



Adam Dean / Panos Pictures. AFGHANISTAN.

THE CAUSES OF PEACE AND THE SHRINKING COSTS OF WAR

The *Human Security Report 2009/2010* focuses on trends in political violence around the world, the consequences of this violence, and the factors that drive it.

The *Report* describes—and explains—the major decline in the number of conflicts that have taken place since the end of the Cold War, the longer-term decline in international conflict numbers, the reduction in the deadliness of warfare since the 1950s, and the recent increase in minor armed conflicts.¹

The *Report* is divided into three parts. Part I: The Causes of Peace examines the forces that have driven down the number of international conflicts since the 1950s, and the number of civil wars since the early 1990s.

Part II: The Shrinking Costs of War focuses on the human costs of war and examines the paradox of mortality rates that decline during wartime, as well as the challenges and controversies involved in measuring *indirect* war deaths—those caused by war-exacerbated disease and malnutrition.

Part III: Trends in Human Insecurity reviews recent trends in conflict numbers and death tolls around the world, and updates the conflict and conflict-related trend data from previous Human Security Report Project (HSRP) publications.

Part I: The Causes of Peace

In sharp contrast to the thousands of books and scholarly articles written about the causes of the Cold War, a mere handful of articles has been published about the decline in warfare that followed the end of the Cold War. As Australian

historian Geoffrey Blainey once observed, “For every thousand pages published on the causes of wars there is less than one page directly on the causes of peace.”² Blainey exaggerated—but not much.

The extent of the changes in the global security environment since the end of World War II, which were briefly outlined in the first *Human Security Report* in 2005, has been remarkable.

As we noted in that publication, the number of conflicts being waged around the world increased threefold during the Cold War years then sharply declined—a change that went largely unheralded, even at the UN (United Nations).

Why Has International War Become Increasingly Rare?

In the 1950s, there were on average just over six international conflicts being fought around the world each year—we include anticolonial conflicts in this category. In the new millennium, there has been less than one international conflict each year on average.

Moreover, there has not been a single war between the major powers for an unprecedented 60 years. This period, which historians sometimes refer to as the “Long Peace,” has been described by historian Evan Luard as “a change of spectacular proportions: perhaps the single most striking discontinuity that the history of warfare has anywhere produced.”³ This did not mean that the major powers were peaceful—indeed, France, the UK, the US, and Russia/USSR top the list of countries that have been involved in the greatest

number of international wars since 1946—but they fought in poor countries, not against other major powers.

International conflicts are not only fewer, they have also become far less deadly. In the 1950s, the average international conflict killed some 20,000 people a year on the battlefield. In the post-Cold War 1990s, the average annual battle-death toll was less than 6,000; in the new millennium that figure has halved.

Part I: *The Causes of Peace*, begins with a review of the diverse literature that seeks to explain the decline in international conflicts. It focuses on three scholarly approaches that have dominated debates on global security for decades. The ideas that underpin them also drive, and sometimes rationalize, the defense and security policies of the world's governments.

Realism: Peace through Strength—and Nuclear Weapons

So-called realist scholars believe that war results from the ineluctable struggles for power between states trapped in an “anarchic” international system that lacks any overarching authority, and thus any effective mechanisms for preventing or resolving deadly conflicts.

From this perspective, the absence of war between the major powers during the Cold War years is best explained by a stable balance of power between East and West—in particular by the deterrence provided by the mutual possession of nuclear arsenals. As Kenneth Waltz, the leading proponent of the pacifying impact of nuclear weapons, puts it, “peace has become the privilege of states having nuclear weapons, while wars are fought by those who lack them.”⁴

But Waltz is wrong for two reasons. First, the four countries that have fought most international wars since the end of World War II—France, the UK, the US, and Russia/USSR—are all nuclear-armed states.

Second, possession of nuclear weapons has signally failed to prevent war on a significant number of occasions since the end of World War II. US weapons did not deter China from attacking US forces in the Korean War, nor North Vietnam from attacking South Vietnam and US forces in the 1960s and 1970s. Israeli nuclear weapons did not dissuade Egypt from attacking Israel in 1973, and the Soviet nuclear arsenal did not deter the mujahedeen from waging war against the Soviet army in Afghanistan in the 1980s—nor did it prevent a Soviet defeat.

More generally, the statistical evidence on the utility of realist “peace-through-strength” policy prescriptions is inconclusive. This is true whether we are talking about the

deterrent effect of alliances and military balance, or seeking peace through military preponderance.

Liberalism: Peace through Democratization and Interdependence

Liberal scholars, who have a much less pessimistic view of human nature and agency than realists, believe that the risk of war between states has been reduced by the steady growth in the number of democracies in the international system and by growing international economic interdependence.

The best-known liberal theory is *the democratic peace*, whose central—and uncontested—finding is that fully democratic states never, or to be more precise, almost never, go to war against each other.

Democratic peace theory does not argue that democracies are generally peaceful—democracies frequently fight non-democracies—simply that democratic states generally do not fight each other.

Other liberal scholars place less stress on the conflict-reducing effect of democracy and a lot more on the security impact of the ever-growing interdependencies that are associated with today's globalized economy. Indeed, the libertarian Cato Institute argues that when measures of both democratization and economic liberalization are included in statistical analyses, “economic freedom is about 50 times more effective than democracy in diminishing violent conflict.”⁵

Although the debate over the relative impact of democracy versus economic interdependence on the risk of war is both unresolved and highly technical, there is little dissent from the proposition that increasing levels of international trade and foreign direct investment are associated with a reduced risk of interstate war.

But increased interdependence is not the only economic driver of international peace. In the modern era, there are far fewer economic incentives for embarking on war than there were in the era of colonial expansion. Today it is almost always cheaper—politically as well as economically—to buy raw materials from other countries than to mount invasions to seize them. As John Mueller puts it, “free trade furnishes the economic advantages of conquest without the unpleasantness of invasion and the sticky responsibility of imperial control.”⁶

Peace through Ideas: The Change in Attitudes to War

Prior to World War I, as historian Michael Howard has noted, “war was almost universally considered an acceptable, perhaps an inevitable and for many people a desirable way of settling international differences.”⁷ Today the traditional benefits of

conquest have not only largely disappeared but resorting to war as an instrument of statecraft is legally and normatively proscribed, except in self-defense or with the authorization of the UN Security Council.

This shift in global norms is evident in the now-universal recognition of the illegitimacy of colonial conquest and the near-absence among national governments the world over of the sort of aggressive hypernationalism associated with German and Japanese Fascism prior to World War II. What the French call *bellicisme*—the glorification of warfare—is completely absent in the developed world and very rare elsewhere—though it is characteristic of some radical Islamist organizations like al-Qaeda.

International Peace is “Overdetermined”

It is difficult to determine the causes of peace between developed states with any degree of precision—not because there are too few plausible explanations, but because there are too many. Peace in Western Europe, for example, has been variously attributed to the fact that the states of the region are all democracies, that their elite and popular cultures have become war-averse, and that they have liberal capitalist economies that are bound together by high levels of economic interdependence. Most are sheltered by the US “nuclear umbrella” and the world’s most powerful military alliance, and all are deeply enmeshed in other regional and international organizations.

While the diversity of possible explanations for the decline in international conflict complicates the task of analysis, the fact that the Long Peace between the major powers is supported by so many different pillars almost certainly helps account for its durability.

Explaining Civil Wars

The decline of international conflict and the end of the Cold War have led to a major shift in focus in the conflict research and policy communities. Today civil war and international terrorism, not international conflict, dominate research and policy agendas.

And it is not just the focus of research on the causes of war that has shifted but also the methodological approaches. Over the past two decades, statistical analysis of the drivers of intrastate war and peace has burgeoned and become increasingly influential—not least in policy communities.

Yet, although the new wave of research has generated some striking results, its findings are widely divergent—indeed, consensus is notable mostly by its absence. This is clearly a source of major concern, as is the fact that the current

quantitative models are extremely poor at predicting the outbreak of conflict.

One of the major drivers of the quantitative revolution in conflict research has been the inherent limitation of even the most insightful qualitative case-study analysis, namely that the methodology of the latter cannot determine the universal (or near-universal) risk factors that can inform broad policies of conflict prevention.

Quantitative research has two advantages over qualitative research. At the most basic level, cross-national data on conflict numbers and battle deaths can reveal long-term global and regional trends in the incidence and deadliness of conflicts that qualitative research cannot. Such descriptive statistics are the only means of tracking changes in the global security landscape.

Statistical analysis of the drivers of intrastate war and peace has burgeoned.

Statistical models, as suggested above, take the analysis to a different level and can reveal possible causal connections between the onset of conflict and such structural factors as GDP (gross domestic product) per capita, measures of governance, “youth bulges,” infant mortality rates, inequality, trade “openness,” and country size/population.

The most robust finding from the quantitative conflict research is that there is a very strong association between GDP per capita and the risk of war: high incomes are associated with low risks of war. But there is much less consensus on why this should be the case.

Some of the findings that have been generated by statistical research on the causes of war have been striking and have had a major impact on the policy community. The World Bank’s 2011 *World Development Report*, for example, relies heavily on quantitative research findings in its analysis of the security implications of state fragility. However, despite real progress in many areas, research in this field continues to confront major methodological and data challenges that raise serious questions about the policy usefulness of the many contested findings.

Quantitative researchers are well aware of these challenges, of course, and a number of promising initiatives are underway that seek to address them. But some of the limitations are inherent in the nature of the data and models that quantitative researchers have to work with.

Here we simply note a few of the more critical methodological problems:

- Quantitative datasets do not include direct measures of fear, hatred, grievance, humiliation, or feelings of identity and solidarity, despite the fact that case-study research indicates these variables can play a critical role in catalyzing political violence. Quantitative researchers are well aware of this limitation, of course, but there are simply no sources of usable data on attitudes and beliefs for the vast majority of country-years in the conflict datasets. The use of indirect proxy measures for psychological variables like grievance has been widely criticized.
- Quantitative models struggle in trying to deal with the issue of agency—the capacity of individuals, particularly political leaders, to make choices and act on them. Agency can obviously play a critical role in transitions from peace to war—and war to peace. Researchers using conflict models have little choice but to ignore agency—there is simply no way to collect cross-national data on 100-plus countries over 50 or more years on what decisions were made and why.
- The structural data—GDP per capita, infant mortality rates, etc.—that conflict models rely on are slow-changing and are thus rarely able to account for large short-term shifts in global or regional conflict trends. As noted previously, the most robust finding in the quantitative literature is that the risk of conflict shrinks as incomes rise. But this finding cannot explain the rapid decline in conflict numbers in the post-Cold War period.
- The standard unit of analysis in most conflict models is the country-year, and here researchers make two assumptions that are unrealistic. First, it is assumed that observations in successive country-years are independent of each other—clearly, in many cases they are not. Second, the models assume that increases or decreases in the risk of war can be explained solely in terms of socio-economic and other changes within countries. This assumption is often unrealistic because the conflict dynamics of civil war do not stop at national boundaries—the interconnections between political violence in Afghanistan and Pakistan being an obvious case in point.
- Statistics for poor countries—where most wars take place—are mostly inadequate and frequently terrible. This in part explains why the number of countries included in different conflict datasets varies so widely. The different composition of the datasets in turn explains some of the variance in findings.

The limitations of contemporary conflict models and datasets go a long way towards explaining why researchers have produced such widely divergent findings about the causal impacts of ethnicity, inequality, grievances, repression, democracy, economic growth, and dependence on primary commodities.

This lack of consensus, coupled with the fact that civil war models—to quote one recent study—“have performed notoriously poorly at prediction,”⁸ suggests that only the most robust results should be used to inform policy decisions.

Quantitative models struggle to deal with the issue of agency.

Finally, there is growing interest in the quantitative research community in so-called mixed-methods approaches that combine both quantitative and qualitative methods. As Paul Collier, one of the most influential figures in the quantitative revolution, has recently argued, quantitative analysis “should be seen as complementing qualitative in-country research rather than supplanting it.”⁹

The embrace of mixed methods is predicated on the belief that the two approaches are complementary and that drawing on the insights of each will provide a richer and more policy-relevant understanding of both the drivers of war and the determinants of peace in the twenty-first century.

The East Asian Peace

Between the two extremes of single-country case studies that are typical of qualitative analysis and cross-national statistical analysis at the global level lies the “middle-range” of regional security analysis.

In the years since the end of World War II, East Asia, the region made up of Northeast and Southeast Asia, has undergone two major security transformations. From the late 1940s to the late 1970s, the number of conflicts nearly doubled. Since then, they have more than halved. Battle-death trends changed even more dramatically. Between 1946 and 2008, more people were killed in East Asia’s conflicts than in all other regions of the world combined—but the overwhelming majority of these deaths occurred before 1980. Since the end of the Vietnam War and China’s invasion of Vietnam in 1979, battle-death tolls have plummeted.

In explaining this transformation, we focus first on the major political changes that took place in the region in the

late 1970s—changes that quantitative conflict models cannot easily explain—and second, on the security implications of the long-term increase in levels of economic development across the region.

Changes in the incidence and intensity of wars in the first three decades following the end of World War II were driven primarily by politics. The growing rejection of colonialism in the developing world drove the upsurge of anticolonial conflicts in Southeast Asia that started in the 1940s, but by the late-1950s wars of liberation were essentially over. Conflict numbers continued to increase, however, in part because anticolonial conflicts had been replaced by violent struggles for control over the post-colonial state, and in part as a consequence of Cold War rivalries in the region.

The deadliest wars in this period—the Chinese Civil War (1946–1949), the anticolonial struggles in French Indochina (1946–1954), the Korean War (1950–1953), and the Vietnam War (1965–1975)—were all driven in part by the geopolitics of the Cold War, and each was characterized by a high level of foreign military intervention.

The importation of large numbers of major conventional weapons drove death tolls sharply upwards.

China, the Soviet Union, the US, and sometimes its allies, provided either combat forces or massive military and economic assistance—or both—to warring parties. In each case, the importation of large numbers of major conventional weapons into the war zones drove the death tolls sharply upwards.

The End of the Era of Intervention

With the end of both the Vietnam War in 1975 and China's invasion of Vietnam in 1979, major power interventions in the region effectively stopped. As a consequence, battle-death numbers dropped dramatically. In 1972, at the height of the Vietnam War, there were almost 300,000 battle deaths in East Asia; in 1980 the toll had fallen to some 20,000. By 2008 it was less than 1,000.

While the ending of major power intervention in East Asia provides the most compelling explanation for the dramatic decline in battle-death tolls across the region, it is much less compelling as an explanation for the 60 percent decline in the number of armed conflicts from 1978 to the mid-1990s.

While foreign military interventions drove up the costs of conflicts in the region, they were rarely the original cause of those conflicts.

There is always a multiplicity of reasons why wars start and finish, but in East Asia the evidence suggests that the security impact of increasing levels of economic development has been of critical importance.

East Asia's post-Vietnam history appears to support claims that rising incomes lead to fewer wars.

Several reasons have been advanced to explain why high incomes should be associated with reduced risks of civil war. The most plausible is that as national incomes rise, state capacity increases, which in turn provides governments with the political and economic resources to prevent rebellions and to crush militarily those that cannot be stopped via negotiation, the buying off of grievances, or political co-optation.

Rebel groups, often living in the rural periphery, are generally excluded from the benefits of rising levels of development, so the balance of resources relevant to preventing wars—and winning those that cannot be prevented—tilts progressively in favour of governments as incomes rise.

East Asia's post-Vietnam history appears to support claims that rising incomes lead to fewer wars. From the late 1970s to the mid-1990s, average income per capita almost doubled in East Asia, while conflict numbers more than halved.

But rising national income—and hence state capacity—has another less obvious effect. Greater state capacity does not simply increase the probability that governments will co-opt or defeat their adversaries; it also reduces the risk of wars starting in the first place. Development, in other words, is an important long-term form of conflict prevention. We can see this effect clearly in Southeast Asia. From 1951 to 1979, 12 new conflicts started; from 1980 to 2008, there were just three—a 75 percent reduction.

Explaining the Global Decline in Civil Wars

The final chapter of Part I examines the dramatic and unexpected decline in the number of civil conflicts that started in the early 1990s after three decades of steady increase. Our analysis again stresses the role of politics in driving system-wide change. In this case, however, the catalyst was the end of the Cold War.

After an initial increase during the years that immediately followed the end of the Cold War, civil—or intrastate—conflict numbers dropped by almost 50 percent between 1992 and 2003. Then things changed. From 2003 to 2008, the number of civil conflicts increased again, reducing the overall decline (from 1992 to 2008) to some 30 percent. High-intensity civil conflicts, however, have remained at a low level, resulting in a 77 percent net decrease since 1988.

This extraordinary change went largely unnoticed in the policy community, the media, and by many in the research community. In the 1990s this was perhaps not surprising. As United States Institute of Peace (USIP) President Richard Solomon noted in 2005, the 1990s—the decade of Somalia, Rwanda, and Bosnia—seemed to be characterized by “an unending series of ethnic or religiously fuelled conflagrations.”¹⁰

The end of the Cold War liberated the UN from the political stasis of four decades of East-West rivalry.

Central to our analysis is the impact of the end of the Cold War itself. This momentous—though largely unpredicted—event directly caused, or indirectly catalyzed, a series of changes that have had a major impact on the global security landscape.

First, the deep ideological division that had driven conflicts both between and within states in the international system for more than 40 years simply disappeared. The security significance of this change was profound. According to one recent study, Cold War ideological struggles had “lengthened at least thirty of the civil wars fought since 1945 and in several cases prevented their resolution.”¹¹

Second, the flow of resources from the US and the Soviet Union and their allies to warring parties in various proxy wars in the developing world simply shrivelled up. This, Ann Hironaka has pointed out, was one of the factors leading “to the end of nearly all the large-scale communist insurgencies in the world.”¹²

Third, the UN, liberated from the political stasis imposed upon it by more than four decades of East-West rivalry, spearheaded an extraordinary upsurge of international initiatives directed at preventing wars, stopping those that could not be prevented, and seeking to prevent those that had stopped from starting again.

Most notable among these initiatives were *peacemaking* (UN-speak for negotiations to end wars) and post-conflict

peacebuilding (whose security function is to prevent wars that have ended from starting again).

The UN did not act alone, of course.

The World Bank, other international agencies, regional security organizations, donor governments, and huge numbers of international NGOs (nongovernmental organizations) were also actively involved, as were national governments and national NGOs in war-affected countries.

The Upsurge in International Activism and Other Changes

The increase in international activism directed at preventing wars, and negotiating the end to those that could not be prevented, that followed the end of the Cold War has been extraordinary.

The changes include:

- A fivefold increase in the number of international mediation efforts from the 1980s to the 1990s.
- A tenfold increase from 1991 to 2007 in the number of Friends of the Secretary-General, Contact Groups, and other political arrangements that support peacemaking and post-conflict peacebuilding initiatives.
- A threefold increase in UN and non-UN peace operations from 1988 to 2008. There are currently more than 30 such operations underway around the world.
- An increase in the number of countries contributing troops to peace operations from 51 in 1988 to some 200 in 2008.
- A thirteenfold increase in the number of multilateral-sanctions regimes between 1991 and 2008.
- A ninefold increase in the number of ongoing disarmament, demobilization, and reintegration operations from 1989 to 2008.

In addition to noting the increase in international policy initiatives, we discuss the likely security impact of three remarkable shifts in global norms that have taken place since the end of the Cold War:

- A steep increase in the number of democracies in the international system. This is relevant because inclusive democracies not only rarely go to war against each other but are also less prone to civil war.
- An increase in national and international prosecutions of human rights crimes that has been associated with a decline in human rights abuses worldwide.
- A substantial decline in governmental political discrimination against minority groups worldwide that has been associated with a decline in the number of wars of self-determination.

And since the end of the Cold War, average income per capita in the developing world has increased by nearly 50 percent, boosting the capacity of governments to resolve conflicts, buy off political opposition, and defeat insurgencies that cannot be prevented.

Does International Activism Really Make a Difference?

Determining the extent to which international activism has contributed to the decline in conflict numbers is difficult. The answer depends very much on what criteria for success are employed—a somewhat contentious issue. How, for example, do we determine the success of peacebuilding? For some critics, the bar is set very high, while for others success simply means that a country does not fall back into war within five or 10 years.

Many critics have claimed that peacemaking and peacekeeping missions are ineffective—which raises an obvious question. How can it then be argued that these initiatives constitute a plausible explanation for the 77 percent decline in the number of high-intensity civil conflicts since the end of the Cold War?

There are several possible answers:

- Prior to the end of the Cold War, the international community did extraordinarily little to help end civil wars, or to prevent those that had ended from restarting. And while it is true that UN peacemaking and peacebuilding missions of the early 1990s had relatively low success rates, in the pre-Cold War years virtually nothing was being attempted. Even a low success rate is a huge improvement on zero.
- Despite the low success rates, the absolute number of successes will increase over time as the number of peace-making, peacebuilding, and other conflict-reducing activities being implemented by the international community increases.
- It is likely that the success rate of many international initiatives has improved over time. “Lessons learned” and “best practices” exercises have increasingly informed policies in this area, increasing their effectiveness. In other words, looking at average success rates over a particular period may obscure the fact that peacemaking and peacebuilding have become progressively more effective within that period.

No one, of course, is suggesting that international activism is the sole explanation for the decline in conflict numbers. The direct impacts of the end of the Cold War, which included stopping the flow of resources to proxy wars, for example,

have also had an effect, as have changes in global norms and rising national incomes.

In making the case that peacemaking and peacebuilding make a difference, we review these additional potential causes of the post-Cold War decline in conflict numbers. We conclude that while these explanations complement our main thesis, none contradicts it.

We also briefly review the policy implications of our analysis. We point out that the end of the Cold War, while important at the time, does not directly impact today’s security situation and thus has no current policy relevance. On the other hand, the indirect effect of the ending of East-West hostilities—namely the liberation of the UN from the paralyzing rivalries of the Cold War—continues to have an impact. Indeed the policy relevance of this change has never been more important.

Part II: The Shrinking Costs of War

Challenging a number of widely held assumptions about global trends in wartime violence, Part II reveals that nationwide mortality rates actually fall during most wars. This is a deeply counterintuitive finding; however, the evidence for it is compelling.

The prepublication version of Part II, released early in 2010, contained a review of trends in under-five mortality rates (U5MRs) in conflict-affected countries in sub-Saharan Africa from 1970 to 2008. It found that in 78 percent of cases, national mortality rates were lower at the end of the conflict than they were at the beginning. However, some commentators argued that focusing on Africa meant that many high-intensity and long-duration conflicts elsewhere in the world were being ignored, and that our sample of African countries contained too many low-intensity conflicts.

Nationwide mortality rates actually fall during most wars.

To address these concerns, we expanded the scope of our investigation and undertook a review of all countries that had experienced periods of war between 1970 and 2008—considering only those countries that had suffered 1,000 or more battle deaths in a given year. Somewhat surprisingly, given the higher death threshold, our original findings were strengthened. Between 1970 and 2008, the U5MR declined in some 90 percent of country-years in war. Of the 52 countries that experienced war in the period from 1970 to 2008, only

eight countries (or 15 percent) experienced any increase in the U5MR during wartime.

A major World Bank study published in 2008 found that these trends are not limited to U5MRs. The data in the Bank's study indicated that the median adult mortality rate for war-affected countries around the world also declined during periods of warfare, as did infant mortality rates.

This is not to suggest, of course, that war causes mortality rates to decline. The reality is simply that today's armed conflicts rarely generate enough fatalities to reverse the long-term downward trend in peacetime mortality that has become the norm for most of the developing world.

Why Wars Have Become Less Deadly

Three interrelated developments account for the long-term decline in the deadliness of warfare.

First, today's wars generate far fewer battle deaths on average than they did in the past, and there is a clear, though not consistent, association between battle deaths and indirect deaths from war-exacerbated disease and malnutrition. So, if battle deaths decline, we would expect overall war mortality to decline as well. (Total—or *excess*—war deaths are made up of battle deaths and indirect deaths.)

The deadliest year for war deaths since World War II was 1950, mostly because of the huge death toll in the Korean War. The average conflict that year resulted in some 33,000 battle deaths; in 2008 the average toll was less than 1,000.

If we look at the average number of people killed per conflict per year by decade, the decline in the deadliness of warfare is still remarkable. The average conflict in the new millennium kills 90 percent less people each year than did the average conflict in the 1950s.

This dramatic decline is due in large part to the changing nature of warfare. Compared with the Cold War years, relatively few of today's conflicts involve interventions by major powers, or prolonged engagements between huge armies equipped with heavy conventional weapons.

These wars are also generally highly localized, which again tends to reduce their human cost. This is in part because today's armies are a lot smaller on average than those of the Cold War years, but also because rebel organizations in civil wars rarely have the capacity to project military power over long distances.

The second factor contributing to the decline in the deadliness of war is the decades-long international campaign to promote public health in developing countries that has led to a steady reduction in mortality rates worldwide.

Increased immunization coverage has been a key factor driving the overall reduction in child mortality in recent decades. And it is important to note that immunization in peacetime reduces child mortality in wartime. Children who have not been immunized are highly vulnerable to disease when conflict breaks out.

Since children under five typically have a wartime mortality rate that is double that of adults, any reduction in child mortality in conflict zones will clearly have a considerable impact on the overall excess death toll.

The third factor contributing to the decline in wartime mortality has been the remarkable increase in the level and scope of humanitarian assistance since the end of the Cold War. Aid per displaced person in war-affected countries has more than tripled over the past two decades. It has also become more cost-effective, benefitting in many cases from peacetime improvements in public health programs.

Rebel organizations in civil wars rarely have the capacity to project military power over long distances.

A major focus of humanitarian assistance has been the four disease clusters—acute respiratory infections, diarrheal diseases, malaria, and measles—that are the major killers in wartime. Although highly contagious, all are preventable and/or treatable at very low cost.

In addition to preventing and treating disease, a significant share of humanitarian aid budgets is devoted to treating severe malnutrition, a condition that increases the vulnerability of individuals to disease and is a cause of death in its own right.

The impact of humanitarian assistance is very evident when conflict-displaced people have access to basic health services, adequate nutrition, shelter, and clean water and sanitation. Under these conditions, mortality rates decline rapidly, often falling to the pre-war rate or even lower within four to six months.

The Controversy over Death Tolls in the Democratic Republic of the Congo

While the evidence for the counterintuitive finding that mortality rates usually decline during periods of warfare is compelling, it stands in sharp contrast to the findings of the most ambitious and comprehensive survey-based research project ever undertaken to estimate excess war deaths.

Data from a series of five surveys undertaken by the International Rescue Committee (IRC) in the Democratic Republic of the Congo (DRC) over a period of some eight years indicate that the mortality rate in the east of the country jumped dramatically after the war started in 1998 and has remained elevated ever since, despite declining significantly in late 2001 and more gradually thereafter.

By 2007, according to the IRC, some 5.4 million people had died who would have lived had there been no war. More than 90 percent of these excess deaths were the result of disease and malnutrition, not war-related injuries. But a close investigation of the IRC's methodology suggests that the 5.4 million figure is far too high.

To estimate the excess death toll, the IRC's researchers used epidemiological survey methodology to determine the overall mortality rate during the periods surveyed. They took the average mortality rate for sub-Saharan Africa as their measure of the baseline mortality rate.

We argue that the IRC's choice of the baseline mortality rate for the DRC was too low—a fact also noted by a number of experts who have reviewed the IRC's findings. Far from being an average sub-Saharan African country, the DRC languishes at the bottom of most development measures for the region.

The effect of changing the IRC's baseline estimate to a more realistic figure is remarkable—the excess death toll drops dramatically.

The baseline data issue is not the only problem.

In the case of the first two surveys, which cover the period of August 1998 to March 2001, the IRC's researchers did not select the areas to be surveyed in a way that ensured they were representative of the region as a whole. This failure to follow standard survey practice means no confidence can be placed in any excess mortality estimates from the period—although no one doubts the death tolls in parts of the region were very high.

The excess death estimates for the final three surveys, the only ones to cover the entire country, were not affected by the methodological errors evident in the first two surveys. Here the major problem, as noted above, lay with the inappropriately low baseline mortality rate. The impact of changing this rate to a more realistic one for the period covered by the last three surveys is dramatic. The estimated excess death toll dropped from 2.8 million to less than 900,000. This is still a huge toll, but it is less than one-third of the IRC's original estimate for the period.

There is one final reason for questioning the IRC's extraordinarily high excess death toll estimates: the accuracy of the overall mortality rate revealed by its surveys is also suspect.

In 2007 the well-regarded Democratic and Health Surveys (DHS) organization carried out an independent nationwide population health survey in the DRC that covered much the same period as the IRC's surveys. It reported a U5MR that was approximately half that recorded by the IRC for the same period. Both estimates cannot be correct.

When Part II was released, there was no way of knowing whether the IRC's mortality estimate was too high or the DHS estimate too low. But as this *Report* was going to press, we were made aware of a new UNICEF (United Nations Children's Fund) Multiple Indicator Cluster Survey undertaken in the DRC in 2010. The preliminary results of this survey indicate a U5MR in the DRC in 2004 that is very close to that of the DHS.¹³

With major surveys by the DHS and UNICEF producing very similar estimates of the U5MR in the DRC, the likelihood that the IRC estimate is correct shrinks dramatically.

Given that child mortality rates are a reasonable proxy measure for overall mortality rates, and given that the latter are used to estimate excess deaths, it follows that the IRC's excess death total is almost certainly far too high—and this is true regardless of which baseline mortality rate is used.

There is a more general problem with using retrospective mortality surveys to estimate excess death tolls, namely that it is almost never possible to obtain reliable data on pre-war mortality trends in poor countries. But access to this information is critical if researchers hope to determine accurately the number of *excess deaths*—i.e., those that would not have occurred had there been no war.

If the mortality rate in a country was declining before a war, which is generally the case, and there is no reason to assume that it would not have continued to decline had there been no war, then the declining trend—the counterfactual—must be taken into account when estimating the excess death toll.

The IRC's choice of baseline mortality rate for the DRC is too low.

In practice, this is rarely done. Researchers usually take a single point estimate of the mortality rate immediately before the war and assume that, had there been no war, it would have remained constant.

Failing to take into account pre-war mortality trends can lead to serious errors. Excess death tolls will be underestimated if mortality rates had been declining before the war, and

overestimated if they had been increasing. The resulting errors can be very large—and they increase over time.

In practice, the use of population surveys to generate estimates of nationwide excess war death tolls raises data and methodological issues so challenging that they can very rarely be overcome. But, as we point out, there are more appropriate—and less error-prone—means of estimating the impact of warfare on population health.

The 25 percent increase in conflict numbers between 2003 and 2008 is primarily due to a rise in minor conflicts.

The final chapter of Part II examines the World Health Organization-affiliated Health as a Bridge for Peace (HBP) initiative. HBP proponents believe that the role of health professionals should encompass not simply caring for the sick and injured in wartime but also enhancing conflict prevention via education, seeking to stop ongoing wars via mediation, and building state legitimacy through contributions to public health policy in post-conflict environments. The impact of HBP initiatives has at best been mixed.

Part III: Trends in Human Insecurity

Part III reviews trends in political violence around the world up until 2008 and examines a number of recent developments that suggest that the improvements in global security noted in this and earlier HSRP publications may be under threat.

From 1992 until 2003, the number of *state-based armed conflicts*—those involving a government as one of the warring parties—dropped by some 40 percent. Since 2003, however, the global incidence of armed conflicts has increased by 25 percent. Meanwhile, *non-state conflicts*—violent confrontations between communal groups, rebels, or warlords that do not involve a state as a warring party—increased by a startling 119 percent from 2007 to 2008. And a quarter of the conflicts that started or reignited between 2003 and 2008 were associated with Islamist political violence and the so-called War on Terror.

Several other developments have raised concerns about current and future security trends:

- A particular source of disquiet for security planners in the West has been the fact that in 2008 four of the five most deadly conflicts in the world—Iraq, Afghanistan, Pakistan, and Somalia—pitted Islamist insurgents against national

governments and their US and other supporters. In 2010 these four countries remained mired in conflict with few signs of progress being made towards resolving the issues that have driven the violence.

- In 2008 US officials were warning that the world economic crisis—which subsequently deepened—would push tens of millions of people below the poverty line in the developing world, heightening communal tensions, stirring social unrest, and potentially causing new conflicts.¹⁴
- In 2005 a major USIP report had warned that progress towards reducing conflict numbers is being threatened by the intractability of the conflicts that remain—i.e., that today's conflicts are more difficult to bring to an end than those of previous decades. If correct, this would mean that the successful negotiation of peace settlements will become far more challenging in the future than it has been in the past.

These developments are an obvious cause for concern. It is not just that the positive trend from 1992 to 2003 was reversed from 2004 to 2008 (the most recent year for which data were available at the time of writing). The real worry is that we may again be witnessing a long-term trend of steadily rising political violence around the world reminiscent of the Cold War years when conflict numbers tripled over some four decades.

A Different Take on the Evidence

A close examination of both conflict trends and the other concerns noted above reveals a less alarming picture, however. The conflict data do indeed reveal some worrying trends, not least the deadliness of some of the conflicts associated with the struggle between Islamist radicals and the US and its allies—in Iraq, Afghanistan, and Pakistan. But our analysis suggests that these do not necessarily presage a repeat of the long-term increase in conflict numbers that characterized the Cold War period. We also point to some long-term trends underway for 20 or more years that are more encouraging.

The 25 Percent Increase in Conflict Numbers between 2003 and 2008

It is important to note that the 25 percent increase in conflict numbers between 2003 and 2008, while real enough and clearly a source of concern, is primarily due to a rise in the number of minor conflicts, which, as their name suggests, do not kill many people.

Although the number of minor conflicts has increased, high-intensity conflicts, those that produce 1,000 or more

battle deaths per year, have dropped since 1988. In that year, there were 23 wars being waged around the world; in 2008 there were just five—a 78 percent decrease.

Battle-death tolls from all conflicts have only seen a modest upturn over the last few years. Much of this increase was due to the conflict in Iraq.

The increase in battle deaths since 2003 needs to be seen in the context of the dramatic, though very uneven, decline in estimated war-death tolls since 1946. In 1950 (the first year of the Korean War) there were some 600,000 battle deaths worldwide; in 1972 (the deadliest year of the Vietnam War) the toll was more than 300,000; in 1982 (the height of the Iran-Iraq War) it was 270,000; in 1999 (when wars were being fought between Ethiopia/Eritrea and in East Africa's Great Lakes region) it was 130,000. In 2008 the battle-death toll was 27,000.

The accuracy of any individual estimate can certainly be challenged—estimating war death numbers is far from being an exact science. The overall trend, however, is not in doubt—and it is not really affected by the small increase in battle-death tolls over the last few years.

Is the Economic Crisis Increasing the Risk of Conflict in the Developing World?

As noted earlier, a number of analysts—and high-level officials—have argued that the global economic crisis that started in 2008, and is still reverberating around the world, may catalyze new wars. In 2008 the concern was that rising food and energy prices, reduced investment and aid flows, declining commodity prices, and sharp decreases in remittances¹⁵ would trigger economic shocks in poor countries, and that these would in turn increase political instability and hence the probability of war. This was a reasonable concern because there is some statistical evidence that indicates that economic shocks increase the risk of war.

There is no doubt that the impact of the crisis was severe in many parts of the developing world in 2009, pushing tens of millions of people deeper into poverty. But these impacts did not lead to any increase in conflict numbers for that year.

Moreover, according to the World Bank's *Global Economic Prospects*, projected GDP per capita growth rates for 2010 in developing-country regions were surprisingly high given the interconnectedness of the international economic system and the gravity of the continuing crisis in the developed world. In East Asia and the Pacific, the predicted growth rate for 2010 was 8.7 percent; in Latin America, 4.5 percent; in the Middle East and North Africa, 4.0 percent; in South Asia, 7.5 percent; and in sub-Saharan Africa, 4.5 percent.¹⁶

While concerns about the security risks of the economic crisis were wholly understandable in 2008 and 2009, by 2010 it seemed clear that much of the developing world had coped with the crisis far better than had been expected.

There is, in other words, no compelling reason to believe that the security-enhancing impact of rising levels of development will decrease in the foreseeable future.

The Explosion of Non-State Conflict Numbers between 2007 and 2008

As we noted earlier, non-state conflict numbers jumped by an unprecedented 119 percent between 2007 and 2008. This is a real source of concern, but again it needs to be seen in context. The increase in 2008 was largely associated with fighting in just two countries: Kenya and Pakistan. What is more, non-state conflicts tend to be short-lived, they pose no direct threat to the security of governments, few last more than a year, and their battle-death tolls are very small—in 2008 they constituted only 11 percent of the state-based toll.

The impact of the economic crisis was severe in 2009 but it did not lead to any increase in conflict numbers in that year.

And although the non-state battle-death toll in 2008 was higher than in the previous three years, it was still less than half of that recorded in 2002, the first year for which non-state data were available at the time of writing.

Deaths from One-Sided Violence in 2008: The Lowest on Record

One-sided violence refers to the use of lethal force, by governments or non-state armed groups, against civilians that causes 25 or more deaths in a calendar year. One-sided-violence deaths are not considered battle deaths, even when they occur in the context of armed conflicts. Defenseless civilians cannot fight back and killing them does not therefore constitute conflict.

While some advocacy groups and researchers have argued that violence directed against civilians is very common, and has been growing, the evidence suggests that both claims are unfounded. First, one-sided-violence death tolls have tended to be very small compared with those of state-based conflicts. In 2008, for example, the estimated death toll from one-sided violence was just 12 percent of that from state-based conflict.

Second, the evidence suggests that the incidence of one-sided violence is declining. In fact, in 2008 the one-sided-violence death toll was the lowest since 1989—the first year for which there are data.

There is one unexpected finding that emerges from the one-sided-violence data—namely the change in the identity of the majority of perpetrators of violence against civilians. In 1989 governments were responsible for an estimated 75 percent of one-sided-violence deaths; in 2008 their share had shrunk to less than 20 percent. By 2008, 80 percent of civilians being killed were victims of insurgent groups, not governments.

Are Wars Really Becoming More Intractable?

In 2005 a study published by USIP stressed that many of the remaining armed conflicts were intractable—meaning they were both persistent and highly resistant to efforts to bring about political settlements.

The fact that conflicts active today show an increasing average duration, and have become more likely to reignite after they have stopped, might appear to suggest that wars are becoming more intractable.

In each decade since the 1970s the percentage of conflicts that lasted 10 years or more has declined.

There is some reason for skepticism, however. Although measuring intractability is far more difficult than it might at first appear, we are able to track the percentage of conflicts that started in each decade and lasted for 10 or more years. Given that the majority of conflicts last less than three years, a 10-year conflict duration seemed to be a reasonable measure of intractability.

If conflicts were becoming more intractable over time, we would expect that in each passing decade the percentage of conflicts lasting 10 years or more would increase. But this is not what has happened. In fact, in the 1980s and 1990s the percentage of conflicts that lasted for 10 years or more declined. In the 1970s, some 30 percent of conflicts lasted for 10 or more years; in the 1990s less than 10 percent did so. This indicates that, on balance, conflicts are becoming less intractable over time.

There can be no doubt that a significant proportion of today's conflicts have lasted for decades and resisted attempts to resolve them. But this does not necessarily mean they will

continue into the future. As the USIP study notes, some of the cases on its list of 18 intractable conflicts had already ended by 2005. By 2008 some 40 percent of these conflicts were no longer active. They were not so intractable after all.

Is Islamist Violence a Growing Threat?

Between 2004 and 2008, nine out of the 34 conflicts that started or restarted around the world were associated with Islamist political violence. The most deadly of these conflicts—Iraq, Afghanistan, Pakistan, and Somalia—are also associated with foreign military intervention by the US and other countries. Large-scale foreign military intervention in armed conflicts, as we noted earlier, tends to be associated with elevated battle-death tolls.

There is obvious cause for concern here. If four out of five of the world's deadliest conflicts are associated with Islamist political violence, and the number of Islamist conflicts is growing, the prognosis for global security is not good. However, there is no compelling evidence to support claims that Islamist violence has been increasing worldwide—though it has clearly increased in Afghanistan, Pakistan, and Somalia. (In Iraq there was a major decline in death tolls in 2007, but Islamist violence has been increasing again more recently.)

Prospects for the Islamist radicals are not encouraging. Support for al-Qaeda across the Muslim world has been declining for more than five years. This has not been a result of the US-led War on Terror, which is widely perceived in the Muslim world as a war against Islam. The shift arises because Muslim communities around the world have become increasingly alienated by the Islamists' extremist ideology, their harshly repressive policies, and by the fact that—in the name of Islam—they mostly kill their coreligionists.

The strategic challenge that Islamist radicals confront in their quest for power is that they lack the conventional military forces needed to defeat the armies of the states they seek to overthrow, while their violent tactics and repressive policies have alienated popular Muslim support to such an extent that waging a successful revolutionary struggle from a mobilized popular base is not an option either.

Which Countries Have Fought Most Wars?

As noted earlier, the 60-plus years since the end of World War II constitute the longest period of peace between the major powers for hundreds of years. But while the major powers did not fight each other during this period, they were far from peaceful. Indeed, the countries that fought most of the international wars (we include armed interventions in civil

wars under this heading) in the period from 1946 to 2008 were all major powers. France and the UK were first and second on the list, followed by the US, Russia/USSR, the Netherlands, Portugal, Spain, and Australia.

In fact, the majority of international conflicts that have occurred since the end of World War II have been waged by rich countries against the governments or peoples of poor countries.

If we turn to countries that have experienced the greatest number of intrastate wars, a very different picture emerges. India tops the list, followed by Russia/USSR (the only industrialized country present), Burma, Ethiopia, Indonesia, and the DRC.

If we take yet another measure and rank countries in terms of the number of conflict years they have experienced, we find that Burma comes out on top, having experienced an extraordinary 246 conflict years between 1946 and 2008. This amounts to an average of four conflicts in each calendar year since 1946. India, Ethiopia, the Philippines, and the UK make up the remainder of the top five.

Finally, when we compare which countries have been involved in the most wars of all types, France, the UK, the US, Russia/USSR, and India make up the top five.

Conclusion

Debates about the causes of war and peace are unlikely to be resolved any time soon for reasons detailed in this *Report*. As we also point out, attempts by quantitative researchers to predict future conflicts do not have a very good track record.

For these reasons and more, it is not possible to claim with any confidence that we will see fewer conflicts in the future—or indeed more. But much has been learned over the past few decades and today we can point with some confidence to long-term trends that decrease the risk of war.

Take the case of international conflicts. We have argued that the demise of colonialism and the Cold War removed two important causes of war from the international system, and that the impact of growing levels of economic interdependence, the fourfold increase in the number of democracies, and an emerging norm of war-averseness have reduced the risks of war still further.

None of these factors is less important today—on the contrary. The Cold War remains over, and no system-wide polarized conflict has replaced it or appears likely to for the foreseeable future. The number of democratic states has continued to rise, as has membership of international organizations. Global economic interdependence continues to deepen, and the war-averseness norm continues to

proscribe resorting to war, except in self-defense or with the authorization of the UN Security Council.

A similar argument applies to civil wars. The peacemaking and peacebuilding policies that we have identified as being an important part of the explanation for the decline in conflict numbers in the 1990s have been strengthened in the new millennium. And there is no sign that the normative changes we identified are likely to be reversed.

Moreover, national incomes continue to increase across all regions in the developing world. This, we have argued, means that governments have more resources to prevent wars and to prevail in those that cannot be prevented or stopped by non-violent means. Insurgents do not benefit from rising national incomes to the same degree as governments, which means that over time the balance of resources—and hence power—will favour the latter over the former.

The trend to smaller wars, which has meant fewer battle deaths per conflict, shows few signs of being reversed. And improvements in population health throughout most of the developing world in peacetime mean that individuals will be less susceptible to conflict-exacerbated disease and malnutrition in wartime. Moreover, the level of humanitarian assistance has continued to rise in the new millennium, notwithstanding the fact that the number of conflicts is down.

We have, in other words, identified trends that reduce both the risks and the costs of international and civil wars. This has interesting implications. While the future remains impossible to predict, and will surely deliver some unpleasant surprises as it has in the past, there are no obvious countervailing system-level forces that appear powerful enough to reverse the positive effects of the trends we have identified.

Of course, the fact that something is not obviously foreseeable does not mean it cannot happen. Recent events, from the banking crises in the developed world to the popular uprisings against repressive regimes in the Middle East and North Africa, remind us how frequently major changes come as a complete surprise—and to the expert community as well as laypersons. “Prediction,” as the Danish physicist Niels Bohr once noted, “is very difficult, especially about the future.”¹⁷

The policy initiatives we have described are part of an emerging, though still inchoate, architecture of global security governance, one focused primarily on the prevention of civil wars. This mode of governance remains inefficient and prone to serious failures. But notwithstanding these and other challenges, it has, since its emergence some 20 years ago, been quite effective in reducing the level of political violence around the world. This is no mean achievement.

OVERVIEW

ENDNOTES

1. References for all statistics in the Overview are found in the main body of the *Report* unless otherwise noted.
2. Geoffrey Blainey, *The Causes of War*, 3rd ed. (New York: The Free Press, 1973), 3.
3. Evan Luard, *War in International Society: A Study in International Sociology* (New Haven: Yale University Press, 1987).
4. Kenneth Waltz, "Peace, Stability, and Nuclear Weapons," Institute on Global Conflict and Cooperation, Policy Paper No. 15, University of California, Berkeley, August 1995, 11.
5. James Gwartney, Robert Lawson, with Erik Gartzke, *Economic Freedom of the World: 2005 Annual Report* (Washington, DC: The Cato Institute, 2005), 4.
6. John Mueller, *Capitalism, Democracy, and Ralph's Pretty Good Grocery* (Princeton: Princeton University Press, 1999), 245.
7. Michael Howard, *The Causes of War and Other Essays*, 2nd ed. (Cambridge: Harvard University Press, 1983), 9.
8. Cullen S. Hendrix and Sarah M. Glaser, "Trends and Triggers: Climate Change and Civil Conflict in Sub-Saharan Africa" (paper presented at the international workshop on Human Security and Climate Change, Asker, Norway, June 2005), 4, http://www.gechs.org/downloads/holmen/Hendrix_Glaser.pdf (accessed 2 September 2010).
9. Paul Collier, Anke Hoefler, and Dominic Rohner, "Beyond Greed and Grievance: Feasibility and Civil War," *Oxford Economic Papers* 61, no. 1 (August 2009): 3.
10. Richard H. Solomon, "Foreword," in *Leashing the Dogs of War*, ed. Chester A. Crocker, Fen Osler Hampson, and Pamela Aall (Washington, DC: USIP Press, 2007), iv.
11. Ann Hironaka, *Neverending Wars: The International Community, Weak States, and the Perpetuation of Civil War* (Cambridge: Harvard University Press, 2005), 106.
12. *Ibid.*, 124.
13. UNICEF, "Democratic Republic of the Congo: Multiple Indicator Cluster Survey, MICS-2010," preliminary findings, Figure 1, September 2010, 10, http://www.childinfo.org/files/MICS-RDC_2010_Preliminary_Results_final_EN_imprime.pdf (accessed 11 April 2011).
14. Paul Richter, "Economic Crisis Brings Security Risks," *Los Angeles Times*, 27 October 2008, <http://articles.latimes.com/2008/oct/27/world/fg-crisis27> (accessed 15 November 2010).
15. These challenges are spelled out in detail in the World Bank's "Swimming against the Tide: How Developing Countries Are Coping with the Global Crisis" (background paper prepared for the G20 Finance Ministers and Central Bank Governors Meeting, Horsham, UK, March 2009), <http://siteresources.worldbank.org/NEWS/Resources/swimmingagainstthetide-march2009.pdf> (accessed 15 November 2010).
16. The World Bank, *Global Economic Prospects*, June 2010, <http://web.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/EXTGBLPROSPECTSAPRIL/0,,menuPK:659178~pagePK:64218926~piPK:64218953~theSitePK:659149,00.html> (accessed 15 November 2010).
17. The original source of this quotation, which is often attributed to US baseball star Yogi Berra, is unknown. See *The Economist*, "The Perils of Prediction," 2 June 2007, http://www.economist.com/blogs/theinbox/2007/07/the_perils_of_prediction_june (accessed 15 November 2010).