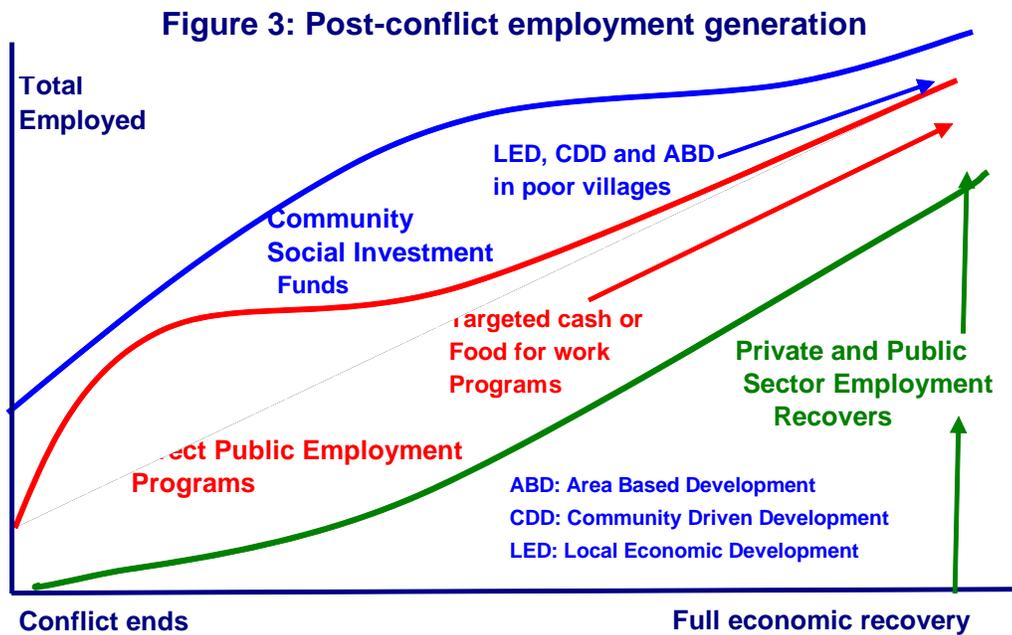


Figure 3: Post-conflict employment generation



The implications of these arguments for evaluating the net social benefits of post-conflict public employment programs can be illustrated using the standard framework of Ravallion (1999) and others. A somewhat surprising result of these studies is that when poverty rates are high, using workfare to target the poor may not be cost-effective. In a post-conflict setting however, targeting the poor is generally not the highest priority, at least in the DDR phase. In fact, conflict changes the calculus of targeted employment programs changes significantly. Early in post-conflict recover the social benefits of employing ex-combatants are likely to be higher than individual benefits. As shown in Table 3 the benefits from employment programs are the wages paid plus the useful assets produced (e.g. roads) less the earnings workers forgo by participating in the program. If conflict is ongoing, there is an additional potential benefit to employment: the opportunity cost of a soldier (or criminal) can be negative - from a social point of view the benefits of alternative employment as a soldier. Even where conflict has officially ended, ex-combatants sometimes turn to crime (in post-war Guatemala many ex combatants wound up joining gangs leading to a regional organized crime problem) so the opportunity cost of workers in the private economy can be negative.

When security risks are high, the social benefits of post conflict employment programs must be compared with alternative means of securing peace and reconstruction (not with peacetime market wages for example). Most DDR programs pay some sort of severance payment, and provide ex combatants with tools or some limited training. The advantage of making payments contingent on work also includes a reduced disincentive to take private employment should such an opportunity arise. In other words, payments for public employment should be compared to the alternative (payments not contingent on work). Work reduces the time available for job search, and makes the participant less mobile, but in the immediate aftermath of conflict the value of these opportunities may be limited (and time off to look for work can be part of the program, or breaks can be offered at regular intervals).

Clearly, in the immediate post-conflict period “foregone private earnings” are likely to be small. There may be some more than the usual indirect benefits as well. Rebuilding war torn communities may ease the integration of ex-combatants and provide satisfaction. One of the first activities of UNDP’s transition program is to pay the participant to build their own house: this is a potentially large indirect benefit of employment in community public works programs (however, after their house is built, workers rebuild community buildings and then are given a loan to start their own business).

In post conflict settings the main target groups may not be poor households, but instead consist of ex-combatants and displaced persons (of course, work requirement will screen out some potential beneficiaries). A significant portion of this group may well be poor, as discussed above, but by definition DDR and complementary employment programs are not targeted by need. Still the share of net benefits received by the target group, especially wages and living allowances, is an important consideration, and early on it may be higher than for a self-targeting employment programs, since it is important to avoid attrition and to reward “ex-

combatants” for turning to peacetime activities (employment in this case, as opposed to a “severance” payment).

Table 3: Benefits of Post-Conflict Public Sector Employment Programs:⁹

Net private benefits of public employment to the participants

1. Wages paid plus experience and on the job training
2. Minus forgone private earnings or the value of leisure
3. Indirect benefits received by the employed person

Social Benefits of public employment programs

4. Value of public works repaired by workers compared to alternative methods
5. A change in probability of renewed conflict times the large social costs of conflict recurrence
6. Reduced security and medical outlays (including reduced supervision costs if ex- combatants are considered a threat to the peace).

Indirect social benefits, on the other hand, are likely to be larger than peacetime employment and training programs. In fact, indirect social benefits may be more important than private (individual) benefits so it is worth breaking them down further. With peacetime employment or cash for work programs, indirect social benefits (ISB) consist almost entirely of the projects produced by participants in the program (irrigation facilities, feeder roads, tube wells, etc.) For a number of reasons the indirect benefits produced per unskilled worker in these programs are generally not large (with some exceptions, see the discussion of FRP in Box 2). However, in post-conflict settings social benefits include the reduction of crime and lower probabilities of conflict, benefits less relevant to peacetime economies (an exception are peace-time employment programs aimed at high crime areas, or “disadvantaged” workers whose lack of employment can imply high social costs as well).

Social benefits are also high post-natural disaster and conflict, because there is typically ample scope for labor intensive public works (provided these projects can be undertaken promptly). Clearing debris, repair of roads and lightly damaged buildings including schools can be productively undertaken by relatively unskilled workers. Of course, major reconstruction projects may require both skilled labor and heavy equipment, limiting the productive employment of less skilled workers (though even on larger construction projects, there may be room for apprentice work and on the job training). Still, rebuilding housing to resettle IDPs for example and opening key feeder roads have very large incremental benefits early in the post-conflict period (if only to facilitate movement of aid, productive inputs and peace keeping forces).

⁹ Adapted from Ravallion (1998).

Productive employment reduces poverty and makes it less likely that conflict will reoccur. The probability of conflict falls rapidly and may be less of a concern in rich economies or in situations where peace keeping forces are abundant. Rapid recovery of employment and livelihoods helps reduce the probability of conflict and saves on security and outlays for crime prevention (to some extent simply keeping ex-combatants occupied in DDR or training programs). Still, outside major cities where security is more costly, employment programs may help dampen enthusiasm for renewed conflict (“carrots may be cheaper than sticks”). This effect is enhanced by a more mobile workforce or more decentralized employment programs. Of course, dispersed programs create problems of secure payment and security for administrators. Community, village or local NGO administration may be appropriate in these cases. Finally, effective employment programs reduce the demand for other institutional services, such as relief services, medical care or incarceration. In the immediate aftermath of conflict, DDR participants can assist with relief services or provide other emergency services. As local government recovers, there will be less room for this sort of activity, and this source of indirect social benefits decline.

While these social benefits are difficult to quantify, the pattern of change over time summarized in Figures 1-3 seems clear. In the immediate aftermath of conflict, the risk of renewed conflict may be as high as 40-50% according to Collier and Hoeffler (2000). The probability of renewed conflict falls both with time, and because potential recruits are occupied by employment and training programs. Here the “cost of conflict” can be reduced to individual terms by calculating the damage one worker might inflict in as a participant in conflict.

This term is comparable to “reduced crime and incarceration” benefits attributed to programs aimed at disadvantaged workers (such as the Job Corps program discussed in Box 9). Because market wages fall to such low levels during periods of conflict (especially in rural areas), the benefits of public employment programs early in the post conflict period are high. Moreover, the productivity of public works can be high: rubble removal, basic road repairs, rebuilding of damaged homes and public buildings are all suited to the use of relatively unskilled labor (with skilled supervision of course). Finally, immediately after conflict ends, the probability that ex combatants would engage in social destructive activity is high: security may still be a problem in some areas and still armed combatants may find it easier to take than to earn what they need.

However, as the economy recovers and transportation networks recover, the net social and private benefits of public employment programs begin to fall. This pattern of change is summarized in Table 2. Once the private sector starts to recover, so does the private real wage. Immediately after conflict ends the probability of conflict starting again is high (about 70% according to some estimates), but the probability of renewed conflict falls each year helped hopefully by rising per capita incomes, which also reduces the probability of conflict. After five years of peace the probability of renewed conflict falls thirty percentage points. These trends reduce the net social and individual benefits of cash transfers conditional on work, as shown in Figure 1. Fortunately, the probability of finding work and wages in the private sector is also rising.

To summarize, the standard cost-benefit public works targeting framework also overlooks some key factors specific and sometimes unique to post-conflict economies:

1. Cash for work or public works employment take time away from job search and other private sector opportunities, but this is less of a problem in post-conflict settings as there are few remunerative private sector jobs to forgo, and unsupervised post-conflict “job search” by ex-combatants can lead to bad outcomes (see #2).
2. In immediate post-conflict environments, ex-combatants are more likely to turn to crime or illegal activities such as the drug trade than during peace-time when the probability of getting caught is at least positive and the opportunity cost of forgoing legal work is higher. During this transition period, public sector employment can provide a relatively low cost method of stabilization, in the sense of increasing security and reducing participation in illegal activities, often remnants of the war economy.
3. Tying DDR and military severance benefits to work, encourages workers to search for private sector employment and increases the incentive to work (see also Box 1). Work requirements increase the incentive to leave the program and seek private employment as the private sector recovers.
4. Reconstruction and clean-up creates many opportunities for labor intensive employment while government agencies and private sector contractors, normally responsible for construction and clean up, re-group and recover (see item 4 in Table 1A). Peacetime public works are often of limited value, as using machinery produces higher roads for example, more cheaply and quickly.
5. Public employment requires more supervision and administration than cash severance payments, but often this monitoring and supervision can be justified on security grounds, and low level commanders are less likely to extort pay checks from those once under their command (a common problem with cash DDR payments).
6. DDR related programs tend to employ many young workers, providing valuable “first job” training and socialization benefits. Public works programs aimed at marginalized or disadvantaged workers may not generate these collateral training benefits.

1.3 Employment and the Origins of Conflict

With a few exceptions, the costs and benefits discussed above apply to peacetime economies. However post-conflict is no ordinary time. There may for example be some threshold of violence or unrest that “tips” a country into conflict. While it may be very difficult to determine where the “tipping point” or threshold for violent conflict is (see Box 3) the existence of such a threshold implies employment programs can reduce the probability of conflict. A program which brings unemployment below some critical level, preventing social unrest or renewed conflict has potentially large benefits. Two rival theories of conflict have gained currency in recent years. This section briefly reviews some implications of these two types of conflict for employment policy. For different reasons, both conflict theories imply employment programs should operate on a larger scale than would otherwise be the case in the absence of spillover effects.

Resource driven conflicts

Normally, conflicts quickly disrupt economic activity and drive down the returns to those engaged in combat. This is one reason why economies dependent on trade of produced goods or services (tourism for example) are less likely to endure frequent conflicts. Resource based economies, however, can keep generating export revenues even during a combat as multinational mining and oil companies continue operating under the most adverse circumstances. The ability of government to continue generating export revenue also gives it a wherewithal to suppress rebellions, but increases the payoff to rebel groups once they do capture resource rent generating activities. The threshold effect described in Box 3 is also consistent with Humphreys’ (2005) finding that resource driven conflicts tend to be shorter and decisively won.

A concerted effort to employ or otherwise occupy ex-combatants to keep the share engaged in combat below the threshold generates an additional benefit of preventing renewed conflict. But where is this threshold? Of course building up the local military may have a similar effect, but again employment programs may be less costly and have more indirect benefits. This model also suggests that employment programs should focus on potential combatants, but the least cost approach may still focus on the poorest potential recruits (and their families) as they are the least costly to lure away from rebel life. To the extent that this threshold argument holds it may be worth maintaining a slightly large public employment program post-conflict. In addition, measures to promote a shift toward tourism or manufactured exports also lowers the probability of conflict restarting, as it raises the “lost output” penalty for renewed fighting.¹⁰

¹⁰ Stiglitz (2006, p.6) argues that “one reason conflict is frequent in Africa is that many of its economies have been rent based for so long... the notion of endemic conflict in rent economies can be contrasted with what happens in an investment economy. In an investment economy, a manufacture and service based economy, what happens if civil strife occurs? Investment stops. Everybody sees large potential losses looming and that there will be nothing to divide once fighting starts. The cost of strife is enormous, while the benefits of cooperation are huge also.” In more dramatic version of this story Tom Friedman (2006) argues that the threat of a shutdown of India’s software services industry led it to pull back from an escalating confrontation with Pakistan over Kashmir. Even the threat of war creates big output losses for firms dependent on trade and services and is an added incentive to avoid violent confrontation. Extending this argument to the global

A second obstacle or threshold thrown up by the resource based economy is the resource curse: long booms in natural resource exports undermine other export industries or import competing industries thereby reducing employment growth. Under these circumstances employment programs can either seek to increase the productivity of non-traded goods industries (which indirectly helps traded goods industries) or promote specialized export industries that can survive even in a relatively unfavorable environment created by resource based exports. This may involve lines of industry that have specialized niches, including tourism or eco-tourism or specialized higher value added agricultural products. Examples of these sorts of activities include Rwanda's gourmet coffee exports and conflict tourism (see Box 5). Cambodia also provides several examples of these sorts of policies including its industrial export zones. In principle there is no reason why these initiatives could not succeed in resource exporters such as Sierra Leone or Mozambique. Finally, it is possible to overstate the obstacle posed by high levels of natural resource exports. Botswana has long been a diamond exporter and has largely escaped the conflict and stagnation that has plagued many of its neighbors. Similarly, Mozambique is growing despite several large mega mining projects financed by largely by foreign investment. Employment generating recovery in resource exporters is difficult but not impossible.

Identity Based Conflict

A second group of conflict theories stresses ethnic divisions or what Stewart (1999) calls horizontal inequities (inequalities among ethnic groups as opposed to rich and poor, worker or capitalist, etc.). Box 4 provides a brief introduction to these theories of conflict. Ethnic rivalries can lead to what might be called the "3,000 houses" problem. In Sri Lanka, a project proposed building 3,000 new houses, but who should get them? After much debate the answer came back: the houses should be divided equally among Sri Lanka's three major ethnic groups: Muslim, Sinhalese and Tamil (see Box 6). This also happens to be the solution proposed by John Nash in his famous 1950 paper on the Bargaining Problem. Unfortunately this solution is not consistent with a needs based or DDR driven allocation of assistance. This allocation is not efficient (or needs based), but it is perceived as fair. When ethnic tensions are high, fairness often dominates efficiency and other welfare criteria. Hence, a program intended mainly to resettle a defeated rebel minority, for example, may need a counterpart program aimed at the richer group. This "untargeted" approach can also be vital for success of social protection programs, as political support, tacit or official, can be vital even for the main program. Programs aimed at the dominant ethnic group can also be used to experiment with different approaches and to build consensus on the benefits of a particular employment generation program.

Similarly, Sen (2006) examines the link between identity and violence, but argues that individuals have multiple identities that can be appealed to in order to redirect passions away from "single identity" conflicts. Sen argues violence often results from a "choiceless singularity of human identity" that "not only diminishes us all"

economy, Stephen Brooks (2005) argues that globalization of production increases security, leaving the most geographically isolated countries more at risk.

but “makes the world much more flammable”¹¹. In his argument violence can be reduced by cultivating other identities, including a “global identity” (see Box 5).

The presence of ethnic strife and inequality among groups creates “indivisibilities” that effectively tax aid resources and make it more difficult to target a particular group of ex-combatants. The situation is by no means helpless however. Both Indonesia and Malaysia have effectively overcome sharp ethnic divisions using programs that tend to benefit all groups and by focusing on manufactured export industries. Ethnic divisions also provide an additional rationale for the use of self-targeting programs. Early in the DDR phase and even to some extent in livelihood development phase ethnic tensions may arise. However, self-targeting cash for work programs that offers compensation below market wage rates may also cause resentment among various ethnic groups. No one feels excluded because only those who need assistance benefit.

1.4 Employment Creation at the Community Level

As direct public employment programs wind down, livelihood creation programs focus on finding jobs or business opportunities for workers in the private sector (phase II of Table 2). These programs transfer funds to communities to partially finance projects at the local level. Variations of this strategy are referred to as “social investment funds” (IADB), ABD area based development (BCPR), community driven development or CDD (the World Bank) or local economic development or LED (the ILO). There are important differences in these approaches, but all attempt to mobilize communities in rural and sometimes urban areas to undertake projects that increase employment at the community level in the short and long run. Cambodia and El Salvador created EPZ or enterprise zones to promote investment by foreign contractors in the apparel industry and other light manufacturing exports (as did Vietnam). After a wide range of experience on three continents, some clear high priority projects emerge: raise agricultural productivity through the introduction of new seeds and inputs; promote enterprises that raise export earnings and generate local employment (coffee export cooperatives in Rwanda or conflict tourism in Cambodia). Microfinance programs also fall into this category, although these have been more successful in higher income conflict countries such as Bosnia. The particular set of programs that can generate sustainable livelihoods are highly country specific and depend on the goals and long term development strategy of the particular country recovering from conflict, but the following paragraphs illustrate some successful approaches.

Microfinance in rural areas

By far the most popular approach to private sector employment creation has been micro-finance and community development projects. Indeed, these programs are well suited to quick livelihood generation in the

¹¹ Sen (2006) page 16.

rural informal economy that provides most employment in the poor countries most often affected by civil conflict in the post war period (Table 1). But micro finance programs have inherent limitations in a post-conflict setting. First, the social networks these programs rely on to ensure repayment and small business stability may be lacking and take longer to recover than other forms of economic activity. Second, since conflicts tend to affect labor surplus economies, business with low barriers to entry, the ones micro-loans foster, quickly recover. Lowering barriers to entry further increases competition and drives down the profits and wages of those already in business. Here the problem is not credit per se, but how credit is utilized within the business community. Third, micro-credit programs work best in urban settings and where positive, albeit low private savings are available to be mobilized. In very poor rural areas, savings rates may be negative and loans used to finance current consumption rather than build business inventory, for example.

The ILO's PRODERE program in Central America is an example of rural employment generation through community investment projects partially financed by aid grants. The program targeted the poor in rural villages in conflict affected areas. By providing loans to local entrepreneurs, including a substantial fraction of women, this program helped these villages to restore basic business services. Perhaps equally important, this program was administered by local economic development authorities set up by each community. Hopefully, the training and local economic administrative capacity encouraged additional private investment in those communities; these secondary impacts have yet not been clearly documented.

Micro-finance was also used with some success in Bosnia-Herzegovina and Sri Lanka. In other cases, Mozambique and Uganda for example, micro-finance initiatives have been less successful, and microfinance institutions have not taken root outside urban areas. Even within urban areas, most financing is short term and oriented toward retail trade. By easing barriers to entry to already very competitive formal and informal commerce, microfinance programs may actually drive down incomes and increase the overcapacity characteristic of monopolistic competition. Financing medium and small scaled enterprises engaged in agricultural processing or light manufacturing seems more promising in paths to higher productivity and earnings. Coffee export cooperatives in Rwanda, Chiapas and Ethiopia for example show promise of raising average prices received by producers and of moving up the value added chain in some cases.

Micro-finance programs, almost by definition, lower barriers to entry into industries that already have minimal barriers. As such, the success of these programs drives down the profits of existing enterprises. A good example is the Sri Lanka's transition program. Once the village is rebuilt a local credit agency is set up to arrange loans for livelihood creation. Among the most popular in coastal villages of Sri Lanka is to finance the purchase of a new fishing boat creating immediate income for fisherman and provides a critical source of low cost nutritious food. However, with each additional fisherman the profitability (and possibly the stock of fish) declines. Of course there is nothing wrong with low cost nutritious food, but from the point of view of raising cash income for entrepreneurs and their employees the key is technical change and limited barriers to entry. Perhaps this involves purchasing slightly larger boats that can operate further out to sea, or providing ice and

transportation facilities that expand the market for local fisherman. Ultimately it is technical change and/or economies of scale that boost profits of rural industry thereby raising income per capita.

Tapping global markets

As the aid boom wanes and private employment declines, it is important for livelihood programs to support export earnings. Most direct employment and micro-credit programs focus on the non-traded retail and services industries which employ the vast majority of the population, normally in the informal sector. But beyond replacing foreign aid inflows, there are good reasons for focusing on industries such as tourism or agriculture exports (see Box 5). For one thing, these industries are less vulnerable to competition that drives down profits. Basically, export orientation removes the tendency of new entry to drive down profits and incomes. Micro-enterprise financing aimed at exports of goods and tourism reduces competition among traditional non-traded retail and service industries (it does not solve the “too many fisherman, too few fish” problem however). Combining these last two goals leads us to the best of all possible livelihood lending program: one that promotes technical change in export oriented industries.

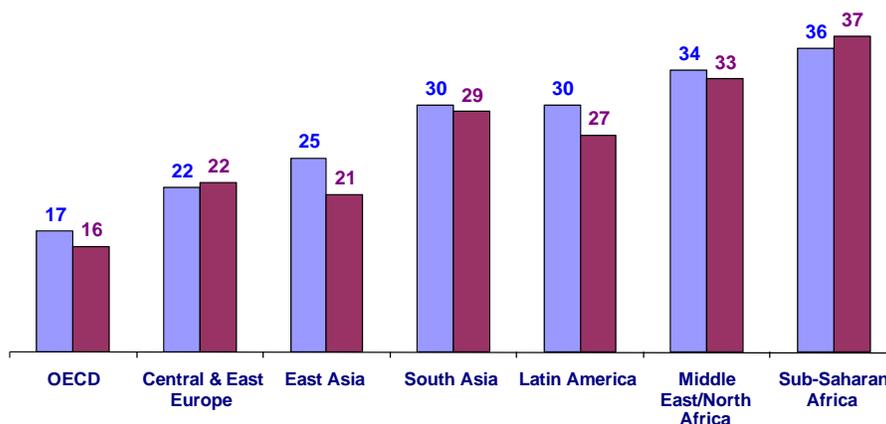
1.5 Youth Unemployment

One of the greatest challenges is redirecting and constructively employing young ex-combatants and young people generally. The United Nations defines youth as persons aged 15-24. Not only are they most likely to be ex-combatants but they are most likely to turn to violent crime whether as part of an organized rebel group or as part of a gang. The post-conflict rise of gang violence in Guatemala that quickly spread to other neighboring countries is indicative of what can go wrong if the special needs of young men in particular are not addressed. Unfortunately, young men with a history of violent behavior (combat for example) generally face multiple obstacles to employment (not the least of which may be a history of violence). These problems may include illiteracy, psychological problems, lack of work experience and a lack of social capital (family and community ties). Reintegration programs can identify these difficult cases, but they rarely have the capacity to address these issues. For example, the DDR programs routinely sort ex-combatants into groups with business experience, non-combat skills (or even leadership skills) and channel these groups into the appropriate programs including vocational or small business training or simply provide them with the appropriate tools (experienced carpenters or farmers for example). However, there is rarely a category for someone with a whole range of problems. Also, private sector partners and many NGOs are generally not equipped to deal with the range of challenges that employing and training these young workers presents.

A second safety-net

Once the hard core unemployed youth or what are sometimes call disadvantaged workers are identified, they need both a more accurate diagnosis of the key problems (e.g. literacy, lack of experience) and a prescription to address these problems.

Figure 4: Youth 15-24 % share of Working Age Population



Source: ILO (2006) Table 2.1 page 13. ■ 1995 ■ 2005

Other less expensive programs involving placement with private employers (with a wage or training subsidy) or just vocational training have not have positive cost-benefit ratios for young men (though women are more likely to benefit from these programs). The experience of *Trabajar* in Argentina yielded similar low to negative cost benefit ratios for wage subsidy and less intensive job search programs (see Box 8). Hard core youth unemployment is a multi-dimensional problem that must be addressed with intensive and multi-dimensional interventions. However, programs of this intensity and expense require targeting a small sub-group of DDR participants, many of whom can be identified with a simple screening questionnaire or simply be selected because they have dropped out of or failed to benefit from normal DDR reintegration programs. Hence, the need for tracking and following up on DDR program successes and failures (see Box 11).

Youth public service employment to achieve the MDGs

Conflict disproportionately affects the poorest countries; it interrupts investment in education and health, even as these become more vital for economic recovery. Employment has recently been added as an indicator for Millennium Development Goal 1. Moreover, during the past decade, an impressive consensus has been reached among international agencies and NGOs that these goals should be integrated into development programs. The process of reintegration and livelihood creation relies upon community and government organizations to provide key services and rebuild public infrastructure. Working with the United Nations and other multilateral agencies, it may be possible to develop long-term external funding for programs focused on achieving particular Millennium Development Goals (MDG): reducing child and maternal mortality for example.

Mexico's *Oportunidades* and Brazil's *Bolsa Escola* both compensate parents for keeping their children in school (MDG 2) and for monthly visits to a health clinic (MDG 4 & 5). A good example of this type of program is to create sort of domestic service program training paralegals or "barefoot" doctors who can then be sent to local villages to help upgrade local healthcare. These programs can be organized as national public service programs (targeting young workers) involving a period of training followed by a year or two of public service. Compensation levels can be modest and hopefully shared with local governments, NGOs and international donors.

1.6 Transition to Employer of Last Resort

Even as the private sector recovers, some workers will lose their jobs or take longer than others to find a job. Workers with handicaps or in rural areas may also have special needs, including off season employment or transportation services. By lowering compensation levels, some public employment programs may be able to transform themselves into providers of "jobs of last resort." Below market wage rates make these programs self targeting. Above market wage rates limit participation and force rationing of available slots. These are the main lessons of the Maharashtra Employment Guarantee program which began by delivering nearly 80% of its benefits paid to the poor, and by achieving 70% coverage among the poor during the long off-season in that state. Argentina's post financial crisis public works employment program *Trabajar* chronicles a similar experience. Communities were given wide discretion in choosing projects, but cash payments were kept below market and minimum wages to target the poor even as the economy recovered.

Targeting the Poor

Below market compensation level removes the inevitable temptation to use ration access to these jobs perhaps as political patronage. This can be especially important in post-conflict settings as ethnic and political rivalries simmer just beneath surface. Programs where participants are self-selected by poverty rather than political or ethnic favoritisms allows programs to both reduce poverty, limit outlays to fit declining aid budgets and maintain broad political support for these programs. In fact, the terms jobs and wages may be misnomers in this context. These should really be considered conditional cash transfers, in this case cash payments conditional on work, participating in job training activities or even supporting job search and travel to other villages or the city in pursuit of long term employment.

In fact the other popular methods of targeting cash for work programs: geographic targeting and limits on days and availability seem risky where ethnic tensions are high and regions or villages are associated with one ethnicity or another. In Sri Lanka, for example, aid agencies are often accused of favoring one ethnic group over another, a charge that can undermine public support for safety net programs. In general, cash for work and cash for school schemes have proved more popular with local government and legislatures than unconditional cash transfers or rationed benefit programs. The final advantage of converting some reintegration

programs to long term cash for work programs is that should the need arise, these programs can be quickly ramped up to deal with natural disasters or renewed conflict.

Part 2: Macroeconomic Policies for Employment Promotion

In a post-conflict setting, macroeconomic policy plays a crucial role in both facilitating recovery and supporting employment creation. Post-conflict environment is particularly challenging because conflict typically raises inflation, destabilizes the exchange rate and interrupts normal fiscal revenues. Moreover, public expenditures must carry the added burdens of reconstructing vital infrastructure, providing emergency services to displaced persons and victims of conflict and serving as a an “employer of first resort” for ex combatants and other individuals who may pose security risks to the peace process. This section reviews two macroeconomic questions relevant to promotion of employment.

First, how quickly must inflation be brought down? A classic debate suggests a tradeoff between unemployment and inflation, at least in the short run. Still, low inflation also helps restore growth by creating a climate conducive to recovery of private investment and credit markets (high and variable inflation creates exchange rate uncertainty and can raise real interest rates). But post-conflict governments also have other high priorities including direct employment creation, reconstruction and direct transfers to ex-combatants. Is it important to bring down inflation immediately, or can this be a medium term stabilization goal? Here the evidence sends an interesting but mixed message: strong recoveries are characterized by higher inflation in the first 5-6 years after conflict, but thereafter inflation falls faster into the single digit 5-6% range. In slow recovery countries, apart from Nicaragua, inflation tends to be lower post conflict but is more persistent, remaining at double digit rates long after conflict ends.

The second issue is whether the sharp increase in aid inflows leads to an appreciation of the local currency. A sharp increase in foreign aid following the conflict is typical for post-cold war conflicts as discussed below and in Staines (2004). If these aid inflows harm growth of export industries, employment growth may suffer as imports become cheaper than domestically produced goods. A weak currency makes imports more expensive and exports less profitable, acting as a sort of across the board industrial policy in support of traded goods industries.

2.1 Inflation and Post-Conflict Recovery

Should reducing inflation be a top priority for post-conflict macroeconomic policy? The answer is yes, with some qualifications. Conflict often leads to sharply higher inflation as governments print money to finance war outlays and residents attempt to convert their liquid wealth into foreign currency. Capital flight and inflation

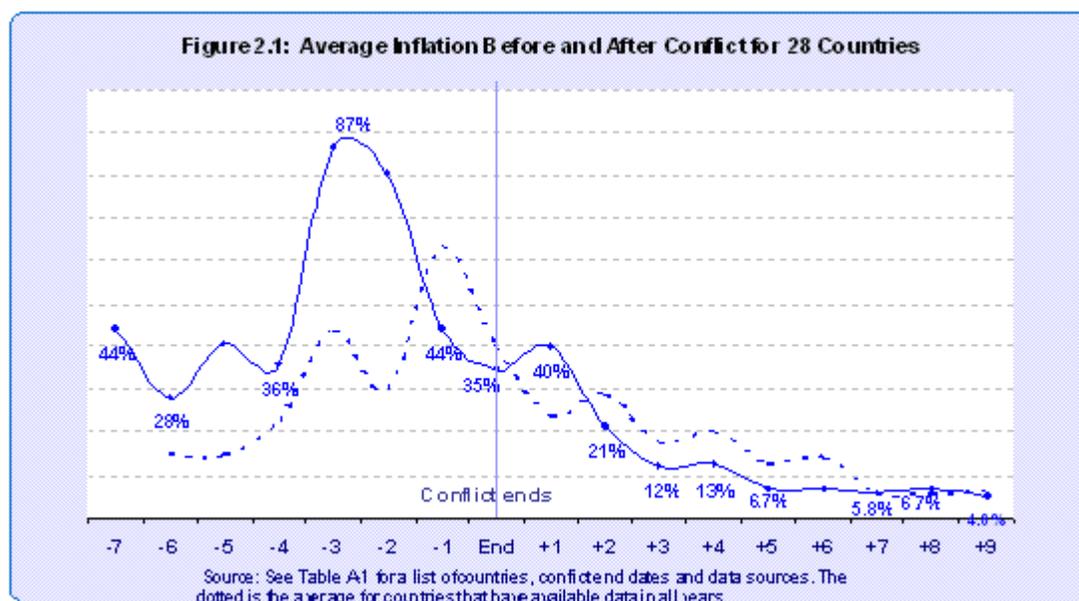
lead to exchange rate instability and often a switch to a foreign currency or more reliable store of value. Restoring confidence in the local currency is a key prerequisite for reopening credit markets. Bringing inflation to manageable levels hence should be a high priority for post conflict economic policy, with two important qualifications. First is that fiscal expenditures on security forces, relief, infrastructure repair and demobilization and re-employment must take priority immediately after conflict ends. Fortunately, as discussed below, aid inflows are available to finance a good portion of these high priority fiscal outlays, and donors are only too willing to provide key relief supplies and equipment manufactured in their own countries. This leads to the second qualification, aid inflows and debt relief along with re-monetization of the local economy may be sufficient to bring real interest rates down.

The high priority placed on employment creation raises a familiar dilemma: should fiscal spending increase rapidly to support all of the urgent priorities discussed, especially employment creation, inflation may increase. Hence we encounter the familiar tradeoff between inflation and employment growth. Lower inflation secured via tight monetary policy implies slower employment growth. But higher inflation can further undermine confidence in the local currency, leading to continued dollarization or euro-ization as local residents avoid holding the local currency because its value is falling.

As it happens, most post conflict recoveries avoid trading low growth for slower inflation. Instead falling inflation is associated with rising growth rates, with a twist. During the first five years of post-conflict recovery inflation starts higher and remains higher in countries which enjoy strong post-conflict recoveries. However, after about five years, inflation is lower in strong recovery countries than it is in slow recovery countries, suggesting both the resolve and means to reduce inflation and grow faster. Hence, in the short run, faster recovery is associated with inflation that starts higher and comes down more slowly than that in slow recoveries, at least in the group of countries we are studying here. To understand why this is happening we need to take a careful look at the data.

Figure 5 summarizes average inflation rates for about 28 post-conflict countries. The solid line is all countries except Nicaragua. The dotted line is just countries with data before and after conflict for the whole period (excluding recently ending conflicts for example. A few countries, including Nicaragua, the Democratic Republic of the Congo and Angola suffered periods of very high inflation, close to hyperinflation and rates of over 1000% per year. These very high rates of inflation lead to very severe disruptions and great hardship for the poor. The government attempts to finance war expenditures by printing more local currency. The result can be very high inflation as people abandon the currency in favor of some alternative currency (perhaps dollars or Euros).

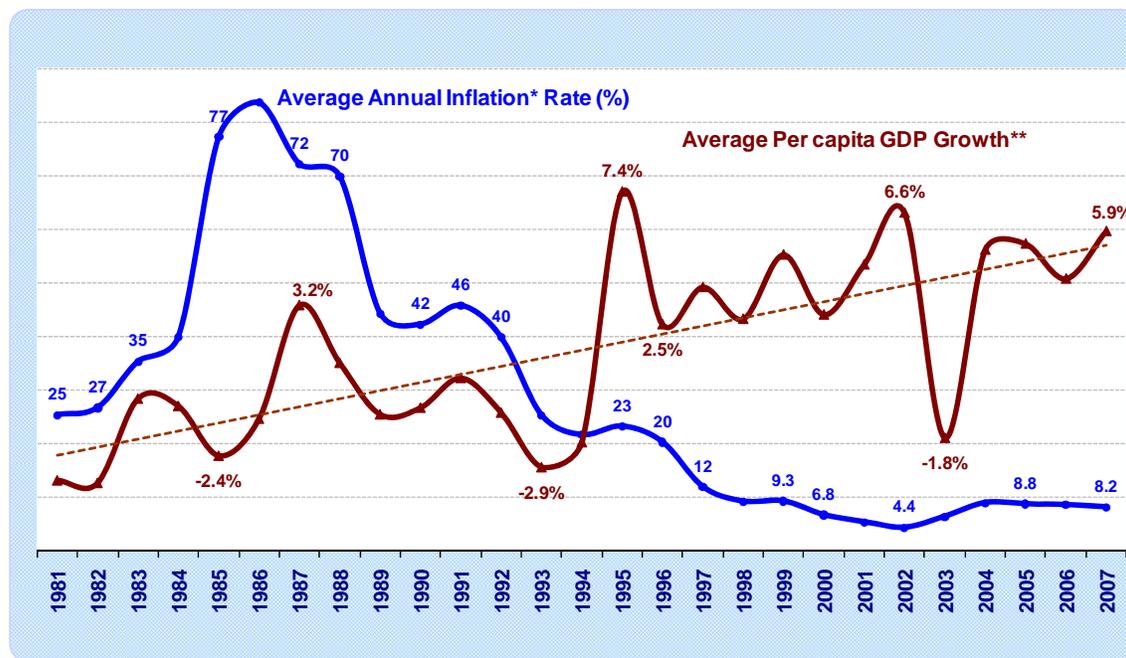
Figure 5: Average Inflation Before and After Conflict for 28 Countries



Inflation is high on average during conflict for this group of countries, and is well over 100% on average if we include Nicaragua and Angola. After conflict ends, inflation falls rapidly but not right away. In fact for the group excluding Nicaragua, inflation falls in half to 25% during the first three post-conflict years, and then it falls sharply again to single digits (on average) during years 4-6. Finally, inflation falls again to average a respectable and tolerable 6% for this group of almost 25 post-conflict countries. The pattern is clear, inflation falls steadily during the first five conflict years, then stabilizes in the 6% range after about five years, and for this group of countries it stays low.

What about economic growth and employment recovery? Figure 6 sheds some light on this issue by looking at plotting inflation and growth for twelve countries over time rather than centered on conflict. This diagram reveals part of the story: inflation fell steadily for all of these post-conflict countries in the late 1990s, and continues to remain in the 6-8% range. At the same time, per capita growth rose steadily. With a few exceptions (Angola and the DRC) inflation fell into mid single digits for almost all conflict countries, even as growth rates accelerated.

Figure 6: Inflation and Growth rates for Selected Conflict Countries



Source: For countries and data sources see Table 4

Why did inflation fall and growth accelerate in the 1990s? Higher prices for many commodity exports, debt relief and increased aid flows all played a role, as did domestic monetary and fiscal policy. To focus in more directly on this issue, particularly for Africa, Figure 6A shows inflation rates pre and post conflict for Mozambique, Rwanda, Uganda and Ethiopia. Note that with the exception of Mozambique where inflation remains in the 10-15% range, all of the countries reduced inflation sharply, but not right away. Apart from Ethiopia, inflation fell slowly dropping into single digits for all four countries about five years after conflict ended. Did dis-inflation reduce growth? Figure 6B suggests it generally did not. Mozambique, Uganda and Rwanda staged fairly strong recoveries, while Ethiopia dragged behind (though growth did pick up after 2001 rising to almost 8%). These two pictures are largely consistent with Figure 6: inflation fell with a lag even as growth accelerated. Referring to Table 4, there does not seem to be a tradeoff between inflation and growth across countries either. In fact, with perhaps the exception of Angola, lower inflation tends to be associated with higher growth even in the early stages of recovery. On the other hand, these countries did not bring down inflation that quickly. Growth and recovery did not require a sharp reduction in inflation, and a number of countries continue to pair strong growth with double digit inflation, albeit in the 10-25% range (see Figures 6A and 6B).

Table 4: Inflation and Growth During and Post-Conflict

Country (conflict)	During Conflict ^{1/}		Post-conflict									
	Growth	Inflation	First 5 years ^{1/}			Years 5-10			Years 10-15			
			Growth	Inflation	code	Growth	Inflation	code	Growth	Inflation	code	
Angola 1975-1995	-6.7	1077	A	3.9	1009	A1	9.7	55	A2			
Chad 1989-1992				-2.3	12	C1	1.7	4	C2	8.1	2.5	C3
Cambodia 1975-1992				4.7	4.8	K1	7.1	2.5	K2			
El Salvador 1979-1992	1.3	21	S	2.9	11	S1	1.2	3.7	S3	1.1	3.6	S4
Ethiopia 1975-1990	-1.1	5.8	E1	0.4	12	E1+	0.4	11.6				
Ethiopia 1998-2000	0.2	2.5	E2	4.1	4.1	E2+	4.1	4.1				
Guatemala 1966-1996	1.6	18	G1	1.5	6.9	G1	0.7	7.1	G2			
Liberia 1997-2003	na	638	L1	5.0	7.0	L1						
Mozambique 1976-1992	-1.2	43	M1	3.6	42	M1	6.3	10.2	M2	5.4	9.6	M3
Nicaragua 1978-1990	-5.3	5264	N1	0.7	15	N1	2.5	10.5	N2	2.2	6.8	N3
Rwanda 1990-1994	-7.0	13	R1	6.8	11.7	R1	3.0	7.2	R2			
Sierra Leone 1991-2001	-5.2	22	L1	5.5	10	L1			L2			
Uganda 1971-1985			U1	0.0	135	U1	3.6	21	U2	2.7	4.5	U3 ^{1/}
Average	-2.6	710		2.8	98		3.7	12		3.9	5.4	
Average w/o Angola	-2.1	670		2.7	23		3.1	8.1				
Countries with > 12% inflation		8			5			2			0	

1/ Source: World Bank, WDI Online, October 2007 and WEO April 2007 -- 2007 estimates from WEO. Averages for A: 1991-95; A1:96-00; A2: 2001-06; K1: 1993-99;K2:2000-06; S:1985-92;S1: 1993-97;S2: 1997-02;S3: 2003-07; E1:1985-90; E1+:1991-96
E2: 1998-00; E2+:2001-06; G: 1990-96; G1:1997-01; G2:2002-06; L:1997-03; L1:2004-07; M:1982-92; M1:1993-97; M2:1998-02
M3: 2003-07; N: 1988-91; N1:1992-96; N2: 1997-02; N3:2002-06; R:1990-94; R1:1996-01; R2:2002-07; S:1995-2001; S1:2002-07
U1: 1986-90; U2: 1991-95; U3: 1996-0 Note that Uganda's last period is a 10 average, 1996-2005, most other averages cover about five years. Rwanda's first recovery period R1 it's 1995 "bounceback" GDP growth of over 30%.
For 1995-2001 growth averaged 6.8% in Rwanda while inflation averaged 11.7% (compare to the R1 figures in the Table).

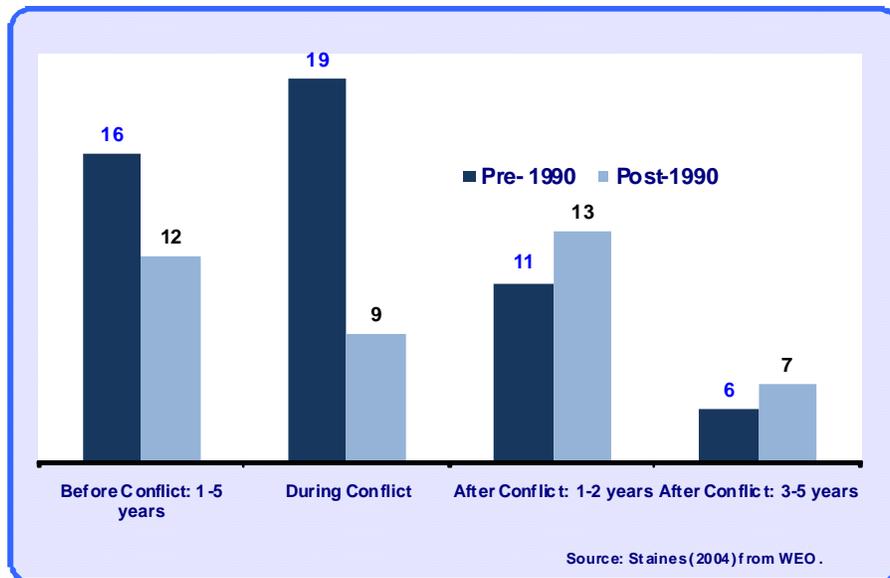
Two important conclusions emerge from this evidence: strong recovery from post-conflict does not appear to require a sharp reduction in inflation and sustained growth is associated with lower inflation over the medium term. On the other hand, most of these post-conflict economies experienced strong recoveries while gradually bringing down inflation. This second point is important because conflict countries do tend to have higher inflation rates. The message is that reasonable strong recovery is consistent with a gradual reduction in inflation. On average inflation decelerated to single digits in about five years.

2.2 Do Aid Surges Reduce Competitiveness?

Post-cold war conflicts are shorter and aid flows tend to fall during conflict and rise sharply when peace is restored.¹² During the cold war regional conflicts often became proxy wars with interested parties funding the army most sympathetic to them. Typical in this regard is aid to El Salvador in Figure 9: aid per capita peaks during the conflict, spikes slightly post-conflict, but then decreases steadily. Mozambique and Rwanda display the typical post 1990 aid pattern: aid peaks just before or immediately after the conflict ends.

It is also lower during conflict in Burundi. In Mozambique aid flows begin to rise before conflict officially ends (see Figure 9) and then peaks just after the conflict ends, only to increase sharply again in response to the 2002 floods. Note that aid levels for all three of the African countries remain fairly robust averaging about \$60 per capita in the post-conflict period. Similarly, Figure 7, using the conflict countries assembled by Staines (2004), shows a similar pattern for a group of ten pre and ten post 1990 countries. Before 1990 aid flows tended to be high during conflict lower post conflict. Figure 7 sketches the post conflict aid profile for ten “difficult partnership countries” (DPC) over the period 1992-2002. With no conflict, these countries tend to receive less aid than other low Income Countries.

Figure 7: Official Aid Inflows Pre and Post-Conflict (% GDP)



Source: Levine and Dollar (2005) page 40, DPCs include Cambodia, Central African Rep., Georgia, Haiti, Mozambique, Rwanda, Sierra Leone, Somalia, Tajikistan, Timor-L'Este. DPC countries are low income countries which score in the bottom quintile of the World Bank's CPIA institutional quality index.

¹² Hopefully, these developments are related. Starving conflicts and then ramping up aid inflows post-conflict creates an aid financed “peace dividend.”

By a number of criteria and measures, aid tends to increase sharply early in the post-conflict period. This post conflict surge in aid inflows has three interrelated concerns: i) that a sharp increase in aid inflows may exceed the absorptive capacity of the post-conflict country, especially DPC countries which may have aid effectiveness problems to begin with, ii) that a sharp increase in aid leads to inflationary pressures or real exchange rate appreciations that can discourage recovery of traded goods sectors, especially agriculture, and, iii) that a sharp increase in aid may place strain on existing government entities, especially where normal governance has been interrupted by the conflict itself.

In other words, even under relatively adverse circumstances and governance conditions that characterize economies emerging from conflict, the absorptive capacity of these countries is double the “normal” levels during the first few years after a conflict ends.¹³ These results provide further, albeit indirect, support to the argument for a big push with aid financed employment and reintegration programs outline in Part I above: the social return to employment programs is high early in the post-conflict program and these returns are not likely to be offset by absorption constraints at the macroeconomic or national level.

A second related concern is that a surge in aid flows may lead to a real exchange rate appreciation and create skilled labor shortages and other bottle-necks damaging exports. The rapid recovery of exports in many post-conflict economies (see Figure 9) suggests aid-induced real exchange rate appreciation is not a first order problem. To the extent that post-conflict employment programs focus on public works and infra-structure repair, they effectively increase productivity by boosting the supply of non-traded goods (thereby reducing the cost of tradables). Even so, bottlenecks may arise as private sector recovery builds momentum, including shortages of skilled construction workers. Post-tsunami relief efforts in Sri Lanka for example, drove up wages of skilled construction workers creating spot shortages and raised inflation. Neither of these problems reached unmanageable or “boom famine” proportions (partly because renewed conflict in the Northeast slowed growth again). Over the longer term improved infrastructure, including new roads, will increase productivity growth in both traded and non-traded sectors. Finally, if the private sector recovers slowly, as is more likely post-conflict as opposed to post-natural disaster, it may take several years for an aid driven boom to create capacity shortages or a significant real exchange rate appreciation.

Finally, the government's ability to administer major aid inflows early in the post-conflict recovery process is a concern. Part of this local capacity building can hopefully begin even before peace is restored (as it

¹³ If countries can make good use of aid inflows, rising productivity in the non-traded goods sector can also mitigate real exchange rate appreciation. Rebuilding housing and office space for example, can lower rents, as can improve transportation networks. Collier and Hoeffler (2002) address this question econometrically using a sample of post-conflict countries with aid impacts on growth conditional on institutional capacity as measured by the World Bank's CPIA index. Their conclusions are consistent with a “big push” approach to post conflict employment: *“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. 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* (Collier and Hoeffler 2002, page 8).

did in Mozambique and Afghanistan, see Box 2). Administrative capacity constraints can also take place via NGO partners or the using the administrative capacity of the UNDP (direct execution or DEX programs for example).

Part 3. Case Studies: Mozambique, Rwanda, El Salvador and Cambodia

One important assumption of the previous section is that private sector employment recovers from conflict, but that the private sector recovery lags until security is restored, basic infrastructure is operational and expatriates have a chance to return or resettle hopefully repatriating some capital as well. This section discusses four economies that have recovered from conflict, under very different circumstances. The experience of Mozambique, Rwanda, El Salvador and Cambodia demonstrate that even very poor countries can stage a comeback, though none of these countries have really topped the highest level of pre-war income per person, perhaps with the exception of Cambodia.

The discussion of the previous section uses output to gauge recovery. From the point of view of this study, employment growth is more relevant, but very little time series data on national employment growth in post conflict settings is available. This section reviews evidence of employment growth and poverty reduction for countries from three continents: Cambodia, El Salvador and Uganda. Both Cambodia and El Salvador enjoyed relatively strong recoveries.

Cambodia and El Salvador both report national employment numbers during post-conflict recovery phase (coincidentally both conflicts ended in 1992). Though both countries staged relatively strong recoveries, assisted by a number of employment initiatives, employment growth in Cambodia was dramatic, averaging 6.6% annually between 1993 and 2001 and 4.2% annually from 1993 to 2000. Employment growth broken down by sector and gender is shown in Table 5. About three quarters of Cambodian employment is in agriculture, consistent with the general argument above. Opening export processing zones (mainly garment factories) led to a rapid employment growth, particularly for women. Between 1993 and 2000 women's employment in industry grew 20% annually compared to 7% for men as the overall employment share in industry rose from 4.5% to 11%. Male agricultural employment rose at a faster 4.5% pace but at a respectable 3.4% pace for women. During this same period, net female primary enrollment rose from 63% in 1990 to 96% in 2004 nearly catching 100% male net enrollment by 2004.¹⁴

Cambodian employment growth rose from 4.1% annually during the first five years of recover to 8.4% from 1998 to 2001. The recovery or women's employment started more slowly (3.9% from 1993 to 1998) but accelerated to 4.8% from 1998 to 2000. Male employment growth showed the opposite pattern starting at 4.4%

¹⁴ Net female secondary enrollment also rose faster than that of men but from a much lower level, to 19% in 2004 up from 11% in 1995 (male net secondary enrollment went from 20% to 30%, though these numbers look like estimates). Cambodia's long war took a heavier toll on the male population, as the share of women in the population rose to nearly 53%, making employment of women a very important policy objective. All enrollment and demographic data discussed in this section is taken from the World Bank's GenderStats online data base.

the first five years and slowing to 3.6% annually the last two years for which gender employment data is available (1998-2000).

Table 5: Cambodia's Employment Recovery 1993-2001

Cambodia's Employment Recovery 1993-2001				
Employment Average Annual Growth Rate 1993-2000				
	Agriculture	Industry	Services	Total^{1/}
Total	3.9%	13%	2.1%	6.6%
Male	4.5%	7%		
Female	3.4%	20%		

Overall Employment Shares			
	Agriculture	Industry	Services
1993	75%	4.5%	20%
2001	70%	11%	19%

Female Employment Share			
	Agriculture	Industry	Services
1993	55%	38%	45%
1998	55%	42%	38%
2000	53%	59%	45%

Source: ILO (2005) Key Indicators Labor Market CD 4th ed.

1/ Average annual employment growth 1993 to 2001.

El Salvador's employment recovery is also quite dramatic, as show in Figure 8, but recovery of the services sector played a larger role than agriculture or industry (in Cambodia it was the opposite: the traded goods sectors industry and agriculture led employment growth).¹⁵ Nevertheless, the sectoral pattern of recovery again favored women: almost 75% of women work in the service sector in El Salvador compared to about 45% of men (the male-female share of industry employment is roughly equal at about 25%). Agriculture is a much more important employer for men, which following 1993 grew more slowly (actually it fell) slowing the recovery of male employment. Though it may be an artifact of the data, dating recovery from 1991 creates a very sharp employment recovery early on (contrary to the arguments developed in Section 1 above regarding a slow private sector recovery). However, if we date El Salvador's recovery from the official end of conflict in 1992, recovery starts slowly, particularly for men, in the first five years (through 1997) and then accelerates for both men and women. Note that the share of female employment is lower than in Cambodia (42% as opposed to 52%) but rises throughout the post 1992 period (again suggesting a stronger recovery for women due mainly to service sector employment growth, where three quarters of El Salvadoran women work).

¹⁵ This distinctive recovery pattern is in part due to the impacts real exchange rates on growth in El Salvador and Cambodia, see appendix C. However, despite its stronger real exchange rate El Salvador managed respectable employment growth averaging almost 9% annually if one dates the recovery from 1991 and 3.2% if on begins in 1993, again led by services employment growth of and 8% and 6% respectively.

Figure 8: El Salvador Employment Recovery following its 1979-92 Civil Conflict

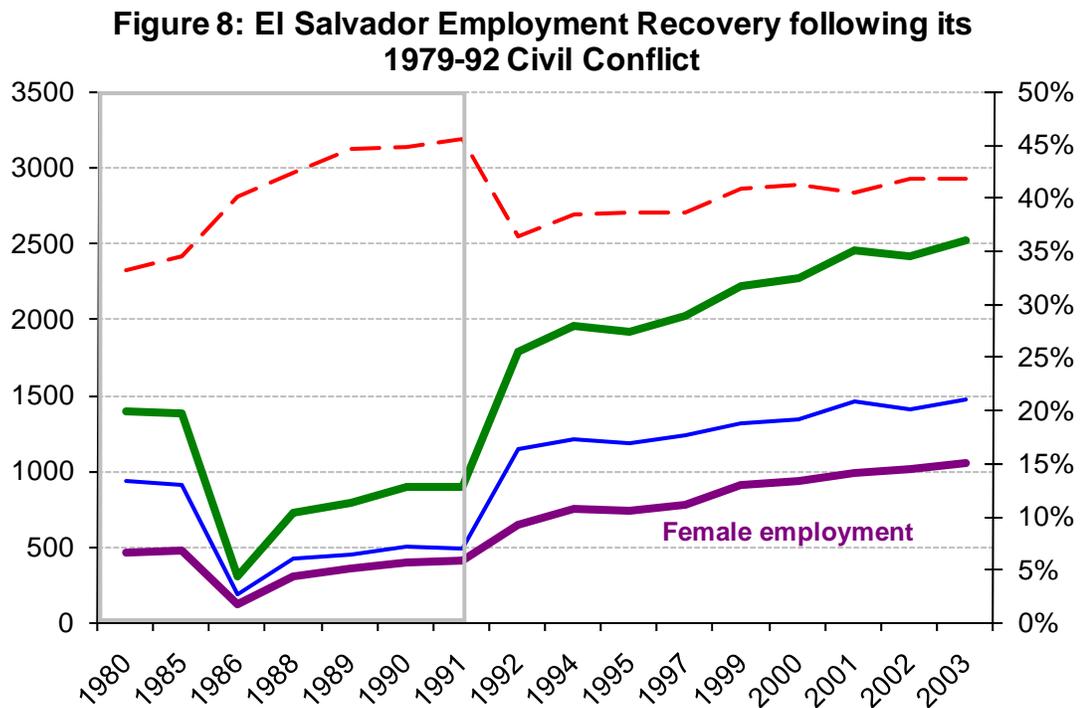


Figure 9 shows the fairly robust post-conflict recoveries of Cambodia and Mozambique, the major difference being the level of aid inflows. Mozambique experienced a major increase in aid just before and for a time after its civil war ended. Cambodia on the other hand received relatively modest amounts of foreign aid. But note that both countries experienced a strong rebound in exports after the conflict, though Cambodia's export growth was almost all manufacturing exports while Mozambique's exports were primarily mining and agricultural products. In both cases, income per capita rose fairly robustly after the conflict ended more or less restoring pre-war levels of income in Mozambique and exceeding pre-war per capita income in Cambodia.

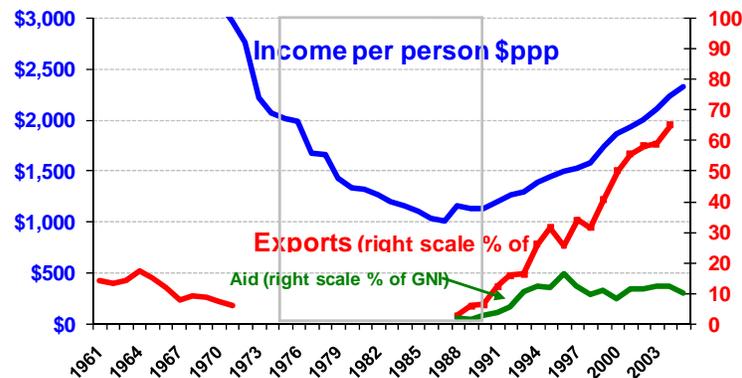
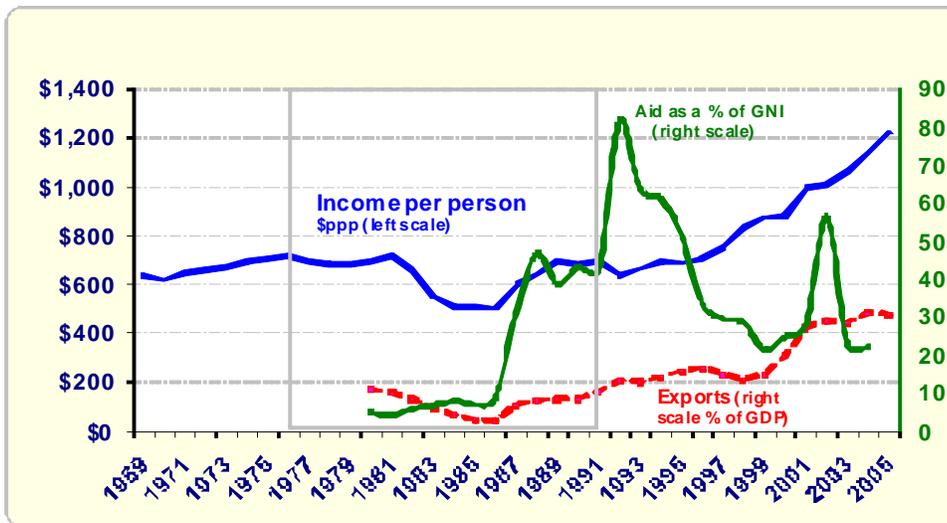
If exports are labor intensive they can be a proxy for private employment; also, because they are typically an indicator of private sector activity. During the conflict in Mozambique exports fell to under 5% of GDP, but recovered to 13-15% in the first 4-5 years after the conflict ended. During this period it was mainly food and farm exports, until about 1999-2000 exports doubled again to about 30% of GDP boosted by some large mining projects. Similarly, Cambodia's exports fell to very low levels only to rise to about 14% of GDP just after the conflict ended, within four years (by 1997) exports had climbed to about 30% of GDP. By 2004 exports

as a share of GDP had doubled again to over 60% of GDP. Practically all Cambodia's export growth was manufactured exports (mainly apparel exports).

Figure 9 also shows Rwanda and El Salvador experienced more moderate recoveries of both GDP and exports: more than a decade after conflict ended neither exports or income per capita had reached pre-conflict levels, still both countries experience modest recoveries likely driven by aid inflows in the case Rwanda and remittances in the case of El Salvador. Apart from Cambodia, economic recovery and export growth began slowly but accelerated 4-5 years later.

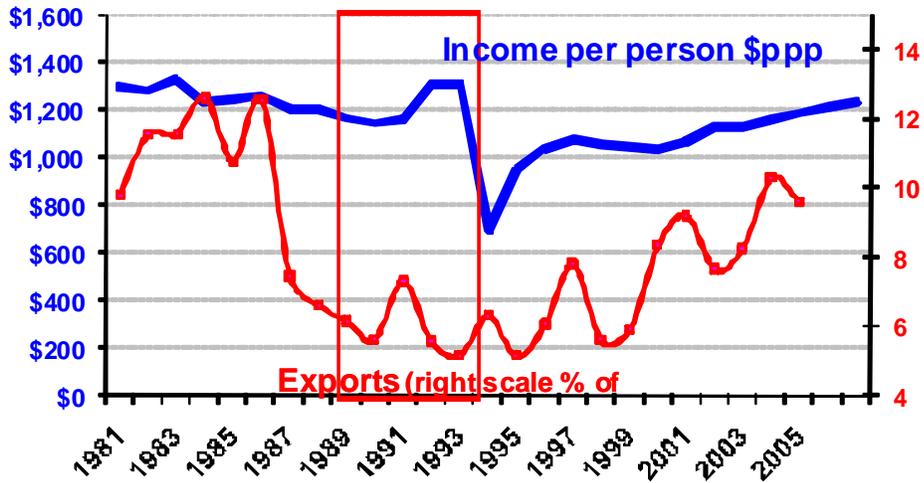
Figure 9: Post-Conflict Recovery in Mozambique, Cambodia, Rwanda and El Salvador

Mozambique (1976-1992)

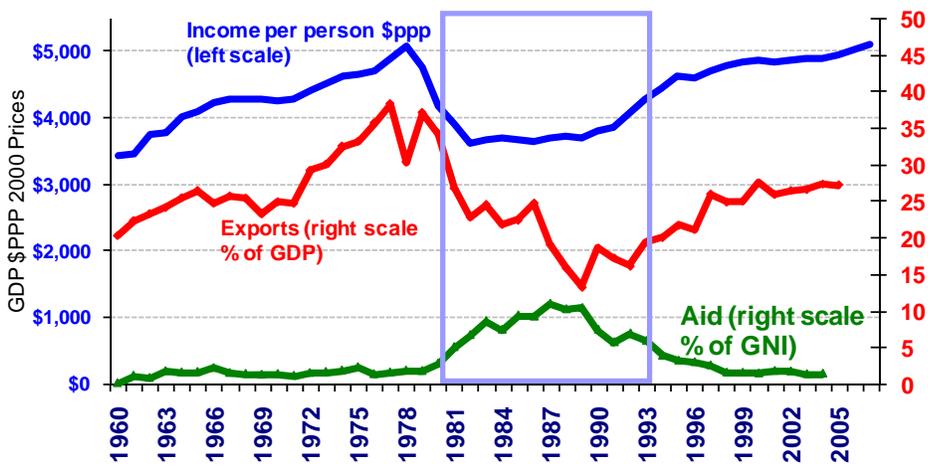


Cambodia (1975-1992)

Rwanda (1990-1994)



El Salvador (1979-92)



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Box 1: Why Employment?

Group employment in public works or social service delivery is generally superior to cash transfers or even self-employment in post conflict situations because fulfils both economic and social needs of returning ex-combatants and victims of conflict. Military units provide both employment of sorts, albeit of a potentially destructive variety, In fact, employers often attempt to replicate some aspects of military life and build a sense of community to raise productivity and loyalty by organizing retreats, group exercises and other social activities at work. This group dynamic can be especially important for young workers for whom these jobs may be their first encounter with organized employment. Families and communities may or may not welcome back young ex-combatants, but even when they do those returning from combat areas may feel alienated from family and community. Injuries and the trauma of war can make adjustment difficult, especially if these experiences are not shared by others. Employment in a group with similar backgrounds comes closest to replicating the goal directed activity and social milieu of a military unit, especially if supervisors cultivate the peer group dynamics military commanders have understood for centuries.¹⁶ The Chinese postal workers shown below for example, exercise together each morning both because it is healthy and because exercising to music builds “*esprit de corps*”

Some other reasons employment is a very useful in post-conflict settings:

- When asked, ex-combatants consistently say their top priority is getting a job (see Box 12). They could answer money or a vacation, but they almost always say “a job.” Even temporary employment is an important peace dividend, one that offers the prospect of an escape from the military and from poverty.
- Young ex-combatants and their commanders can be a security risk. A job occupies them during the day and is cheaper than other forms of monitoring—for individuals who may threaten security government becomes as employer of “first resort.”
- Regular work in civilian jobs creates a sense of normalcy and routine that cultivates a sense of social stability especially among ex-combatants. Post-war reconstruction is labor intensive initially, as opposed to skill or machine intensive, so lots of workers are need to rebuild and provide key services while waiting for the private sector and regular government agencies to resume these tasks.
- Public employment eases the transition to private employment as recovery gains momentum. Work requirements make it easier to end post-war DDR programs for example. This is the workfare argument: recipients who are already working for transfer payments are more willing to switch to private employment, especially if they expect greater upward mobility in the private sector.



Postal workers in Qinghai China exercise to music before starting work (photo Darryl McLeod and Nora Lustig).

¹⁶ Explaining the spread of military drill during the 16th century William McNeill describes the bonding process: “One obvious reason was that well-drilled troops were more efficient in battle; but an additional advantage was that it became safe to arm even the poorest classes, paying them a pittance and still expect and secure obedience. The emotional resonance of daily and prolonged close order drill created such a lively *esprit de corps* among poverty stricken peasant recruits and urban outcasts who came to constitute the rank and file of European armies that other social ties faded into insignificance among them.”

Box 2: Early Relief: Mozambique's Feeder Roads Program

The Feeder Roads Program (FRP) in Mozambique started in 1981 with funding from the Norwegian government as an experiment in using labor-intensive methods to build and repair rural "feeder roads." However, during 1983 conflict began to disrupt the program as crews were attacked by fighters. Rather than shut down, the program moved to less conflict affected regions. After the 1992 peace agreement was signed, the FRP could be and was quickly scaled up both to repair war damaged roads and to employ ex-combatants. The program was targeted geographically by recruiting residents of poor rural communities. Women's participation in the program expanded to about 19% of workers in some areas after special gender administrative unit was added in 1996.

The FRP was administered by the National Road Administration (ANE), a division of Mozambique's Ministry of Public Works and Housing. With ongoing ILO technical assistance the FRP was supported by a number of donors including Norway, Sweden and the UNDP. The wage rate of the program started at about \$2.50 a day (about \$11/day PPP or U.S. prices), but high inflation reduced daily compensation to about \$1.20/day (or about \$5.50/day PPP). Though both these wage rates were roughly equal to the prevailing minimum wage at the time, they were adequate to allow a small family to escape \$1/day poverty. During the conflict, the government and FRP administrators let the wage rate fall by 50%, reflecting both market conditions and the need to incorporate larger numbers of rural poor. The poverty rate was over 50% in Mozambique during this period (see Table 1). Over its long run, the FRP generated about 8-million worker-days of employment, involving more than 40,000 people mainly from rural communities (ANE et al. 2002). The program has also provided about 5,000 person-weeks of training. Through 2002 about 7,900 kilometers of feeder roads were opened or repaired and the program has been handed off from aid financing "to an integral part of DER" (Mozambique's Directorate of Regional Roads).

The FRP shows that labor intensive public works can generate large numbers of low wage jobs quickly and how pilot programs in safer areas can speed scaling up a program once conflict actually ends. Following the model of the FRP Mozambique used similar public works employment schemes to conduct flood relief and repair, child immunization drives, and an HIV/AIDS awareness programs. The FRP was evaluated by the Swedish International Development Cooperation Agency (SIDA) in 2000 and a report was prepared in 2002 by some of the donors supporting the program: see ANE et al. (2002). Sources: ILO (2006), ANE et al (2002), Bruzelius, N. et al. (2000).

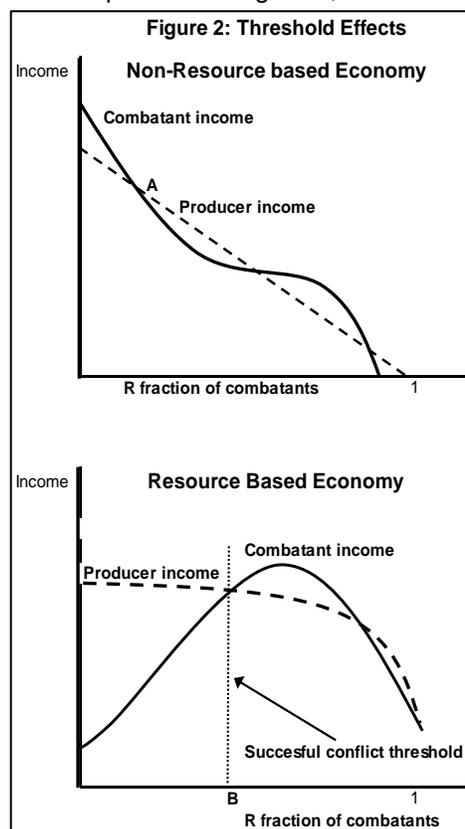
Mozambique created a Gender Unit within the FRP in 1996, subsequently added to structure of the National Road Administration, to focus on the participation of women in the program (19% in 2002) and to distribute the benefits of the program more equally. According to the ANE-UNDP-SIDA-ILO (2002) evaluation women's participation in the FRP has reduced "social barriers and gender stereotypes in rural areas."

Box 3: Threshold Effects in the Social Benefits of Conflict

A burgeoning literature on the causes of conflict identifies a number of risk factors including “opportunistic” rent seeking in which rebel groups organize to seize incomes flowing from sale of natural resources (diamonds, oil, mines). Collier and Hoeffler (2000) for example find “greed” indicators outperform “grievance” as predictors of conflict, except when there is a dominant ethnic group. Resource based economies are particularly vulnerable to conflict in part because economies that rely mainly on produced goods and services (food, manufactures or tourism for example) find that conflict quickly reduces productive activity. This reduces the payoff from conflict and increases the benefits of peace and political stability.¹⁷ As shown in the top frame of Figure 2, the fraction of spoilers grows to A and then stops because an increase in the share of population engaged in crime or conflict or rent seeking drive the income of predators below that of producers (much as pirates might drive shipping out the range of their ships).

Resource based economies are vulnerable to conflict because it only takes only a few workers to produce and export resources. Rebellion pays because mines and wells continue to operate even as conflict rages. Suppose rebellions involving some minimum number of rebels B succeed. As shown in the lower frame of Figure 2, if the share of population engaged in combat rises above B, rebellion pays.

However, this characteristic of resource rent driven conflict cuts both ways. To the extent that the stakes are high and minimum number of rebels is necessary for success, governments have the means and the incentive to put down or avoid uprisings. Resource rich governments can “buy off” some rebel groups to keep their numbers below threshold levels (as Nigeria does on occasion to quell uprisings in the Niger Delta region). However, employment growth may also reduce the pool of available recruits below some threshold level (especially when the government also makes rebellion risky) thereby generating large social benefits. It may be cheaper in the long run for governments and donors to support employment programs rather than payoff rebel groups or suppress rebellions (which tends to encourage further negative behavior). Given the positive externalities of employment programs compared to counter-insurgency campaigns (which discourage local enterprise) this would certainly be the most social beneficial approach to conflict prevention in resource rich regions.



¹⁷ Romer (2006) p.154, Acemoglu (1995) and Grossman and Kim (1995) present similar threshold driven conflict models. Stiglitz (2006) and Brooks (2005) discuss the role of trade interdependence in reducing the risk of conflict in the modern era.

Box 4. Identity-Based Conflicts

Conflicts may be fueled by differences among ethnic or religious groups. While Sen (2006) argues irresponsible leaders manipulate ethnic and religious identities to their own ends, ethnic divisions clearly play a role in many conflicts (Iraq and Rwanda for example). Frances Stewart (2000) stresses the role of horizontal as opposed to vertical (rich vs. poor) inequality. Horizontal inequality measures “*inequality between groups*” as defined by region, ethnicity, class or religion. Horizontal inequality increases vulnerability to other sources of conflict (rivalries over resource rents in the Niger delta for example). Countries with high horizontal inequality have a higher probability of conflict because groups wedded a particular identity are easier to mobilize (Stewart, 2000, 2002).

Ethnic or religious differences among groups may not cause conflict directly, but political leaders may exploit and exacerbate group differences to their own ends. Sen (2006) explores the links between identity and conflict arguing leaders reinforce a single identity in their followers – e.g. exclusively as belonging to a certain religion ethnicity, language or culture - for the purpose of seeking support for violence and confrontation. Similarly, Ostby (2006) argues that “*it is easier to maintain a group cohesiveness and motivation for rebellion if the elite can draw on ethnic, religious, or regional differences to construct a well- defined identity group with a common enemy*” (p.4). In this sense, Langer (2004) studied the case of horizontal inequalities as a source of conflict in Cote D’Ivoire and pointed out that political leaders were the ones to make the concepts of “foreigner” and “native” relevant in that context.

In their empirical tests of the “greed vs. grievance” hypothesis Collier and Hoeffler (2000) find that ethnic fractionalization reduces the probability conflict, except where there is a dominant ethnic group (over 60% of the population). However, Ostby (2006) presents evidence of a positive relation between higher horizontal inequality and a higher risk of conflict where horizontal inequality may be among ethnic, religious and geographical groups.

To reduce the probability of renewed conflict policies and programs must identify and mitigate horizontal inequities. On this point Sen (2006) strikes a hopeful note regarding the inevitability of “identity based” conflicts: he argues people can freely choose among multiple identities and rarely respond to calls to violence based on single ethnic or religious identities. Referring the 1994 Rwanda genocide Sen argues that individuals often switched from being Hutu to Tutsi implying a degree and individual choice and manipulation “*a person being recruited to join the Hutu killing mob in 1994 was being asked, if only implicitly, not to see himself as Rwandan, or as an African, or as a human being (identities that targeted Tutsis shared), but only as a Hutu...*” (see Sen. 2006, p.175 and Box 5 on Rwandan coffee cooperatives).

Sources: Stewart (2000,2002) Otsby (2006), Sen (2006) and Langer (2005).

Box 5: Cultivating Global Identity: coffee exports and tourism

Reconciliation between Rwandan Tutsis and Hutus are being addressed, in part, through an aid sponsored cooperative program to brand and export coffee from small farms. A recent BBC story describes how the “The coffee industry is improving community relations. Coffee is being used in Rwanda to relaunch the economy as well as heal old wounds following the genocide. The Rwandan government is encouraging the creation of coffee plantations where people from both sides of the ethnic divide work together. This daily contact is seen as a means of speeding up reconciliation by fostering relationships and building communities...” (BBC, 2006).

A similar program in Chiapas region of Mexico won the UN Equator Initiative Prize for reconciling poverty reduction with environmental conservations. The main purpose of these programs is to raise the value added and prices received by local producers. However, in doing so they also exploit the notoriety of conflict regions for commercial purposes and help develop global identities via trade among participants. Conflict or battle-field tourism, though a bit morbid, can have similar effects. Both of tourism and labor intensive specialty exports strengthen local and national identities vis-à-vis the world. By cultivating the external “Rwandan” or “Chiapas” identities of participants even former enemies find common purpose in profiting from foreign sales or tourism. These activities may also generate critical foreign exchange revenues and employment opportunities long after aid programs wind down. Though it did not unfold as planned, a proposed MIGA insured investment by the multinational IPTEL promised to provide wireless internet service throughout Sierra Leone shortly after conflict ended. Clearly this sort of technology can reorient geographically isolated communities toward global markets.

Export oriented industries can help prevent conflict create streams of income dependent on social stability and trade creating new and potentially influential constituents for peace and stability. Sen (2006) argues this cultivation of global citizenship is one key to reducing violence fueled by “solitarist” views of identity. The success of this coffee cooperative and the spectacle of former bitter enemies working together in a common enterprise reinforced a new common identity in the two groups, who no longer see themselves *only* as Tutsis or Hutus, but as workers of the same industry. This has been seen as a contributing factor in the reconciliation process.

Sources: Sen, Amartya (2006). *Identity and violence: The illusion of destiny*. New York: Norton; UK BBC News (Wednesday, 30 August 2006). <http://news.bbc.co.uk/2/hi/africa/5299286.stm>

Box 6 Sri-Lanka's 3000 Houses

Sri Lanka is classic example of a long but evolving conflict driven by ethnic divisions and resentment. Sri Lanka has suffered years of civil conflict due to horizontal inequalities between the Sinhalese and the Tamils. As France Stewart (2002, p. 32) emphasizes, "*Where ethnic identities coincide with economic/social ones... ethnicity does become a mobilizing agent, and as this happens the ethnic divisions are enhanced. Sri Lanka is a powerful example*". To avoid aggravating ethnic divisions (and to be viable politically) employment policy and assistance programs clear one additional hurdle in Sri Lanka: they must not clearly favor one ethnic group over another.

The Nash bargaining solution: In 1999 the Swedish government offered to build three thousand houses in a community that included Sri Lanka's three major ethnic groups - Tamil, Sinhalese and Muslims – in equal percentage. After much debate it was decided that each ethnic group should be allotted one thousand houses each. Even though the groups were not equally affected by conflict, nor would an objective needs assessment likely have reached this solution, this solution contributed to stability. Indeed this is the common sense solution to any bargaining problem proposed by graduate student John Nash in his famous paper "The Bargaining Problem." Equal division of rewards may not an optimal solution, but it is "fair" and generally politically acceptable one that enhances rather than undermines social stability. The disadvantage is a practical one: it makes delivering benefits to any target group more expensive and more complex. To deliver one thousand jobs to displaced Tamil villagers for example, aid agencies must provide analogous benefits to other ethnic groups. The OECD (2001,p.31) argues that "this example illustrates how the standard development criteria (needs-based decision making, efficiency, product-oriented rather than process-oriented approaches) may have to be modified to meet peace-building objectives." This problem also strengthens the case for universal or self-targeting programs: Sri Lanka had a notoriously difficult time targeting its food subsidy programs in a way which was both practical (given the limits of public finance) and politically viable. Sri Lanka started with universally available ration shops, which got too expensive, they switched to a food stamp program that was not popular with the middle class, finally they settled on a food and cash for work program very similar to the permanent safety-net advocated here.

Sources: Stewart, Frances (2002) *Horizontal Inequalities: A Neglected Dimension of Development*. Queen Elizabeth House Working Paper No. 1. Oxford: Queen Elizabeth House and OECD (2001). *The DAC Guidelines. Helping Prevent Violent Conflict*. OECD DAC and Nash (1950).

Box 7: From Post-Conflict Local Initiatives to Permanent Safety Nets: El Salvador

The Development Program for Displaced Persons, Refugees and Returnees in Central America (PRODERE) was implemented in El Salvador, along with other Latin American countries, from 1990 to 1995. Funded by the Italian government through UNDP, PRODERE's objectives included promoting human rights, building a consensus around development issues, facilitating the reintegration of returnees, restoring basic services in such areas as health, education and housing as well as reactivating the local economy. A component of this initiative was the Local Economic Development strategy (LED), implemented by the ILO for employment and income generation. The program was geographically targeted reaching the poorest villages in the areas most affected by conflict, avoiding any discrimination by ethnic groups. Each program was administered locally by community based Local Economic Development Agencies (LEDAs) composed of representatives from the public sector and the civil society in each geographical area targeted. The communities were directly and actively involved in the identification of the priorities and the design of the activities (for a detailed description of PRODERE and the LEDAS see Lazarte, Hofmeijer, and Zwanenburg, 1999).

*"The Local Development Agencies (LEDA) where the first relevant initiative aimed at articulating the government and NGO's in subnational territories. Their link with international organizations was positive in bringing government agents and the civil society closer during the polarized reality of the first post-war years".*¹⁸ (UNDP, 2001). In other words, the LEDAs (originated from government programs financed by international organizations), some supported under PRODERE in post-conflict areas, helped create and strengthen a framework at the municipal level that would set the ground for future government programs at the local level. Although PRODERE officially ended in 1995, it helped set the stage for decentralized intervention.

Increase governmental focus on local development led, in 1996, to the creation of the *Fondo de Inversión Social para el Desarrollo Local*, FISDL (Social Investment Fund for Local Development). The FISDL originated as a merger between the Secretariat for National Reconstruction and the Social Investment Fund - which was originally created temporarily. FISDL is part of the national government and its funds come from the government itself, from international organizations and other donations and operations.¹⁹ The FISDL keeps close links with international organizations for support in various areas. For instance, with the *Red de Cooperantes para el Desarrollo Local* (RECODEL), coordinated by UNDP, which groups international donors for a better coordination of local development initiatives in El Salvador. Specific alliances include, for example, with the Inter American Development Bank, which approved an emergency loan to the FISDL in 2001 after the earthquakes in El Salvador in 2001 to help affected families (IADB, 2001).

Local development strategies under the FISDL gave birth to Red Solidaria (*Solidarity Network*). Red Solidaria is a conditional cash transfer program implemented by the FISDL and launched in March 2005, which targets the 100 poorest municipalities, expecting to reach 100,000 families by 2009. It has three components: (i) Family Solidarity Network (targeted to families with pregnant women and children under 15 who have not completed the 6th grade); (ii) Network of Basic Services (education, health and nutrition programs; provision of basic infrastructure); (iii) Family Sustainability Network (productive projects and micro-credit to support poor agriculture producers) (Britto, 2007a). As in similar programs in other Latin American countries, conditionalities include family training sessions and health and education commitments from the part of the family. Britto (2007b) reports that school enrollment and maternal and children health check-ups increased from 2005 to 2006.

Sources: Britto, Tatiana (2007a, 2007b); IADB (2000), IADB (2001), Lazarte, Alfredo et al. (1999), UNDP (2001).

¹⁸ Free translation from UNDP (2001), ch. 6

¹⁹ For more details see Articles 14 and 16 of the *Ley de Creación del Fondo de Inversión Social* (Law of Creation of the Social Investment Fund) available at: <http://www.fisdgob.gov.sv/content/view/full/278/105/>.

Box 8: Coping with High Unemployment: Argentina's Trabajar and Jefes Programs

In an effort to cope with high unemployment during the financial turbulence of the 1990s, the Government of Argentina implemented TRABAJAR in 1997: a workfare program designed to ease the costs of high unemployment especially among the poor workers. Similarly, in response to high unemployment during the mid-1990s, the program received financial and technical assistance from the World Bank. Trabajar is a post-crisis program not a post-conflict program. Depending on how one views the struggle against apartheid, South Africa's public works employment programs could be thought of as post-conflict. However, what makes both programs relevant to post-conflict settings is that they are designed to be targeted long term safety net programs aimed at providing jobs of last resort in high unemployment areas. Moreover, both have been evaluated using more or less state of the art evaluation techniques (though not randomized control groups).

Argentina's TRABAJAR and Jefes Programs

This public works program provided temporary employment and it targeted the poorest of the unemployed, both geographically and by paying below market compensation rates. reports the program had over 400,000 direct beneficiaries who worked on about 6,000 projects, particularly in rural Argentina where most of the poor live (Subbarao, 2003). Several evaluations of the program had been carried out. Jalan and Ravallion (1999) evaluate three components of the program in terms of the net income gains to participating families: one was a wage subsidy designed to encourage private employment, another measure was training and the third was the cash for work payment itself.

Targeting the Poorest Workers

TRABAJAR was mainly a social investment fund administered by local governments, though it also had training and wage subsidy aspects. As the immediate crisis levels of unemployment fell, the program compensation rate was reduced to about 160 pesos per month or about 20% below the minimum wage of 200 pesos—a pattern consistent with Table 2. To avoid labor conflict the cash payments associated with this program were referred to as living allowances or "economic assistance" payments rather than wages (see Subbarao, 2003, page 7-8). This allowed the program to continue as a self-targeted poverty program. set wages below the minimum wage, because of "strong trade unions and statutory minimum wages" (Seekings, 2006), and in the case of conflict countries (ii) it also makes it easier to phase out the program when the objectives of the post-conflict strategy change.

Box 9: Double safety-nets for young workers: the Job Corps Program

Apart from their lack of experience, workers have a range of problems older workers don't. They may have left school to participate in combat, they may have drug problems and/or they may be illiterate or not speak a language that makes them generally employable. Young people are also more likely to get involved in crime or operate in the gray market of semi-legal activities. As discussed the text the standard trajectory is some sort of public works and then a return to communities, private employment and/or starting a small business. But what about youth who fail at all these endeavors, and perhaps get arrested once or twice, or find they don't have the basic skills to even look for job? One program that targets just this sort of disadvantaged youth aged 18 to 24 is the Job Corps program. A survivor from the War on Poverty era, this program provides intensive 6-10 month training or remedial education in a resident facility. Each participant receives an average of 1000 hours of instruction (about one school year) focusing on remedial education, learning a second language or vocational training. Participants live at the group facility, removing them destructive peer or family environments. Enrollment is voluntary but youth are often referred by judges, school counselors or parents. Once at the Job Corps facility facility, participants are interviewed and their special needs profiled. Participants typically live and work at the facility for about six months. This sort of resident training and counseling expensive, about \$15,000 per participant, but these costs are likely to be closer to \$1,000 per participant in poor countries.

This program is aimed at "problem youths" and is relatively expensive and intensive program, offering essentially a year of training or remedial education (including learning a second language). One of numerous evaluations of Job Corp impact three years out found a 20% reduction in arrest rates and a 22% reduction in incarceration rates and some savings in benefits from other programs. Earnings three years out rose 11% over the eligible control group (they had access to other employment and training programs, but not the Job Corps). Impacts on 16-17 year olds that completed the 8-10 month program were much more dramatic: earnings rose 20% three years out and incarceration rates fell 26%. The relevance of this sort of program for youth in conflict areas is clear: a more intensive remedial education and training program perhaps combined other sorts of counseling and rehabilitation can make a difference for even problem youth. And as discussed in Part I, a substantial share of benefits derives from indirect savings via reduced crime and violence and associated law enforcement costs.

Schochet, Peter Z. J. Burghardt, and S. Glazerman (2000) National Job Corps Study: The Short-Term Impacts of Job Corps on Participants' Employment and Related Outcomes, Final Report, February 9, 2000, Mathematica Policy Research final report the U.S. Department of Labor, K-4279-3-00-80-30.

Box 10: Community Development: CARERE and PRODERE Programs

Central America suffered from a number of long conflicts in Nicaragua, El Salvador and Guatemala 1980s and part of the 1990s (Table 1). These conflicts affected indigenous peoples in particular in poor rural areas. Once a peace agreement was negotiated in the early 1990s, the ILO and UNDP launched the Program for Displaced Persons, Refugees and Returnees in Central America (PRODERE), financed by the Government of Italy aimed mainly at conflict affected areas.

A component of this initiative was the Local Economic Development strategy (LED), which was implemented by the ILO mainly in El Salvador, Guatemala and Nicaragua between 1990 and 1995. The goal of the LED was employment and income generation. The program was geographically targeted reaching the poorest villages in the areas most affected by conflict, avoiding any discrimination by ethnic groups. Each program was administered locally by community based Local Economic Development Agencies (LEDAs) composed of representatives from the public sector and the civil society in each geographical area targeted. The communities were directly and actively involved in the identification of the priorities and the design of the activities. Local residents were trained to staff the LEDAs building local capacity while enhancing the independence and community focus of each LEDA.

Besides promoting and supporting new business with various direct interventions, the LEDAs also had an important impact in providing access to credit to small entrepreneurs. *“Between September 1991 and June 1995 some \$15.2 million in credits was actually disbursed to 334,062 direct beneficiaries. According to Lazarte et. al, (1999) more than a quarter of the beneficiaries were women.”*²⁰

The ILO-UNDP cooperation in Central America set the stage for an even more ambitious effort in Cambodia as the UNDP and UNCPR launched the Cambodia Resettlement and Regeneration program (CARERE) aimed at resettling and reintegrating over 300,000 refugees from Cambodia's long conflict. However the CARERE program tackled several problems not encountered in Central America. First CARERE combined massive resettlement along with rebuilding public works that led to problematic confrontations with local jurisdiction and property rights. Second, the Cambodian government never bought the idea of labor intensive public works (this problem is discussed further in Box 14). Instead the focus was on restart the agricultural economy immediately and introducing export-processing zones as a means of employment generation. This led to the very rapid growth industrial employment, especially for women. Garment exports also generated foreign exchange necessary to import equipment needed to for more capital intensive rebuilding of roads and public works.

²⁰ A detailed paper on PRODERE was prepared by the ILO (Lazarte et. al, 1999) describing the program, it cites an evaluation undertaken by the Oscar Arias Foundation that we have been unable to locate.

Box 11: What Ex-combatants want

“Thank god for DDR training—but we need our toolbox.” Sierra Leone DDR graduate, 2003.

Though many have been successfully implemented, formal surveys of reintegration program participants and similar non-participants are rare. Yet this sort of survey evaluation, tracking and follow up is essential if the truly effective approaches of DDR and employment techniques are to be identified over time (see Box 13). What works and what doesn't and perhaps more important what do participants think they gained or did get from a particular DDR program? Fortunately, with assistance of the NGO, PRIDE, MacCartan Humphries and Jeremy Weinstein (H&W) conducted such a survey in Sierra Leone during the summer of 2003. About 1,043 of 75,000 ex combatants were surveyed, and perhaps more important the survey targeted an additional 250 non-combatants who lived in the same area as the combatants, but who had not participated in combat for at least a month.

Perhaps the most important for our purposes, when asked what could be done to improve the DDR program they participated in, the majority of ex-combatants asked for more help finding jobs (54%), longer training periods (30%) and more support starting small businesses. Not surprisingly, 15% would have liked larger reinsertion allowances. (Humphreys and Weinstein, 2004, p. 3) Also 80% of those entering the DDR program participated in a training or vocational program (though 30% of survey respondents never attended primary school). To be fair, this survey took place in the summer of 2003, more than a year after the January 2002 conflict end date, so by this time most ex-participants were focused on new livelihood or job as the DDR process was winding down.

How successful was the Sierra Leone DDR program? One limitation of the survey is that by June 2003 about 57% of respondents were still in training programs. Still only 25% of survey respondents that had completed the training program reported having no job. This is a high re-employment rate for a DDR program. Of the 40% that completed a training or vocational program, 42% found jobs within six months. Significantly, about one half of those jobs involved working for someone else (as opposed to self-employment). Perhaps more important 74% of those who found work believed that the training they received as part of the DDR program was instrumental to them getting the job (H&W, 2004, p.32). Compared to the most formally evaluated employment training programs, this suggests that this vocational training program (complete with free toolbox) was relatively successful in finding new jobs (though this was not a formal controls impact of the sort discussed in Box 13). Although it may be possible to find a control group within this survey (ex combatants who did not complete the program) the job finding performance of a potential control group, those who did not participate in the program, is not reported. Of the 25% who did not find jobs, 20% felt it was because of the bad reputations or discrimination against ex-combatants, while a similar proportion felt they did not have the right skills to find a job. Others did not like the available jobs or did not know where to look for a job.

Gender Differences

About 7% of DDR participants and 10% of those surveyed were women. Separate female employment and training data is not reported by H&W there are indications that women ex-combatants were less satisfied with the DDR program. One problem is that some women were put into the DDR programs with the same ex-soldiers that had attacked them prior to the end of combat. Also, women ex-combatants were more likely to come from one faction than another. Though the sample is small, these circumstances suggest that separate DDR programs for men and women may be useful.

Box 12: Post-Conflict Employment Program Evaluation

Heralding the *The End of Poverty* Jeffrey Sachs (2005) calls for a new “clinical economics” approach to economic policy borrowed from a physician’s approach to practicing medicine: a careful diagnosis of a problem in a particular country followed by a diagnosis of the best treatment or medicines for that particular case. This certainly applies to post-conflict policy: no two conflicts are alike and it is very difficult to anticipate what one might encounter. But one clear advantage physicians have over employment policy makers is that they have a stock arsenal of drugs and procedures that have been tested against a randomly selected untreated control group. Treatments that do not perform well in randomized trials are dropped in favor of those that do. While not as extensive as drug testing, some sort of program evaluation against a control is now standard practice in many OECD nations.

Because very few post-conflict employment or DDR programs have been evaluated using this control group approach, there is no solid evidence that someone who spends a few weeks or six months in one of these programs will do better than someone who just looks for work or starts a business on their own. Similarly, what to young participants in labor intensive public works programs? Tests of the Job Corps program discussed in Box 9 suggest it is most effective for 16-17 year old participants, knowing this about a particular DDR or public works employment program would be very useful.

For obvious reasons, it is difficult to subject DDR programs to randomized trials. On the other hand, most DDR programs carefully target and can compile lists of participants: it would not be that difficult to do some follow up surveys (see below). Even *ex post* a range of creative statistical techniques can be used to simulate a control group. Unplanned variations in the start up in different areas, for example, can create natural experiments. Some ex-combatants in Sierra Leone, for example, got toolboxes and training right away, others had to wait (Box 12). Did the early toolbox group do better? A simple follow up survey might answer this question, exploiting the fact that one DDR group got into training program while another did not.

Another relatively inexpensive approach would be to give all participants in the DDR program cell phones, to be paid for only as long as they remain in their possession. Using GPS chips may raise privacy issues, but most participants may be willing to hang on to their free phone (and having phone makes it easier to find employment or run a business). While willingness and ability to hang on to the phone creates some selection bias, interesting insights could be gained into what happens to program participants.

One reason evaluation is important is that studies show the benefit of employment and training programs varies greatly: an Argentine wage subsidy worked well for young workers and women, but not for adult males; one U.S. private sector training subsidy helped adults but did little for young workers. Having this sort of information would allow DDR programs to better serve target groups. A common objection to evaluation is cost. A typical impact evaluation might cost about \$200,000. Holding evaluation to about .5% of program costs implies an outlay of about \$40 million before a full evaluation can be justified. But some donors already impact evaluate their own programs and may be willing to absorb this cost, especially if they support similar interventions in other countries. Moreover, much of the data needed for impact evaluation is already collected by most DDR programs (in fact better tracking of ex-combatants could make these programs more effective regardless). Finally, the payoff from impact evaluation over time would be high. More knowledge about how employment and DDR policies work in post-conflict settings would lead to better programs: a great benefit both to the victims of conflict and to those trying to help.

Box 13: The ILO Cambodia Better Factories Program

Post-conflict business ventures are risky and government regulatory reputations may be tarnished by conflict, making foreign companies reluctant to do business in these countries. International intervention can help assure customers that health and safety regulations and other labor standards are being enforced. An example of this sort of labor standard certification program is the ILO's Better Factories Cambodia program. In 2001 the United States and Cambodia entered a three year trade agreement increasing MFA quota access to the U.S. clothing market. The government of Cambodia asked the ILO to develop a factory working conditions certification program to make sure labor laws were enforced in its garment factories. The certification program is cited by large corporate buyers as an inducement to use Cambodian factors (Becker, 2005). Exports expanded rapidly as shown in Figure 9.

The overwhelming majority of the workers were young women (90%), mainly from rural areas. An estimated 90% of the garment workers are young women, 85% of whom are under 26 (see Table 5 and ILO, 2006 Figure 27). The ILO hired and trained its own factory inspectors, and equipped them with subtle interview and survey techniques design to elicit information about working conditions and health status without endangering workers privacy or relationships with their supervisors (see ILO, 2006). Young men are the usual focus of post-conflict employment programs but employment of young women benefits families as young women send remittances home and at some point return to their village (about 86% of female factory workers are under 26). Nearly a million jobs have been created by these factories. Table 5 shows employment of women in industry grew at nearly 20% annually between 1993 and 2001 (albeit from a very low base) as industry grew from 5% to almost 12% of total employment during this period. Becker (2005) estimates that one in eight Cambodian families have at least one member at work in a garment factory (see Polaski, 2006). Child labor is concern of both ILO and of corporate customers, but most Cambodians do not know how old they are (there are no birth records in rural areas, especially during war). ILO inspectors devised a series of clever questions to discern worker's ages and found about 1.4% of workers in the factories they inspected were under 15 (the report does not say what happened to the underage workers).

The Cambodia Better Factories program has some special advantages (extra quota allocations) but it demonstrates how the ILO can put its enormous credibility as a labor rights advocate to work creating entry level jobs for young women. As this program demonstrates, ILO monitoring can be used to benefit both factory workers and to promote exports in sensitive labor intensive sectors. It is in the countries interest to raise its labor standards because it market access increases. Even if the Cambodian sought to raise labor standards on its own, it lacks the reputation of the ILO. This makes this sort of certification and inspection program especially useful in war torn countries.

Sources: ILO (2006) Cambodia: Women and Work In the Garment Industry, ILO Better Factories Cambodia and the World Bank, Justice for the Poor Program Phnom Penh, Cambodia December; Becker, Elizabeth (2005) "[Cambodia's Garment Makers Hold Off a Vast Chinese Challenge](#)" New York Times May 12, 200