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Patterns of Postconflict Economic Recovery

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Under Contract No. PCE-I-00-00-00013-00, Task Order 004, the Country Analytical Support (CAS) Project, 2004–2006, sponsored by the Economic Growth office of USAID’s Bureau of Economic Growth, Agriculture and Trade (EGAT), Nathan Associates Inc. developed a standard methodology for producing analytical reports to provide a clear and concise evaluation of economic growth performance in designated countries receiving USAID assistance. Under Contract No. GEG-I-00-04-00002-00, Task Order 004, 2006–2010, Nathan Associates continues to provide support to the EGAT Bureau by producing analytical reports evaluating economic growth performance in designated host countries. Nathan has also developed a special template for countries emerging from crisis, assessing data issues in countries with large gaps in their data, conducting in-depth sector reviews based on the diagnostic analysis in the country reports, and providing other analytical support to the EGAT Bureau.

The present report has been prepared at the request of USAID/EGAT to identify patterns of postconflict economic recovery using empirical data based on that standard CAS methodology.

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Contents

Postconflict Recovery Patterns—Highlights	v
1. Introduction	1
Methodology	1
Data Limitations	1
Study Organization	4
2. Overview of Postconflict Economies	5
Economic Growth Performance	6
Poverty and Inequality	9
Demography and Environment	12
3. Private Sector Enabling Environment	15
Fiscal and Monetary Policy	15
Inflation	17
Financial Sector	20
Business Environment	23
External Environment	24
Economic Infrastructure	34
4. Pro-Poor Growth Environment	37
Education	37
Health	38
Workforce and Employment	39

Illustrations

Figures

Figure 2-1. Real GDP Growth	6
Figure 2-2. Diversity in Real GDP Growth in Postconflict Periods	7
Figure 2-3. Gross Fixed Investment as Percentage of GDP Before and After War	9
Figure 2-4. Youth Dependency Ratio at Onset of Conflict	12
Figure 3-1. Inflation Dynamics	19
Figure 3-2. Postconflict Inflation, Selected Countries	19
Figure 3-3. Money Supply Growth	20
Figure 3-4. Monetization Ratio (M_2 /GDP)	21
Figure 3-5. Credit to Private Sector, % GDP	22
Figure 3-6. Gross International Reserves (months of imports)	23
Figure 3-7. Trade in Goods and Services, % GDP	25
Figure 3-8. Growth in Exports of Goods and Services	26
Figure 3-9. Foreign Aid (% Gross National Income)	27
Figure 3-10. FDI Inflows. % GDP	29
Figure 3-11. Debt Service Ratio. % exports	32

Table

Table 1-1. Number of Countries Having Data, by Indicator (Year 0 = end of conflict)	2
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POSTCONFLICT RECOVERY PATTERNS—HIGHLIGHTS

Economic Growth Performance	Economic growth typically surges after war, averaging more than 5 percent of GDP in the first five years of recovery, after collapsing during wartime. However, there is no single pattern of postconflict growth recovery; success depends on country characteristics and policies as well as aid inflows.
Poverty and Inequality	War worsens poverty and inequality. The restoration of peace generally leads to a strong improvement in poverty rates (with substantial intra-country differences).
Demography and Environment	Demographic pressures, especially the youth bulge, contribute to conflict. Conflict then results in large population displacements, migration to safer urban centers, and a reduction in population growth. In the postconflict phase the patterns reverse, except that the urbanization rate generally continues to rise.
Fiscal and Monetary Policy	Fiscal deficits and inflation worsen during wartime, but improve greatly during most recovery episodes as resources flow into the economy and revenues gradually improve. Prudent fiscal policy through redirection of military expenditure to social expenditure and controls on money supply are effective in curtailing inflation.
Financial Sector	In war-torn developing countries, the financial system is usually very weak and inefficient. Although major financial sector reforms are generally introduced during the recovery period, the monetization ratio tends not to respond during the first five years, and credit to the private sector responds very slowly –with wide variations from country to country.
Business Environment	In postconflict settings, the business environment is usually very poor, especially in terms of regulation, security, corruption, and institutional framework. These institutional conditions are typically slow to improve, and private investment remains limited several years later.
External Sector	War is often accompanied by a decline in trade, a loss of export revenue, and higher debt. Postwar recovery witnesses a resurgence of exports and a strong increase in imports to finance reconstruction, with ambiguous effects on current account. Aid surges in the short run, while FDI is usually slow to arrive. Remittance inflows contribute to the current account balance.
Economic Infrastructure	War destroys physical infrastructure, including roads, bridges, ports, and power lines. During the early recovery period, infrastructure investment is a high priority, but the process takes many years. Telecommunications now recover very rapidly, followed by electricity, with strong participation of the private sector (especially in mobile phones and Internet connectivity).
Health	Usually very weak before a war, the health sector in poor countries deteriorates during a conflict. Health conditions begin to improve early in the postconflict environment, but major gains in health performance take a long time to materialize.
Education	Education systems collapse during wartime. Primary education recovers quickly after the end of conflict, though higher education levels take longer. In poorer postconflict countries the quality of education is a serious problem from start to finish.
Employment and Workforce	Employment and livelihoods are severely affected by conflict. In the early stages of recovery a top priority is to provide ex-combatants jobs; broader gains in employment through private sector development are much more slowly achieved.

1. Introduction

Do postconflict countries share attributes that differ markedly from those of normal developing countries? If so, how should those attributes figure in the design of policies and programs? To answer these questions this study examines empirical patterns of postconflict experience in a sample consisting of every developing country

- That ended a major conflict between 1986 and 2006, based on University of Maryland classifications used by the State Department; and
- For which there exists at least some data on key indicators, preferably for five years before and after the end of the latest conflict.

The University of Maryland's conflict data set defines major episodes of political violence as the systematic use of lethal violence and terror by organized groups and/or states that substantially affects the societies experiencing armed conflict and results in at least 500 directly related fatalities, substantial destruction of infrastructure, and population displacements. The episodes may involve interstate and independence war, ethnic and civil war, intercommunal warfare, or genocide and communal massacres.

METHODOLOGY

For this study, our database includes 25 postconflict countries in Asia, Eastern Europe, Latin America, and sub-Saharan Africa that experienced major conflicts over the past two decades. The bulk of our analysis is based on more than 50 indicators from the Country Analytic Support (CAS) Postconflict Template, which provides a conceptual framework for assessing the economic status of fragile, postconflict, and rebuilding states. The template consists of a comparative benchmarking methodology and approximately 100 economic and social performance indicators that constitute a statistical basis for assessment. Data sources include the World Bank, International Monetary Fund, Millennium Challenge Corporation, and the United Nations, among others. To bolster our direct analysis of CAS data and provide additional insights on patterns of economic recovery, we also draw on case studies and other empirical research.

DATA LIMITATIONS

In ten of our sample of 25 countries, conflict is either ongoing or ended too recently to provide five years worth of data. Much of our analysis is based therefore on data for 15 countries where postconflict recovery began at least five years ago: Afghanistan, Angola, Bosnia, Cambodia, Chad, Democratic Republic of the Congo, El Salvador, Ethiopia, Guatemala,

Lebanon, Mozambique, Rwanda, Serbia, Sierra Leone, and Uganda. Even for this group, there are many data gaps for the five-year periods before and after the conflicts.

For other countries data from standardized international sources are very sparse. Lack of data is especially serious for socioeconomic and demographic statistics based on intermittent household surveys. Very few countries have data on more than a handful of indicators for the full period of interest. Therefore, the effective sample size for any given variable is much smaller on every variable (see Table 1-1), and observed patterns are far from robust.

Table 1-1
Number of Countries Having Data, by Indicator (Year 0 = end of conflict)

Indicator	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
CONFLICT INDICATORS						
Failed state index score	0	0	0	3	4	4
Episode of significant violence, all years	25	.	.	.	.	.
Type of conflict, all years	25	.	.	.	.	.
Magnitude of societal-systemic impact, all years	25	.	.	.	.	.
Political stability index	4	6	7	6	10	5
ECONOMIC GROWTH PERFORMANCE						
Per capita GDP, \$PPP	13	15	15	15	15	15
Real GDP Growth	14	14	15	15	15	15
Human poverty index	0	0	3	1	3	1
Gross fixed investment, % GDP	15	15	15	14	12	11
Gross fixed private investment, % GDP	2	1	1	1	1	1
Poverty and inequality						
Income-share, poorest 20%	0	0	1	1	4	1
Population living on less than \$1 PPP per day	0	0	1	1	3	1
DEMOGRAPHY AND ENVIRONMENT						
Adult literacy rate	0	1	0	0	4	1
Youth dependency ratio	14	14	14	14	12	11
Population growth rate	14	14	14	14	12	11
Urbanization rate	15	15	15	15	12	11
Frequency of natural disasters	15	15	15	15	15	15
Scope of natural disasters	15	15	15	15	15	12
Refugee population, total	0	0	0	0	3	1
ECONOMIC STABILIZATION AND GOVERNMENT CAPACITY						
Government effectiveness index	4	6	7	6	10	5
Voice and accountability	4	6	7	6	10	5
Government expenditure, % GDP	2	3	3	4	1	1
Government revenue, % GDP	3	3	3	4	1	1
Money supply growth	11	11	11	12	10	10

Indicator	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Inflation rate	13	14	15	15	15	15
Overall budget balance, including grants, % GDP	3	3	4	4	4	4
Interest payments/total govt. expenditure	0	0	0	0	0	0
BUSINESS ENVIRONMENT						
Control of corruption index	4	6	5	6	10	5
Rule of law index	4	6	7	6	10	5
Ease of doing business ranking	0	0	0	0	3	4
Crime rates per 100,000 people	0	0	0	0	0	0
FINANCIAL SECTOR						
Domestic credit to private sector, % GDP	11	10	11	11	10	9
Money supply, % GDP	11	11	11	12	10	10
EXTERNAL SECTOR						
Aid , % GNI	15	15	15	15	12	11
Debt service ratio, % exports	9	8	8	9	9	8
Export growth of goods and services	11	12	12	12	10	11
Foreign direct investment, % GDP	12	12	13	14	12	11
Gross international reserves, months of imports	9	8	8	9	9	8
Present value of debt, % GNI	0	0	2	3	1	1
Remittance receipts, % GDP	8	7	7	9	9	8
Trade in goods and services, % GDP	15	15	15	15	12	11
Real effective exchange rate (REER)	0	0	0	0	0	0
Structure of merchandise exports—food	3	4	6	5	5	5
Structure of merchandise exports—agriculture	3	4	6	5	5	5
Structure of merchandise exports—manufacturing	3	4	6	5	5	5
Structure of merchandise exports—metals	3	4	6	5	5	5
Structure of merchandise exports—Fuel	3	3	6	5	4	5
ECONOMIC INFRASTRUCTURE						
Overall infrastructure quality	0	0	0	0	1	0
HEALTH						
Child mortality rate	1	4	0	4	5	1
Maternal mortality rate	1	4	0	2	4	1
Life expectancy at birth—male	5	9	1	8	5	3
Life expectancy at birth—female	5	9	1	8	5	3
Public health expenditure, % GDP	4	5	5	2	2	3
EDUCATION						
Net primary enrollment rate	2	1	2	1	1	2
Net secondary enrollment rate	0	0	1	1	1	2
Gross tertiary enrollment rate	4	4	3	0	0	2
Persistence in school to grade 5—female	1	0	1	1	1	2

Indicator	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Persistence in school to grade 5—male	1	0	1	1	1	2
Persistence in school to grade 5—total	1	0	1	1	1	4
Youth literacy rate	0	1	0	0	4	1
Education expenditure, primary, % GDP	0	0	3	4	4	5
EMPLOYMENT AND WORKFORCE						
Labor force participation rate	14	14	14	14	12	11
Rigidity of employment index	0	0	0	3	4	4
Economically active children, % children ages 7–14	0	0	0	0	1	1
Unemployment rate, 15–24-year-old males	1	0	1	1	1	1
Refugees, internally displaced persons and refugees, per capita	0	0	0	0	3	1

Note: Year 0 = end of intense conflict.

That data in postconflict countries are lacking, of poor quality, or limited in scope is not surprising. Conflict makes it difficult to compile statistics, erodes the data-gathering capacity of government statistical agencies, and fosters informal sector activities on which it is even more difficult to obtain reliable statistics. This is especially so for the poorer countries in sub-Saharan Africa.

STUDY ORGANIZATION

Suggestions herein for strategic priorities for postconflict economies are grounded in the empirical patterns of postconflict recovery that arise from close examination of a broad set of economic and social performance data and indicators. Throughout, we focus on a subset of indicators that highlight themes emerging from data analysis; and the Highlights Table in the front matter provides a handy overview of our main observations. In section 2 we present an overview of economic growth, poverty, and demographic pressures in postconflict economies. Section 3 describes key aspects of the enabling environment that affect private sector growth in such economies, including fiscal policy, inflation, and economic infrastructure. Section 4 describes the pro-poor environment found in postconflict economies, especially with regard to health, education, and employment.

Though data limitations put a full-fledged policy analysis beyond the scope of this study, we do draw on the data in discussing strategies and instruments that can facilitate economic growth and improve welfare once a serious conflict has ended. For example, given the strong chance of war recurring in postconflict economies one must not underestimate the importance of conflict-sensitive policies. We also conclude that each country's postconflict experience is distinct in terms of structural characteristics and policy environments. Lessons gleaned from our analysis will be most useful when interpreted in light of each country's unique conditions. One clear conclusion is that more robust economic and social data are imperative for sound economic planning. Capacity building to improve data quality should be high on the list of priorities for donor support in postconflict settings.

2. Overview of Postconflict Economies

The general economic performance of postconflict economies reveals the magnitude and nature of wartime destruction and the implications for recovery. Civil wars have a broad range of pernicious effects on productive capacity, especially on physical infrastructure, housing, education, and health facilities, as well as human and social capital. In Bosnia, for example, the economic impact of the war has been estimated at \$50 billion–\$60 billion, of which \$20 billion was a direct loss of productive capacity.¹ The collapse of an economy's asset base and emigration of skilled workers depresses growth during periods of war. Capacity for governance and public administration deteriorates as a result of financial and institutional weaknesses, and crime increases as law enforcement and state sovereignty over territory diminish. Capital flight during war compounds these difficulties and further weakens domestic output. Such large shocks inevitably lead to income losses.

For purposes of data quantification, Collier, following Small and Singer (1982, 1994) defines civil war as an internal conflict with at least 1,000 combat-related deaths per year, with both government forces and an identifiable rebel organization suffering at least five percent of these fatalities. Serious conflicts are defined as those resulting in more than 500 fatalities, directly or indirectly. Civil wars, in particular, are a battle for legitimacy involving a well-organized and armed challenge to the government authority. The duration of conflict is another significant consideration. For countries in the CAS data set, the average duration has been a little over 12 years. Some conflicts raged intermittently for more than two decades, such as Guatemala (1966–1996), Lebanon (1975–1991), and Angola (1975–2002), while others have been relatively brief, as in Bosnia (1992–1995) and the Democratic Republic of the Congo (1996–2002).

While the precise causes of a particular conflict may remain ambiguous, there is strong evidence of certain risks and precursors to conflict. Poor economic and social performance, for example, indicates high risk for civil war.² It follows that a strong economic recovery can reduce the risk of relapse into conflict—and that containing the risk of future conflict requires understanding the patterns of recovery. Lower income countries have a much higher statistical incidence of conflict, and often the most pernicious outcomes in death and destruction.

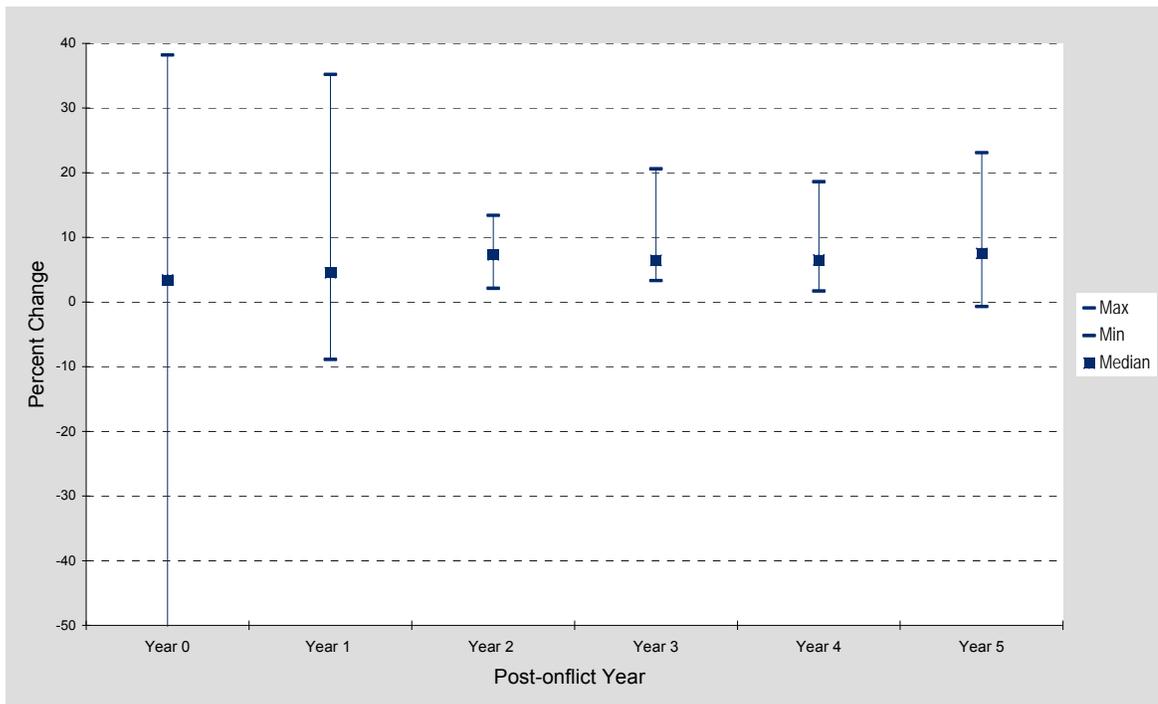
¹ UNDP. 1997. *Reconstruction, Reform, and Economic Management in Bosnia-Herzegovina*. Vienna.

² Paul Collier et al. 2003. *Breaking the Conflict Trap*. World Bank, Oxford University Press. Paul Collier and Anke Hoeffler, 2004, "Greed and grievance in civil war", *Oxford Economic Papers* 56(4):563-595.

ECONOMIC GROWTH PERFORMANCE

The data on real GDP growth reveal a predictable pattern. Most postconflict economies manifest a prewar deterioration in growth, a significant contraction in GDP during the conflict, and a pronounced recovery after peace is restored. But there is considerable heterogeneity and no clear temporal pattern in recovery. For 15 countries with data, the median growth rate peaked at 5 percent in year two of recovery (Figure 2-1), followed by a lower rate, on average, during later years. On average, the countries in our sample achieved modest levels of recovery, clustered around a growth rate of 3-5 percent.

Figure 2-1
Real GDP Growth



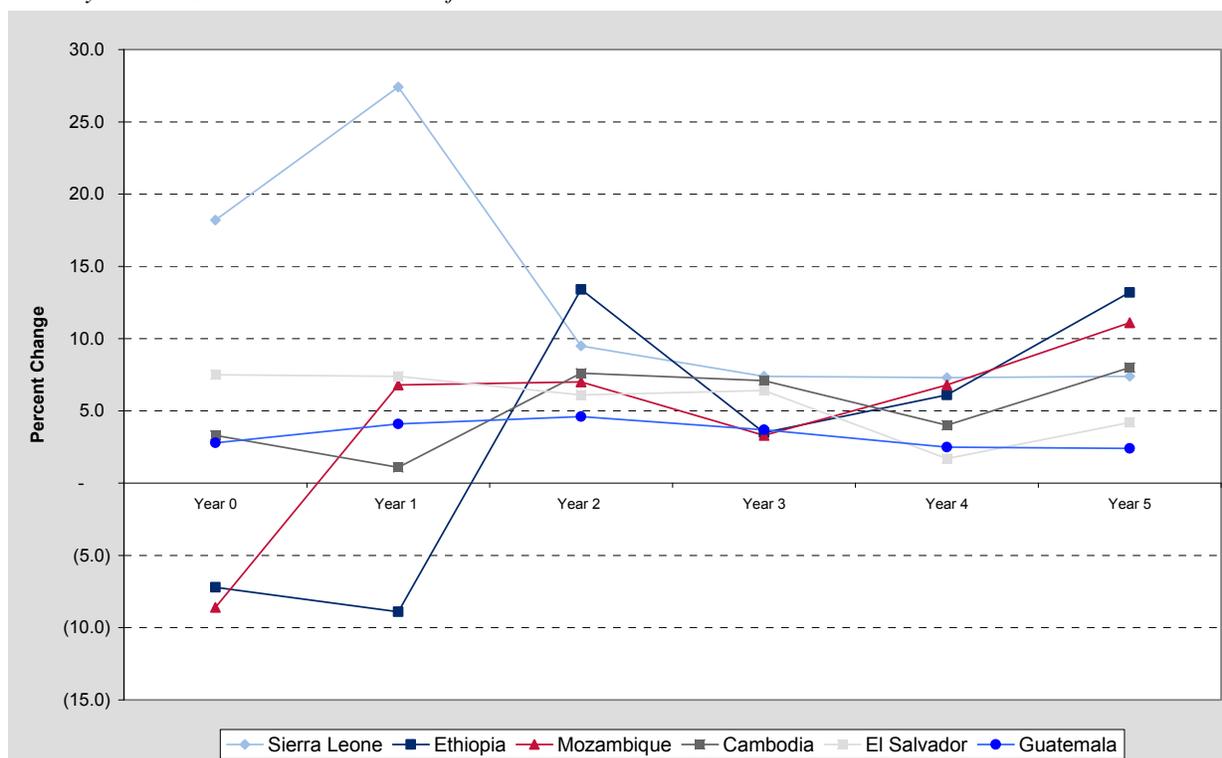
Note: In this and similar graphs, the bar shows the high-low range each year for postconflict countries with data available, while the box shows the median performance. For this figure, the sample covers 14 countries in years 0 and 1, and 15 countries thereafter (with Bosnia as the added observation).

One can discern several patterns of recovery that depend on specific conditions, such as the conflict's nature, duration, and damage as well as patterns of international assistance after the conflict (Figure 2-2).

- **The “rubber band effect:” an early growth surge followed by slow progress.** In the first year after the war in Rwanda, real GDP increased 35.2 percent, following a contraction of output of 50 percent during the 1994 genocide; likewise in Bosnia, GDP increased 30 percent in the first year of recovery and then tailed off. In Sierra Leone, growth peaked right after conflict before falling into a more conventional pattern. A combination of economic policy reform and international assistance helped these countries move rapidly beyond wartime stagnation.

- **Moderate recovery followed by a GDP growth peak in the fourth or fifth year of peace.** Mozambique’s growth rates peaked in the fifth year after conflict ended, reaching 11.1 percent as the government managed to overcome an early bout of macroeconomic instability and then continued to enjoy rapid growth for the next decade. Ethiopia experienced a short rubber-band effect in the second year after conflict ended and then a second peak of more than 13 percent in the fifth year.
- **A hybrid.** Growth peaks only in year two or three of recovery and then tapers off.

Figure 2-2
Diversity in Real GDP Growth in Postconflict Periods



Growth trajectories vary for a number of reasons. For countries where war devastated growth, a strong initial rebound is expected when large aid inflows and a good package of reform catalyze economic recovery. The postwar eras in Rwanda and Bosnia, for example, featured large spurts of foreign aid as infrastructure was rebuilt, security and service delivery were restored, and new governments enacted prudent fiscal and monetary policies. Macroeconomic stability was achieved early on, institutions were strengthened, and state sovereignty and legitimacy were restored quickly. Financial stimulus, however, does not always come from foreign aid. In natural resource rich economies, such as those of Angola or Sudan, the oil boom and related inflows of foreign direct investment facilitated the growth rebound. In Angola, real growth reached more than 20 percent several years after the war ended, largely because of rising oil prices.

In countries less damaged by war the “rubber band” effect is less obvious and growth surges are less intense. In some cases, the aid inflows were considerably less than in countries with the strongest postconflict growth performance. Negative growth episodes during recovery have been

very few, and are usually explained by particular circumstances, including conflict recurrence as in Haiti.

Postwar recovery seems to be driven by structural characteristics, governance, and policies, not geography. Even in sub-Saharan Africa, which suffered a concentration of violent conflict in the 1990s due partly to ethnic fragmentation, there are wide differences in actual performance. Recovery patterns depend also on the length of conflict. Conflicts of long duration often have an “in-conflict recovery,” and thus a smaller postconflict surge.³ In El Salvador, for example, GDP was already growing by 7.5 percent in the last year of the war in 1992. In contrast, big rebounds in Rwanda after 1994 and Liberia after 2003 were partly due to the enormity of the wartime collapse and absence of in-conflict recovery.

In spite of the generally positive recovery trends, postwar growth is often too weak to restore the loss of income due to war or to tangibly improve general welfare. A few countries, such as Bosnia, have done quite well, though much of the early growth was aid-driven. In contrast, GDP per capita (PPP) in Sierra Leone before the conflict there was \$944 in 1990, and reached only \$880 in 2006, after five years of recovery.

In addition, war frequently postpones or reverses the structural transformation that normally accompanies economic development. A deteriorating business environment and material destruction cause a steep decline in industrial activity, including construction and utilities. In Angola, for example, the share of industry fell sharply during the war, and in Cote d’Ivoire manufacturing collapsed. As a result, many families retreat to subsistence agriculture. Because many postconflict countries are very poor, a large share of employment is in rural agriculture, forestry, and fishing. For these dispersed activities, commercial production is highly vulnerable to the breakdown of fragile transportation networks. Many of the economic victims are the rural poor who lose access to cash livelihoods.

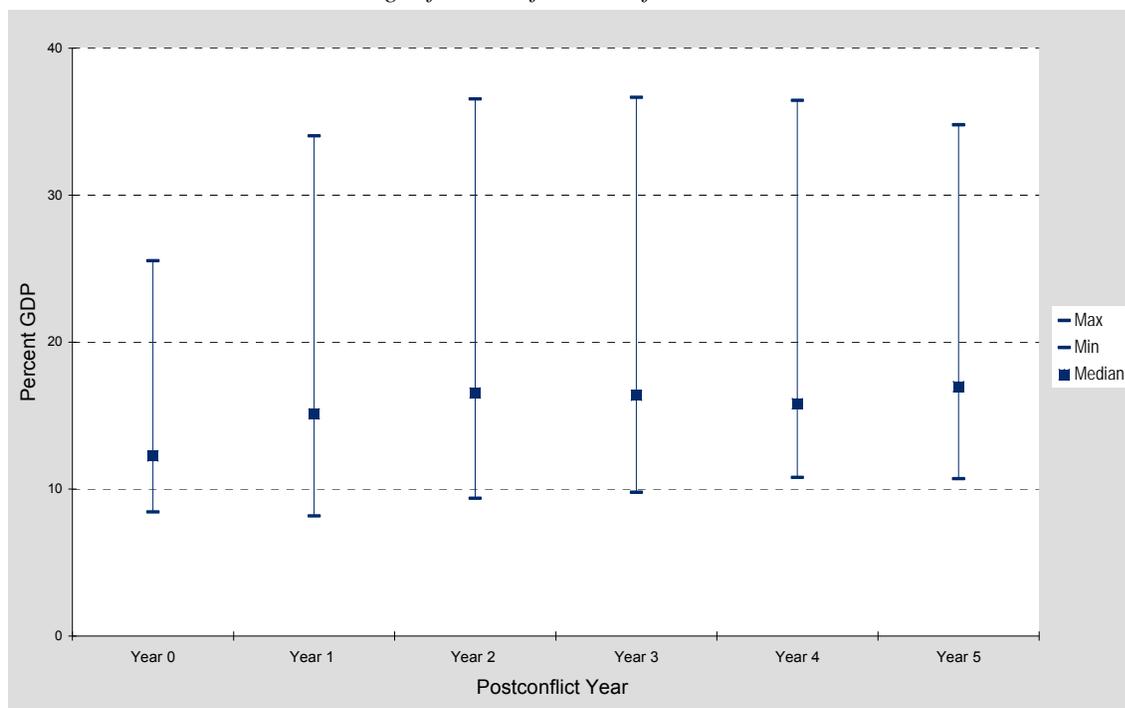
Agricultural value-added per worker is often stagnant in the five years after a war ends due to the difficulties in achieving significant recovery in the rural sector (though there are large gaps in the data for this indicator). In some countries there is an immediate postwar spurt in value-added on the farm, followed by relative stagnation, while in others there is stagnation throughout the five year period. In Rwanda, for example, recorded value-added in agriculture went up from \$147 per worker during the war to \$186 right afterward, while in Guatemala, labor productivity in agriculture remained nearly unchanged at about \$2,250 for the first five years of recovery. However, performance has been weak for a variety of countries, and the sector has not generally emerged as a growth pole for postconflict recovery.

In wartime, investment collapses and capital stock deteriorates, including infrastructure such as roads, houses and ports. The data show that gross investment as a percentage of GDP is very low, on average, during war, particularly where conflict is extensive. But, on average, the investment rate rises by more than 5 percent of GDP during the first five years of recovery (Figure 2-3). Most of the rise is due to aid-financed public infrastructure, and/or, in resource-rich countries, a surge

³ Staines, Nicholas. 2004. Economic Performance over the Conflict Cycle. IMF Working Paper 04/95, Washington, DC.

in private investment. As with other indicators, there are considerable differences in performance from one country to another. In Bosnia the investment ratio tripled from 12.3 percent of GDP when the war ended in 1995 to 36.6 percent two years later. Liberia also experienced a large increase, with investment nearly doubling from 8.8 percent of GDP to 15.9 percent in two years. But in Cambodia and El Salvador the investment ratios actually declined in the five years after the end of conflict, while in Mozambique the ratio was very volatile, in response to varying levels of donor support.

Figure 2-3
Gross Fixed Investment as Percentage of GDP Before and After War



Note: The sample here includes Bosnia, Cambodia, Chad, El Salvador, Ethiopia, Guatemala, Lebanon, Mozambique, Rwanda, Serbia, and Uganda.

These empirical findings closely match the theoretical and analytical premises. Civil war has a negative effect on economic output as assets are shifted away from domestic investment.⁴ In the private sector, uncertainty in the economic environment makes investing in local assets riskier and liquid assets move out of the country. Similarly, government shifts expenditures away from investment in the capital stock towards expansion of the military.

POVERTY AND INEQUALITY

The absence of regular time series data on poverty renders the analysis for this indicator problematic. Indeed, not even one postconflict country has data on poverty and inequality that

⁴ Collier, Paul. 2000. *Risk and Investment in Africa*. Edited by Paul Collier and Catherine Pattillo. Basingstoke: Macmillan and New York: St Martin's Press.

would allow a comparison of the situation at the end of the conflict with changes during the first five years of recovery. In addition, statistics on poverty and inequality produced in conflict or postconflict situations are often based on poorly conducted or unrepresentative censuses and household surveys, or measure households experiencing temporary displacement. Getting a clearer picture of the evolution of poverty in postconflict settings will require improving the statistical capacity in these countries early in the recovery process.

There is no doubt, however, that conflict severely aggravates poverty and inequality, as violence disrupts livelihoods, drives up the price of basic goods, destroys infrastructure, disrupts public services, and triggers large refugee flows that bring famine and disease to already disadvantaged populations. The adverse effects are amplified for the poorest groups who are least able to cope with shocks. In the aftermath of genocide and conflict in Rwanda, for example, agriculture and other economic activity was interrupted and massive numbers of people were forced to flow across the Congolese border. Where micro level data are available on the pre- and postconflict conditions, they confirm the adverse impact of conflict on poverty and livelihoods. Researchers using household survey data for Rwanda found that about 20 percent of the population fell into poverty after the 1994 genocide.⁵

When the conflict ends, refugees return and resettle but infrastructure and public services only gradually come back on line. If rapid growth can be achieved over the medium term poverty may be reduced fairly rapidly. For example, a 1996-1997 national household survey done in Mozambique four years after the peace agreement found that 69 percent of the population was living below the absolute poverty line (i.e., level of income needed to obtain a minimally adequate level of calorie consumption) given actual expenditure patterns.⁶ A second survey done in 2002, after six years of rapid growth, found that the poverty rate was down to 54 percent. This decrease was corroborated by improvements in other indicators such as increased ownership of bicycles, radios, and tin roofs.⁷

Two countries, El Salvador and Guatemala, have multiple observations on poverty and inequality during the five year postconflict period. Using the PPP\$1 threshold, El Salvador had a poverty rate of 20.8 percent in the third year of recovery (1995) and 25.3 percent in the fourth year (1996). This large one-year jump must have been due to transient shocks, because later surveys show the rate declining to 21.4 percent in 1998 and 19.0 percent in 2002. Over the period 1995 to 2002, inequality increased steadily, with the income share for the lowest 20 percent dropping from 3.7 percent to 2.7 percent. Guatemala's poverty rate declined from 13.2 percent in the second year of recovery (1998) to 10.7 percent in the fourth year (2000). Here again, the short-term change does not reflect a trend, as the poverty rate rose to 13.5 percent in 2002. Between 1998 and 2002, the share of income accruing to the poorest 20 percent also fell, from 3.2 percent to 2.9 percent. Both countries therefore saw a highly asymmetric distribution of gains from economic reform and recovery in the postconflict period.

⁵ Justino, P. and P. Verwimp. 2006. Poverty Dynamics, Convergence, and Conflict in Rwanda. IDS.

⁶ There are no data on poverty and inequality during the conflict.

⁷ See Chapter 2 of Nathan Associates' Diagnostic Trade Integration Study for Mozambique (2003).

The empirical record is less clear on how poverty affects the risk of conflict. Though most poor countries do not descend into episodes of serious violence, they tend to be more prone to conflict and the risk of civil war declines for higher per capita income countries.⁸ In fact, all countries in this study fall in the World Bank's low- or lower-middle income groups; of all postconflict countries, 61 percent can be classified as low-income and 39 percent as lower-middle income.⁹

How inequality affects the risk of conflict is still less clear. Many countries that have fallen into conflict in the past several decades had high levels of inequality in some form: an entrenched elite controlling resources, as in El Salvador or Colombia, or rival ethnic groups or factions, as in Rwanda and Cote d'Ivoire. Empirical evidence that the risk of civil war increases in polarized societies is significant but not uniform. Some argue that "objective measures of social grievance, such as inequality, a lack of democracy, and ethnic and religious divisions, have had little systematic effect on risk," and that any effect of elite control may be associated instead with dependence upon primary exports.¹⁰ In addition, a highly skewed distribution of income is not necessarily associated with conflict. If that were so, then Brazil, which has one of the highest inequality rates in the world, would find itself in constant civil war. In themselves, poverty and inequality are not direct causes of most conflict. But coupled with bad governance, social repression, group grievance, or simply the desire to capture the resource rents enjoyed by others, abrupt changes in poverty and inequality can dramatically increase the risk of conflict—as in Cote d'Ivoire (Exhibit 2-1).

Exhibit 2-1

Cote d'Ivoire: From Success to Cautionary Tale

From the 1960s until the mid-1980s, Cote d'Ivoire was among the most successful countries of West Africa. In the first two decades of Independence, commodity exports such as cocoa, sugar, and timber contributed to high growth rates and rising wealth among many segments of the population. Cote d'Ivoire became a regional hub for employment and transport, attracting workers from poorer neighbors such as Mali and Burkina Faso. In the 1980s, however, worldwide recession led to a collapse in commodity prices and significantly reduced the country's terms of trade. People who had been earning regular and comfortable

incomes experienced a sharp drop in their standard of living. Poverty nearly doubled, rising from 25 percent of the population living below \$2 (PPP) per day in 1985 to more than 50 percent in 1998 at the outbreak of the civil war. Likewise, the Gini index over the same period rose from 37 to over 45.¹¹ In the 1990s, street riots became common and a rapidly deteriorating political situation culminated in the civil war. Though poverty and inequality were not the sole cause of violence, they contributed to the growing divide between north and south, a situation exploited by Robert Guei and Laurent Gbagbo to maintain their hold on power.

⁸ Collier, Paul. 2007. Economic Causes of Civil Conflict and their Implications for Policy. In *Leashing the Dogs of War: conflict management in a divided world*. Edited by Chester Crocker USIP Press Books.

⁹ World Development Indicators, 2007.

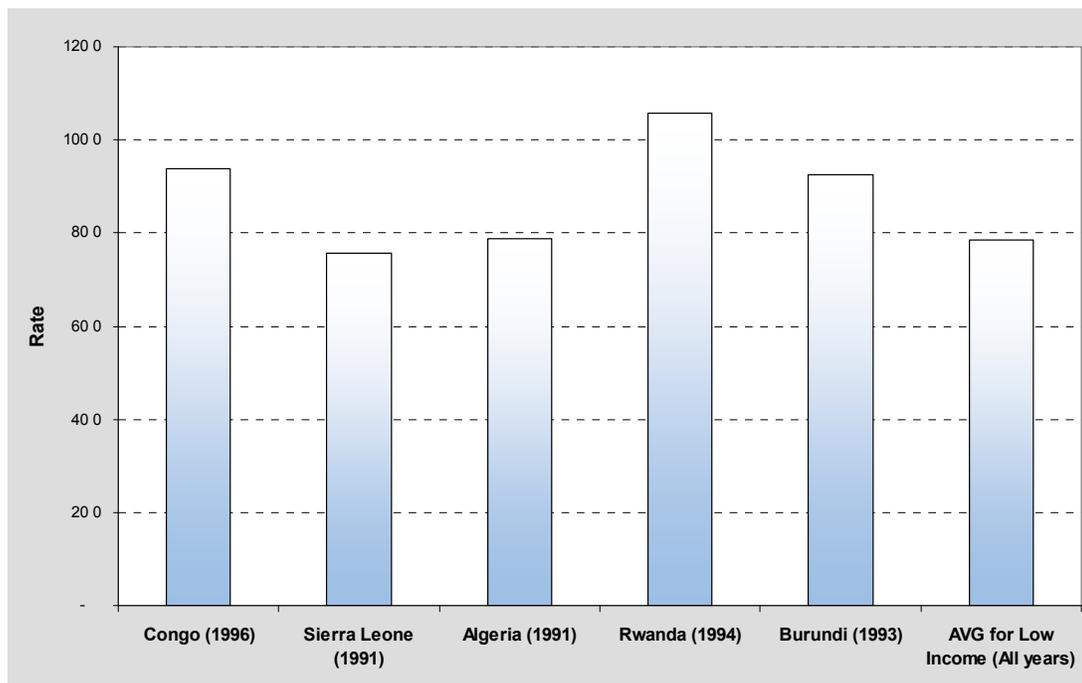
¹⁰ Collier 2007.

¹¹ WDI.

DEMOGRAPHY AND ENVIRONMENT

Where other conditions may be ripe for conflict, certain demographic trends raise red flags: rapid population growth, rising youth dependency ratios (population 0-15 per population 15-64), and sudden changes in urbanization rates. For example, poor economic performance and rampant unemployment coupled with a youth bulge—youth dependency ratio: percent of population between ages 15 and 24, especially males—can cause instability.¹² A youth bulge may facilitate political mobilization and rebel recruitment, as in Sierra Leone and Liberia. In fact, most conflicts involve poor countries with an age structure dominated by the young—and most of the world's poor are below 25 and unemployed. This holds true for countries in our data set, particularly in Africa. Most of these countries had growing or exceedingly high youth dependency ratios before entering conflict (Figure 2-4). In nearly all, demographic pressure was coupled with declining or stagnant per capita incomes. Although there is considerable variation from country to country, the youth bulge tends to peak during conflict then decline. Rwanda, for example, had some of the highest youth dependency ratios in the world, reaching 106 in 1993. After the conflict in 1994 this number decreased gradually, reaching 96 five years later, and then 80 in 2005. This demographic shift paralleled a sustained rise in real GDP. For 11 countries in our sample with annual postconflict data, the median dependency rate fell slightly from 87 to 85 in the first five years of recovery.

Figure 2-4
Youth Dependency Ratio at Onset of Conflict



Protracted conflict also affects population growth. Most demographic data consists of extrapolations from previous censuses, and the numbers are often subject to large revisions when

¹² Henrik Urdal. 2004. *The Devil in the Demographics: The Effect of Youth Bulges on Domestic Armed Conflict, 1950-2000*. World Bank, Social Development Paper No. 14, July 2004.

another census provides a new perspective. With this caveat, available data are striking. Population growth in DRC fell from nearly 4 percent five years before conflict to under 2 percent at the height of violence. Population growth in Angola surged above 3 percent with the Lusaka Peace Accords in 1994, fell as war resumed through the rest of the 1990s, and has been climbing since hostilities ended in 2002. In Burundi, the same story can be seen. At the height of the conflict, population growth fell to under 1 percent per year; with the return of stability it surged to nearly 4 percent in 2005, the highest since the mid-1980s.

In sum, addressing the youth bulge may remove potential fuel for conflict. Short-term measures include programs to provide education and economic opportunities (more broadly than programs for ex-combatants). Furthermore, policies aimed at reducing the total fertility rate may be an important avenue for reducing the risk of conflict in the future. This can be pursued through education and health programs especially for girls and women, and programs to empower women and improve their economic opportunities.

Urbanization

Some studies identify the urbanization rate as a risk factor for conflict, though the evidence is ambiguous and the correlation not robust enough to influence policies; many of the most highly urbanized societies during the last two decades have had a very low risk of conflict.

Before and during conflict, the urbanization rate may rise; after a conflict, it slows, but does not reverse. Many of those who flee to the cities during a conflict do not return to rural areas when the violence ends. In Bosnia, many of the internally displaced were from rural areas and were older than the general population, while the refugees had left their cities to escape.

The experience of Mozambique exemplifies the dynamics of urbanization. As the civil war wore on, more and more people moved to the cities and the urbanization rate rose from 13 percent to more than 26 percent between 1981 and 1994. The increase slowed after 1994, but urbanization continues (currently to 34.5 percent).

The risk that urbanization poses for a relapse into conflict may be manifested through other factors, such as ethnic conflict and macroeconomic instability. Rapid urban growth can strain service provision such as sanitation, electricity, and water. However, when people flee to rural areas from decaying cities wracked by conflict the opposite relationship can occur.

3. Private Sector Enabling Environment

In this section we review aspects of the enabling environment that affect the speed and efficiency of private sector growth in postconflict economies. Sound fiscal and monetary policies, for example, are essential for macroeconomic stability and the business environment determines the general conditions for private investment. The external environment can provide the markets, inputs, and technologies necessary for the private sector to re-emerge; and debt and exchange rates influence the nature and composition of private activity in postconflict environments. Improved security and reforms in macroeconomic policy, trade policy, and the regulatory regime—some of which would have met overwhelming political resistance in the pre-conflict environment—offer opportunities for sustained recovery. Conversely, inadequate attention to control of private resources may rekindle the grievances that ignited the original conflict.

FISCAL AND MONETARY POLICY

A major challenge for postconflict economic recovery is regaining control of macroeconomic policy. Relatively high fiscal deficits tend to be a legacy of conflict as war puts pressure on governments to increase spending, impairs revenue collection, and weakens the quality of economic management. During postwar recovery, improvements in fiscal and monetary policy are a top priority and there is usually a trend toward stabilization as expenditures are contained and financing improves through a combination of domestic revenue mobilization and aid inflows.

Unfortunately, standard international data sources provide very little coverage of basic fiscal indicators for the first five years after the end of serious conflicts in our set of developing countries. On overall budget balance, for example, standard sources provide five years of postconflict data for only three countries, and on government expenses and government revenue¹³ for only one (Guatemala).¹⁴ The empirical record that does exist, however, shows that

¹³ All expressed as percentages of GDP, which itself may be a distorted measure when the baseline framework for value added by sector is pre-conflict.

¹⁴ The main reason for this is the IMF's adoption in 2001 of a new format for government financial statistics based on accrual accounting; few developing countries have converted to the new format. See the IMF's *Manual of Government Financial Statistics* (2001). The World Bank converted the World Development Indicators (WDI) to the new GFS data system in 2005. Since then, the WDI has mostly blanks on fiscal data for most developing countries. So, while every country produces budget data standardization is lacking. Thus, our fiscal analysis here is based largely on secondary sources (most of which use the earlier IMF format for budget data), rather than direct analysis of internationally comparable data.

revenue is particularly vulnerable to conflict conditions and improves slowly when the conflict ends, leaving governments unable to finance wartime expenditures or postconflict recovery programs without strong donor support. For example, the ratio of revenue (excluding grants) to GDP in Afghanistan was less than 5 percent in 2005. The situation was very similar at the end of the major conflict period in the DRC. In postconflict Mozambique revenue (excluding grants) between 1992 and 1997 was considerably higher at 12-13 percent of GDP, but was still inadequate to finance reconstruction expenditures of more than 25 percent of GDP.

Revenue mobilization is difficult in wartime economies for a variety of reasons, such as political instability, limited economic base, lack of government sovereignty over territory, and weak tax base in the private sector. Weak capacity for revenue administration compounds difficulties, as qualified staff and information systems are both scarce. Yet wartime expenditures often outstrip revenue potential. Military and security expenditures are increased even if this undermines the fiscal position. For example, military expenditure in Rwanda increased from 1.6 percent of GDP in 1989 to 8.4 percent by 1994, and the size of the army increased significantly. On average, a civil war raises military expenditure by 1.8 percent of GDP.¹⁵ In many countries this is partially offset by a reduction in outlay for wages and salaries during war, but declining real wages for civil servants only weaken public administration further. Many wartime governments also resort to the banking system to finance the deficit, especially when external assistance is low, which fuels inflation, further lowers real civil service salaries, and worsens the macroeconomic situation.

During postconflict recovery the pressing need for reconstruction compels new spending and a redirection of spending from military to productive uses. Many countries improve their fiscal situation by managing expenditures prudently and mobilizing revenue, particularly in the form of external assistance. Countries emerging from post1990 conflicts generally incurred much larger deficits than those emerging from earlier conflicts, but external support, particularly from the international financial institutions, permitted governments to achieve macroeconomic stability.

Thus, fiscal stabilization during recovery is difficult but achievable. Here, too, however, country performance has varied widely, and it is hard to discern patterns. In several countries, better tax policies, better fiscal administration, and strong leadership have dramatically improved revenue mobilization as a share of GDP. In Rwanda, for example, the ratio of revenue to GDP rose from 3.6 percent of GDP in 1994 to 10.5 percent in 1998, and to more than 15 percent by 2005. In other countries, weak revenue mobilization has been a symptom of a deeper problem of low state capacity. For example, in Uganda, revenue as a percentage of GDP has stagnated around 10 percent of GDP, partly because of concessional donor financing. Because trade taxes are easy to administer, reforms that broaden and deepen direct taxation are viewed as less important than indirect taxes that provide an immediate source of revenue.

Similarly, fiscal expenditures during postwar recovery vary by country. The level of expenditure varies as a share of GDP during the years after conflict depending on the level of aid received. In

¹⁵ Collier, Paul and Anke Hoeffler. 2002. Aid, Policy, and Growth in Post-Conflict Societies. World Bank Policy Research Series 2902.

many successful countries, the composition of government spending changes as military outlays decline (occasionally to levels lower than during pre-conflict times) and social outlays increase. Thus, the “peace dividend” that results from the end of war can be used for productive purposes. In El Salvador, for example, the central government increased nonmilitary expenditure by more than 3 percentage points in 1992–1997 compared to 1989–1991.¹⁶ Military expenditure fell by 2 percent of GDP, and tax revenue increased by more than 2.5 percent of GDP, leading to an improved fiscal position. In Cambodia military and defense spending declined from 4 percent of GDP in 1998 to 2.2 percent in 2002, while social spending rose from 1.3 percent to 3.6 percent of GDP during the same period.

In still other countries, reconstruction has been financed largely by domestic borrowing, with revenue not catching up. In Lebanon this resulted in an economy hampered by spiraling debt and the crowding out of private investment.¹⁷ In Sri Lanka, after the peace agreement in 2002, insignificant defense savings were absorbed by the cost of refugee rehabilitation, leaving the capital investment on rural infrastructure to bear the brunt of expenditure cuts.¹⁸ In conclusion, there is no-one-size-fits-all pattern of fiscal stabilization in postconflict countries.

INFLATION

Price stability is another macroeconomic casualty of civil war. War causes inflation for a variety of reasons, including fiscal indiscipline financed through money creation, weak domestic production, and a currency depreciating because of reduced export capacity and capital flight. Inflation in turn weakens investment and distorts market signals, and saps long-term growth. The main victims are usually the poor who lose purchasing power.

The wartime practice of financing military expenditures by borrowing from the central bank and printing money leaves a strong inflationary legacy. To cope with a shrunken tax base and diminished productive capacity, the central bank may continue to keep the Treasury afloat. This excessive currency provision is a primary cause of inflation (and sometimes hyperinflation), steep decline in the value of the currency, and a general loss of confidence. Angola, Lebanon, and Rwanda had inflation rates above 40 percent following their conflicts. In Nicaragua, inflation reached 13,000 percent in 1989, and in the DRC it peaked at 24,000 in 1994. While some postconflict countries—Nepal, Sierra Leone, Sudan, and Bosnia—have maintained a lower inflation rate, it is rare to find a war-torn country with inflation held to single digits. In most, inflation in the immediate postconflict period is about 15 to 45 percent, with a mean of about 40 percent.

Postconflict economies often become dollarized when foreign currency is viewed as a safer means of payment and store of value than the domestic currency; this can be seen in DRC,

¹⁶ Del Castillo, Graciana. 2001. *Post-conflict Reconstruction and the Challenge to International Organizations: the Case of El Salvador*. Great Britain: Pergamon.

¹⁷ Bolbol, Ali. 2005. *The Lebanese Economy: Issues in Its Postwar Development 1992-2004*. Arab Monetary Fund Economic Paper 13, Abu Dhabi.

¹⁸ Kelegama, Saman. 2005. *Transforming Conflict with An Economic Dividend. The Round Table*, Volume 94, 2005.

Bosnia, Angola, and in Liberia (where the U.S. dollar is an official currency). Coupled with wartime capital flight, dollarization creates a major challenge for policymakers during recovery. The widespread public use of foreign deposits and currency weakens central bank control of the money supply and low reserves in the central bank keep the economy vulnerable to economic shocks. Furthermore, departing interim administrations may have stripped assets and plundered foreign exchange reserves.

Inflationary trends in postconflict economies share certain elements. Inflation tends to fall significantly when monetary and fiscal stability is restored and large donor inflows support the government budget. On average, inflation declines from 41 percent to just 8 percent in the first five years of recovery but adjustment at the country level varies widely (Figures 3-1 and 3-2). In the DRC, inflation fell from an average 350 percent in 2001 to a year-on-year rate of less than 10 percent at the end of 2006. In Bosnia, inflation had already reached 120 percent at the start of the war, and then climbed to well over 1,000 percent during the war. As a result of reforms implemented during the recovery, accompanied by the introduction of the new currency in 1998, inflation declined to less than 2 percent by 2007.

During the first year of peace, the average rate of money supply (M_2) growth among countries in our sample actually accelerated from 34 percent to 49 percent (Figure 3-3). This increase occurred in about 6 of the 11 countries for which we have appropriate data. Thereafter, control improved in nearly all countries (except Guatemala), though the spread of country performance remains very wide, with a high-low differential of more than 50 percent. For the higher-growth rate currencies, the decline in inflation must be due also to monetary deepening, as the public became willing to hold larger domestic currency balances lowering the velocity of circulation of currency.

Figure 3-1
Inflation Dynamics

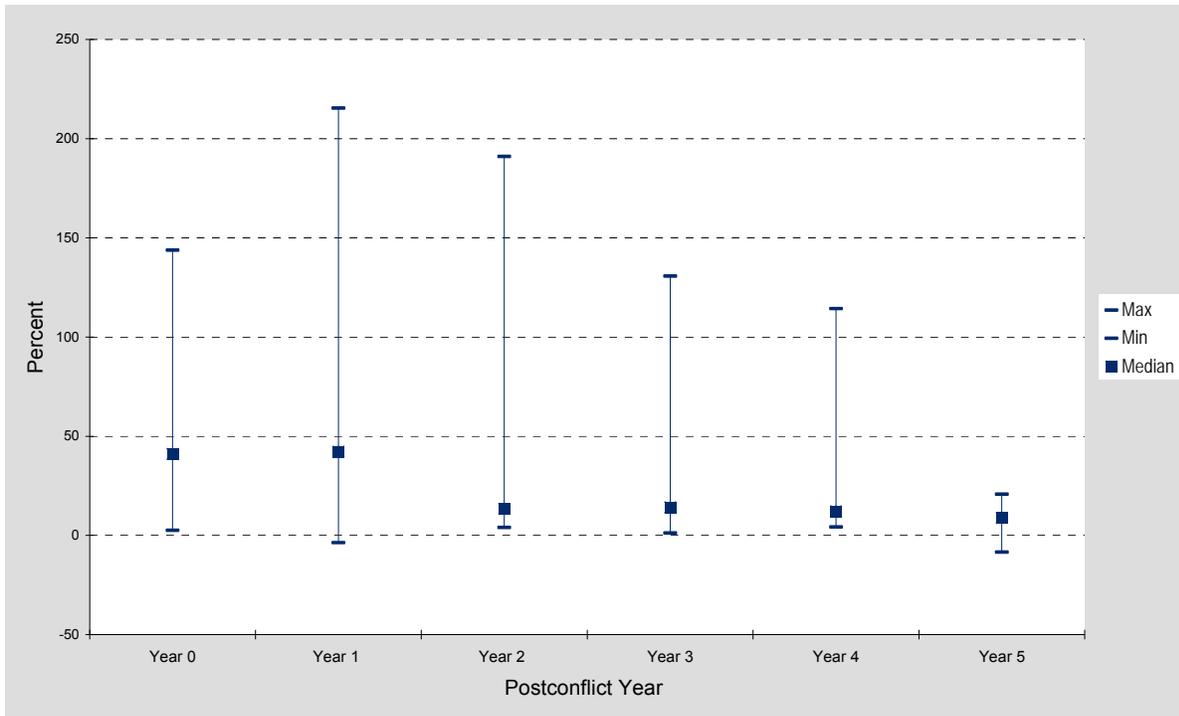


Figure 3-2
Postconflict Inflation, Selected Countries

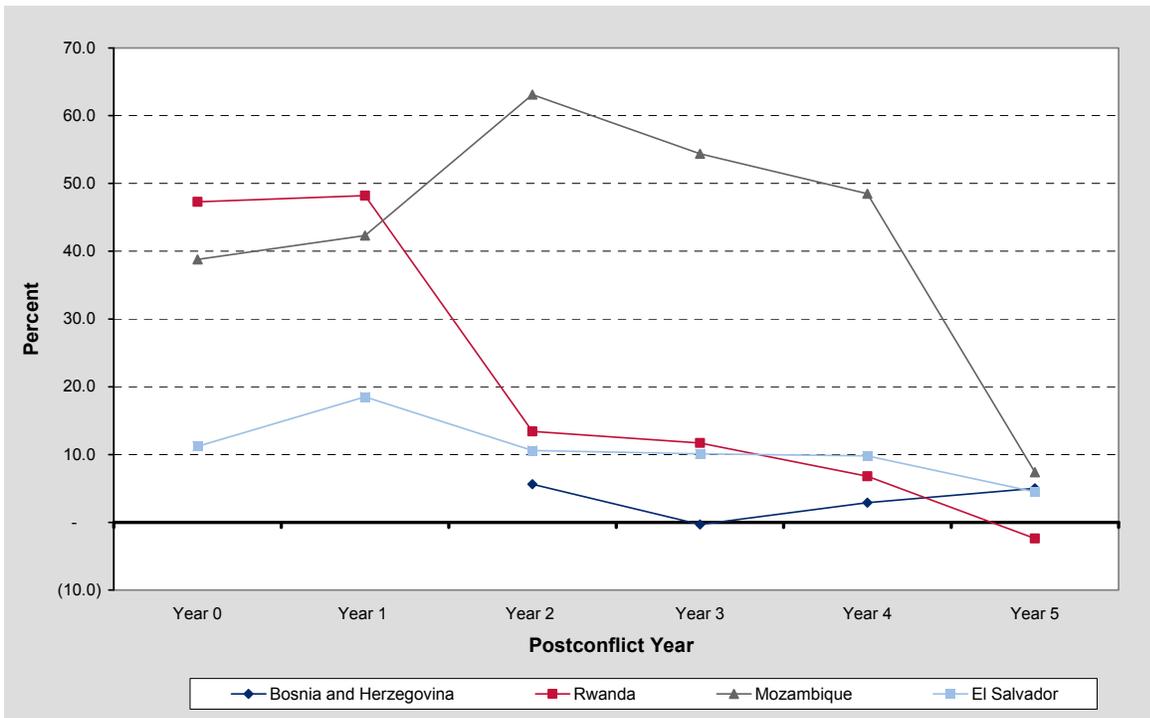
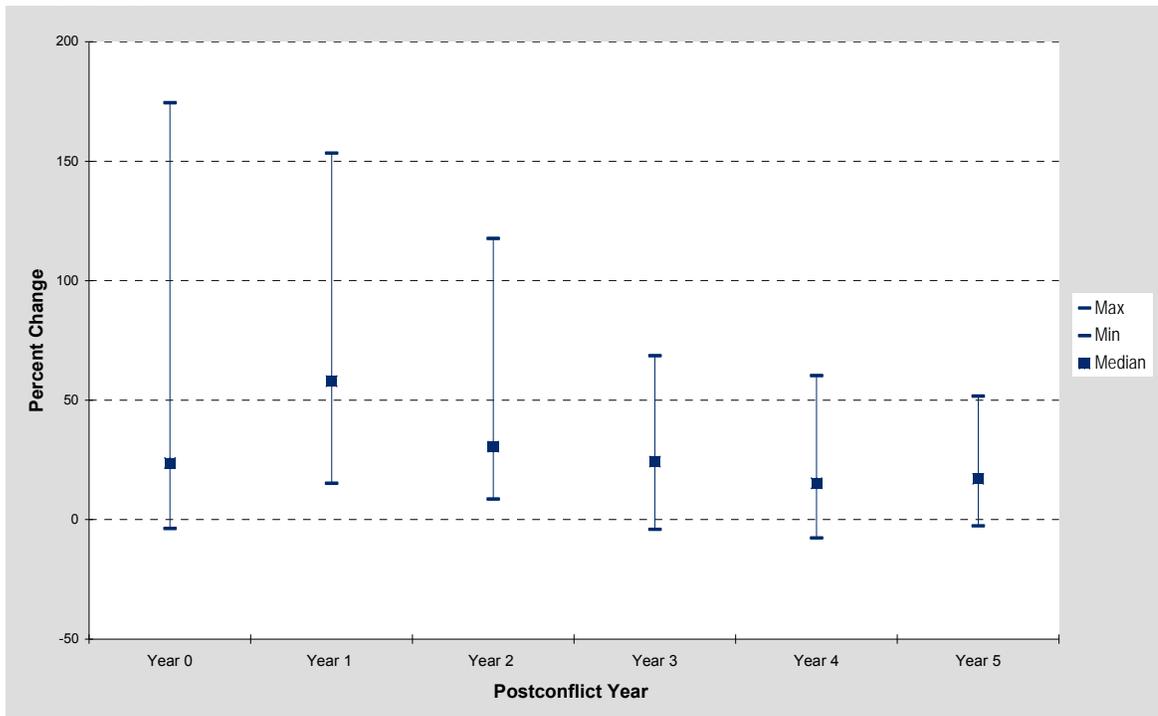


Figure 3-3
Money Supply Growth

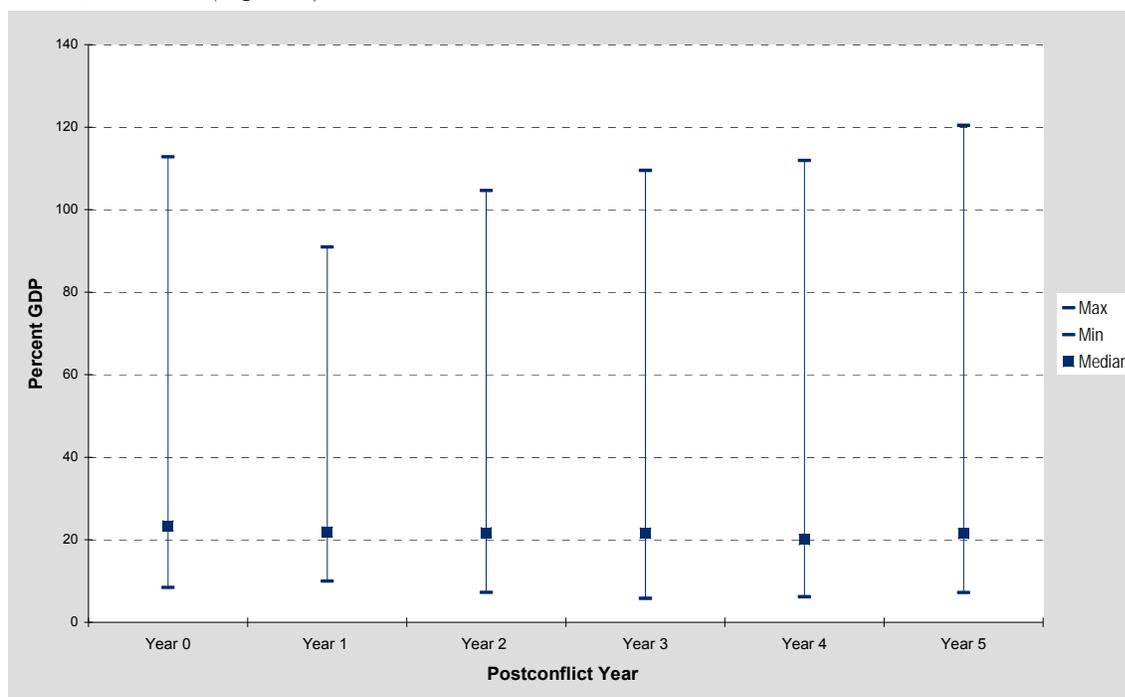


In conclusion, high inflation is one of the most prominent macroeconomic features of war-torn societies, but most postconflict economies are quite successful at reducing inflation through prudent fiscal, monetary, and exchange rate policies.

FINANCIAL SECTOR

The conflict-driven combination of low growth, high inflation, neglected banking supervision, and enormous economic and political uncertainty is a fine recipe for stunting development of the financial system. A basic measure of financial deepening—the willingness of economic actors to hold monetary assets—is the ratio of the broad money supply (M_2) to GDP. Figure 3-4 shows a median value of 23 percent for M_2 /GDP when conflict ends, which is low by international standards but not greatly below the recent median of 25 percent for all low-income countries. On average, the monetization rate does not improve during the first five years of recovery, and even declines slightly.

Figure 3-4
Monetization Ratio (M_2/GDP)



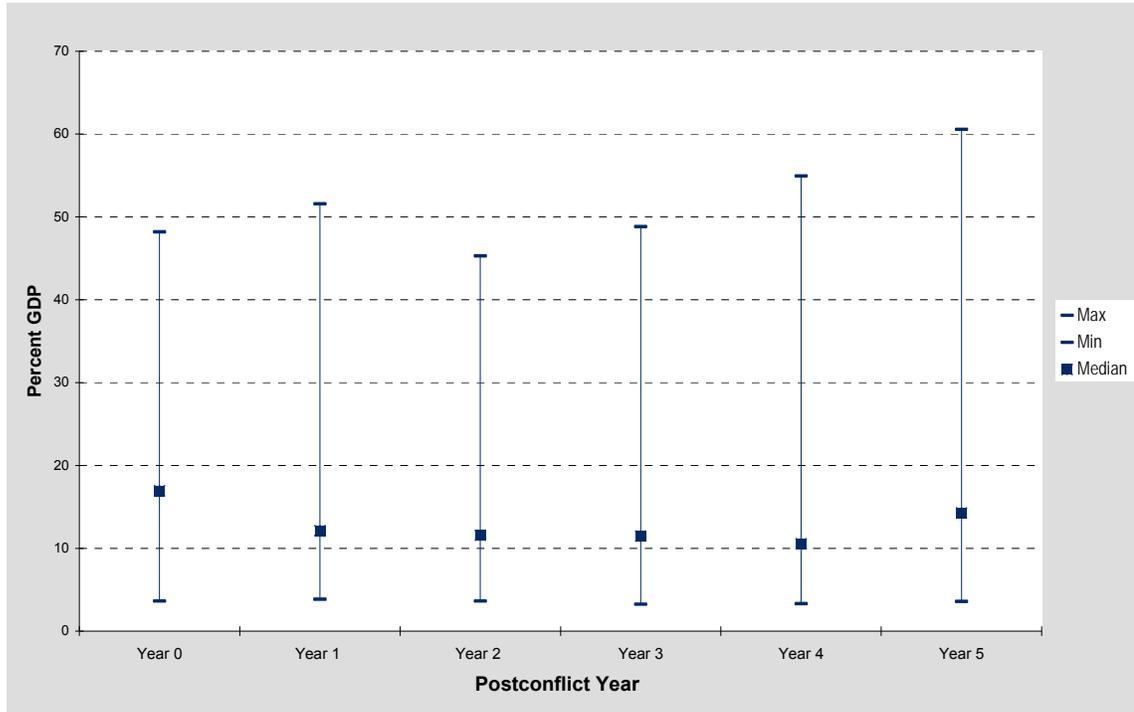
Note: This graph shows the high, low, and median values of M_2/GDP for nine developing countries for which we have five years of postconflict data. Lebanon was excluded because it is a strong outlier with well-developed international financial markets and a monetization ratio of more than 100 percent both before and after its period of conflict.

As usual, there is considerable variation among countries. In Ethiopia, the monetization ratio was 28 percent at the end of the civil war in 1991 and remained fairly stable for the five years. In El Salvador, however, the ratio rose by nearly half, from 30 percent at the end of the conflict in 1992, to 44 percent five years later. Then again, M_2 grew more slowly than nominal GDP in Mozambique and Rwanda during the first five years of peace, causing the ratio to decline. This reflects not only rapid GDP growth, but also a lag between tightening monetary policy and its impact on inflation.

This stunting of the financial system during conflict adds to the challenges of recovery through its deleterious effect on credit to the private sector. During the immediate postconflict period, most countries attempt to reverse these trends through financial sector reforms, but with mixed results. The weak response to financial reforms can be seen in the ratio of credit to the private sector as a percentage of GDP, indicating a marked lack of financial intermediation in the early years of recovery. Figure 3-5 shows the wide range of performance for six countries that have adequate postconflict data on this indicator (excluding Lebanon, as an outlier). Surprisingly, the median value of 16.9 percent compares favorably to the median of 12 percent for low-income countries. More to the point, however, postconflict recovery in credit to the private sector is slow, with the value in year 5 barely exceeding the initial level. Despite liberalization, problems of creditworthiness hurt the private sector and limit prudent lending. Large interest rate spreads due to uncertainty, macroeconomic instability, and lack of competition in the banking system often compound the difficulties by raising the cost. In some cases, interest rate liberalization has

preceded fiscal stabilization and led to much higher interest rates and growing domestic debt. Moreover, almost all postconflict economies have very thin markets for domestic debt and poorly developed capital markets.

Figure 3-5
Credit to Private Sector, % GDP



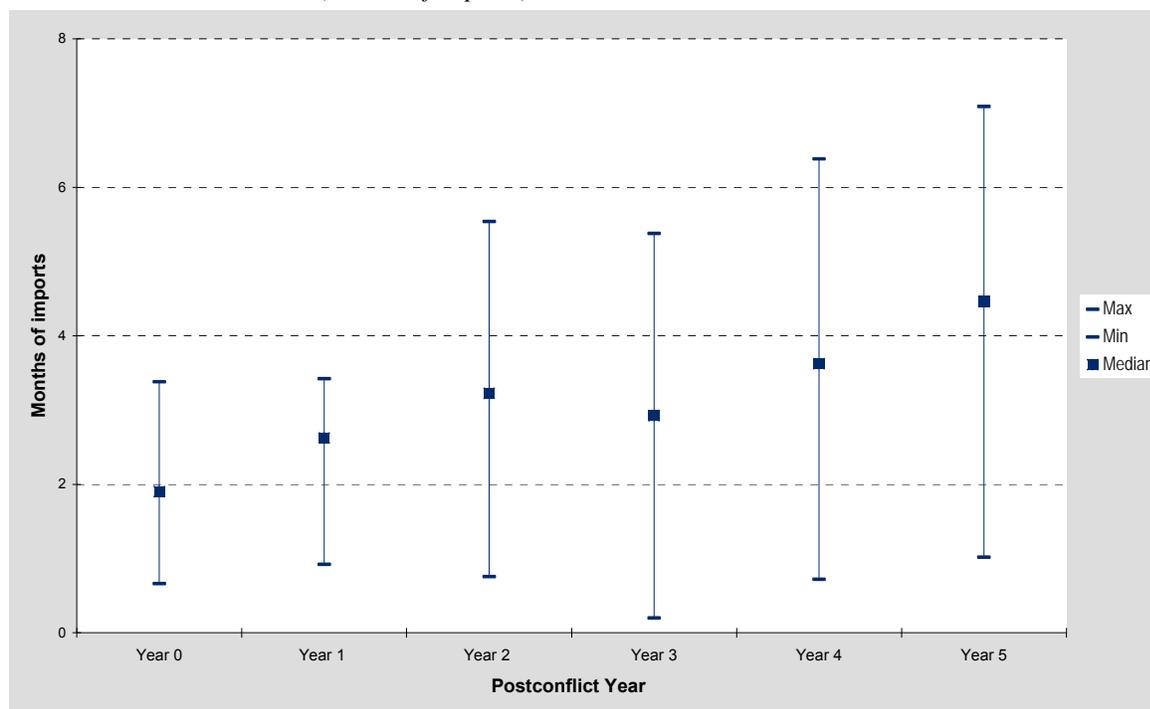
The experience of the Democratic Republic of the Congo exemplifies many of the policy issues facing the financial sector during recovery.¹⁹ In 2002, DRC had a population of 55 million, only 35,000 bank accounts, and a money supply amounting to only 5 percent of GDP. The banking sector had played a very small role in the economy since the early 1990s, with negligible credit to the private sector (under 1 percent of GDP in 2002). As in many other postconflict countries, inflation declined sharply to less than 4 percent in just two years as the government strengthened monetary and fiscal policy and restored confidence in the currency. Nonetheless, three years after the end of the conflict (latest data), the ratio of M_2 to GDP was still only 7 percent, with credit to the private sector still under 2 percent of GDP. And inflation jumped back up to 20 percent in the third year, so stabilization was not easy to sustain. One problem has been that in a largely dollarized economy the central bank could not resort to conventional measures to sterilize inflows. The Treasury, however, adhered to a strict monthly cashflow plan that helped to build stability, reduced crowding out of private credit, and promoted at least a gradual recovery in financial intermediation.

¹⁹ Laurens, Bernard and Wim Fonteyne. 2005. *Challenges to Financial Intermediation in DRC*. IMF, Washington, DC.

In the light of prior monetary chaos, and deeply cognizant of the perils of hyperinflation, central banks in postconflict conditions strive to restore a credible currency and payments system as a fulcrum for improving monetary stability. But in such conditions the central bank is often very weak. Even a relatively good performer like Bosnia has experienced major problems that constrain the development of the financial sector and keep interest rates high.

One way to stabilize the financial system is to increase foreign exchange reserves, which adds to liquidity and helps cushion the economy from external shocks. Figure 3-6 shows how gross international reserves for our sample of countries improved from two months of import cover up to four months of cover after five years of recovery.

Figure 3-6
Gross International Reserves (months of imports)



In certain cases the adoption of a currency board or dollarized monetary regime, coupled with the restoration of government fiscal control, has improved economic stability. For example, Bosnia introduced a currency board with a fixed exchange rate regime, in which the government could only print as much money as it had in reserves. This institutional device undoubtedly helped the government to resist pressure to monetize the fiscal deficit. But as the experience of Argentina has shown, the currency board can also be a source of instability if other aspects of macroeconomic policy are not well managed. The basic lesson, though, is that particular monetary arrangements can have a significant impact on postconflict monetary recovery.

BUSINESS ENVIRONMENT

Macroeconomic uncertainty, destroyed or damaged infrastructure, a large refugee population, and political instability all impede the resumption of economic activity and the private investment

vital for growth. Weaknesses in transport, telecommunications, and banking prevent firms from generating the jobs necessary to sustain a broadly based recovery or provide services the public sector cannot deliver. In tandem with aid agencies and national governments, the private sector is critical in catalyzing growth. Thus, a major challenge for any postconflict country is creating an environment that attracts private investment. But, apart from lucrative resource extraction activities, private investors are not attracted to an environment of physical insecurity, cumbersome regulations, and frequent policy reversals where credit and financial services are hard to access, red tape limits business opportunities, and the absence of property rights or a well-defined legal system hinders contract enforcement and dispute resolution.

For present purposes, the empirical analysis of postconflict experience is limited by small sample size. None of the key indicators were being compiled before 1996, and many have been introduced only in the past few years. Nonetheless, there are enough data to discern some clear patterns. Even in 2007 nearly all of the postconflict countries ranked low in the World Bank's Doing Business surveys, which measure the microeconomic regulatory environment for pursuing simple business activities. Undoubtedly the countries' Doing Business scores would have been much worse in the immediate aftermath of war. The rankings of postconflict African countries are particularly bad. Out of 178 countries ranked in 2006/7, Cote d'Ivoire was 155, Liberia 170, Burundi 174, and DRC 178. In 2007/8 Cote D'Ivoire's ranking declined, Burundi and DRC remained unchanged (the latter at 181 out of 181 countries), and Liberia had advanced 10 spots. Of our sample set, only El Salvador ranked in the top 100 (77 in 2006/7 rising to 72 in 2007/8).²⁰

Rankings were similar on the World Bank's worldwide governance indicators. Of 50 postconflict observations for the rule of law (scattered across 15 countries), there is not a single instance of a score above the international mean (set at 0.0). Nor is there even one positive score among 48 postconflict observations on the control of corruption index. The data for both indicators show that institutional environment scores tend to change very little during the first five years of recovery. The one exception—Liberia—offers hope that conditions affecting the rule of law and control of corruption can improve in just a few years even as the experience in nearby Sierra Leone suggests that conditions can get worse, particularly for corruption.

EXTERNAL ENVIRONMENT

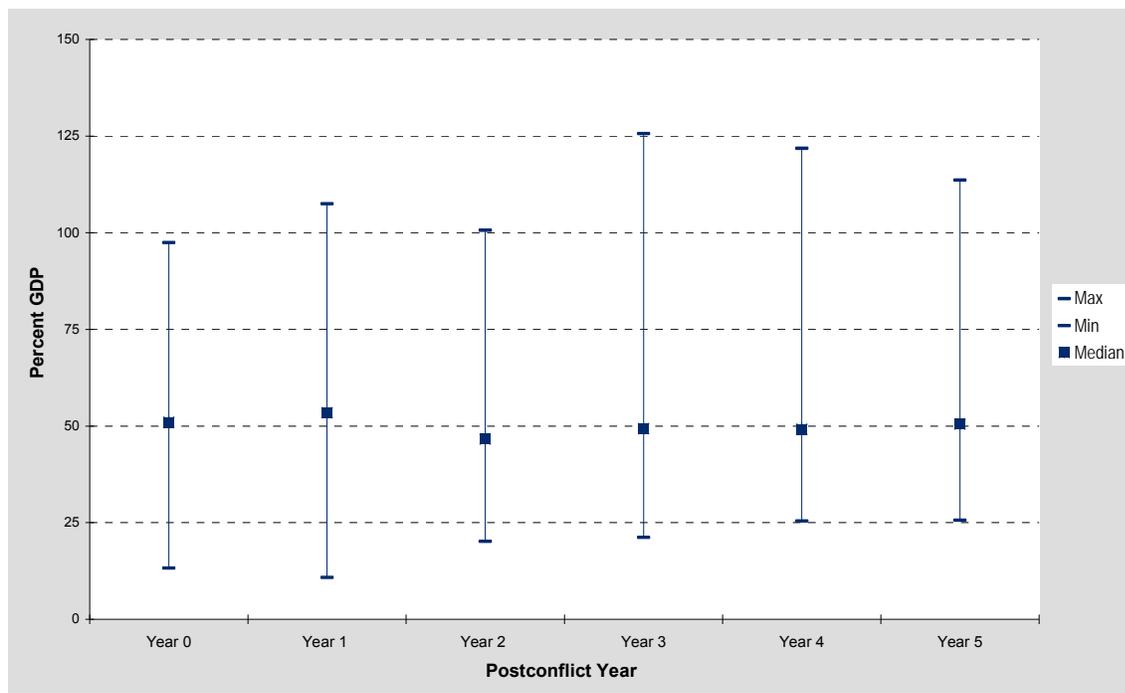
Another great casualty of war is international trade and investment as conflict disrupts the flow of goods and services along critical transit corridors, increases trading risks due to the unrest and instability, and damages communication and transportation.

Trade indicators confirm that serious conflict reduces the share of imports plus exports as a percentage of GDP, except where fuel or mineral exports increase. The average trade ratio not only starts out very low in the year when conflict ends, but also tends to recover very slowly during the postwar transition period (Figure 3-7). In particular, the median for 11 postconflict countries with adequate time series data starts at 50.5 percent in year 0 of recovery and ends up at 50.6 percent in year 5. This is a striking result considering the large amounts of foreign aid flowing into many postconflict countries (see below), which one would expect to boost imports

²⁰ *Doing Business* 2008, 2009.

greatly and hence improve the overall trade ratio. Figure 3-7 also shows that there are widely varying trade shares during recovery, suggesting that the postwar period is not automatically associated with rapid integration into world trade—nor its opposite.

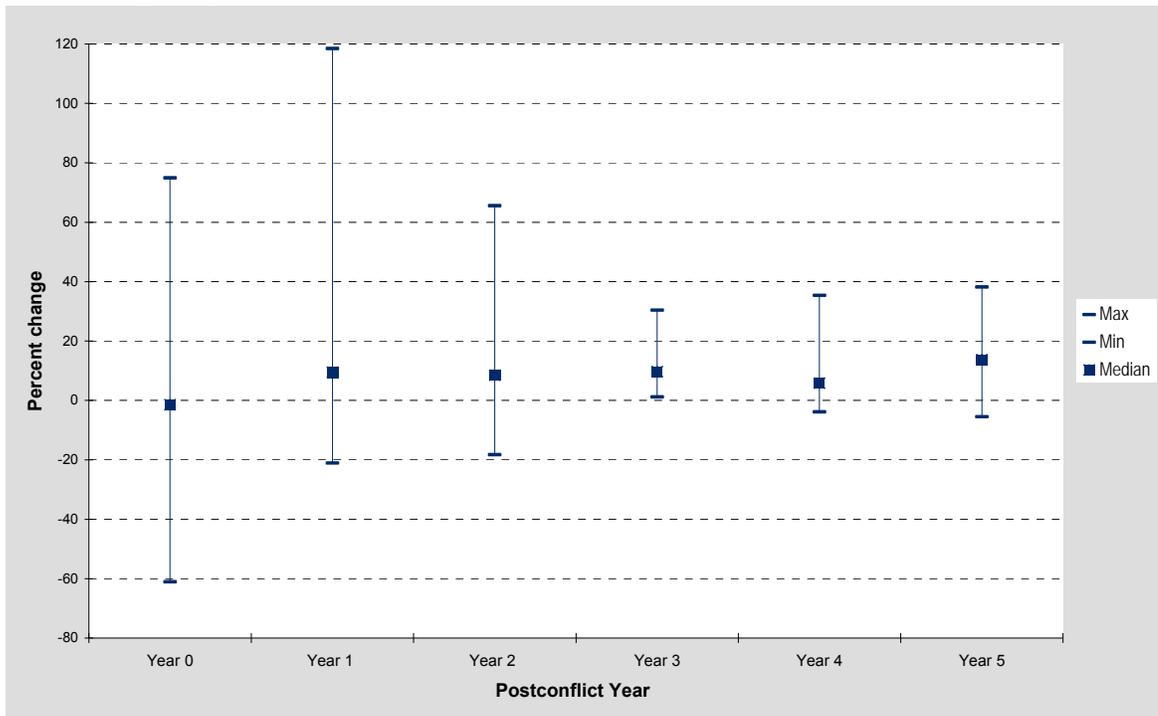
Figure 3-7
Trade in Goods and Services, % GDP



In the years after war, with the conspicuous exception of resource-rich (especially oil) economies and a few others, many of the postconflict countries have not had strong export growth.

Figure 3-8 shows the pattern of export growth for all 11 postconflict countries with adequate time series data. Four facts are striking. First, the median value starts out slightly negative in the year the conflict ends, and averages just 9.5 percent growth over the next five years, with no clear trend. This is not especially strong performance, particularly for countries recovering from the economic chaos of war. Second, there are enormous differences in performance from one country to another. For example, Bosnia experienced extraordinarily high rates of export growth in the first two years of recovery, followed by very sluggish growth by years four and five. Third, most of the countries experienced highly erratic export growth from year to year. This is largely because most are poor countries that depend on primary exports, which renders them vulnerable to the vagaries of the international market and a heightened risk of further conflict. Finally, the graph shows clearly that the minimum country performance on export growth rises from terrible numbers in year zero to only slightly negative numbers in years four and five. While individual countries may not have growth, the end of conflict improves the worst-case environment for trade.

Figure 3-8
Growth in Exports of Goods and Services



There are less data on trends in trade composition in postconflict countries, but the information available tends to show only marginal changes. As noted, many of these countries rely heavily on a few commodity products, a condition that persists during the first five years of postwar recovery. Finally, the data indicate that exports decline more quickly than imports during a conflict, resulting in a widening of the current account deficit. The current account imbalance then improves only slowly during the early years of recovery due to a moderate growth of exports coupled with rising imports. In fact, prolonged current account deficits are a significant factor in the recovery process for many resource-poor countries, supported by donor inflows to finance reconstruction.

External Assistance

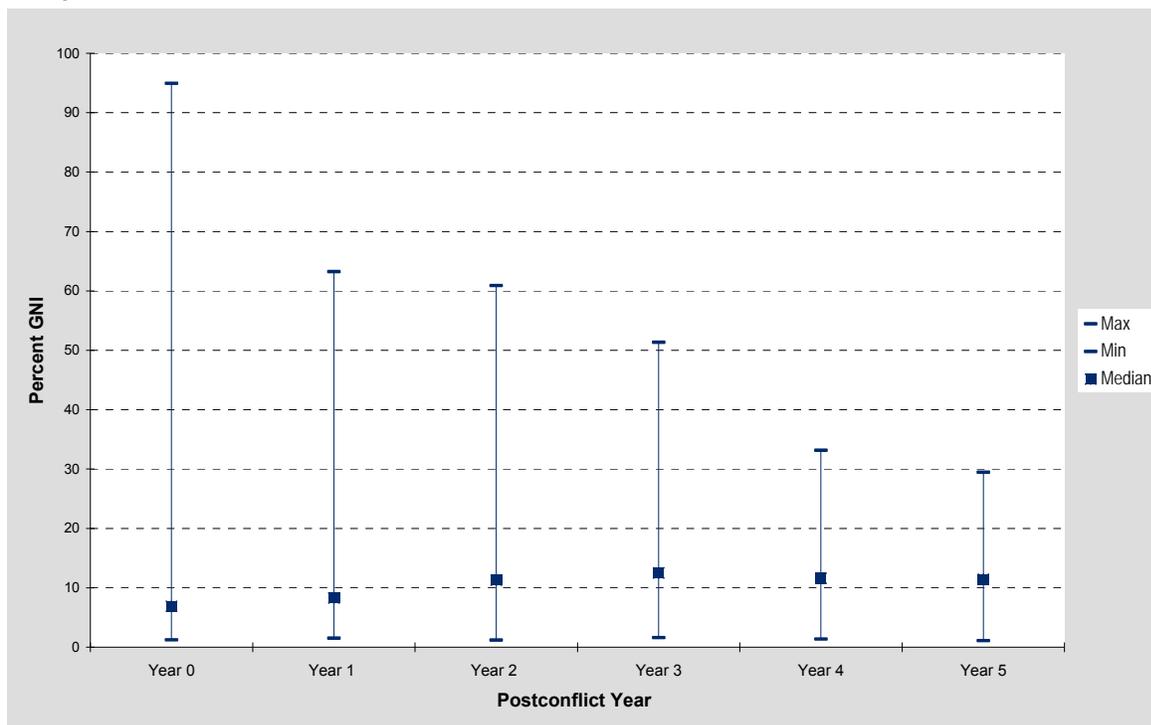
The data on postconflict foreign aid flows reveal six important characteristics. First, the volume of aid is large and growing as donors recognize that aid can lower the risk of relapse into conflict.²¹ For example, during the war and the post-Dayton era, Bosnia received close to \$80 billion from the international community. Inflows to Democratic Republic of the Congo, Afghanistan, Ethiopia, Mozambique, and Uganda have also been voluminous and significantly influenced recovery in these countries.

Second, in most cases, aid as a percentage of Gross National Income (GNI) tends to peak in terms of *commitments* during the first few years of recovery and then tapers off (Figure 3-9). The median for 11 postconflict countries increases from 7.6 percent of GNI in the terminal year of

²¹ Collier and Hoeffler (op cit.).

conflict to 12.5 percent in year 3, before ebbing to 11.4 percent in year 5. Changes can be enormous for particular countries, such as Bosnia (from 56 percent of GDP in 1995 to 13 percent in 2000) and Rwanda (94 percent in 1994 to 19 percent in 1999). In terms of actual disbursements, the changes are less pronounced. Moreover, in years one and two bursts of money tend to concentrate on humanitarian and emergency relief while aid to strengthen governance institutions and rebuild productive capacity starts as a trickle and expands slowly. In Bosnia, for example, aid flows actually reaching the country remained at nearly 35 percent in 1999, which is still extremely high.

Figure 3-9
Foreign Aid (% Gross National Income)



Third, as the high-low bars in Figure 3-9 show, there is the strong division of aid flows between postconflict “donor darlings” and underfunded “aid orphans.” Many darlings, such as Bosnia or Afghanistan, are of strategic importance, while orphans, such as the Central African Republic and Sudan, are not. Trends in U.S. bilateral assistance to postconflict countries, as revealed in budgetary requests and appropriations, suggest that while assistance from USAID has grown, it has focused narrowly on countries like Iraq and Afghanistan, which are not the best performers on governance indicators. However, the apparent interest in USAID in reversing decline in fragile states and advancing recovery to a point where “transformational development” is possible may bode well for future postconflict economies—if the strategy translates into budgetary appropriations and operational flexibility.

Fourth, the relationship between aid flows and corruption in recipient countries is still weak. In principle, aid should be linked to good governance; in practice, geopolitical and security considerations often trump economic imperatives. Empirical evidence shows very weak linkages

of aid flows from bilateral donors, like the United States and France, with performance-based rating systems that account for country governance, economic performance, and institutional environment.²² In the worst cases aid that supports venal regimes can actually be counterproductive for good public policy and economic growth. Indeed, most postconflict countries rank in the lowest quintile of the corruption indices. However, after war ends, government effectiveness tends to improve as accountability systems are put in place. None of the countries in our sample has a full five-year time series of postconflict data on this indicator, but 13 have at least two observations, of which 9 show an improvement (and just one shows a slight deterioration). This poses two challenges: (1) mobilize more aid for countries that are reforming, but which still have weak capacity, and (2) ensure that public funds are properly used and monitored in postconflict countries receiving large aid flows.

Fifth, the composition of aid flows has changed significantly. Two decades ago a large share of Official Development Assistance (ODA) went to infrastructure and agriculture.²³ Today, a growing share is going to the social sectors, in line with the international focus on Millennium Development Goals, and to humanitarian and emergency assistance. According to the OECD, relief aid has increased from 2 percent of ODA in 1989 to 29 percent of ODA in 2003, showing that donors increasingly realize the costs of non-engagement; at the same time, the share to infrastructure has greatly decreased.

Sixth, aid tends to spur postconflict growth. During the first two years of recovery, the typical country experiences a growth spurt that is largely dependent on aid. In fact, some empirical research suggests that policy aid can be more than twice as productive in postconflict conditions as in other applications, and that the absence of aid would result in the absence of a growth spurt.²⁴ The nature of this relationship between aid and growth for all developing countries has been a topic of controversy. Whether in the form of technical assistance or funding, aid can be particularly useful in economies with strong reform agendas and a strong political and technocratic constituency for reform. Many postconflict countries have seen a marked increase in political stability due to reforms and the elimination of security threats. Of the 13 countries with more than one data point within the five year recovery period for the World Bank's Political Stability Index, eight showed improvements, including fairly large changes for Angola, Guatemala, Liberia, Serbia, and Sierra Leone. Only Chad shows clear signs of retrogression. Despite the improvements, all postconflict Political Stability Index values were negative for the full five years, signifying performance below the international average.²⁵

²² Dollar, David and Victoria Levin. 2005. *The Forgotten States: Aid Volumes and Volatility in Difficult Partnership Countries 1999-2002*. Summary Paper for DAC.

²³ OECD. 2005. *Aid Allocation Criteria: Managing for Development Results and Difficult Partnerships*. Report by Oxford Policy Management, London. data set, www.oecd.org, Paris.

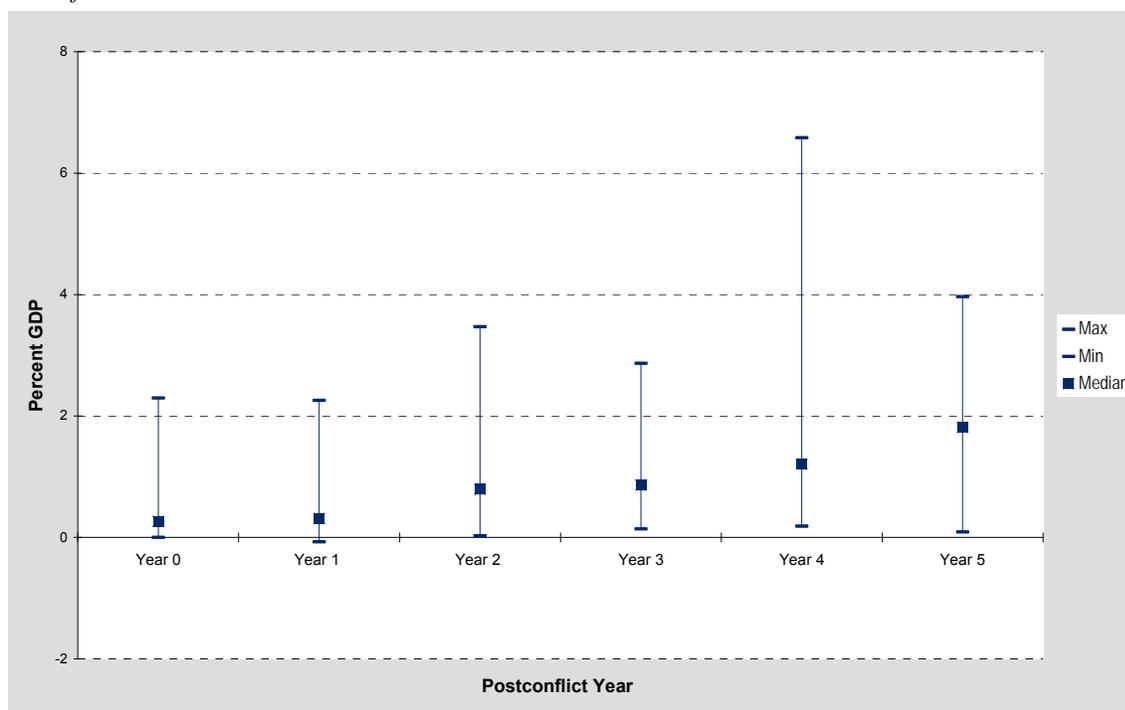
²⁴ Collier and Hoeffler (op. cit.)

²⁵ For Mozambique the index turned positive 10 years after the onset of peace. By 2006 this was the only country with a positive value.

Foreign Direct Investment

Two other sources of finance for postconflict rebuilding of the private sector are FDI and remittances. The data confirm several common perceptions about FDI. First, as shown in Figure 3-10 (which is based on data for 12 countries), FDI grows after conflict but tends to remain below 2 percent of GDP, which is not enough to qualify as a strong engine of growth. In fact, FDI flows to most postconflict countries are lower than in normal developing economies of Latin America and sub-Saharan Africa, reflecting the uncertainty in the political environment and policy regimes. Of the more than \$300 billion of FDI flows to developing countries, less than \$15 billion in 2005 went to postconflict countries. For example, Burundi received only \$10 million in FDI inflows, Haiti \$6 million, and Nepal \$2 million.

Figure 3-10
FDI Inflows. % GDP



Five factors accounted for the large surge in global FDI between 1990 and 1999: (1) extensive investment by multinationals in the privatization of state-owned assets, especially in Latin America and Eastern Europe; (2) acquisition of distressed banks by foreign investors after the 1997 Asia crisis; (3) a wave of international corporate cross-border mergers and acquisitions; (4) the rapidly growing attraction of China as an investment destination; and (5) worldwide economic liberalization.²⁶ In nearly every respect, postconflict countries were not part of the surge. FDI is not attracted to economies suffering from a lack of security, questionable governance, uncertain macroeconomic conditions, poor infrastructure, complex administrative procedures, lack of liquidity, and poor regulatory regimes.

²⁶ USAID. 2007. Foreign Direct Investment: Putting It to Work in Developing Countries.

The two exceptions to this pattern are higher income economies and resource rich economies. The higher income economies, like Bosnia and Lebanon, have a better business environment, larger markets, more skilled labor, and more favorable regulatory environment. FDI tends to concentrate in services, including public utilities, finance and banking, and tourism. A combination of a sound policy environment and the presence of other international actors, private and public, act as a magnet for capital. FDI in these economies has been significant, has helped catalyze recovery, and has been an important source of capital and technical know-how.

Resource-rich economies—such as Angola, the two Congos, Sudan, and East Timor—benefit from FDI in extraction of petroleum and mineral resources, which sometimes persists even during conflict. For these economies, foreign investment is a major source of financing for recovery. But given the capital-intensity of natural resource extraction, such FDI will not generate many jobs and may worsen problems of inequality. Moreover, there are the effects of the resource curse: large-scale investment in extractive industry may have a damaging effect on other sectors by influencing the real exchange rate, create environmental problems, foster corruption, or fuel civil war. While the global commodity boom has benefited many of the poor postconflict countries, revenues from extractive sectors can also be used to finance ongoing wars or exacerbate existing conflicts. Empirical evidence suggests that resource dependence can promote civil war by (1) harming a country's economic performance; (2) making its government more corrupt and less accountable; (3) giving people in resource-rich regions an incentive to form independent states; and (4) financing rebellions.²⁷ Thus, the proper management of FDI inflows and issues of corporate social responsibility are closely related to sustained recovery. Finally, the transparency and accountability of these resource windfalls have to improve to ensure that they are effectively used for development.

Remittances

Remittance inflows are an important source of financing for many developing countries, and can be especially important in countries in conflict, which have low GDP, few job opportunities, and a relatively large share of their population expatriated. In 2004, global remittances to all developing countries reached \$160 billion, which was slightly less than the \$166 billion in FDI but more than double the total of \$79 billion in ODA flows. Despite serious problems with the quality of remittance data in postconflict countries, and evidence of large unrecorded flows, we can say that diasporas are an important source of cash transfers for poor economies and poor households. At the macroeconomic level remittances help finance trade deficits and are especially important in the absence of large flows of aid or private capital.

The data show that many countries in war-to-peace transition are very dependent on the flow of migrant transfers, though as is typical, there is significant variation among countries. In El Salvador, remittances averaged more than 10 percent of GDP a year from 1992 to 1995. The pattern persists many years into the recovery and often becomes more pronounced. In 2005, remittances have continued to be a boon to numerous postconflict economies. As a percentage of GDP in 2005, measured remittances reached 22.2 percent in Lebanon, close to 20 percent in

²⁷ Ross, Michael. 2003. *Natural Resources and Civil War: An Overview*. UCLA.

Bosnia, slightly over 15 percent in El Salvador, and close to 7 percent in Sri Lanka. Unofficial flows also continue to proliferate, but absence of data precludes any quantitative assessment.

Many migrant or emigrant workers are especially concerned to transfer funds to families back home when other sources of livelihood are falling. Remittances are important for household survival after wartime, particularly in rural settings. In Somalia, informal remittances have not only created new financial service mechanisms but also helped to facilitate trade. Estimates using household survey data suggest that remittances there may amount to \$700 million to \$1 billion each year, and that a significant part of the flows from the over one million Somalis overseas reach the refugee camps and displaced populations.

In this regard, the post-9/11 closure of informal money transfer operations may have had a negative impact on the poor in some countries. Further study is needed on this front to separate legitimate remittances from illegal flows.

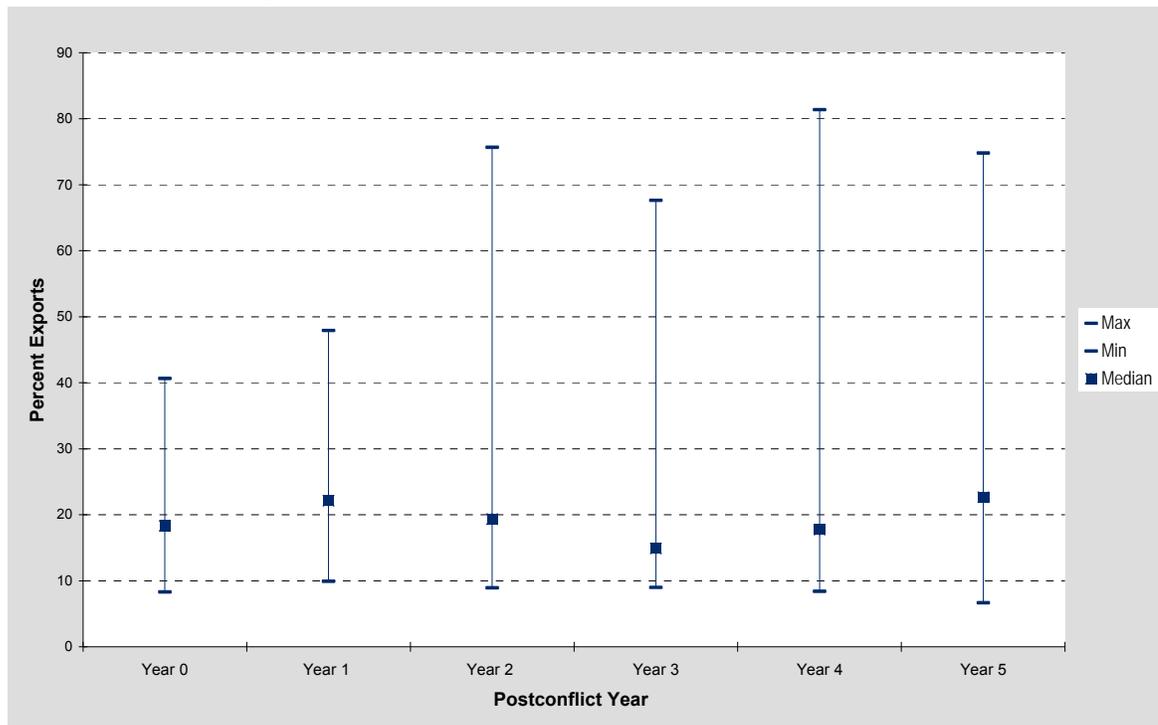
Foreign Debt

A legacy of external debt accumulated from years of poor economic policies and heavy borrowing to finance military operations and other unproductive expenditures poses a major macroeconomic challenge for most postconflict countries. In addition to this, terms of trade shocks affecting the current account add to the problems of debt service sustainability of many lower income countries, including those with high postconflict debt. In all countries in our data set, the debt burden increased markedly from the late 1970s to the early 1990s. In Nicaragua the debt-to-export ratio rose from 200 percent in the late 1970s to 2,500 percent in the early 1990s; in Uganda the ratio increased by more than 1,000 percent in the same time period. Hence, debt relief has been a necessary concern.

The empirical patterns reveal several trends. First, during civil war debt frequently worsens as fiscal problems make it very difficult for countries to service existing debt. The net present value of debt as a percentage of GDP and the ratio of debt service obligations to export earnings are beyond sustainability thresholds. Consequently, many postconflict countries also suffer spiraling levels of indebtedness. After the conflict ends, however, there is almost always serious action to reduce the debt ratios to sustainable levels, both through the HIPC debt relief process and improved economic performance.²⁸ As the debt burden subsides, governments should have more fiscal space to rehabilitate critical public services and infrastructure, but this may not be the case because governments that had hitherto not been servicing their debt (e.g., Democratic Republic of the Congo, Burundi, Liberia) become responsible for becoming and remaining current on the HIPC-determined debt service. Figure 3-11 documents the improvement in the ratio of debt service to export earnings during the first three years of recovery for seven postconflict countries with adequate time series data on this indicator; notably, the ratio tends to begin rising again in year four.

²⁸ At the HIPC Decision Point countries receive assistance to lower debt service to a sustainable level. Later, when they comply with the conditions for the HIPC Completion Point much of the multilateral and bilateral (Paris Club) debt stock may be written off. Since 2006 many postconflict countries are further eligible at the Completion Point for the Multilateral Debt Relief Initiative (MDRI), which provides for 100 percent relief on eligible debt from three multilateral institutions to a group of low-income countries.

Figure 3-11
Debt Service Ratio. % exports



Second, during the course of conflict, arrears to bilateral and multilateral lenders often rise and the country cannot obtain new external financing from capital markets or donors. The presence of a large stock of arrears to official creditors has sometimes hindered the full reengagement of bilateral donors. In Bosnia, for example, the stock of \$621 million in World Bank debt from the former Yugoslavia after the war ended was 80 percent in arrears and required exceptional financing before there could be significant new donor flows for economic growth programs.

Third, postconflict countries have had difficulty in establishing a credible record of macroeconomic stability and structural reforms, as a precondition for HIPC assistance. The difficult fiscal, monetary, and structural challenges these economies face, not to mention domestic political exigencies, make it difficult for the governments to establish a record that satisfies the international financial community. As a result, the eligibility record and procedural requirements for granting debt relief have been relaxed for postconflict countries.

Hence, most postconflict economies have benefited from significant HIPC debt relief over the last several years, creating fiscal space to help finance new expenditure programs. However, the international financial institution (IFI) focus on a narrow range of debt service indicators may not be appropriate for postconflict countries. One must keep in mind that many postconflict HIPC economies, such as Ethiopia, Nicaragua, Rwanda, and Uganda have a significant chance of facing another round of unsustainable debt in the future, despite the HIPC benefits. Some of these countries will likely exceed the HIPC threshold debt-to-exports ratio of 150 percent again because of exchange rate movements or terms of trade effects. Thus, while the HIPC process has been beneficial to most postconflict economies, it has not been sufficient. It has often increased debt service as a budget line item. In broader terms, debt relief as such cannot guarantee

sustainable debt ratios; additional measures are needed to boost repayment capacity through expansion of exports and more rapid economic growth.

Real Exchange Rate

The real effective exchange rate (REER) is an important macroeconomic indicator that strongly influences a country's competitiveness. This indicator adjusts the nominal exchange rate for inflation differentials between the home country and its trading partners, using trade-weights for combining the movements in inflation-adjusted exchange rate with various other countries. Generally, an appreciation in the REER impairs the competitiveness of exportables and renders imports more competitive in the domestic market

Government statistical agencies do not routinely compute the REER, so there is very little data on REER trends for postconflict recovery episodes, at least in the standardized international data bases. (Of our sample countries, only Uganda has data for the full five year period.) REER data may be available in economic country studies.

The most well known and well documented case of economic growth problems due to an appreciating REER stemmed from large foreign exchange earnings—one element of the resource curse that afflicts many resource-rich countries. Frequently referred to as “Dutch Disease” in honor of Holland's loss of export competitiveness after its exploitation of North Sea oil, the basic problem is that such foreign exchange inflows strengthen the REER and inhibit the growth of other sectors producing tradable goods, particularly manufacturing and agriculture.

Although large inflows of remittances and donor assistance for humanitarian relief, peacekeeping, and reconstruction will cause a similar appreciation of the REER via higher inflation or a stronger currency value, the empirical evidence is not strong. For the countries in our data set, empirical evidence of postwar aid increases leading to Dutch disease is limited. From countries ranging from Ethiopia and Cambodia, to Burundi and Guatemala, there is no clear statistical relation between aid flows and REER appreciation. In only a few cases, such as Nicaragua and El Salvador, is there some modest sign of REER appreciation during the recovery period, but this may be attributable to inflationary financing. Ethiopia after 2000 used part of its aid to build reserves and pay the domestic debt, so the REER stayed roughly constant. By contrast, the combination of aid and private remittances in El Salvador increased private spending and led to REER appreciation.²⁹

There are several explanations for this lack of a substantial increase in REER in a postconflict environment. First, while the uses of aid vary by country, not much has gone for fiscal expansion. A great deal is in the form of commodities for emergency relief or humanitarian support. Even with development assistance, much of the funding is used to finance imports of goods and services (especially technical assistance) that do not stimulate demand for domestic products. Second, productive uses of aid mitigate Dutch disease by stimulating capital spending that

²⁹ Elbadawi, Ibrahim, Linda Kaltani, and Klaus Schmidt-Hebbel. 2007. Post-Conflict Aid, Real Exchange Rate Adjustment, and Catch-up Growth. World Bank conference on Post-Conflict Transition, Washington, DC.

increases productivity in the nontradable sector and expands supply as well as demand. In many postconflict countries, public investment acts as a catalyst for private investment, and government investment in bridges, schools, and public goods has not fuelled inflation. Thus, contrary to expectations, the surge in ODA flows has not led to significant REER appreciation.

ECONOMIC INFRASTRUCTURE

Infrastructure is the backbone of any economy. Functioning roads and rail lines allow reliable and efficient access to markets, connect rural and urban areas, and help the military and police ensure security. Dependable electricity and telecommunications networks enhance communication and enable increased economic activity. Unfortunately, standardized international data sets provide virtually no information on patterns of postconflict infrastructure reconstruction. Hence, the analysis of economic infrastructure is based largely on secondary studies rather than analysis of primary data.

In most postconflict developing countries it can take years or even decades before infrastructure is rehabilitated. Funding constraints, a poor security environment, corruption during rebuilding, and hazards such as landmines can derail even the most well-intentioned infrastructure project. For many countries, aid commitments tend to peak in the first few years after a conflict, and most of the funding does not go to infrastructure.

In the immediate aftermath of recent conflicts (and sometimes even during the conflicts), infrastructure investments that can be undertaken by the private sector experience a surge of activity, most notably in the telecommunications sector. Since the late 1990s, mobile phone usage has expanded rapidly in developing countries, particularly in countries where fixed line infrastructure has been destroyed. These investments have a short payback period and potentially very high returns. For instance, when major facilities ended in Angola there were 5.2 mobile phone users per 1,000 people. Five years later, there were 68.2 users per 1,000 people, a more than twelve-fold increase. This kind of increase is seen in nearly every postconflict country from the Democratic Republic of the Congo (1,533 percent) to Afghanistan (4,088 percent).

Small-scale investments in electricity also move quickly into the market in postconflict situations. Larger generation projects tend to materialize only after several years of peace and require a favorable security and policy environment.³⁰ But anyone who visited postwar Luanda or Monrovia can attest to the sound of electric generators whirring in the evenings and early mornings. The sale of such generators has mushroomed in these countries as national and regional electricity networks have been slow to come back on line and proven to be unreliable and nonexistent. In Cambodia, small-scale electricity providers have stepped in to meet the energy needs of rural households and communities, bringing power to nearly half a million people.³¹ When the government or donors fail to provide infrastructure services, the market has attracted private investment to meet the demand, though large imbalances persist many years into the recovery.

³⁰ Schwartz, Jordan and Pablo Halkyard. 2006. Post-conflict Infrastructure: Trends in Aid and Investment Flows. World Bank Public Policy for the Private Sector brief, Washington, DC.

³¹ Schwartz, Hahn, and Bannon, p.10 op.cit.

Major infrastructure investments such as road and railroad (re)construction, bridge repair, and port upgrading tend to be slow to materialize in postconflict situations. The large investment required is often out of reach for low-income countries struggling with debt and starved of revenue. Also, procurement procedures tend to be cumbersome and opaque. Thus, donors tend to focus on emergency, quick-impact investment in health care, food security, and resettlement. Investing in a long-term, capital-intensive infrastructure project is difficult in an unstable and corruption-riddled environment in which the economic impact of the investment cannot be quantified easily. High priority investments are sometimes mobilized through public-private partnerships, but risks are high and potential returns uncertain, especially in the short term. After emergency needs have been met and security has stabilized for several years the government, donors, and the private sector can collaborate more easily on large investments. The conflict in Guatemala ended in 1996, but only in the past several years has the government embarked on large highway construction projects and upgrading of the international airport in Guatemala City.

Ironically, a country is most fragile and vulnerable to a relapse into violence in the first five years after a conflict ends. Early investment in public services and infrastructure can help jumpstart economic growth and improve security by providing jobs and alleviating hardship for those displaced by the conflict. Such investment also shows citizens and outside investors alike that recovery is underway.

4. Pro-Poor Growth Environment

Rapid economic growth in postconflict economies should support a broad-based recovery and tangibly benefit more than a handful of elite. A pro-poor growth environment stems from policies and institutions that reduce the vulnerabilities of the poor and marginalized while improving their opportunities and capabilities—a dearth of such opportunities may in fact have been an original cause of a conflict. Pro-poor growth is associated with investment in primary education and health and broadly based opportunities for employment. Devising a proper policy regime for recovery requires taking into account the effects of violence on the state's capacity to deliver basic social services and promote employment. Unfortunately, for these important dimensions of recovery there is very little systematic data on performance before and after the end of conflict in developing countries. Here, too, empirical analysis must be based largely on findings from research rather than analysis of data from standardized international sources.

EDUCATION

The adverse effects of conflict on the education system are well documented. The physical infrastructure of schools is damaged or destroyed; teachers and students are displaced or pulled into the fighting; and education budgets dwindle. As a result, masses of children stop attending school, and the quality of education deteriorates for those who remain. In 2005, approximately 44 percent of the world's refugees were under the age of 18; in Africa 55 percent were under 18.³²

By some estimates more than 50 percent of classrooms in postconflict economies have been damaged or destroyed, and many teachers have been killed or left the country. Rwanda is a particularly tragic case, as more than two-thirds of the primary and secondary teachers—a disproportionate share of whom were from the Tutsi social elite—were either killed or fled the genocide.³³ Even when the number of teachers remains high, professional training, whether initial or in-service, is discontinued or reduced.³⁴

³² UNHCR. 2005 Global Refugee Trends.

³³ World Bank. 2005. Reshaping the Future: Education and Post-Conflict Reconstruction.

³⁴ Ibid.

Statistics, where available, show that gross enrollment drops rapidly when conflict begins and then rebounds in the recovery years, but with significant differentials by country. Communities rebuild schools quickly when conflict ends and try to galvanize international support to heighten the pace of reconstruction. But when the education system has been severely degraded by protracted conflict, as in Liberia, some refugees prefer to stay in camps rather than return to villages that lack proper schools.³⁵

In the postconflict and reconstruction phases, donors and governments therefore face an enormous challenge of repairing and replacing infrastructure, recruiting or training teachers, and pursuing long-term goals such as gender equality, universal access to education, and improved educational quality. Although primary schools are the initial focus of attention, economic growth objectives also require serious improvements in the availability and quality of secondary, tertiary, and vocational education. In the immediate aftermath of conflict, schools can serve as a venue for feeding programs that combat malnutrition and, by raising general awareness, the education system can help prevent a recurrence of violence.

HEALTH

Widespread conflict also has a serious adverse effect on health conditions. Health services already weak before conflict deteriorate during conflict because of inadequate funding, loss of skilled workers, and neglected and damaged facilities. In most postconflict countries, life expectancy at birth—a basic indicator of overall health—was less than 60 years before the conflict.³⁶ The available data show that life expectancy improves following the end of conflict in nearly every case, though gains are very modest and associated largely with reduced child mortality rather than improvements in the health care system.

The limited information available suggests that protracted or severe conflicts tend to increase child and maternal mortality rates. These rates almost always decrease when conflict ends, though they remain high. In 1980, before the civil war that lasted from 1981 to 1992, the child mortality rate in Mozambique was estimated at an extremely high 230 deaths per 1,000 children age 0 to 4. The rate increased to 235 in 1990 then fell to 206 by 2000. The pattern is similar for maternal mortality in Burundi, Ethiopia, and other countries, as well as Mozambique.

Conflict also devastates the health sector's physical infrastructure and human resources. In 2003 as Liberia emerged from more than a decade of conflict, only 43 physicians and 42 midwives were left in the country.³⁷ Conflict also disrupts the education and training of healthcare professionals. Health risks also increase for internally displaced persons and refugee populations whose limited access to clean water and sanitation increases the likelihood of communicable diseases.

³⁵ Humphrey and Richards. 2005. Prospects and Opportunities for Achieving the MDGs in Post-conflict Countries: A Case Study of Sierra Leone and Liberia

³⁶ Algeria, Bosnia, Colombia, El Salvador, Lebanon, Serbia, and Montenegro are the exceptions.

³⁷ Liberia Interim Poverty Reduction Strategy Paper (2007).

In the immediate aftermath of conflict, donors and local governments act urgently to restore health services and associated infrastructure, driving up public spending. Liberia's public health expenditure as a percentage of GDP more than tripled from 1.2 percent in 2000 to 3.6 percent in 2004. Most of this was funded by NGOs, whose withdrawal in 2007 as the humanitarian crisis wound down posed problems for the national budget. Donors, however, should look beyond emergency healthcare needs to the development of long-term healthcare plans for entire countries. Rehabilitation plans such as Afghanistan's basic health service package (BHSP), which aims to restore health services to areas where they have not been available for more than a decade, can be instructive for donors and local governments alike.³⁸

WORKFORCE AND EMPLOYMENT

Statistics on employment and labor in postconflict countries are sparse and often of poor quality, particularly concerning the informal sector. Still, the basic story is clear: conflict destroys jobs and rampant unemployment and under-employment prolong conflict and heighten the risk of a relapse. Conflict also disrupts the economic base of rural communities by displacing large populations and destroying transportation and communication networks. And by eroding real wages and non-wage livelihoods, a war in one period can lay the foundation for later conflicts. Unemployment in Bosnia, now many years into recovery, continues to hover around 30 percent, and limited evidence from other countries suggests similar trends.

The most important mechanism for delivering the benefits of growth to postconflict economies is to provide better earning opportunities. Workforce development needs to be a top priority for donors and national governments before, during, and after conflict. In fact, employment generation can be a litmus test for the success or failure of postwar reconstruction. Moreover, rapid recovery of employment and livelihoods helps reduce the probability of conflict and saves on security for crime prevention. It is particularly important to employ ex-combatants to help prevent a return to conflict (see Exhibit 4-1). Earning opportunities for women are also extremely important in improving welfare, nutrition, health, and education at the household level.

During recovery donors can stimulate the economy through publicly funded programs, such as Mozambique's Feeder Road Program. Such programs must also consider internally displaced people and refugees who will be returning and seeking employment, and take pains not to be perceived as discriminating against those who remained and suffered during the war years. Alternatively, public investment coupled with foreign direct investment can spur job growth. In Cambodia, the opening of the export processing zones in the postwar period led to rapid employment growth, particularly for women.

³⁸ The BHSP in Afghanistan includes maternal and newborn health; traditional birth attendants ; additional emergency obstetric services; child health and immunizations; nutritional supplements including Vitamin A, folic acid, and iron; growth monitoring; supplementary feeding programs; communicable disease control, including bed nets for malaria prevention; community health workers trained in the diagnosis and treatment of common conditions; mental health treatment; and a defined set of essential drugs (Waldman and Hanif 2002).

Exhibit 4-1

Disarmament, Demobilization, and Reintegration Programs

Disarmament, demobilization, and reintegration (DDR) programs can help prevent a relapse into conflict by bringing ex-combatants back into the workforce. In theory, they support the transition from war to peace by ensuring a safe environment, transferring and reintegrating ex-combatants back into civilian life, and enabling people to earn a living peacefully. But when fighting groups face a security dilemma as they negotiate to give up their weapons, when the structures of civil society have crumbled, and when the economy is stagnant such programs can get complicated. Nonetheless, they have become important in disarming thousands of combatants, many of whom are children. For DDR programs to be effective, they must be undertaken in the context of a peace-building initiative. Since 1992, the international community has undertaken nearly 25 DDR programs, mostly in sub-Saharan Africa.

Countries ranging from Cote d'Ivoire, Haiti, and Sierra Leone have had programs during postwar periods. Early evidence is mixed and inconclusive, but reintegration appears to be the most difficult thing to achieve. Reintegration assistance may include housing, medical care, food, and elementary education for children and is usually cash-based. Sierra Leone's DDR program, which demobilized 7,000 of close to 50,000 soldiers, achieved a high rate of re-employment; only one-fourth of program participants who were surveyed said they had no job after being demobilized. In other countries, re-employment rates have been lower. How cash allowances are distributed may also affect reintegration. Programs must be structured to include female ex-combatants, as they have expressed more dissatisfaction with the programs than men.

Long-term postconflict employment plans will vary according to each country's circumstances, but the three stages of recovery can guide policymakers. In the immediate aftermath the social returns of employment and relief programs are high. The top priority of the next stage is to enable growth in private sector employment and to create livelihoods. Finally, public employment programs are phased out and integrated with traditional development or safety-net programs.³⁹

Even as first stage activities focus on creating jobs quickly—even economically unsustainable jobs (e.g., cleaning ditches, clearing brush, and similar activities, often implemented by NGOs or UNDP)—local governments and donors must attend to the creation of sustainable private businesses. Programs should strive to create job opportunities in the informal sector as well as the formal sector and in small-scale agriculture. Publicly or donor funded programs may be the starting point for postconflict employment, but they must soon give way to programs that stimulate job creation in the private sector.

³⁹ McLeod. 2007. Post-conflict Employment and Poverty Reduction. UNDP.

Data Supplement

This supplement presents a full tabulation of the data examined for this report. The standard CAS methodology along with technical notes on the data sources and definitions for all indicators can be found at www.country-compass.com.

Patterns of Postconflict Recovery Data Set

12P2			Real GDP Growth												
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5		
Afghanistan	1978	2002	.	.	.	.	.	28.6	15.7	8	14	7.5	13
Algeria	1991	2004	3.2	2.2	2.6	4.7	6.9	5.2	5.1	3.6	4.8	.	.		
Angola	1975	2002	5.5	0	3.2	3	3.1	14.5	3.3	11.2	20.6	18.6	23.1		
Bosnia and Herzegovina	1992	1995	.	.	.	.	.	.	.	29.9	28.9	9.5	5.2
Burundi	1993	2005	-0.9	2.1	4.4	-1.2	4.8	0.9	5.1	3.5	.	.	.		
Cambodia	1978	1989	.	.	.	21.5	9.6	3.3	1.1	7.6	7.1	4	8		
Chad	1965	1994	2	3.2	10.4	2.4	-2.1	5.5	-0.8	2.1	5.7	7	-0.7		
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	-5.4	-1.7	-4.3	-6.9	-2.1	3.5	5.8	6.6	6.5	5.1	6.5		
Cote d'Ivoire	2000	2005	-4.6	0	-1.6	-1.7	1.6	1.8	0.9	1.7	.	.	.		
El Salvador	1979	1992	2.5	1.9	1	4.8	3.6	7.5	7.4	6.1	6.4	1.7	4.2		
Ethiopia	1974	1991	9.7	13.9	0.6	-0.5	2.6	-7.2	-8.9	13.4	3.5	6.1	13.2		
Guatemala	1966	1996	3.1	4.6	3.5	3.5	4.4	2.8	4.1	4.6	3.7	2.5	2.4		
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	-6.8	16.7	-28.2	-42.2	-13.4	38.2	4.5	7	8	6.5	4		
Liberia	1990	2003	.	34.6	29.3	22	31.8	-33.9	-5.2	9.5	9.7	.	.		
Mozambique	1981	1992	14.7	8.2	6.5	1	5.3	-8.6	6.8	7	3.3	6.8	11.1		
Nepal	1996	2006	5.6	0.1	3.9	4.7	3.1	2.8	2.5	.	.	.	.
Rwanda	1994	1994	-5.7	0.4	-4.3	6.6	-8.1	-50.2	35.2	12.7	13.8	8.9	7.6		
Serbia and Montenegro	1998	1999	.	.	.	.	.	-18	4.5	4.8	4.2	2.5	8.4
Sierra Leone	1991	2001	-24.8	-17.6	-0.8	-8.1	3.8	18.2	27.4	9.5	7.4	7.3	7.4		
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	3.9	8.2	4.9	-3	-3	0.9	4	8.3	6.4	6.5	1.8		
								Min	(50.2)	(8.9)	2.1	3.3	1.7	(0.7)	
								Max	38.2	35.2	13.4	20.6	18.6	23.1	
								Median	3.4	4.5	7.3	6.5	6.5	7.5	

(1) T = end of conflict year.

12S1			Gross fixed investment, % GDP										
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5
Afghanistan	1978	2002	.	.	.	.	.	28.26	32.69	30.5	24.33	.	.
Algeria	1991	2004	24.39	20.68	22.66	24.45	24.03	24.11	23.81	.	.	.	.
Angola	1975	2002	25.47	35.53	28.8	15.05	13.4	12.57	12.66	9.11	7.54	.	.
Bosnia and Herzegovina	1992	1995	.	.	.	.	.	12.27	34.04	36.55	33.14	23.9	21.2
Burundi	1993	2005	6.14	6.22	6.09	11.31	13.38	11.83	.	.	.	.	.
Cambodia	1978	1989	.	.	.	.	9.61	11	8.17	9.38	9.79	10.79	10.72
Chad	1965	1994	5.67	4.77	4.62	5.28	6.89	11.75	14.36	14.96	16.33	14.15	16.97
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	2.5	2.1	3.09	3.47	5.41	8.94	12.23	12.74	.	.	.
Cote d'Ivoire	2000	2005	11.19	9.89	10.88	9.72	9.85	10.73	.	.	.	.	.
El Salvador	1979	1992	13.65	12.63	13.32	13.71	15.16	17.18	17.79	18.47	18.71	15.81	16.08
Ethiopia	1974	1991	16.97	16.13	23.38	13.54	12.94	11.07	10.71	16.53	16.38	17.96	17.61
Guatemala	1966	1996	12.18	15.64	16.09	14.23	14.51	13.33	15.11	16.65	17.89	16.13	15.46
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	.	.	.	.	17.77	19.29	25	29.1	36.65	36.46	34.79
Liberia	1990	2003	.	.	.	4.95	4.74	8.83	12.22	15.9	.	.	.
Mozambique	1981	1992	17.01	21.43	21.01	22.07	20.62	25.53	24.91	25.51	30.48	21.83	20.58
Nepal	1996	2006	18.97	19.3	19.06	19.15	18.95	.	.	.	.	.	.
Rwanda	1994	1994	13.35	14.65	14.02	15.63	16.75	9.98	13.41	14.37	13.81	14.81	17.23
Serbia and Montenegro	1998	1999	.	.	.	12.29	11.74	13.05	15.27	13.25	15.19	14.66	16.23
Sierra Leone	1991	2001	11.04	2.42	5.32	5.42	8	6.66	10.1	13.88	10.56	15.03	.
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	.	9.74	7.86	8.24	8.73	8.45	9.72	10.79	11.14	12.7	15.17
							Min	8.5	8.2	9.4	9.8	10.8	10.7
							Max	25.5	34.0	36.6	36.7	36.5	34.8
							Median	12.3	15.1	16.5	16.4	15.8	17.0

(1) T = end of conflict year.

15P2			Youth dependency rate											
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5	
Afghanistan	1978	2002												
Algeria	1991	2004	58.04	55.31	52.83	50.59	48.56	46.72	45.05					
Angola	1975	2002	94.35	93.93	93.47	93.04	92.63	92.25	91.86	91.44	90.96			
Bosnia and Herzegovina	1992	1995	34.15	33.8	33.38	32.86	32.19	31.37	30.45	29.51	28.62	27.81	27.06	
Burundi	1993	2005	97.65	95.83	93.33	90.6	88.11	86.12						
Cambodia	1978	1989	79.59	81.4	82.35	82.63	82.71	83.17	84.3	86.28	88.81	91.14	92.26	
Chad	1965	1994	89.57	89.91	90.3	90.75	91.21	91.68	92.13	92.55	92.95	93.33	93.67	
Colombia	1984	1												
Congo (Kinshasa)	1996	2002	93.86	93.78	93.72	93.71	93.75	93.84	93.98	94.18	94.44			
Cote d'Ivoire	2000	2005	80.56	79.52	78.67	77.92	77.14	76.27						
El Salvador	1979	1992	79.73	78.03	76.16	74.18	72.08	69.93	67.87	66.02	64.48	63.23	62.23	
Ethiopia	1974	1991	88.25	88.35	88.46	88.61	88.78	88.99	89.2	89.39	89.51	89.54	89.46	
Guatemala	1966	1996	88.23	88.04	87.84	87.6	87.29	86.91	86.46	85.98	85.5	85.04	84.61	
Haiti	2004	1												
Iraq	2003	1												
Lebanon	1975	1991	63.9	63.24	62.44	61.4	60.1	58.56	56.88	55.26	53.84	52.69	51.79	
Liberia	1990	2003	92.18	92.15	92.15	92.17	92.21	92.31	92.51	92.85				
Mozambique	1981	1992	88.75	90.6	91.9	92.22	91.43	89.8	87.82	86.08	84.86	84.19	83.9	
Nepal	1996	2006	72.75	71.75	70.64	69.42	68.09							
Rwanda	1994	1994	104.04	104.62	105.19	105.73	106.07	105.81	104.68	102.8	100.59	98.32	96.02	
Serbia and Montenegro	1998	1999	33.42	32.91	32.36	31.75	31.12	30.47	29.84	29.23	28.64	28.09	27.56	
Sierra Leone	1991	2001	77.68	78.12	78.53	78.88	79.14	79.3	79.37	79.4	79.44	79.52		
Somalia	1988	1												
Sudan	2003	1												
Uganda	1981	1986	99.2	99.13	99.02	98.94	98.92	98.97	99.08	99.29	99.65	100.18	100.87	
								Min	30.5	29.8	29.2	28.6	27.8	27.1
								Max	105.8	104.7	102.8	100.6	100.2	100.9
								Median	86.9	86.5	86.1	85.5	85.0	84.6

(1) T = end of conflict year.

Patterns of Postconflict Recovery Data Set

21P5			Money Supply Growth										
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5
Afghanistan	1978	2002	.	.	.	.	.	.	.	.	.	.	.
Algeria	1991	2004	13.7	13.18	24.77	36.82	15.98	11.27	10.34	.	.	.	.
Angola	1975	2002	71.94	57.65	530.93	308.97	160.59	158.57	63.85	36.97	60.54	.	.
Bosnia and Herzegovina	1992	1995	.	.	.	.	.	.	.	.	22.01	27.52	11.25
Burundi	1993	2005	4.31	15.73	29.53	15.92	17.77	19.02	.	.	.	.	.
Cambodia	1978	1989	.	.	.	.	.	.	.	.	.	.	35.56
Chad	1965	1994	8.08	-2.39	5.64	-8.9	-28.3	31.44	48.75	27.93	-4.1	-7.72	-2.6
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	.	.	.	.	.	40.02	32.33	72.9	25.48	.	.
Cote d'Ivoire	2000	2005	-1.93	11.98	29.97	-26.25	9.57	7.69	.	.	.	.	.
El Salvador	1979	1992	5.83	12	13.45	-17.34	20.81	14.86	33.34	40.13	13.53	13.9	10.27
Ethiopia	1974	1991	11.39	5.63	11.08	15.57	19.87	15.93	15.22	8.78	23.17	9.03	9.05
Guatemala	1966	1996	48.53	20.62	6.28	3.83	15.56	5.73	25.36	19.48	8.71	21.45	28.33
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	171.95	354.25	47.8	13.36	55.05	43.88	114.12	33.14	25.34	16.45	26.36
Liberia	1990	2003	106.01	11.59	18.33	12.73	4.92	9.48	45.71	34.06	.	.	.
Mozambique	1981	1992	64.73	-96.79	54.88	37.23	44.29	70.78	67.07	50.43	47.7	19.13	23.9
Nepal	1996	2006	-25.38	4.16	12.91	12.62	9.81	.	.	.	.	.	.
Rwanda	1994	1994	-4.17	5.59	5.54	12.44	2.52	-3.72	69.55	8.61	29.06	3.52	7.9
Serbia and Montenegro	1998	1999	.	.	.	.	.	.	.	.	.	.	.
Sierra Leone	1991	2001	29.65	47.14	11.27	37.8	12.08	33.67	29.56	21.89	20.08	31.29	.
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	85.96	11.49	40.03	110.74	127.43	174.43	153.39	117.66	68.57	60.24	51.66
							Min	(3.7)	15.2	8.6	(4.1)	(7.7)	(2.6)
							Max	174.4	153.4	117.7	68.6	60.2	51.7
							Median	23.7	57.9	30.5	24.3	15.2	17.1

(1) T = end of conflict year.

Patterns of Postconflict Recovery Data Set

21P6			Inflation rate												
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5		
Afghanistan	1978	2002	.	.	.	.	.	.	24.1	13.2	12.3	5.1	8.3
Algeria	1991	2004	2.6	0.3	4.2	1.4	2.6	3.6	1.6	2.5	4.5	.	.		
Angola	1975	2002	221.5	107.4	248.2	325	152.6	108.9	98.3	43.6	23	13.3	11.9		
Bosnia and Herzegovina	1992	1995	.	.	.	.	.	.	.	5.6	-0.3	2.9	5
Burundi	1993	2005	24.3	9.3	-1.3	10.7	8	13.6	2.7	5.3	.	.	.		
Cambodia	1978	1989	.	.	.	-31.2	23	63.8	141.8	191	75	114.3	10.6		
Chad	1965	1994	-4.9	0.5	4.2	-3.8	-10.9	41.3	5.4	11.3	5.6	4.3	-8.4		
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	199	29.1	284.9	550	357.3	25.3	12.8	4	21.4	13.2	17.5		
Cote d'Ivoire	2000	2005	2.5	4.4	3.1	3.3	1.5	3.9	2.5	2.5	.	.	.		
El Salvador	1979	1992	24.8	19.8	17.7	24	14.5	11.2	18.5	10.6	10.1	9.8	4.5		
Ethiopia	1974	1991	5.5	-9.1	2.2	9.6	5.2	20.9	21	10	1.2	13.4	0.9		
Guatemala	1966	1996	35.1	10.2	13.4	12.5	8.4	11.1	9.2	6.6	5.2	6	7.3		
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	95.4	487.2	155	72.2	68.9	50.1	99.8	24.7	8.2	10.3	8.9		
Liberia	1990	2003	.	.	5.3	12.1	14.2	10.3	3.6	6.9	7.2	.	.		
Mozambique	1981	1992	164.1	58.5	42.1	43.7	33.3	38.8	42.3	63.1	54.4	48.5	7.4		
Nepal	1996	2006	2.4	2.9	4.8	4	4.5	8	6.5	.	.	.	.
Rwanda	1994	1994	1	4.2	19.6	9.5	14.9	47.3	48.2	13.4	11.7	6.8	-2.4		
Serbia and Montenegro	1998	1999	.	.	.	.	30	41.1	70	91.8	19.5	11.7	10.1
Sierra Leone	1991	2001	23.1	14.6	36	34.1	-0.9	2.6	-3.7	7.5	14.2	12.1	9.5		
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	100	100	150	16.7	100	143.8	215.4	166.7	130.8	45.4	20.8		
							Min	2.6	(3.7)	4.0	1.2	4.3	(8.4)		
							Max	143.8	215.4	191.0	130.8	114.3	20.8		
							Median	41.1	42.3	13.4	14.2	12.1	8.9		

(1) T = end of conflict year.

Patterns of Postconflict Recovery Data Set

23P1			Domestic credit to private sector, % GDP										
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5
Afghanistan	1978	2002											
Algeria	1991	2004	5.39	5.97	6.8	12.32	11.16	10.99	11.78				
Angola	1975	2002	5.17	3.56	2.57	2.01	3.73	4.67	5.1	5.36	4.8		
Bosnia and Herzegovina	1992	1995								60.23	57.88	48	40.76
Burundi	1993	2005	24.16	25	29.92	28.1	24.86	20.75					
Cambodia	1978	1989										2.38	3.34
Chad	1965	1994	7.33	7.28	5.96	6.09	5.03	3.63	3.85	3.64	3.23	3.31	3.59
Colombia	1984	1											
Congo (Kinshasa)	1996	2002					0.75	0.68	0.85	1.53	1.94		
Cote d'Ivoire	2000	2005	15.5	15.7	15.1	13.62	14.35	13.81					
El Salvador	1979	1992	27.14	28.83	30.07	16.89	17.82	19.58	21.53	30.98	34.89	36.84	40.3
Ethiopia	1974	1991	10.28	11.7	12.14	12.16	13.9	12.74	11.39	6.15	8.03	9.27	14.27
Guatemala	1966	1996	11.95	14.47	13.89	15.02	19.27	18.96	18.56	20.55	20.7	19.79	19.4
Haiti	2004	1											
Iraq	2003	1											
Lebanon	1975	1991			54.55	65.55	79.38	48.19	51.58	45.29	48.82	54.94	60.55
Liberia	1990	2003	7.86	5	3.1	3.39	3.41	4.4	6.05	6.59			
Mozambique	1981	1992	1484.41	19.29	18.83	18.27	15.39	16.94	12.14	11.57	11.48	10.56	12.98
Nepal	1996	2006											
Rwanda	1994	1994	9.22	6.92	5.12	5.68	6.33	9.88	8.41	6.81	8.09	8.76	9.34
Serbia and Montenegro	1998	1999											
Sierra Leone	1991	2001	2.51	3.25	2.72	2.07	2.11	2.18	2.89	4.02	4.68	4.54	
Somalia	1988	1											
Sudan	2003	1											
Uganda	1981	1986	4.01	2.96	3.19	2.65	3.4	2.9					
							Min	3.6	3.9	3.6	3.2	3.3	3.6
							Max	48.2	51.6	45.3	48.8	54.9	60.6
							Median	16.9	12.1	11.6	11.5	10.6	14.3

(1) T = end of conflict year.

Patterns of Postconflict Recovery Data Set

23P3			Money supply, % GDP											
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5	
Afghanistan	1978	2002	.	.	.	.	.	.	.	.	.	.	.
Algeria	1991	2004	42.61	37.96	43.84	54.01	58.2	56.73	51.39	.	.	.	.
Angola	1975	2002	17.88	20.16	13.29	10.94	14.74	15.13	13.76	12.76	11.1	.	.	
Bosnia and Herzegovina	1992	1995	.	.	.	.	.	.	.	.	22.91	24.12	22.92
Burundi	1993	2005	19.08	19.52	22.62	25.01	25.76	25.92	.	.	.	.	.
Cambodia	1978	1989	.	.	.	.	.	.	.	.	.	.	5.54
Chad	1965	1994	14.9	14.77	13.41	14	13.78	8.42	10.8	12.92	12.95	10.68	11.02	
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	.	.	.	.	.	4.2	4.75	6.53	7.21	.	.
Cote d'Ivoire	2000	2005	22.38	22.53	26.43	26.02	22.6	23.28	.	.	.	.	.
El Salvador	1979	1992	32.3	33.26	35.94	31.78	28.71	30.1	32.22	37.94	40.24	42.14	43.72	
Ethiopia	1974	1991	20.67	20.95	21.92	23.64	26.27	27.96	30.62	26.68	29.21	28.18	27.36	
Guatemala	1966	1996	19.15	22.13	20.97	18.95	18.24	17.94	18.4	19.53	20.35	21.2	24.11	
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	.	.	134.44	171.85	159.34	112.8	90.93	104.61	109.53	111.93	120.39	
Liberia	1990	2003	9.5	10.91	10.13	10.17	8.43	12.09	14.71	17.78	.	.	.	
Mozambique	1981	1992	1062.25	425.09	21.49	22.88	19.14	23.89	25.38	23.91	22.92	18.93	18.93	
Nepal	1996	2006	41.52	35.24	35.44	36.73	38.01	.	.	.	.	.	.
Rwanda	1994	1994	15.93	14.48	13.63	13.09	13.41	22.86	14.78	15.5	14.05	14.47	14.75	
Serbia and Montenegro	1998	1999	.	.	.	.	.	.	.	.	.	.	.
Sierra Leone	1991	2001	8.79	12.74	12.72	13.87	15.48	15.89	16.99	17.99	17.46	18.13	.	
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	9.82	8.3	6.8	9.88	10.29	11.24	9.96	7.23	5.81	6.17	7.19	
								Min	8.4	10.0	7.2	5.8	6.2	7.2
								Max	112.8	90.9	104.6	109.5	111.9	120.4
								Median	23.4	21.9	21.7	21.6	20.1	21.5

(1) T = end of conflict year.

Patterns of Postconflict Recovery Data Set

24P1			Aid , % GNI										
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5
Afghanistan	1978	2002	.	.	.	.	16.44	32.29	34.75	36.72	37.84	.	.
Algeria	1991	2004	0.3	0.39	0.42	0.6	0.36	0.39	0.38	.	.	.	.
Angola	1975	2002	5.53	6.41	8.22	4.06	3.83	4.23	4.03	6.62	1.54	.	.
Bosnia and Herzegovina	1992	1995	.	.	.	.	36.18	56.91	32.63	25.01	18.38	19.22	13.07
Burundi	1993	2005	12.8	21.1	27.92	39.4	55.93	46.79	.	.	.	.	.
Cambodia	1978	1989	.	.	.	2.02	1.53	2.3	3.71	5.49	10.13	11.97	11.44
Chad	1965	1994	17.59	18.05	13.99	12.56	15.39	18.43	16.31	18.52	14.9	9.6	12.23
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	2.77	2.15	3.07	4.52	5.68	22.38	98.41	28.98	26.9	.	.
Cote d'Ivoire	2000	2005	3.61	1.7	9.89	1.95	1.09	0.76	.	.	.	.	.
El Salvador	1979	1992	10.98	10.2	10.36	7.39	5.68	6.89	5.87	3.82	3.15	2.94	2.51
Ethiopia	1974	1991	6.48	5.99	8.97	6.44	8.4	8.22	8.3	12.48	15.64	11.62	9.7
Guatemala	1966	1996	2.11	1.89	1.88	1.7	1.44	1.24	1.51	1.21	1.62	1.38	1.09
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	.	.	.	3.45	7.28	2.59	1.9	1.74	2.28	1.52	1.66
Liberia	1990	2003	22.43	28.1	17.35	9.54	11.43	29.79	53.45	54.12	.	.	.
Mozambique	1981	1992	30.45	46.36	37.79	42.99	41.89	81.29	63.23	60.9	51.36	33.14	29.47
Nepal	1996	2006	7.02	6.57	7.9	6.37	5.77	.	.	.	.	.	.
Rwanda	1994	1994	9.4	11.19	18.89	17.21	18.09	94.92	53.48	34	12.51	17.66	19.44
Serbia and Montenegro	1998	1999	.	.	.	0.59	0.78	6.65	13.18	11.3	12.52	6.45	4.86
Sierra Leone	1991	2001	20.07	14.18	16.71	11.51	29.4	43.99	38.91	31.56	34.65	29.58	.
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	10.24	6.11	6.23	4.54	5.18	4.94	4.8	6.07	8.57	15.69	20.32
							Min	1.2	1.5	1.2	1.6	1.4	1.1
							Max	94.9	63.2	60.9	51.4	33.1	29.5
							Median	6.9	8.3	11.3	12.5	11.6	11.4

(1) T = end of conflict year.

Patterns of Postconflict Recovery Data Set

24P2			Debt service ratio, % exports										
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5
Afghanistan	1978	2002	.	.	.	.	.	.	.	.	.	.	.
Algeria	1991	2004	.	.	.	.	.	.	.	.	.	.	.
Angola	1975	2002	19.23	41.42	26.78	20.74	33.01	16.88	15.25	13.59	9.21	.	.
Bosnia and Herzegovina	1992	1995	.	.	.	.	.	.	.	.	.	5.34	9.96
Burundi	1993	2005	39.44	49.71	59.19	63.55	135.3	41.4	.	.	.	.	.
Cambodia	1978	1989	.	.	.	.	.	.	.	.	4.03	9.64	0.35
Chad	1965	1994	5.86	4.39	4.48	4.77	8.36	9.24	.	.	.	.	.
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	.	.	.	.	.	.	.	.	.	.	.
Cote d'Ivoire	2000	2005	22.61	13.32	13.85	8.64	6.89	5.48	.	.	.	.	.
El Salvador	1979	1992	23.27	17.53	14.67	15.3	17.73	13.79	13.43	12.85	9	9.49	6.67
Ethiopia	1974	1991	29.74	36.92	44.89	40.76	38.96	30.59	23.79	18.89	15.75	18.43	41.07
Guatemala	1966	1996	16.46	24.48	14.42	12.51	11.06	11.86	9.91	8.92	9.41	8.4	8.73
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	.	.	.	.	.	.	.	.	.	.	.
Liberia	1990	2003	.	.	.	.	.	.	.	.	.	.	.
Mozambique	1981	1992	23.52	27.08	29.15	26.19	22.53	22.85	32.92	31.18	34.51	26.04	19.17
Nepal	1996	2006	6.89	6.21	6.04	5.54	4.58	.	.	.	.	.	.
Rwanda	1994	1994	18.39	14.2	16.21	20.4	19.92	8.3	20.49	19.81	14.09	17.13	26.2
Serbia and Montenegro	1998	1999	.	.	.	.	.	.	.	.	.	.	.
Sierra Leone	1991	2001	48.42	28.46	32.88	51.74	67.09	104.56	17.55	12.36	11.19	9.21	.
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	24.83	18.15	23.26	30.23	41.6	40.67	47.93	75.69	67.63	81.36	74.8
							Min	8.3	9.9	8.9	9.0	8.4	6.7
							Max	40.7	47.9	75.7	67.6	81.4	74.8
							Median	18.3	22.1	19.4	14.9	17.8	22.7

(1) T = end of conflict year.

24P3			Export growth of goods and services										
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5
Afghanistan	1978	2002	.	.	.	.	.	.	-58.57	-2.81	31.4	.	.
Algeria	1991	2004	6	5.9	-2.7	5.5	7.9	3.1	5.8	.	.	.	.
Angola	1975	2002	.	.	.	.	.	.	.	.	.	.	.
Bosnia and Herzegovina	1992	1995	.	.	.	.	.	74.96	118.49	65.55	23.17	-3.86	4.19
Burundi	1993	2005	.	.	.	.	.	.	.	.	.	.	.
Cambodia	1978	1989	.	.	.	.	.	.	.	.	.	.	73.77
Chad	1965	1994	5.29	-12.4	-3.55	-3.83	6.89	-9.11	37.84	-18.23	11.68	6.65	-1.61
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	-22.11	24.15	49.49	-3.65	2	8	0.3	20.1	8.8	.	.
Cote d'Ivoire	2000	2005	-2.9	-1.52	4.59	-4.51	17.3	1.5	.	.	.	.	.
El Salvador	1979	1992	12.19	-9.16	-13.59	23.88	-0.48	6.51	30.13	8.44	13.91	8.67	30.18
Ethiopia	1974	1991	22.28	-7.15	2.05	18.19	-10.65	-17.76	-21.08	32.43	1.17	-0.29	26.19
Guatemala	1966	1996	-9.09	9.39	6.67	3.36	12.56	8.69	8.1	2.39	4.6	3.82	-3.99
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	.	.	.	.	-3.02	12.59	2.88	16.17	7.81	35.34	23.6
Liberia	1990	2003	.	.	.	.	.	.	.	.	.	.	.
Mozambique	1981	1992	7.49	9.57	16.31	5.14	28.46	-4.55	10.49	8.23	7.1	28.4	8.6
Nepal	1996	2006	.	.	.	.	.	.	.	.	.	.	.
Rwanda	1994	1994	5.14	-3.52	-7.56	-8.5	-17.8	-61.06	8.57	42.07	30.41	1.9	18.86
Serbia and Montenegro	1998	1999	.	.	.	.	.	-41.11	35.7	8.6	11.6	7.3	38.2
Sierra Leone	1991	2001	.	.	.	.	.	.	.	.	.	.	.
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	.	.	-7.35	11.64	-3.46	1.68	-1.5	3.8	5.85	4.99	-5.52
							Min	(61.1)	(21.1)	(18.2)	1.2	(3.9)	(5.5)
							Max	75.0	118.5	65.6	30.4	35.3	38.2
							Median	(1.4)	9.5	8.5	9.7	5.8	13.7

(1) T = end of conflict year.

Patterns of Postconflict Recovery Data Set

24P4			Foreign direct investment, % GDP										
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5
Afghanistan	1978	2002											
Algeria	1991	2004	0.6	0.8	2.02	1.87	0.93	1.04	1.06				
Angola	1975	2002	5.36	17.28	40.16	9.62	24.01	14.63	25.11	7.33	-3.97		
Bosnia and Herzegovina	1992	1995					0	0	-0.07	0.03	1.62	3.77	2.89
Burundi	1993	2005	1.65	0	0	0	0.01	0.07					
Cambodia	1978	1989									1.67	2.14	2.47
Chad	1965	1994	1.31	0.54	0.23	0.1	1.04	2.29	2.26	2.46	2.87	1.23	1.73
Colombia	1984	1											
Congo (Kinshasa)	1996	2002	1.3	0.53	11.05	3.85	1.65	2.47	5.7	10.17	5.66		
Cote d'Ivoire	2000	2005	2.25	2.59	1.85	1.2	1.83	1.63					
El Salvador	1979	1992	0.46	0.4	0.33	0.04	0.47	0.26	0.24	0	0.4	-0.05	0.53
Ethiopia	1974	1991	-0.01	-0.02	0.02	0	0.1	0.04	0	0.04	0.25	0.19	0.26
Guatemala	1966	1996	0.96	0.9	1.25	0.5	0.51	0.49	0.47	3.47	0.84	1.19	2.17
Haiti	2004	1											
Iraq	2003	1											
Lebanon	1975	1991			-0.01	0.06	0.23	0.04	0.33	0.1	0.24	0.3	0.58
Liberia	1990	2003	52.92	58	3.71	1.53	0.5	85.51	41.64	35.37			
Mozambique	1981	1992	0.26	0.21	0.15	0.37	0.83	1.28	1.58	1.62	2	2.55	1.9
Nepal	1996	2006	0.37	-0.11	0.25	-0.01	0.03						
Rwanda	1994	1994	0.64	0.29	0.24	0.11	0.3	0	0.17	0.16	0.14	0.36	0.09
Serbia and Montenegro	1998	1999	0.57	0.31	0	4.47	0.81	1.1	0.29	1.43	0.88	6.58	3.97
Sierra Leone	1991	2001	0.07	0.21	0.02	0.08	6.15	1.22	1.11	0.87	5.71	4.91	
Somalia	1988	1											
Sudan	2003	1											
Uganda	1981	1986		0.09						0.07	-0.03	-0.14	0.03
							Min	-	(0.1)	-	0.1	(0.1)	0.1
							Max	2.3	2.3	3.5	2.9	6.6	4.0
							Median	0.3	0.3	0.2	0.8	1.2	1.7

(1) T = end of conflict year.

24P6			Gross international reserves, months of imports											
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5	
Afghanistan	1978	2002	.	.	.	.	.	.	.	.	.	.	.
Algeria	1991	2004	.	.	.	.	.	.	.	.	.	.	.
Angola	1975	2002	0.76	0.43	0.84	1.93	1.06	0.52	0.72	1.25	2	.	.	
Bosnia and Herzegovina	1992	1995	.	.	.	.	.	.	.	.	0.51	1.21	1.41
Burundi	1993	2005	2.72	1.32	4.4	4.15	3.09	3.23	.	.	.	.	.
Cambodia	1978	1989	.	.	.	.	.	.	.	.	.	0.48	1.52
Chad	1965	1994	3.02	3.1	3.16	2.1	1.11	2.27	.	.	.	.	.
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	.	.	.	.	.	.	.	.	.	.	.
Cote d'Ivoire	2000	2005	1.81	2.77	4.69	2.68	2.84	1.98	.	.	.	.	.
El Salvador	1979	1992	3.66	2.96	3.13	4	3.08	3.38	3.42	3.34	3.01	3.63	3.9	
Ethiopia	1974	1991	3.15	2.07	1.32	1.2	0.49	1.5	2.21	5.54	5.38	6.38	7.09	
Guatemala	1966	1996	4.81	3.16	3.62	3.34	2.39	2.99	3.12	3.15	2.84	3.62	4.36	
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	.	.	.	.	.	.	.	.	.	.	.
Liberia	1990	2003	.	.	.	.	.	.	.	.	.	.	.
Mozambique	1981	1992	1.53	2.09	2.18	2.39	2.38	2.31	1.7	1.49	1.87	3.48	5.46	
Nepal	1996	2006	7.37	7.41	7.71	7.74	6.7	.	.	.	.	.	.
Rwanda	1994	1994	2.14	1.42	3.7	2.56	1.35	0.82	3.04	3.3	3.67	4.62	4.56	
Serbia and Montenegro	1998	1999	.	.	.	.	.	.	.	.	.	.	.
Sierra Leone	1991	2001	0.92	3.58	3.39	2.35	2.25	2.12	2.85	1.9	3.43	4.02	.	
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	0.9	1.79	2.35	2.01	0.84	0.66	0.92	0.75	0.2	0.72	1.02	
								Min	0.7	0.9	0.8	0.2	0.7	1.0
								Max	3.4	3.4	5.5	5.4	6.4	7.1
								Median	1.9	2.6	3.2	2.9	3.6	4.5

(1) T = end of conflict year.

24S1			Trade in goods and services, % GDP										
Country	start	end	T-5	T-4	T-3	T-2	T-1	Year T	T+1	T+2	T+3	T+4	T+5
Afghanistan	1978	2002	.	.	.	.	.	99.09	82.09	67.17	68.08	.	.
Algeria	1991	2004	50.49	62.53	57.85	60.48	62.14	65.72	71.11	.	.	.	.
Angola	1975	2002	135.99	130.02	179	152.45	151.57	135.73	132.68	123.39	121.77	.	.
Bosnia and Herzegovina	1992	1995	.	.	.	.	101.85	91.88	107.5	100.63	125.67	121.82	113.63
Burundi	1993	2005	28.98	28.95	30.12	38.02	39.77	44.8	.	.	.	.	.
Cambodia	1978	1989	.	.	.	.	12.63	18.76	18.93	25.48	34.32	48.87	64.58
Chad	1965	1994	45.19	41.39	36.35	35.9	42.65	50.99	55.7	46.61	49.31	48.06	50.51
Colombia	1984	1	.	.	.	.	.	.	.	.	.	.	.
Congo (Kinshasa)	1996	2002	33.75	62.68	41.1	43.76	39.34	47.24	59.48	69.53	70.89	.	.
Cote d'Ivoire	2000	2005	73.75	75.31	83.43	80.75	87.91	92.09	.	.	.	.	.
El Salvador	1979	1992	45.09	38.1	36.93	49.78	47.73	48.52	53.46	55.17	59.4	55.01	63.45
Ethiopia	1974	1991	19.07	17.62	17.44	17.15	14.41	13.24	10.83	20.18	21.22	25.42	25.64
Guatemala	1966	1996	39.52	45.36	43.78	42.37	44.69	40.39	41.55	44.42	46.36	49.15	47.78
Haiti	2004	1	.	.	.	.	.	.	.	.	.	.	.
Iraq	2003	1	.	.	.	.	.	.	.	.	.	.	.
Lebanon	1975	1991	.	.	.	109.94	117.92	97.43	87.24	80.48	70.27	73.14	68.1
Liberia	1990	2003	.	.	.	54.74	47.81	72.8	81.88	86.82	.	.	.
Mozambique	1981	1992	38.03	45.37	46.87	44.24	45.05	57	60.19	62.07	56.65	49.5	41.93
Nepal	1996	2006	53.72	48.49	46.08	49.86	48.68	.	.	.	.	.	.
Rwanda	1994	1994	23.43	19.68	25.37	23.83	25.68	71.1	30.97	32.23	33.47	28.79	29.12
Serbia and Montenegro	1998	1999	.	.	.	44.12	53.98	55.66	76.15	68.27	65.03	62.52	74.64
Sierra Leone	1991	2001	53.32	29.11	35.27	40.88	57.54	50.28	52.23	61.19	60.2	66.74	.
Somalia	1988	1	.	.	.	.	.	.	.	.	.	.	.
Sudan	2003	1	.	.	.	.	.	.	.	.	.	.	.
Uganda	1981	1986	38.14	25.9	22.3	27.02	28.75	28.05	26.29	25.35	26.05	26.61	29.4
							Min	13.2	10.8	20.2	21.2	25.4	25.6
							Max	97.4	107.5	100.6	125.7	121.8	113.6
							Median	51.0	53.5	46.6	49.3	49.2	50.5

(1) T = end of conflict year.