The Economics of Peace and Security Journal

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Foreword and **introduction to this new journal** by James K. Galbraith and by the editors

Conflict or Development?

The Economics of Peace and Security Journal

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Aims and scope
This journal raises and debates all issues related to the political economy of personal, communal, national, international, and global peace and security. The scope includes implications and ramifications of conventional and nonconventional conflict for all human and non-human life and for our common habitat. Special attention is paid to constructive proposals for conflict resolution and peacemaking. While open to non-economic approaches, most contributions emphasize economic analysis of causes, consequences, and possible solutions to mitigate conflict.

The journal is aimed at specialist and non-specialist readers, including policy analysts, policy and decision makers, national and international civil servants, members of the armed forces and of peacekeeping services, the business community, members of non-governmental organizations and religious institutions, and others. Contributions are scholarly-based, but written in a general-interest style.

Issues of the EPS Journal are theme-based and contributions are generally solicited by the editors, before being subjected to peer review. Readers are, however, encouraged to submit proposals for an issue based on a particular theme, or to correspond with the editors over specific contributions that they might wish to make. In addition, comments on published articles of less than 500 words are welcome. Please write us at editors@epsjournal.org.uk or contact us via the journal's home page at www.epsjournal.org.uk.

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Foreword

by James K. Galbraith

Economists for Peace and Security (EPS) is a world-wide organization of professionals, united in the belief that economists can contribute usefully to the pursuit of peace, security, and the conditions for prosperity and development. We hold in particular that the economic dimension of wars, civil conflict, armament, and violence should be examined, measured, and exposed to scrutiny. We hope, in so doing, to help in our way to reduce the violence that blights so many human lives and that, in some measure, endangers us all.

The Economics of Peace and Security Journal (EPSJ) is our new initiative. It is prepared by scholars and specialists, but intended to be accessible to the broader community. In the first issue, we present articles on the problems of violence, war, and armaments in contemporary Africa. Future issues will similarly feature a theme, covering over the years a wide range of economic issues related to conflict and peace.

We acknowledge a deep debt to Ruth Leger Sivard, whose *World Military and Social Expenditures* reports provided inspiration for what we hope to do here. The final volume of Ms. Sivard's work appeared in 1996, and we are pleased and honored to continue in her footsteps, albeit it in different form.

We welcome your participation, as a reader, in this endeavor. We also invite your membership in EPS, your participation in our affiliates worldwide, and in our periodic meetings and conferences. We seek your support for a wider commitment of economists to work on these vital issues, through research and teaching as well as participation in pubic and policy discussions.

James K. Galbraith, an economist, is the Lloyd M. Bentsen Jr. Chair in Government and Business Relations and Professor of Government at the Lyndon B. Johnson School of Government, University of Texas, Austin, TX, USA. He also chairs the U.S. affiliate of Economists for Peace and Security (www.epsusa.org).

Introduction: a new journal

Jurgen Brauer and J. Paul Dunne

The idea that led to this new journal was conceived long before the twin towers of New York City's World Trade Center fell in 2001. Even then we perceived an urgent need to produce and present a compact, well-written set of essays highlighting some of the many economic aspects surrounding questions of conflict, war, and peace.

This is the first issue of a new journal, each addressing a different theme relating to economic aspects of conflict.

This is the first issue, and volume, of a new journal, *The Economics of Peace and Security Journal*, addressing themes relating to the economics of conflict. This issue's theme is Conflict and Development, and we are fortunate to count among our contributors a former chief economist of the World Bank, Nobel Laureate Joseph Stiglitz, now a professor at Columbia University in New York, as well as a former chief research officer of the Bank, Paul Collier, who recently returned to a professorship at Oxford University. Although all of our authors speak only for themselves, it is naturally of interest to learn what former high-level officials think about how conflict and development are related. Stiglitz and Collier provide the opening essays, the former looking at the matter from a theoretical perspective, the latter summarizing extant empirical findings.

These essays are followed by two pieces delving more deeply into how the political economy of war, especially on the African continent, generates and affects its various humanitarian crises and how the war economies of Africa are linked to the peace economies of the industrialized West. Our authors are E. Wayne Nafziger of Kansas State University and Neil Cooper of Plymouth University.

We also present two country studies. The first, written by Tilman Brück, looks at the Mozambican civil war (1975-1992) and its subsequent experience of reconstruction. Brück, formerly of Oxford University, conducted field research in Mozambique. He is now with the German Institute for Economic Research in Berlin. The second country study is contributed by Manuel Ennes Ferreira of the Technical University of Lisbon. An expert on Angola, he reviews and examines aspects of its economy from the inception of its civil war in the early 1960's and concludes with a ten year outlook: since rebel leader Jonas Savimbi's death in February 2002, what are the likely trajectories along which a peace economy might be built – or fail to be built?

In additional to the opening essays, the issue essays, and the country studies, we include two product-related studies. J. Paul Dunne of Bristol's University of the West of England is a long-time observer of South Africa. He examines its – indeed Africa's – leading arms manufacturer, Denel. And David Gold, former economist at the United Nation's Department of Economic and Social Affairs and now an economics professor at New York's New School University, authored the essay on conflict diamonds. We could have invited articles on conflict timber, conflict oil, or other products. But our purpose is not to be comprehensive but to illustrate.

To provide informative, "grand-sweep" overview essays, followed by in-depth articles on specific issues, followed in turn by a set of country and industry-related case studies is the structure we intend to keep, perhaps adding a "numbers" section on world military and social expenditure in future as well. We will, in any event, add a book review section on our web site, available to all web surfers without charge. Substantive review articles may from time to time be published in the journal itself. For future issues, we plan to look at the economics of peacemaking and peacekeeping, and at economic aspects of military and peaceful uses of outer space. While each issue will carry articles on a unifying theme, we also plan to publish other articles and materials in each issue so long as they relate to economic aspects of conflict and, ideally, its peaceful resolution. The goal is to communicate to (and with) non-economists, in non-technical language, what and how economists think about security issues. We thus address ourselves to our academic colleagues in other scholarly and scientific disciplines, to analysts and practitioners in the policymaking community, to legislators, diplomats, and national and international civil servants and their staff, to members of the armed forces and peacekeeping services, to leaders, employees, and supporters of for-profit businesses, non-governmental organizations, and religious institutions, and to concerned citizens everywhere.

It is little known that economists have a long-standing history in making significant contributions to the analysis of security issues.

It is little known, and therefore little appreciated, that economists have a long-standing history in making significant contributions to the analysis of security issues. Perhaps the most famous of these contributions is Britain's John Maynard Keynes' *The Economic Consequences of the Peace* (1920), his take on how to treat Germany after its defeat in World War I, and, again, his contribution to the creation of the Bretton Woods institutions with the end of World War II. Likewise, the Frenchman Jean Monnet applied economic thinking to help him forge the European Coal and Steel Union, precursor to what has become a factious but nonetheless peaceful European Union. Cross-border investment, the locking-up of valuable assets in each other's countries, makes war and mutual invasion rather more costly.

Other great names of economics have devoted considerable effort to think and write about the economics of conflict, war, and peace, often in book-length treatments. One alphabetical sample includes Kenneth Arrow, Kenneth Boulding, F.Y. Edgeworth, John Kenneth Galbraith, Lawrence Klein, Wassily Leontief, V.I. Lenin, Friedrich List, Karl Marx, Mancur Olson, Vilfredo Pareto, A.C. Pigou, David Ricardo, Lionel Robbins, Joseph A. Schumpeter, Werner Sombart, Thomas Schelling, Adam Smith, Jan Tinbergen, Thorstein Veblen, and Knut Wicksell, a surprisingly diverse assembly. There are, curiously, no "Chicago School" economists *per se* on this list but surely they do not dispute the view that economic development presupposes a peaceful society with well-functioning institutions. Indeed, the "new institutional economics," which owes much to the Chicago School of economic thinking and that in the widest sense includes luminaries such as James Buchanan, Ronald Coase, and Douglass North, makes a direct contribution to the economic analysis of conflict.

The functioning of modern economies and the continuous betterment of the human material condition is not possible without peaceful co-existence and stability, without security of one's person and of one's belongings. The disruption war causes is obvious. What is new is that the economic mechanisms by which this disruption proceeds are now being uncovered. Even the threat of war induces one to engage in protective measures which require the devotion of resources thereby withdrawn from more productive applications. If four percent of the world's production is devoted to its armed forces, ninety-six percent is not. But the four percent cause a disproportionately large depression in business prospects. In Africa – the focus of this issue of the journal – a relatively small amount of military-related expenditure has for decades thrown the entire continent of some 750 million people into severe convulsions and untold misery. If you can image Africa at peace, you are bound to image it prosperous.

Business has a far greater stake in the works of peace than in the works of war.

Business has a far greater stake in the works of peace than in the works of war. We hope that this new journal revives and continues the grand tradition of economists making relevant contributions to the analysis, diagnosis, and peaceful treatment of conflict. You are invited to share your comments and suggestions with us at our web site, www.epsjournal.org.uk.

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The articles in this issue were first published in the *ECAAR Review 2003*, in book form. Formed in 1989, ECAAR, Economists Allied for Arms Reduction, was renamed and reorganized as Economists for Peace and Security in 2005. With that renaming and reorganization, we thought that instead of producing articles in printed book form, we might as well try to reach a larger, indeed global, audience more directly and efficiently by means of a web-based journal. (The articles have been slightly edited and updated to reflect events since 2003.)

We are thankful and grateful to the members of our Advisory Board. They are members of the international affiliates of Economists for Peace and Security, thus ensuring that the editors of this journal receive global advice. Our Associate Editors are, without exception, well-respected economists and experts on economic aspects of conflict. We plan to expand that list in the near future, in particular giving wider representation to developing countries. We also welcome Dr. Bjørn Møller as our book review editor. Finally, we thank Dr. Alvin Birdi and Dr. Sam Perlo-Freeman, our web and managing editors, respectively, for getting this first issue off the ground and into cyberspace.

Jurgen Brauer
J. Paul Dunne

Civil strife and economic and social policies

Joseph E. Stiglitz

The issue of civil strife and economic and social policies is one I became engaged with while working at the World Bank. It is of tremendous importance, particularly in sub-Saharan Africa. The last 50 years have shown that development is possible, but far from inevitable. Fifty years ago, as many of the economies in the developing world were becoming independent, there was great hope for their success. In the half century that has gone by we have seen that one region in the world, East Asia, has had huge success in terms of per capita income (in countries like Korea, an eight-fold increase), but in many other parts of the world, such as sub-Saharan Africa, there has been by and large enormous failure. Incomes today in much of sub-Saharan Africa are lower than they were 20 or 30 years ago. Life expectancy, after increasing substantially over a number of years, now has begun to decline, mainly but not only because of the AIDS epidemic.

Conflict and underdevelopment

The question of why has there been such success in East Asia and why has there been such failure in sub-Saharan Africa has many dimensions. One of the most important is the issue of civil strife, which has plagued much of the region for the last thirty years. An example lies in the contrast between Botswana and Sierra Leone. Botswana and Sierra Leone are both rich in diamonds, but in Botswana, diamonds have been used to raise standards of living; in Sierra Leone they have been the source of civil strife and its people have become worse off.

Without wishing to sound inhumane, for economists the large number of civil conflicts does have one major advantage: we can study the causes of strife.

Indeed of the ten poorest countries of the world, six have suffered civil war in recent years. Civil wars are a major contributor to poverty. In 1999, in contrast to two international conflicts there were 25 civil conflicts around the world, a staggering number. Without wishing to sound inhumane, for economists the large number of civil conflicts does have one major advantage: we can study the causes of strife. The terrible suffering does at least give us a rich enough data set that we can try to understand which factors cause strife and which extend strife's duration. The result has been the beginning of work, particularly at the World Bank, trying to identify these factors.

Here I address several of the more important factors, particularly from a theoretical perspective.[1] There is a two-way relationship between civil strife and economics. I referred to the fact that civil strife leads to poverty, but it is also true that poverty and economic stagnation are a major cause of civil strife. This fact was brought home forcefully in the case of Indonesia where the 1997 East Asian currency crisis resulted in a dramatic fall in incomes and a dramatic increase in unemployment. In developed economies we talk about an economic downturn in terms of, say, a two percent decrease in GDP. But in Indonesia, the fall in GDP was 16 percent, and real wages of many of the poorest workers went down by 25 to 30 percent. Unemployment increased ten-fold. In the middle of this process – falling GDP, falling real wages, rising unemployment – and under the influence of the International Monetary Fund (IMF), food and fuel subsidies were cut for the poor. The consequence, one the IMF was warned of five months previously, was perfectly predictable: riots broke out and further weakened the economy. Had the IMF pursued a less contractionary policy, it could have avoided the civil strife. Had it avoided the civil strife, it could have minimized the magnitude of the downturn the people faced.

Imperfect information: an analogy between strife and strike

Strife can be seen as an extreme form of breakdown of society and its economy. In many ways it is like a conflict between employer and employees, a strike. One would think that rational people could resolve their disputes in ways that do not lead to massive misallocations of resources. But what happens in a strike is an unnecessary idleness of both labor and machines, so that the strike represents a breakdown in industrial relations. The employer believes that the worker cannot manage to survive without wages, and the worker believes that the firm will not be able to survive the loss of profits from the strike. The prospect of a strike and corresponding lock-out is a mutual threat to impose harm in the hope that one side or the other will give in and a resolution of the impasse will occur.

Theorists spend a lot of time trying to understand why strikes, which seem so inefficient, occur. After all, at the end of the strike there is a resolution: people go back to work, production resumes, wages and profits are restored. Why not skip the intervening period in which resources are inefficiently used? One theoretical approach to this problem is the idea of bargaining under incomplete information. An aspect of such bargaining is that each side tries verbally to convey information to the other, but because "talk is cheap" the information can only really be conveyed through costly mechanisms. The workers say, "We care so much about this issue that we're willing to pay a price." The employers likewise say, "We care so much about this that we're willing to pay a price." It is because of the sacrifices that each side makes that the communication, costly as it is, actually takes place.

Civil strife is like a strike: when the two sides in the process cannot reach an agreement, there is an impasse. In the end there is a resolution, but before the resolution occurs there is strife, and that strife is costly not only to the people involved, but painfully costly to others in society. Conflicts are often based on a basic, initial misjudgment: each side believes it can win. Obviously, if they had rational expectations, each would realize it is not possible for both sides to win, and that the net gain they obtain after the strike is less than they could have got if they had settled before the strike. One of the characteristics of conflicts is they are based on a fundamental misjudgment about the relative positions of the two sides. These imperfections of information lie at the core of much civil strife.

Some causes of civil strife

Apart from imperfect information, which other factors help determine the benefits and cost of cooperation versus the benefits and cost and conflict? One factor, and this is true both theoretically and empirically, is whether the economy is essentially a rent economy or an economy involved in real productive activity. A rent economy is an economy like Angola's, dominated by diamonds and oil, where people basically are sitting on a pile of money and little real production is occurring.[2] The Angolan economy does not add value to these commodities through processing or manufacturing. The question is who is going to get what share of the pile of money; how will the pie be divided?

One way of thinking about dividing the pie of a natural resource-based economy is as a zero-sum game: the more I get the less you get. This almost naturally leads to conflict. Another useful analogy might come from a child's view of parental love. Two or three siblings compete fiercely for their parents' attention on the view that there is a fixed amount of attention. If one gets more, the other has to get less. Of course, this need not be true in reality. But if the *perception* is that there is a fixed size of the pie, the only issue that is at stake is how you divide the pie. Thus, conflict is very likely to occur.

One reason conflict is so frequent in Africa is that many of its economies have for so long been rent-based. They have not been based on manufacturing, they have not been based on investment. The pie to be divided does not grow.

I suggest that one reason conflict is so frequent in Africa is that many of its economies have for so long been rent-based. They have not been based on manufacturing, they have not been based on investment, they have not been based on a growing pie. Instead, they have been based on taking resources out of the ground and dividing the spoils among the contestants.

The notion of endemic conflict in rent economies can be contrasted with what happens in an investment economy. In an investment economy, a manufacture and service-based economy, what happens if civil strife occurs? Investment stops. Nobody wants to invest in an economy in which conflict destroys one's capital. Everybody sees large potential losses looming and that there will be nothing to divide once fighting starts. The cost of strife is enormous, and the benefits of continued cooperation are huge also. This contrast illustrates forcefully why civil strife is so common in Africa and so much less common in other parts of the world. In Africa the individual contestant sees huge benefits from seizing as much of the fixed-size pie as he can, but little cost because investment is already low.

Low income and low mobility contribute to the existence of strife.

A second factor affecting the existence of strife is whether individuals feel they have much to lose by engaging in strife. There are two aspects to this: income and mobility. Low-income people, already at subsistence level, have relatively little to lose from conflict. In a low-mobility society there is not much to lose from conflict either, because if local wages are low people cannot do any better elsewhere. And in much of Africa both income and mobility are low. Engaging in conflict, therefore, is cheap. Opportunity costs are low, and low income and mobility contribute to the existence of strife.

To bring home this point, consider that a number of people believe that ethnic fractionation is an important contributor to strife, and it does play a role. But the degree of ethnic fractionation in some European countries, for instance Belgium, is not all that different from that of many African countries. What differentiates the two situations is the level of income and mobility and given strata of the ethnic fractionation.

A third factor is whether the economy functions as an one-round game or as a repeated game. If society is already dissolving, the kinds of things that ordinarily glue people together – repeated interactions in the market, shared customs, and the expectations and trust built thereon – are weakened. Interactions become "one-offs." Consequently, the incentives for conflict are increased, as is the cost of cooperation.

Finally, a fourth and crucial factor has to do with voice and disenfranchisement. If there is a group within society that believes its voice is not heard, that its concerns are not or will not be reflected in the collective decisions made by society, that group has little to lose by conflict and is therefore more likely to engage in it.

Let me emphasize that what is of relevance is not just the reality of these various factors but also peoples' perceptions of them. Consider the Indonesian crisis of the late 1990s: the fact that Indonesia experienced ethnic strife thirty years earlier contributed to its sense of continued insecurity. Had it not had that experience it might have been possible to avoid the strife in the most recent episode. In short, history matters.

Political and social implications

The story of Indonesia contains an important message: think very hard about policies that might cause strife because it may be difficult to reverse the consequences.

I have outlined why strife is important, the relationship between strife and economics, how we can think about strife as a phenomenon, and what are some of the factors that affect strife. Now I address some of the policy and broader social implications of these ideas. There are six I want to draw attention to. The first, as mentioned above, is that history matters and cannot be undone. Certain policies were adopted in Indonesia that led to the civil strife of 1998. Indonesians cannot say, as the IMF did right after the riots broke out: "Oh, we made a mistake. We will put the subsidies back into place. We didn't really need to abolish those subsidies. That was wrong." Unfortunately, there is a time-line to history. When one restores the subsidies, one does not thereby undo the damage. The resulting ethnic strife and civil disharmony is now part of the reality that the people of Indonesia will have to deal with for decades to come. The story of Indonesia contains an important message for makers of economic policy: think very hard about policies that might cause strife because if you do engage in those policies, it may be difficult to reverse the consequences. The Indonesian example urges extreme caution in policies that carry those potential effects.

Second, I wish to address the topic of democracy and strife. I referred before to the role of disenfranchisement. When people feel that their voice is not being heard, they are more likely to engage in strife. Sometimes people believe that "Democracy is all we need." Democracy, in its simplest version, means going to the ballot box and making sure that the majority rules. But being able to cast a ballot is not enough to avoid civil strife. With voting it is possible to arrive at a democratically legitimized tyranny of the majority over a minority. A democracy may wind up, in spite of voting, with strife. We have seen a number of instances of that kind. The ballot box does not guarantee that all groups can be heard.

Many societies in which government does not use the ballot box are very well attuned to this point. Many of us prefer democracy, of course; I certainly do myself. But it is nonetheless true that in countries where people do not go to the ballot box, leaders have to look for other forms of legitimization, and those other forms of legitimization entail, in part, ensuring that all groups' voices are heard. Ironically, in some countries in which the ballot box is not used, there is more sensitivity to ensuring that the voices of minorities are heard.

This assurance can be derived through a variety of mechanisms. In many countries the recognition of the possibility of the "tyranny of the majority" has led to explicit introduction of restrictions on what the majority (through a duly elected government) can do. In the United States, for example, there is the Bill of Rights. The Bill of Rights – freedom of the press, freedom of religion, freedom of speech, even privacy rights – are rights that a majority of voters cannot remove from the minority of voters.

Ethiopia uses a different mechanism. Its recently adopted constitution gives any region the right to withdraw from the country. Now why would the framers do that, if they did not intend to have the country break apart? By giving the right to each region to withdraw, Ethiopia ensures that the central government pays attention to the concerns of the regions. For the last decade this framework has been working fairly effectively and is an interesting experiment in ensuring voice.

Empirically, it appears that societies with a high degree of ethnic fractionation enjoy greater stability than countries in which there is little, and particularly more than those countries which have only two main groups. With large numbers of groups one sees shifting alliances which minimize the opportunities for one group to dominate another. A variety of possible alliances lead to greater stability. I want to emphasize that for democracy to really be effective, and to generate a sense of enfranchisement to avoid civil strife, one has to engage in meaningful processes that include consensus building and sharing of information. Several countries have instituted these kinds of processes and as a result have achieved a higher degree of stability.

The third point that I want to emphasize is that it is not just equality that matters, but mobility as well. The perceived option of upward mobility, the sense of having a chance to do better, is very important in maintaining social stability. The fourth point is that economic growth matters. The kind of policies that led to stagnation and decline, as we have seen in Indonesia, entail a downward spiral effect. As growth declines social cohesion declines and that leads to more strife which, in turn, leads to further decline.

My fifth point relates to efforts to expand the scope of cooperation among society's members. There are essentially two ways through which cooperation can be expanded. One is through legal systems in which one coerces people to behave cooperatively, if necessary by threat of force (the "law and order" function of police forces). The other way is through the use of incentives or rewards, to convince people that it is in their interest to cooperate and avoid strife. The problem facing much of sub-Saharan Africa is that its states are so weak that one of the basic functions of the state – to enforce cooperative behavior by policing – is missing. Regrettably, a system of incentives for cooperation is also missing. Both the guarantees of cooperation, the carrots and the sticks, are missing, and as a result the incidence of strife is high.

The sixth and final point regards the importance of trying to create a sense of national identity, i.e., the forging of social capital, and the role of social capital in bringing people into cooperative action. In the theory of economic organization, we talk about how one gets people to act cooperatively. One way is to provide incentives, but incentives can be very difficult to provide.

An alternative way is to change peoples' beliefs and perceptions and try to get them to identify with the organization. In economics today we often make use of the concept of "social capital" through which people gain a sense that they belong to a common society. An unfortunate example of the destruction of social capital comes from Russia. The last decade in Russia has been dismal: output has declined by 50 percent, and the population has gone from two percent in poverty to 50. One of the most convincing explanations proffered has to do with the destruction of social capital that coincided with the rapid shift to a privatized, market economy.

Several countries have tried deliberately to create a strong sense of social capital by making people have an explicit notion of a social contract, an explicit attention to social justice, much more awareness of a common history, common language, and common culture. On the whole, societies in Asia are much less riven by strife than societies in Africa and some economists ascribe this in part to a greater stock of social capital.

Conclusion

Civil strife and the implications for economic and social policy illustrates how economics is becoming redefined. It is becoming redefined both in the questions that we ask and the tools that we use to answer those questions. But in trying to understand society and even its economic behavior, we have to go beyond the narrow confines of traditional economics. I believe that economics is an important tool for understanding how we can help create a better society and lessen civil strife. Trying to understand the factors that have contributed to civil strife, trying to design policies that will avoid the likelihood of civil strife is essential because, as mentioned at the outset, civil strife is one of the most important factors that is impeding economic growth in sub-Saharan Africa and much of the rest of the world and has led to so much poverty in so many countries around the world. Unless we address the factors contributing to civil strife, we cannot hope to have these countries share in the potential benefits that can come from the process of globalization that has become so central to the world today.

Notes

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1. Paul Collier, in this issue, summarizes some of the available empirical findings.

2. For the story of Angola, see Manuel Ennes Ferreira's article in this issue. Also see David Gold's article, in this issue, on conflict diamonds.

War and military expenditure in developing countries and their consequences for development

Paul Collier

Developing countries have enough problems without either the waste of resources constituted by military expenditure, or the social and economic destruction brought about by warfare. I briefly review the evidence on the adverse consequences of military expenditure and warfare for development. I then turn to the question of why, since military expenditure is so costly for low-income countries, it is nevertheless so high. I show that some of the strongest empirical influences on military expenditure reflect either neighborhood arms races, or the patronage demands of politically powerful military establishments. Both of these problems are potentially addressable. One of the other major influences on military expenditure in developing countries is internal rebellion. Where civil wars are ongoing military expenditure is greatly elevated. Further, there is evidence that governments set their defense expenditure at levels designed to deter such rebellions. I then discuss why the incidence of rebellion is so high and show that the risk of rebellion is strongly linked to economic causes – a lack of development is a major risk factor. I further discuss whether military expenditure achieves its intended effect of deterring rebellion and find that it does not. Indeed, since poor economic performance is a major risk factor, high military expenditure, by contributing to such poor performance, may inadvertently contribute to the risks that it is attempting to reduce. I conclude by suggesting that development, not deterrence, is the most effective strategy for building safe societies.

Development, not deterrence, is the most effective strategy for building safe societies.

How do military expenditure and war affect development?

Both military expenditure and war retard development. This is not surprising, but there is now reasonable quantitative evidence on the scale of the effects. Military expenditure diverts government resources that could be put to better use – public services, infrastructure, or lower taxes. A joint analysis by the research departments of the World Bank and the International Monetary Fund (IMF) estimated the cost to growth and the level of income of military expenditure.[1] The study found that for the average country a doubling of military expenditure reduced the growth rate for a period, eventually leading to a reduction in the level of income of 20 percent. For developing countries, the adverse effects of a given level of military expenditure on income are probably even more costly than for the global average. In developed countries such expenditure may in part be concealed routes for providing subsidies to high-tech firms, hence the term "military-industrial complex." In the poorer developing countries military equipment is imported, rather than produced domestically and so does not offer any side-benefits to technical progress.

I now turn to the costs of war. For developing countries by far the most common form of war is civil war. Whereas international warfare is often quite brief, civil wars last a long time – typically around seven years. A recent analysis finds that such wars are getting longer – they now appear to continue for around three times as long as the civil wars prior to 1980.[2] The cost of civil war is considerable. During the war the growth rate is typically reduced by around 2 percent. The losses can sometimes continue post-war: for example, people may continue to move their wealth out of the country due to perceived high risks of further conflict. Such perceptions would often not be misplaced. One model estimates that there is a 50 percent risk of conflict renewal during the first five post-war years.[3] Hence, as I will discuss further below, countries can get stuck in a conflict trap. Finally, there is new evidence that the cost of a civil war spills over to the whole region in the form of reduced growth rates.[4] One route for this might be increased perceptions of risk on the part of investors; another might be regional reductions in demand following from the fall in income in the country that is directly affected.

The cost of civil war is considerable. During the war the growth rate is typically reduced by around 2 percent.

In summary, even where military expenditure is not associated with conflict, it is a drag on development. Active military conflict can lock a country into a sustained phase of economic contraction.

Why do the governments of developing countries have such high levels of military expenditure?

Developing countries have astonishing levels of poverty, yet their governments choose to devote a significant proportion of their resources to military spending which, as discussed above, actually retards growth and so accentuates that poverty. I now discuss why governments choose to use their resources in this way.

With Anke Hoeffler, I have analyzed the global pattern of military expenditure, trying to understand why some countries spend a far higher proportion of GDP on the military than do others.[5] The global average for military spending is around 3.5 percent of GDP, but the ranges from virtually zero, to an astonishing 45 percent. We find that five factors are driving these large differences:

1. Active international warfare
2. Peacetime military budget inertia
3. Neighborhood effects (arms races)
4. Internal rebellion or civil war
5. Beneficiaries and vested interests

If a country is at international war it spends around an additional 2.5 percent of GDP on the military. If it has a civil war, it spends around an additional 1.8 percent. Countries that have a history of international war spend 1.3 percent more of GDP than those that do not.

The most obvious is that high military expenditure is sometimes a response to active warfare. We find that, controlling for other factors, if a country is at international war it spends around an additional 2.5 percent of GDP on the military, while if it has a civil war, it spends around an additional 1.8 percent. Hence, one indirect explanation for military expenditure is whatever causes war, something I discuss in the next section.

There are also large differences in military spending among countries that are at peace. We find that one important influence on spending is if there is a past history of international war. Countries that have such a history spend around 1.3 percent of GDP more than countries that have not. Possibly this reflects an assessment of the higher risk of future conflict. However, it may also reflect inertia or political interests – once a country has built a large military, as happens during war, there are internal forces maintaining the level of government expenditure. Such persistence would not be surprising; it is indeed common in other areas of public expenditure.

To the extent that a past war raises military expenditure because of a perceived higher risk of further war, it reflects fear of neighbors, or aggressive intentions towards them. We might therefore expect that the level of military expenditure chosen by a government would, to an extent, be influenced by the level chosen by its neighbors. This is indeed what we find. That is, the average level of spending of neighboring countries significantly influences the level chosen by a government. This can be interpreted in various ways, the most obvious of which is that of a neighborhood arms race. For most countries the most serious external threat comes from their neighbors and so the appropriate level of deterrence is set by the behavior of neighbors. A different interpretation of the same phenomenon is that military expenditure is set by regional norms of behavior, in a form of emulation. If the neighbors are spending a particular share of national income on defense, then the chiefs of the military, or the minister of defense, have a relatively easy case to argue with the minister of finance, that their own country should spend approximately at the same level. Whatever the interpretation, the consequence of this regional spillover effect is that military expenditure is, in effect, a regional public bad. Each time one country raises its military expenditure there will be a ripple effect across the region. Further, as neighbors respond to the initial increase, the country that increased its military expenditure may itself respond with further increases – the classic process of an arms race. We estimate that the typical multiplier from an initial increase in spending in one country to the new neighborhood equilibrium may involve both the country and its neighbors having increased the level of spending by around three times the initial increase.

Governments' precautionary spending to reduce the threat of rebellion is considerable. A country with a 30 percent risk of civil war during the coming five years would raise its spending by around 1.2 percent of GDP.

While the threat of international war is clearly one concern that might motivate military spending, for most developing country governments internal rebellion is a far more likely threat than international war. Currently, civil wars are around ten times as common as international wars. Thus, military expenditure may often be motivated by the desire to defend the government from the threat of rebellion. As I discuss more fully in the next section, Hoeffler and I have developed a model of the risk of civil war. We use this model to construct a predicted risk for each country, and for each time period. We then investigate whether military expenditure is related to this risk – do governments make a realistic assessment of the risk of civil war and set their military expenditure accordingly? We find that the predicted risk of civil war is significant in explaining military expenditure – governments indeed anticipate the threat of rebellion and raise military expenditure in an attempt to reduce the risk. On our analysis, this precautionary spending is considerable: a government of a country with say a 30 percent risk of civil war during the coming five years would raise its spending by around 1.2 percent of GDP relative to an otherwise identical country without such a risk.

The above motivations for military expenditure have either been to fight a war or to deter it. However, these are not the only motivations for military spending. As with other forms of public expenditure, military expenditure has beneficiaries.[6] In developed countries these beneficiaries are largely industrial companies that produce military hardware. Developing countries largely import such hardware and so the domestic beneficiaries are predominantly military employees. We might therefore expect that where military employees have a lot of influence over government decisions, the government will be persuaded to choose a higher level of military expenditure. This is a natural tendency – if professors were in charge of a government

Military dictatorships have much higher military expenditure than democratic governments – an additional 2 percent of GDP.

they would probably increase expenditure upon universities. This is a testable proposition because there is one readily observable circumstance in which military employees indeed have considerable influence over government decisions, namely if the government is a military dictatorship. We find that, controlling for the risks of internal and external conflict, military dictatorships have much higher military expenditure than democratic governments – an additional 2 percent of GDP. Such spending is essentially a matter of patronage rather than the purchase of efficiently delivered services. Indeed, where the military is in charge of the government, military efficiency is likely to decline since there is no independent source of scrutiny and evaluation of performance.

Some of these motivations suggest that military expenditure could be considerably lower without sacrificing interests that are worthwhile. To the extent that high spending reflects neighborhood arms races, it is potentially feasible to negotiate mutual reductions in spending. Since most developing countries receive aid inflows, it might conceivably be possible to strengthen confidence in such agreements by linking them to the conditions for aid eligibility. This might be done in the context of voluntarism: that is, a neighborhood might request the international community to assist the enforcement of its agreement. However, aid donors might also reasonably require that countries in receipt of aid inflows should avoid large levels of military expenditure. Such a use of donor conditionality could arise both to promote neighborhood arms reduction, and to discipline military governments that would otherwise indulge their own sector in excessive expenditure.

Aid and military expenditure

Three findings:
1. Aid is not significant as an explanation of the level of military expenditure.
2. Donors can do exert effective pressure.
3. Donors may have the power to reduce such spending rather than merely contain it.

Whether donors play such an overt role in reducing military expenditure, they have a direct responsibility to contain it at least to the extent of preventing aid from being diverted into military purposes. Aid is usually "fungible." That is, by financing expenditure that the government would otherwise need to make, it releases government resources that it can then use for its other priorities. We would therefore expect that as aid frees up government resources, the government would choose to use some of them to augment its military expenditure. Since this is evident, donors already exert pressure on aid-recipient governments to contain their military expenditure. We investigated whether these efforts have been successful, testing whether aid inadvertently raises military expenditure. Fortunately, there appears to be no leakage: aid is not significant as an explanation of the level of military expenditure. An important implication of this result is that donors appear to be able to exert effective pressure and scrutiny on governments so that their desire to spend some of the freed-up resources on the military is frustrated. In effect, donors are able to force governments to have less military expenditure than they would have liked. In turn, this suggests that donors might have the power to reduce such spending, rather than merely to contain it.

Why is the incidence of civil war so high in developing countries?

Conflict prevention is usually seen as a purely political matter, but empirically the major determinants of the risk of civil war are often economic.

Civil war is an important impediment to development both directly and through its effects on military expenditure. It is therefore important to determine what actions are effective in conflict prevention. While this is usually seen as a purely political matter, empirically the major determinants of the risk of civil war are often economic. Hoeffler and I find that the level of income, its rate of growth, and its structure, all have substantial effects on risk. Countries with low per capita income, slow or negative growth, and dependence upon primary commodity exports, are considerably more at risk than other countries. Thus, the relationship between conflict and development works in both directions. As well as conflict being detrimental to development, development reduces the risk of conflict. This interdependence creates a trap. Time is needed for development, but in each time period there is a risk of conflict. If a country starts from poverty, slow growth and primary commodity dependence, it is likely to lapse into conflict before it has had the time to develop its economy. In turn, the conflict can sufficiently retard development so that, even when the country returns to peace, it is likely to fall back into conflict before having had sufficient time to develop.

This is part of the rationale for aid in post-conflict countries. Fortunately, aid turns out to be particularly effective in accelerating growth during the first decade post-conflict.[7] By targeting large aid inflows to post-conflict countries the international community can raise growth and hence reduce the risk of conflict renewal.[8] Cumulatively, the growth raises the level of income and the economy tends to diversify, so that with luck the country can get through the phase of high risk relatively quickly.

Does military expenditure reduce the risk of civil war?

A possible justification for military expenditure is that it acts as a deterrent to war. Hoeffler and I test this, investigating whether countries with high military expenditure have a reduced risk of civil war. Such a test is not straightforward. For example, as the risks of civil war mount a government is likely to increase its military expenditure. Unless this effect is taken into account, increased military spending will spuriously appear to increase the risk of war even if in fact the direction of causation is the opposite. Once due allowance is made for this problem, we find that military expenditure has no effect on the risk that a civil war will be initiated: high spending does not appear to deter rebellion. This is surprising, but it may indicate that a conventional military presence, such as soldiers in barracks, is largely ineffective in arresting the incipient stages of a rebellion. Good rural policing, or simply a good rural administration, may be more effective than an army. This is not to imply that military force has no role in conflict prevention, but rather that expansion of forces beyond those conventional in peacetime may be neither necessary nor even effective.

Conclusion

That military expenditure and conflict have adverse consequences for development is unsurprising but important. The policy challenge is to reduce them. I have suggested that substantial components of military expenditure could be reduced without jeopardizing security interests. Military expenditure does not appear to be an effective deterrent of rebellion, and, if it is reduced in a coordinated manner across a region then external security interests would be unaffected. The resources released by reduced military expenditure could be used to increase growth rates, and this in turn would gradually but effectively reduce the risk of internal conflict. Development, not military deterrence, is the best strategy for a safer society.

Notes

At the time of writing **Paul Collier** was at the World Bank. He is now back at Oxford University where is he a professor of economics. The findings, interpretations, and conclusions expressed in this article are entirely those of the author. They do not necessarily represent the views of the World Bank, its Executive Directors, or the countries they represent.

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Development, inequality, and war in Africa

E. Wayne Nafziger

The four horsemen of the apocalypse – war, disease, hunger, and displacement – characterize many African lives. Indeed, about 20 percent of Africans live in countries seriously disrupted by war or state violence.

The four horsemen of the apocalypse – war, disease, hunger, and displacement – characterize many African lives. Indeed, about twenty percent of Africans live in countries seriously disrupted by war or state violence. The cost of conflict includes refugee flows, rising military expenditure, damage to transport and communication facilities, reduction in trade and investment, and diversion of resources from development. The World Bank estimates that a civil war in an African country lowers its per capita output by 2.2 percentage points annually.[1] The 800,000 estimated deaths (11 percent of the population) from genocide in Rwanda represented perhaps the highest non-natural casualty rate in history.[2] Other African emergencies in recent years include Algeria, Angola, Burundi, Chad, Congo-Brazzaville, Congo-Kinshasa, Guinea-Bissau, Eritrea, Ethiopia, Liberia, Mozambique, Sierra Leone, Somalia, South Africa, Sudan, and Uganda.

This article relates how the political economy of African states affects humanitarian emergencies, defined as a human-made crisis in which large numbers of people die and suffer from war, state violence, and refugee displacement. Humanitarian emergencies are directly correlated with declining incomes, high income inequality, competition for extraction of mineral wealth, military centrality as defined by military expenditure as a percentage of GNP, and conflict tradition. In contrast to a widely-held belief, ethnic differences are a symptom, not a cause, of conflict.

Income stagnation and decline

Contemporary emergencies are found only in developing countries, suggesting a threshold above which war and massive state violence almost never occur.

Contemporary emergencies are found only in developing countries, suggesting a threshold above which war and massive state violence almost never occur. A disproportional number of these states are also weak or failing,[3] a trait that interacts as both cause and effect of their relative poverty. Moreover, emergencies are more likely to occur in countries experiencing economic stagnation, which affects relative deprivation, the actors' perception of social injustice from a discrepancy between goods and conditions they expect and those they can get and keep. This deprivation spurs social discontent, which provides motivation for collective violence. Tangible and salient factors such as a marked deterioration of living conditions, especially during a period of high expectations, are more likely to produce socio-political discontent that may be mobilized into political violence. War and violence, moreover, have major catalytic roles, adding to social disruption and political instability, undermining economic activity, spreading hunger and disease, and increasing refugee flows.

The policies of governing elites are at the root of most humanitarian emergencies.

Only a portion of violence results from insurgent action. In fact, the policies of governing elites are at the root of most humanitarian emergencies. Slow or negative growth puts ruling coalitions on the horns of a dilemma. Ruling coalitions can expand profit-seeking opportunities for existing political elites, contributing to further economic stagnation that can threaten the legitimacy of the regime and increase the probability of regime turnover. To forestall threats to the regime, political elites may use repression to suppress discontent or capture a greater share of the majority's shrinking surplus. These repressive policies may entail acts of direct violence against or withholding food and other supplies from politically disobedient groups, as in Sudan in the 1980's.[4] Moreover, repression and economic discrimination may generate relative deprivation and trigger affected groups to mobilize, leading to further violence and worsening the humanitarian crisis.

Since economic deceleration or collapse can disrupt ruling coalitions and exacerbate mass discontent, we should not be surprised that since 1980, Africa has been especially vulnerable to humanitarian emergencies. This increase in civil conflict and humanitarian emergencies in Africa in the last two decades of the twentieth century is linked to its negative per capita growth in the 1970's and 1980's and virtual stagnation in the 1990's. Indeed in Africa, which had the highest death rate from wars, output per capita was lower in the late 1990's than it was at the end of the 1960's.[5]

In Africa, falling average incomes and growing political consciousness added pressures on national leaders, whose response was usually not only anti-egalitarian but also anti-growth: depressing returns to small farmers, appropriating peasant surpluses for state-run industry, building state enterprises beyond management capacity, and using these inefficient firms to give benefits to clients. Regime survival in a politically fragile system required expanding patronage to marshal elite support, at the expense of economic growth.[6] Spurring peasant production through market prices and exchange rates would have interfered with state leaders' ability to build political support, especially in cities.

Africa's economic crisis in the 1980's and early 1990's originated from its inability to adjust to the 1973-74 oil shock, exacerbated by a credit cycle in which states borrowed heavily at negative real interest rates in the mid to late 1970's, but faced high positive rates during debt servicing or loan renewal in the 1980's. African leaders' economic policies during the 1970's and early 1980's emphasized detailed state planning, expansion of government-owned enterprises, heavy-industry development, and government intervention in exchange rates and agricultural pricing. These policies contributed to economic decline and growing poverty (especially in rural areas) and inequality. The political elites used the state to pursue economic policies that supported their interests at the expense of Africa's poor and working classes.

> **Predatory rule involves a personalistic regime ruling through coercion, material inducement, and personality politics, tending to decay the institutional foundations of the economy and state.**

This stagnation and decline contributed to political decay in the 1980's and early 1990's in such countries as Nigeria, Sierra Leone, Zaire, and Liberia. Ethnic and regional competition for the bounties of the state gave way to a predatory state. Predatory rule involves a personalistic regime ruling through coercion, material inducement, and personality politics, tending to degrade the institutional foundations of the economy and state. Elites do not benefit from avoiding political decay through nurturing free entry and the rule of law and reducing corruption and exploitation. Instead political leaders may gain more from extensive unproductive, profit-seeking activities in a political system they control than from long-term efforts to build a well-functioning state in which economic progress and democratic institutions flourish. These activities tend to be pervasive in countries that have abundant mineral exports (for example, diamonds and petroleum), such as Sierra Leone, Angola, Congo, and Liberia, while predatory economic behavior is less viable in mineral-export-poor economies such as Togo, Ghana, and Tanzania.

The majority of countries with humanitarian emergencies have experienced several years (or even decades) of negative or stagnant growth, where growth refers to real growth in output per capita. Virtually all emergencies in Africa in the 1990's that are listed above, except for Chad, were preceded by slow or negative economic growth. Contemporary humanitarian disaster is rarely episodic. It is usually the culmination of longer-term politico-economic decay over a period of a decade or more. Negative per capita growth interacts with political predation in a downward spiral, as seen in African countries such as Angola, Ethiopia, Sudan, Somalia, Liberia, Sierra Leone, and Zaire (Congo).

Economic stagnation, frequently accompanied by chronic trade deficits and growing external debt, intensifies the need for economic adjustment and stabilization. A persistent external disequilibrium has costs whether countries adjust or not. But non-adjustment has the greater cost; the longer the disequilibrium, the greater is the social damage and the more painful the adjustment.[7]

More than a decade of slow growth, rising borrowing costs, reduced concessional aid, a mounting debt crisis, and the increased economic liberalism of donors and international financial institutions, compelled African elites to change their strategies during the 1980's and 1990's. Widespread economic liberalization and adjustment provided opportunities for challenging existing elites, threatening their positions, and contributing to increased opportunistic profit-seeking and overt repression. Cuts in spending reduced the funds to distribute to clients and required greater military and police support to remain in power.

Income inequality

Large income inequality increases the vulnerability of populations to humanitarian emergencies. Income inequality, by fueling social discontent, increases socio-political instability as measured by deaths in domestic disturbances and assassinations (per million population) and coups (both successful and unsuccessful). Moreover, the policies of predatory and authoritarian rulers increase income inequality.

Severe social tensions leading to humanitarian emergencies may even arise under conditions of positive (even rapid) growth and expanding resource availability. High inequality can contribute to the immiseration or absolute deprivation of portions of the population, even with growth. Absolute deprivation during substantial growth was experienced for instance by Igbo political elites, dominant in Nigeria's Eastern Region, in 1964-65. The East lost oil-tax revenues when the federal government ceased distributing mineral export revenues to regional governments.

A high degree of income inequality increases the perception of relative deprivation by substantial sections of the population even when these do not experience absolute deprivation. The risk of political disintegration increases with a surge of income disparities by class, region, and community, especially when these disparities lack legitimacy among the population. Class and communal (regional, ethnic, and religious) economic differences often overlap, exacerbating perceived grievances and potential strife.

> **The risk of political disintegration increases with a surge of income disparities by class, region, and community, especially when these disparities lack legitimacy among the population.**

The trends and policies leading to this type of large income inequality result from historical legacies of discrimination (e.g., colonialism, apartheid, failed past policies), from government policies in distributing land and other assets, taxation, and the benefits of public expenditure, from regional and ethnic economic competition, and from predatory rule. Growing regional inequality and limited regional economic integration, associated with economic enclaves, can intensify ethnic and regional competition and conflict.

Regional factors contributing to conflict include educational and employment differentials, revenue allocation, and language discrimination, which disadvantages minority language communities. Examples include the struggle for petroleum tax revenues and employment in the civil service and modern sector in Nigeria in the early to mid-1960's, and the conflict between Hutu and Tutsi for control of the state and access to employment in Burundi and Rwanda.

While high inequality is associated with emergencies, insurgency is more likely if the less advantaged can identify the perpetuators of their poverty and suffering. The examples of Nigeria and South Africa[8] illustrate the varied patterns of how discriminatory government policies cause economic inequality, fuel social discontent, and lead to political conflict and humanitarian emergencies. These dynamics may even occur when either the nation's real per capita GDP is growing, as in Nigeria in the 1960's, or when the disadvantaged group's economic position is improving, as for non-white South Africans from the 1960's through the early 1980's.

High income inequality can be a source of humanitarian emergencies in both rapidly and slowly-growing countries. However, once a population is dissatisfied with income discrepancies and social discrimination, as the majority nonwhites were in white-ruled South Africa, the rising expectations associated with incremental reductions in poverty and inequality may actually spur revolt, conflict, and state-hostile action that increases the probability of a humanitarian emergency.[9]

Competition for minerals

In the struggle for allies during the Cold War, the United States and the Soviet Union provided military and economic aid for African developing countries. Sovereignty provided the opportunity to extract resources from the major powers in exchange for diplomatic support. Yet aid could provide the basis for supporting a patronage system for either the state or for insurgents in opposition. When the Cold War ended in the early 1990's, nation-states and rebels in the developing world required different strategies and new sources of funds. Many African countries needed control of resources to provide military and police power but only minimal services to control territory. Indeed with the IMF/World Bank emphasis on the market and private enterprise, rulers often undermined their own bureaucracies to build personal power at the expense of health, education, and agricultural development.[10]

The struggle for control over minerals is an important source of conflict. In Angola, Sierra Leone, Liberia, and Congo-Kinshasa, rulers and warlords used exclusive contracts with foreign firms for diamonds and other minerals to "regularize" sources of revenue in lieu of a government agency to collect taxes.[11] After the decrease in aid after the Cold War, Sierra Leone was more susceptible to pressures for liberalization and adjustment from the IMF and World Bank. In 1991, the IMF, the Bank, and bilateral creditors offered loans and debt rescheduling worth $625 million, about 80 percent of GNP, if Sierra Leone reduced government expenditure and employment. In response, Freetown heeded the World Bank's advice[12] to use private operators to run state services for a profit. But privatization did not eliminate the pressures of clients demanding payoffs; it merely shifted the arena of clientage to the private sector. Sierra Leone's ruling elites, needing new ways of exercising power, used foreign firms to consolidate power and stave off threats from political rivals. In the 1990's, Sierra Leonean heads of state relied on exclusive contracts with foreign firms for diamond mining to regularize revenue, foreign mercenaries and advisors to replace the national army in providing security, and foreign contractors (sometimes the same mining or security firms) to provide other state services. In the process, rulers have found it advantageous to destroy state agencies, to "cleanse" them of politically threatening patrimonial hangers-on and to use violence to extract resources from people under their control.[13]

For Charles Taylor, a warlord during most of the 1990's before being elected Liberia's president in 1997, controlling territory by building a patronage network was easier than building a state and its bureaucracy.

In Liberia, Charles Taylor used external commercial networks (foreign firms), some a legacy of the Sam Doe regime of the late 1980's, to amass power over Liberia, and at times, the eastern periphery of Sierra Leone. Taylor's territory had its own currency and banking system, telecommunications network, airfields, export trade (in diamonds, timber, gold, and farm products) to support arms imports, and (until 1993) a deepwater port. For Taylor, a warlord during most of the 1990' s before being elected Liberia's president in 1997, controlling territory by building a patronage network was easier than building a state and its bureaucracy.[14] Indeed, Taylor had access to annual revenues exceeding $100 million, with an upper limit around $200 million, from 1990 to 1996.[15]

Even Zaire's President Mobutu Sese Seko (1965-1997), like other hard-pressed rulers in weak African states, mimicked the "warlord" approach of his non-state rivals. But with the shrinking patronage base from foreign aid and investment, to prevent a coup by newly marginalized groups in the army or bureaucracy, Mobutu, similar to rulers in other retrenching African states, needed to reconfigure his political authority. In this situation, foreign firms and contractors served as a new source of patronage networks. However, indigenous commercial interests that profit from the new rules are not independent capitalists with interests distinct from the state's. Indeed those who do not take part in accumulation on the ruler's terms are punished. Mobutu weathered the collapse of the state bureaucracy, but fell because his strategy of milking state assets had reached a limit, seriously weakening the patronage system. In 1997, his forces fell to the Alliance des Forces Democratique pour la Liberation (AFDI) of Laurent Kabila, the eventual president of the Democratic Republic of Congo until his assassination in 2001.[16]

Rulers, warlords, and traders are more likely to profit from war and violence than from peace. Indeed, war, political violence, and state failure do not result from the incapacity of public institutions but from the fact that rulers, warlords, and their clients benefit from the harm thereby befalling a substantial share of the population.

State failure, as in Sierra Leone, Liberia, and Zaire, increases vulnerability to war and humanitarian emergencies. Yet, in a weak or failed state, some rulers, warlords, and traders are more likely to profit from war and violence than in peacetime. Indeed, war, political violence, and state failure do not result from the incapacity of public institutions but from the fact that rulers, warlords, and their clients benefit from the harm thereby befalling a substantial share of the population. Relative deprivation also helps explain the increased violence by belligerents and their clients. An abrupt rush of mineral wealth not only increases the expectations of prosperity by the allies of those controlling the resource, but also lures potential rebels toward combat as a means to gain control of it for themselves. Indeed, the intensity of deprivation increases with the discrepancy between potential and actual conditions, and with the length of time the deprivation persists. In Angola, Congo-Kinshasa, and Sierra Leone, the length and intensity of perceived deprivation were considerable.

Other factors

The military burden – the ratio of military expenditure to GDP – also contributes to humanitarian emergencies. On the one hand, military resources are used to support authoritarian political structures which generate desperate action and military response by the opposition. Under political deprivation and in the absence of political mechanisms to settle grievances, full-scale rebellion becomes more likely. On the other hand, a strong military may overthrow either a democratic or an authoritarian regime which may lead to political instability and humanitarian crises. Powerful armed forces constitute a constant threat to civilian regimes in less-developed countries. Particularly during economic austerity, regimes are afraid to cut back on military expenditure. Furthermore, they may strengthen the military to stave off threats from the opposition. This, in turn, entails heavy socio-economic costs for the population, inducing further discontent and increasing the risk of rebellion. In very poor countries, an increasing budget allocation for the military may produce downright starvation and destitution. Citizens adapt to a certain, acceptable level of violence through the cultural experience of violence. A tradition of intensive political violence makes societies more susceptible to war and humanitarian emergencies. Countries with a history of mass political mobilization for conflict, such as Sudan, Rwanda, and Burundi, are likely to be more susceptible to humanitarian emergencies than other, historically more peaceful countries. Conflict tradition is an indicator of the legitimacy of political violence.

Elites use identification with ethnic and regional communities, and even accentuate that identification, to transfer potential hostility from inequalities and power disparities within their communities to the elites and subjects of other communities. Ethnic antagonism emerges during conflict rather than being the cause of conflict.

Ethnic identity is not a primordial "given." Ethnicity, when implicated in humanitarian emergencies, is created, manifested, combined, and reconstituted in struggles to share benefits from modernization and self-government but is not a source of these struggles.[17] Elites use identification with ethnic and regional communities, and even accentuate that identification, to transfer potential hostility from inequalities and power disparities within their communities to the elites and subjects of other communities. Ethnic antagonism emerges during conflict rather than being the cause of conflict.[18]

In the 1980's in South Africa, ethnic consciousness and cleavages were deliberately aroused as part of the government's attempt to divide and rule, implemented through the security apparatus. Chief Mangosuthu Buthelezi of the Zulubased Inkatha Freedom Party used cultural symbolism to strengthen his and his party's political power. During the most violent phase of the conflict in 1991-93, ethnic identities became further strengthened and reified, and their relevance as sources of political mobilization increased.[19] In Somalia, President Siad Barre succeeded in holding power for 13 years after his failed military campaign in the Ogaden in 1977-78 by manipulating clan identities and thus dividing the opposition into different movements. However, this strategy led to his ousting in 1991. By having fueled clan antagonisms, Barre made the instrumental use of clan affinities much easier for his opponents who could build on his work.[20]

Conclusion

Five factors in particular contribute to humanitarian crises in Africa. They are: stagnating and declining incomes, rising income inequality, avaricious competition to extract Africa's mineral wealth, military centrality, and a tradition of violent conflict. One factor turns out to be a symptom, not a cause of violence: ethnic differences.

Since low average income, slow economic growth, and high income inequality are important contributors to emergencies, African states, with the support of the international community, must strengthen and restructure the political economy of poor, economically stagnant, and inegalitarian countries. The major changes Africa needs to make are economic and political institutional changes – the development of a legal system, enhanced financial institutions, increased taxing capacity, greater investment in basic education and other forms of social capital, well-functioning resource and exchange markets, programs to target weaker segments of the population, and democratic institutions that accommodate and co-opt the country's various ethnic and regional communities. Institutional and infrastructure development increases the productivity of private investment and public spending and enhances the effectiveness of governance.

Industrialized countries and international agencies bear substantial responsibility for modifying the international economic order to enhance economic growth and adjustment. Africa can demand greater consideration of its economic interests within present international economic and political institutions. The interests of Africa can generally be served by its enhanced flexibility and self-determination in designing paths toward adjustment and liberalization; a shift in the goals and openness of the IMF and World Bank; the restructuring of the international economic system for trade and capital flows; the opening of rich countries' markets; more technology transfer by foreign companies, bilateral donors, and international agencies; a greater coherence of aid programs; and increased international funding to reduce food crises, directly help the poor, ameliorate external shocks, and write down debt burdens.

A number of African countries vulnerable to humanitarian emergencies are not amenable to political economy solutions. Policies of governing elites are indeed at the root of most emergencies, and usually some powerful factions in society benefit from them. Yet a large number of African countries vulnerable to emergencies have the will to change. Thus, there is substantial scope for international, national, and nongovernmental economic and political actors to coordinate their long-term policies to reduce Africa's vulnerability to humanitarian emergencies.

Notes

E. Wayne Nafziger is professor of economics at Kansas State University. This article is based on joint work with Juha Auvinen (University of Helsinki, Finland), a research project begun in 1996 by the United Nations University/World Institute for Development Economics Research (WIDER), in Helsinki, and conducted in collaboration with Queen Elizabeth House, Oxford, United Kingdom. It generalizes from eight African case studies of war-affected less-developed countries, 1980-2000, published as E. Wayne Nafziger, Frances Stewart, and Raimo Väyrynen (eds.) *War, Hunger, and Displacement: The Origins of Humanitarian Emergencies*, 2 vols, Oxford, Oxford University Press, 2000. The analysis draws on data on the relationship between humanitarian emergencies and their hypothesized sources, based on the annual observations from African and other developing countries during 1980-1995. A longer and fully documented version of this article is available directly from the author.

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4. Keen, 2000, pp. 292-294.

5. World Bank, 2000, p. 1.

6. Nafziger, 1988.

7. Nafziger and Auvinen, 2000, p. 278.

8. Nafziger and Auvinen, 2000, pp. 105-108.

9. Davies, 1962, pp. 5-19.

10. Reno, 2000, pp. 231-232; Väyrynen 2000b, pp. 437-479.

11. Reno, 1996, 1998, 2000.

12. World Bank, 1994, pp. 22-51.

13. Reno, 1996, pp. 7-8, 12.

14. Reno, 1995, pp. 111.

15. Reno 2000a, pp. 243, 252.

16. Reno, 1998, pp. 147-181.

17. Nafziger et al., 2000.

18. Auvinen and Kivimaki 1998, p. 42; Taylor and Shaw, 1992.

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Peaceful warriors and warring peacemakers

Neil Cooper

The concern of this article is with the legacies that war economies and the discourses surrounding war economies leave for peacebuilding after conflict. In particular, it will be suggested that the concentration on certain pariah actors and certain goods serves to obscure both the breadth of actors and the underlying structures that drive war economies.

Conflict, trade, and war

The trade in resources such as diamonds, drugs and even people has become one of the defining features of the "new wars" of the post-Cold War era. Indeed, there is now a burgeoning political economy school that highlights the rational calculations underpinning even vicious wars, and the sophisticated networks established by warring factions to exploit the shadow markets created by local wars in a globalized world. In so doing, the literature potentially offers an alternative to crude "ancient ethnic hatreds" explanations of conflicts such as those in the Balkans or to the notion of "new barbarism" used to explain what has been described as "the coming anarchy" in weak African states.

Discourses emphasizing the primordial nature of current conflicts effectively disguise the complicity of the developed world in creating the conditions for conflict

Conflict entrepreneurs are as sensitive to changes in their framework as any other business.

This alternative in itself is significant for peacemaking and peacekeeping because discourses emphasizing the primordial nature of current conflicts effectively disguise the complicity of the developed world in creating the conditions for conflict and thus the moral responsibility this brings to work for peace. Indeed, the characterization of contemporary conflicts as war between erratic primitives habituated to violence has encouraged some to argue that we should simply "give war a chance" as peacemaking between such actors is pointless prior to victory or war exhaustion. In contrast, the political economy characterization of local warlords as rational agents plugged into regional and global trade networks not only suggests such conflict entrepreneurs might be pressured into peace and peace building but that they are as sensitive to a change in their framework of economic incentives as any other business. For instance, when the price of the mineral coltan, used in the manufacture of mobile phones, rose exponentially on world markets a few years ago, this led to the coltan equivalent of a gold rush as the warring factions in the Democratic Republic of the Congo (DRC) turned to mining the mineral to finance war.

Recognition of this sensitivity to external market forces has led to the emergence of a control agenda over the issue of conflict trade, most notably with respect to the trade in conflict diamonds. For instance, the UN imposed embargoes on diamonds from UNITA in Angola and the RUF in Sierra Leone. Sanctions have also been imposed on the export of rough diamonds from Liberia in recognition of its role as a conduit for RUF diamonds. In addition, states, industry and NGOs have come together in the Kimberley process to develop an international certification scheme for rough diamonds.[1] The declared aim is to guarantee that rough diamonds traded around the world are not conflict diamonds. Although elements of the scheme are still under discussion, implementation began by the end of 2002.

The control agenda and peace

Despite initiatives on diamonds, the discourse on war economies and the emerging control agenda has been marked by a number of features that have served to circumscribe its application to post-conflict peace building.

The discourse has largely been focused on the role conflict trade plays in the inception and perpetuation of war. This may appear an odd statement to make, as war economies might seem by definition to be creatures of conflict. This is precisely the point however. The process by which war economies have been problematized has served to mark them out as exceptional and distinct rather than reflective of broader responses to both globalization and the structural violence inherent in North-South relations. Indeed, conflict trade tends to be represented as a form of criminalized deviancy perpetuated by violent leaders or warlords whose interests exist outside of, and in opposition to those of the broader society they inhabit. Such trade is thus demarcated as an aberration grafted onto decent society by the conditions of war, leading to the concomitant assumption that the conclusion of war and the defeat (or reincorporation) of the deviant will inevitably create conditions for cessation of the trade – especially with a little dose of good governance and neo-liberalism.

In contrast, while war economies may well be a vehicle for predatory warlords, they can also serve important economic, social, and welfare functions, even amidst (and sometimes because of) high levels of violence. For instance, the FARC (Revolutionary Armed Forces of Colombia) has developed a sophisticated social safety net that includes a minimum wage for coca pickers and pensions for retired guerrillas. Similarly, the coltan boom in the DRC led to an influx of miners, which in turn created a local trade in prostitutes and treatments for sexually transmitted diseases – both paid for in coltan. Post-conflict strategies that emphasize criminalization/eradication without also establishing new mechanisms of profit and power for these communities are more likely to embed recidivism than to build peace.

Furthermore, narratives on the informal economy also undergo a shift in the transition from war to peace – while war economies are depicted as serving economic and political interests, albeit of homicidal warlords, war economies in peace are constructed as a problem of "ordinary," de-politicized criminality or corruption. In other words, they are depicted as a problem of a different order and of a different kind. In reality, war economies not only reflect social transformations that amount to the creation of alternative systems of profit, power, and protection, but ones that have their roots in pre-conflict economic structures and which either persist in, or adapt to, the conditions of post-conflict peace. Indeed, at the extremes, the persistence of war economies after war may simply result in a homicidal peace in which post-war killings equal or exceed those in war.[2]

War economies, then, do not simply disappear as one deals with criminals or in response to the application of good governance initiatives after peace. Instead, they mutate in relation to the conditions of peace, often evolving to feed off the new dynamics created.

War economies, then, do not simply disappear as one deals with criminals or in response to the application of good governance initiatives after peace. Instead, they mutate in relation to the conditions of peace, often evolving to feed off the new dynamics created. At the extreme, as in the case of UNITA and the RUF, the ability to continue illicit trade means peace spoilers retain the wherewithal to resume war if peace seems to be delivering fewer benefits. Even where peace agreements hold, the influence that war elites establish over key economic sectors during conflict can reverberate through the process of state reconstruction and peace building, effectively perpetuating war economies or the economic dominance of war elites, under conditions of non-war. This has been the case in both Bosnia and Cambodia.

Even where action, in the form of regulation and policing, is taken to address the legacies of conflict trade in peace, the effect can be to either create new opportunities for illicit trade or simply to act as a spur to innovation. For instance, the transition from war to peace in Sierra Leone is supported by a national Certificate of Origin Scheme designed to guarantee that only government-authorized diamonds are traded abroad and to implement the embargo on Liberian diamonds noted above. However, the effect of sanctions on Liberia has meant that the problem of RUF diamonds being routed through the country has been reversed, with Liberian diamonds now passing through dealers in Sierra Leone and Cote d'Ivoire who specialize in laundering Liberian rough. Indeed, according to some dealers, the introduction of a certification scheme in Sierra Leone has made it easier to launder diamonds as it obviates the need for complicated smuggling through other countries. Furthermore, insurgents in Guinea and particularly the LURD (Liberians United for Reconciliation and Democracy) in Liberia are now reportedly using diamonds and other commodities to fund their activities. It is also the case that illicit smuggling simply for tax avoidance purposes remains endemic across the region.

External intervention in the process of peacemaking and peace building can also create new opportunities for shadow trade that pre-existing war elites can exploit, often drawing on the same global networks previously utilized to fund war. First, peace negotiations often focus on the agents of violence. The interests of civil society are consequently treated as an afterthought, considered only once the parameters of post-war power and political economy have been established in agreements with warlords or militaries whose main concern is maintaining influence, rather than transforming the status quo. At the extreme, peace agreements can simply entrench a warlord political economy, as occurred in Sierra Leone where the peace accord of 1999 allocated responsibility for the country's diamond trade to Foday Sankoh, the leader of the rebel RUF. Sankoh simply used his position to facilitate personal business deals and the RUF continued to mine diamonds.

Second, aid workers and peacekeepers create a new and distorted local political economy that may even be antithetical to long-term development. A good example is the creation of a market in which translators and drivers are paid more than teachers and engineers. They may also create shadow markets too – most notably in the sex trade that arises to service the internationals. In some cases, intervention may even contribute to a political economy that promotes conflict. In Somalia, control over food aid and the provision of security guards to nongovernmental organizations (NGO's) gave local warlords a material interest in preserving the insecurity that fueled the trade in both.

Third, the very policies advocated by external agencies may create new economic opportunities for war elites while simultaneously undermining the goals that the policies aim to achieve. For instance, the application of neo-liberalism provides new openings for war elites to enrich themselves through control of privatization processes, while also fostering the illicit economy as an alternative to welfarism.

Pariahs and peace

A further issue that the emerging control agenda on conflict trade raises for peace building relates to the way its articulation both reflects and reinforces narratives of conflict. However, such narratives can skew perceptions of the challenges involved in the transformation of war economies in peace.

There are two aspects to this problem. First, while the literature on war economies inevitably highlights the complicity of first world businesses in fueling conflict, the concentration on certain pariah actors (UNITA, RUF, Charles Taylor) risks pinning the blame for conflict on avaricious warlords (as opposed to say avaricious Western businesses or arms exporting states). Indeed, some studies, e.g. Collier's work emphasizing greed rather than grievance as the explanation for civil conflict, have elevated this bias to the status of economic fact. Thus, rather like the ancient ethnic hatreds thesis the literature purports to reject, much of the work in this field risks putting war down to the uncivilized barbarians outside the zone of peace rather than the actors inside.

The UN General Assembly's December 2000 resolution defines that diamonds sold by UNITA are conflict diamonds but not those sold by the Angolan government.

Second, the control agenda has tended to define conflict goods as things that are traded by rebels, or at the outside certain pariah regimes. Typical of this is the definition on conflict diamonds given in a UN General Assembly resolution on the issue in December 2000. This defines them as rough diamonds which are used by rebel movements to finance their military activities, including attempts to undermine or overthrow legitimate governments.

Thus, diamonds sold by UNITA are conflict diamonds but those sold by the Angolan government are not. This of course follows much the same logic that governs the sale of arms to states: that sovereign (and legitimate) governments have a right to self-defense. However, the definition of rebels (as opposed to say the "freedom fighters" of Afghanistan's Northern Alliance or in Northern Iraq) and the definition of legitimate states is more a function of the narratives constructed around individual conflicts than a reflection of objective reality or of the scale of resource predation. For instance, while Liberia and the RUF have experienced embargoes on conflict goods, the resource predation of Uganda and Rwanda (both in favor with the UK and U.S.) in the DRC has gone unpunished. Similarly, it has only been Charles Taylor and the RUF that have been targeted for international opprobrium over the trade in conflict diamonds from Sierra Leone. In contrast, a relative silence has been constructed around the trade conducted by peacekeepers, pro-government forces in Sierra Leone, and wider society in both Sierra Leone and Liberia.

This has implications for policy after war. There is a concomitant risk that narratives of past resource predation will have a detrimental influence on policy toward the political economy of present peace building. In particular, there is a danger that external patrons will consider action against local or regional "rogues" as sufficient to transform war economies, while the activities of other actors continue to be overlooked or constructed as a problem of a lesser order. In Sierra Leone, for instance, while the diamond embargoes on the RUF and Liberia remain (quite rightly) in place, it is equally the case that the current government of Sierra Leone is widely viewed as corrupt by its citizens. This view is reinforced by the recent closed door decisions to grant large and long-term diamond and oil concessions to foreign companies, by the fact that four senior members are themselves reportedly engaged in illicit diamond mining, and by the use of diplomatic bags to smuggle diamonds.

Third, just as the activities of certain actors may be highlighted in the dominant narratives of conflict developed by external actors, so the trade in particular goods – most notably drugs and diamonds – has become the focus of concern. Again, this has implications for the strategies adopted in peace as many conflicts are in fact characterized by illicit activity across a range of sectors. For instance, an estimated 60-70 percent of the Taliban's $100 million war budget was actually derived from revenue earned through the smuggling of fuel, consumer, and durable goods rather than opium.

To date at least, there has been a tendency to particularize both the range of actors who engage in conflict trade and the conflict goods deemed worthy of control. One consequence of this is to encourage a "drugs and thugs" cum pariah goods control agenda which effectively obscures attention to the broader political economy that conflict leaves as its legacy.

Control-lite and prophylactic control

While this agenda certainly hampers the development of effective peace building strategies, it nevertheless serves important functions in the maintenance of the neo-liberal order. First, it keeps the responsibility for conflict neatly pinned on criminal leaders. At worst it extends complicity to the venality of specific individuals and companies in the developed world – who can usually cop a plea bargain. In contrast, the criminal effects of a global system that produces the permissive conditions (structural violence and underdevelopment) for much conflict are provided with an alibi.

Explaining war by reference to avaricious warlords obviates the need to explain why substantial portions of society often participate in the shadow trade that supports war economies or to consider the role of poverty in fueling conflict. In sub-Saharan Africa for instance, the site of forty percent of the armed conflicts in the world, nearly half the population live on less than a dollar a day. The average life expectancy of an African citizen is just 48 years – and falling, while the region's share of world trade (excluding South Africa) fell from three percent in the 1950's to 1.2 percent in the mid-1990's.[3] Between 1997 and 1999 the combined annual index of free market prices for primary commodities, which represent 80 percent of Africa's export earnings, fell by 25 percent. In this context shadow trade, whether in war or peace, represents the means by which those excluded from or relegated to the periphery of the global economy reincorporate themselves into its workings. For instance, in Angola as little as 10 percent of the country's gross national product (GNP) is thought to be produced through the formal economy while in Afghanistan an estimated 80 percent of the economy and 30-50 percent of the population has been involved in some aspect of the drugs trade.

Second, the focus on specific commodities or specific actors allows a judicious mix of "control-lite" and "prophylactic control." Control-lite reflects an approach toward conflict trade in goods for the formal economy that leaves large swathes of business free of formal restrictions – whether it be oil in Angola, coltan in the DRC, or timber in Liberia. At best, control has been confined to voluntary initiatives by industry. The one exception is the issue of conflict diamonds. Even here, proposals for an international certification scheme for diamonds have been constrained by industry interests, with the result that the putative regime lacks teeth. For instance, monitoring and enforcement is by self-regulation and some elements of the system are merely "recommended" or subject to voluntary participation. This has led the U.S. General Accounting Office to note that, as currently envisaged, the scheme may simply "provide the appearance of control, while still allowing conflict diamonds to enter the legitimate diamond trade."

Crucially "control-lite" avoids addressing the role of neo-liberalism in fostering inequality and conflict. In contrast, deep control would require intervention in the global economy to redress inequalities between North and South (and indeed within the North). For instance, Oxfam has called for an international commodities institution to tackle the crisis in commodity prices. This might also address the conflict trade in such goods. Deep control would also require the creation of regimes able to place meaningful sanctions on firms and states that benefit from conflict trade. Ironically, such sanctions tend to be most often available only when actors offend the principles of free trade. For instance, in 1999 British Airways was fined £4 million for breaching EU competition rules (by offering extra commission to travel agents who increased BA ticket sales). In contrast, funding war economies merely tends to result in the kind of PR problems that the oil firm Talisman has experienced over its operations in Sudan or that Sabeena has over its transportation of coltan from the DRC.

The same neo-liberal drive for free trade, open borders and deregulation that forms the basis for prosperity and relative peace in the Northern hemisphere provides the permissive conditions for the trade of conflict entrepreneurs.

By focusing on rogues or individual companies (or even individuals within individual companies), "control lite" also largely obviates the need to address the contradictions in neo-liberalism, most notably the fact that the same neo-liberal drive for free trade, open borders, and deregulation that forms the basis for prosperity and relative peace in the North also provides the permissive conditions for the deterritorialized network trade of conflict entrepreneurs. This is brought into sharp relief on those rare occasions when attempts are made to control conflict trade. Thus, the putative international certification scheme for conflict diamonds has been hampered by disagreement over how to reconcile the requirement to cease trading with non-participants and by agreements such as GATT, which enshrine free trade.

Prophylactic control, in contrast, tends to address the problems that war and informal economies export to the zones of peace in the West – e.g., drugs, asylum seekers, sex workers. The emphasis here has been on creating a cordon sanitaire around the developed world rather than addressing the structural causes of such trade. The aim is to prevent transmission (except by video camera) of the "virus of disorder" to the developed world. For instance, the UN Drug Control Program in Central Asia has largely focused on interdiction, border control, and strengthening of law enforcement agencies. Ironically, however, the emphasis on "sticks rather than carrots" has not only been criticized as hypocritical (the domestic strategies of many developed states do in fact emphasize harm reduction) but also as ineffective.

Conclusion

Both discourse and policy on war economies has tended to treat them as separate and distinct from both the pre and post-conflict economy. In reality, war economies tend to represent simply more violent versions of the neo-patrimonialism and external trade relations that characterize many developing states both before and after conflict. Assuming that peace will inevitably resolve the legacies that war economies leave behind is thus a forlorn hope. In addition, the discourse and control agenda surrounding conflict trade has been constructed in a way that negatively affects peace building. In particular, the focus on certain pariahs or specific conflict goods tends to understate the complexity of war economies and the social function they serve – features that persist into peace.

There is a need instead to address the underlying structural and social dynamics that war economies both reflect and create. In particular, it is important to redress the exclusion and peripheralization in the global economy that shadow trade is a response to. In addition, civil society needs to be empowered so that it can play a role in monitoring and influencing the political economy of peace building. Last but not least, if a political economy of peace building is to be constructed, attention needs to be paid to deconstructing the narratives of war and war economies that have developed, as these often produce a skewed and partial truth which hinders the development of effective policy and thus also inhibits the transformation of war economies in peace.

Notes

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1. See David Gold's article, in this volume, on conflict diamonds.

2. Cooper, N. and M. Pugh. 2002. "Security Sector Transformation in Post-Conflict Societies." The Conflict, Security and Development Group Working Paper Series, No. 5. London: Centre for Defence Studies.

3. Oxfam, 2002. *Africa at the Crossroads: Time to Deliver*. Oxfam Briefing Paper No. 19. Oxford: Oxfam.

Angola: conflict and development, 1961-2002

Manuel Ennes Ferreira

Can a country achieve its development goals or, at least, its economic growth goals when it faces forty years of war? Angola's case is a paradigmatic example to answer this question. From 1961 to 1974, Angolans opposed Portuguese colonial rule by violent, revolutionary struggle. But from 1975 (Angola's independence year) to April 2002 (the date of the last cease-fire), a civil war pitted the ruling MPLA party against the main rebel group, UNITA. Macroeconomic performance differed across these two time-periods. The purpose of this article is to explore the influence of internal and external economic and political conditions on Angola's development, under circumstances of war, and to speculate on Angola's immediate future.

Conflict and development in the colonial context, 1961-1975

> **In the early 1960's, Angola's economic and social structure was typically colonial.**

In the early 1960's, when the struggle for independence began, Angola's economic and social structure was typically colonial. Manufacturing industry accounted for only 13 percent of GDP. Agricultural production, the extractive industry, and international trade were the most important GDP contributors. The main export good was coffee (36 percent of total export value in 1961) which, together with other unprocessed agricultural goods (sisal, maize, sugar, cotton, and wood) amounted to 56 percent of total export value. Mined goods, such as diamonds and iron, contributed another 17 and 4 percent, respectively. Manufactured goods were just 10 percent of total exports but 88 percent of the colony's total imports. Portugal was Angola's principal supplier (44 percent), followed by Great Britain (13 percent) and the U.S. (10 percent), while the latter was Angola's main export client (21 percent), followed by Great Britain (19 percent), and Portugal (14 percent). Even though Angola had a trade surplus vis-à-vis the rest of the world, its substantial trade deficit with Portugal resulted in a negative current account (8 percent of GDP). The government budget surplus ran to 7 percent of GDP. Indigenous economic activity was very low, as was the indigenous level of education and socio-economic achievement.

To lessen criticism from the international anti-colonial community and to rally internal support in Angola and in Portugal, the colonial masters realized that reform measures to foster economic growth and development in Angola were urgently needed. At the time, Angola's economy was formally integrated (since January 1962) into the Portuguese Economic Area, supposedly a free-trade zone that included Portugal and its colonies. But colonial rules had protected Portuguese manufacturing industry and prevented an independent Angolan industrial take-off, which accounted for the uneven trade between the two countries. Economic openness was restricted, and independent capital and finance were therefore lacking to support Angolan economic growth. An extensive military effort also claimed substantial internal budgetary resources.

> **Angola engaged in a mix of economic openness and domestic market protection. In spite of the anti-colonial military confrontation and consequent high military expenditure, this mixture led to considerable industrial and economic growth in Angola.**

Under relaxed colonial policies, Angola then engaged in a mix of economic openness and domestic market protection through a policy of import substitution industrialization. In spite of the anti-colonial military confrontation and consequent high military expenditure, this led to considerable industrial and economic growth in Angola. The numbers are as follows. Angola's military expenditure rose from 6 percent of the budget (or 1 percent of GDP) to 15 percent in 1967 (3 percent of GDP) and then fell to 8 percent in the 1970's (2 percent of GDP). A budget surplus was nonetheless achieved in every year, in part because 30 percent of Portugal's military budget was spent in Angola, subsidizing the Angolan military budget. Despite the high military expense, the average annual inflation-adjusted economic growth rate was nearly 5 percent for the 1962 to 1973 period, while that of the manufacturing sector was just over 12 percent.

The strong domestic market meant that industrial goods accounted for more than 90 percent of total imports and led to an increasing shift toward non-Portuguese suppliers (in aggregate 74 percent, Germany being first with 13 percent, and the U.S. second with 10 percent), which were better able than Portugal – then itself a developing country – to respond to Angola's sophisticated and modem domestic demand. From the early 1960's to the early 1970's, the external trade surplus grew ten-fold. In 1969, the Cabinda Gulf American oil company started exporting crude oil from Angola (5 percent of total exports), and a mere four years later oil exports occupied the largest share of total exports (30 percent), the U.S. being the largest customer, receiving 28 percent of all oil exports. The current account turned positive in 1972 and 1973. A shift in the export structure had occurred, putting non-agricultural raw materials (crude oil, diamonds, and iron) in first place with 47 percent of total exports against 33 percent of agricultural raw materials. At the same time, manufacturing products (25 percent of GDP in 1973) and agricultural consumer goods were responding well to domestic demand. Deep involvement of Portuguese, colonial, and foreign economic interests in the export and domestic sectors combined

The dark side of this development was a notorious lack of indigenous capability.

with proper incentives provided by fiscal and industrial economic policies. This permitted Angola to overcome hindrances on account of military effort and international political isolation and to achieve some degree of economic development. But the dark side of this development was notorious lack of, and lack of promotion of, indigenous capability, despite some palliative improvements that had been introduced over the years.

Civil war and development in a centrally-planned economy, 1975-1992

Following the fall of Portugal's military dictatorship in April 1974, Angola achieved independence in November 1975, the result of military confrontation that had put Portugal in opposition to various nationalist movements. Post-independence political fragmentation into two major groups marked the conditions within which further economic development would have to occur. External support soon materialized for each of the two sides, and made matters worse. Socialist countries – Cuba and the Soviet Union – helped the ruling MPLA, whereas western countries – the U.S., France, and especially South Africa – assisted UNITA. As if this ideological and military bifurcation was not enough to stall Angolan economic development, the MPLA's political ideology and vision of a centrally planned economy made things much worse. The political system was based on rule by a single, Marxist-Leninist party and excluded people from participation in the country's destiny. The economic and political system amounted to an identification of state with party (the MPLA). Capital assets were confiscated and the nationalization of private industry was announced. Except for the oil and diamond sectors, the private sector was thus edged out. Great numbers of skilled workers left the country.

By 1991, the average value of industrial production was only one-third of what it had been in 1975.

As civil war spread in the countryside, military effort increased. Simultaneously, problems common to centrally planned economies made their appearance. At no point was there a stable and coherent economic policy. Agricultural production fell year after year, and dependence on imports to assure continued production in the manufacturing sector grew (mostly affecting food and beverage firms, and some light industries). Domestic production in the heavy industries was negatively affected as well. Financial problems in state-owned enterprises appeared and were covered up by subsidies and transfers from the government budget. This permitted enterprises to function under high average costs even as their product sales prices were subsidized. Non-oil annual economic growth declined sharply. For instance, by 1991 the average value of industrial production was only one-third of what it had been in 1975. As a result, manufacturing industry's contribution to GDP fell to only 5 percent in 1991.

Angola's incapacity to formulate appropriate economic policy in times of civil war should be understood in the context of its political and economic system. For instance, lack of domestic capital should have alerted the Angolan government to attract foreign capital. But foreign capital was seen as endangering Angola's "socialist option." At the same time, the government kept the value of the national currency – the Kwanza – unchanged against the U.S. dollar until March 1991. The Kwanza became increasingly overvalued. Consequently, industrial and even agricultural production were punished by competition from much cheaper imported goods.

Falling domestic production and rising military effort led to the search for regime survival. The need for ever higher hard-currency income to finance imports of consumer and industrial goods, and of military equipment, led the MPLA to ask oil companies from the U.S. and France to increase oil production. Apart from the obvious paradox of private U.S. and French companies sustaining a socialist regime, the "Dutch disease" asserted a tremendous negative effect on the remainder of Angola's economy. (Massive raw material exports, traded in U.S. dollars on the world market, tend to increase a country's currency value – many U.S. dollars per Kwanza – making other exports more expensive to foreigners, and imports to Angola cheaper, thus devastating the non-oil export sector and subjecting domestic industry to import-competition.)

Along with changes occurring in the Soviet Union, the recognition that central planning was actually inhibiting progress toward development eventually induced the Angolan government in 1987 to approve an economic reform program – the Programa de Saneamento Económico e Financeiro (Program for Economic and Financial Restructuring). At the same time Angola applied for full membership in the IMF and World Bank (accession occurred in 1989). But neither this, nor two related programs (the Programa de Recuperação Economica and the Programa de Acção do Governo), which proposed to restructure the state-owned sector, ever came into force. With civil war at an impasse, a peace agreement was signed in May 1991, in Bicesse, Portugal. General and presidential elections took place in September 1992.

Impressive resources were taken from the budget to finance the war: more than a quarter of the government's budget in the latter 1970's, sometimes more than 40 percent in the 1980's, and 20 percent in the 1990's.

What is the link between civil war and development in this period of time in Angola? Impressive resources were taken from the budget to finance the war: officially, more than a quarter in the second half of the 1970's and sometimes more than 40 percent in the 1980's. This amounted to 14 percent of GDP in 1978, 28 percent in 1986, and 20 percent in the early 1990's. Consequently, development resources were lacking. Moreover, foreign capital was discouraged, as was private economic activity. The exception was the petroleum sector. Crude oil accounted for two-thirds of fiscal revenues and for more than 90 percent of total exports, assuring a trade balance surplus. The U.S. took 57 percent of Angola's total exports. Inflows of foreign capital from oil companies helped the balance of payments, although from 1985 onward external debt and arrears became a huge problem for Angola's economy. The ratios of total external debt to exports of goods and services and to GNP jumped, respectively, from 128 percent and 52 percent in 1982 to 240 percent and 141 percent in 1991. In the same period, military external debt accounted for almost 70 percent of the country's total external debt.

The war certainly conditioned Angola's economic performance, but the main obstacle was inappropriate policy and a political system that fostered a rent-seeking elite.

The attractiveness of crude-oil production to finance military needs and imports of consumer goods led the MPLA government to neglect its duties toward the nation as a whole. A rigid hierarchical network of vested interests emerged inside the state and the party. Private appropriation of public assets and massive rent-seeking began in the mid-1980's. The existence of state monopolies in external trade and domestic marketing facilitated privileged access and acted against the national interest of domestic industries. The war certainly conditioned Angola's economic performance but the main obstacle was utterly inappropriate economic policy and a political system that fostered a rent-seeking elite.

Civil war and development in a market-oriented economy, 1992-2002

Not accepting the results of Angola's first-ever elections in September 1992, UNITA resumed civil war. Neither the Lusaka peace agreement signed in 1994, nor the 1997 creation of a Government of National Unity and Reconciliation put an end to war. Two quite different and important characteristics of this renewed turmoil need emphasizing. First, the war now spread throughout the entire country and for the first time it included towns. UNITA's access to diamond mines increased, permitting it to become financially self-sufficient and to acquire and use heavy military equipment. Second, Angola involved itself militarily in the internal affairs of its neighbors, the Republic of Congo and the Democratic Republic of Congo (ex-Zaire). This resulted in a humanitarian catastrophe and thousands of displaced people. In December 1998, the MPLA-dominated government launched a large-scale offensive against UNITA which ended in February 2002 when UNITA leader Savimbi died in battle. A Memorando de Entendimento signed in April that year finally brought the tragic Angolan civil wars to an end.

The decade of 1992-2002 was marked by an intensive use of government budgetary resources for military purposes, absorbing more than 40 percent of total expenditures.

Economically, the decade of 1992 to 2002 was marked by an intensive use of government budgetary resources for military purposes, absorbing more than 40 percent of total expenditures. Inflation rose sharply to 1,837 percent in 1993, 3,783 percent two years later, before declining to 268 percent in 2000, and a mere 116 percent in 2001. The fiscal deficit to GDP ratio remained high at 27 percent of GDP in 1995 and 15 percent in 1999. Agricultural and manufacturing activities continued to decline, the latter to no more than 5 percent of GDP. Crude-oil exports rose in 1994 to an astonishing 94 percent of total exports and even in 2000 still accounted for a whopping 88 percent. Correspondingly, oil money increasingly financed fiscal revenues: 67 percent in 1995 and 87 percent in 1999. The U.S. remained in the top slot as a destination for Angolan exports (more than 60 percent) and was second as a supplier (around 15 percent). Despite oil exports, for much of the 1990's the current account got worse: 11 percent of GDP in 1992, 20 percent in 1995, and 25 percent in 1999, but became positive in 2000 (9 percent). Foreign loans were secured with pledges against future crude-oil deliveries. Total external debt rose and arrears accumulated. In 2000, the ratio of total external debt to exports of goods and services was 109 percent.

This macroeconomic landscape developed in the context of promoting a market-oriented economy. Public enterprises were privatized – from manufacturing industry to agriculture and commerce – but essentially benefitted a small group of "emergent entrepreneurs and economic groups" closely related to the MPLA, the ruling political party. These people received privileged access to credit and hard currency (and sold it in the parallel foreign exchange market or used it to guarantee themselves lucrative import business), in the process driving out those who were genuinely interested in the recovery of domestic production. As the economy stagnated, oil production remained the essential financial support pillar of the government. The "Dutch disease" phenomenon continued, as did rent-seeking, by far the easiest way to profitably accumulate private capital. This sort of economic nepotism became a formidable barrier to entry for any new economic activity. Despite the fact that some foreign investors appeared in local markets, the over-all economic and political country-risk remained at a very high level. Lack of transparency and bad governance got worse over time. Corruption and embezzlement were at the center of criticism from multilateral institutions and from Angola's civil society.

Every new economic program that was launched (for instance, the Programas Económico e Social or the Programa Nova Vida) soon saw its goals and targets not achieved. Lack of economic strategy for the medium and long-term prevented economic policy from being effective and was, in turn, subject to vested economic and political interests. The economic imbalances of the Angolan economy, the urgent need for foreign capital, and the need to renegotiate its external debt should have resulted in a much more dedicated commitment by the Angolan authorities. But this was not the case. Even pressure exerted by the IMF, following an agreement signed by Angola, did not result in any success.

Just as the new economic "openness" was undermined, so the new political movement toward democracy was strongly subverted. Small parties were subject to pressure by the MPLA and the government, promoting divisions within them. Not even the largest opposition party, UNIT A, escaped from this practice and resulted in the emergence of a splinter-group, UNITA-Renovada. Likewise, civil society initiatives came under pressure. Human rights and press freedom were two special targets. Informal repression became an important means of controlling Angolan society at large. As it had done before, the government pointed to the on-going civil war by way of excuse for Angola's abysmal economic performance. Accusing UNITA to be merely interested in promoting war out of greed, the MPLA government tried to hide the kernels of genuine grievance that underlay the civil war – and the quasi-greed motivation of both sides.

Prospects for the future

The civil war was a perfect ruse to excuse government incompetence and irresponsibility. The government's choices, in conjunction with UNITA's rent-seeking, amounted to a deliberate, shameful policy to deprive the country's people of a decent and humane livelihood.

Political stability and good economic policies are two important requirements to achieve economic growth and development. When political instability takes the shape of military confrontation and civil war, the task is still possible but obviously made more difficult. For forty-odd years, since 1961, it is unquestionably true that resources devoted to fight the Angolan war inhibited the country's economic growth and development. But that does not at all imply that the latter could not have been improved. Indeed, the civil war was a perfect ruse to excuse government incompetence and irresponsibility. The ruling party, the MPLA, and its government chose the lucrative crude-oil sector as the primary cash-cow to finance government revenue, military imports, and rent-seeking among the elite. This, in conjunction with the diamond-based rent-seeking by UNITA to enrich its leaders and finance that group's military activities, led to economic catastrophe and essentially amounted to a deliberate, shameful policy to deprive the country's people of a decent and humane livelihood.

What are Angola's prospects? It would be wrong to understand the on-going political events as a zero-sum game. Neither is economic activity a zero-sum game. One main challenge concerns the need to share economic and political benefits resulting from the new peace framework not merely between the two old opponents – the MPLA and UNITA – but among the wide variety of actual and potential players in Angola. Democracy must be unrestricted, respecting all political parties, and encouraging involvement by civil society. In democracies, social pressure, such as that stemming from labor strikes, are legitimate forms of contest that must be welcomed and protected. Further, barriers that would prevent new economic agents, domestic or foreign, from entering the Angolan economy must be removed so as to permit these agents to participate in and contribute to the economic development of the country.

Special attention needs to be paid to non-oil activities. Of highest priority is the recovery of agricultural production, beginning with basic food stuffs for domestic consumption before turning attention to export crops. Enlargement of the domestic market would, in time, create conditions to relaunch manufacturing activities. Of course, basic transportation infrastructure (e.g., repairing roads and bridges) must be provided to stitch the country back together. Security threats to life and property must be drastically diminished, if not altogether abolished. It follows that economic policy must attend to measures that stimulate renewed economic participation by the people, and this includes the design and implementation of proper credit, trade, and foreign-exchange policies. Monetary policy to control inflation should lead to a diminished fiscal deficit. A goodly portion of military expenditure should be erased and re-oriented toward social and economic targets. Demobilization and reintegration of ex-combatants are another area of policy concern.

None of this will be easy to bring about. As with other developing countries, military expenditure is resilient. Angola is dealing not merely with a simple economic problem but with the political problem of military reform. The prominence that military institutions have achieved in Angola since independence suggests caution. But not only military expenditure needs re-orienting; so does the entirety of the public budget, in favor of the hitherto much neglected health and education sectors. This is compounded by the need to facilitate the return of displaced people to their places of origin and to provide them with adequate services. In addition, with more than 60 percent of Angolans in poverty, anti-poverty programs are most urgently needed.

Fawned upon by U.S. and French oil interests, the elites surely are tempted to reproduce the rent-seeking that have characterized Angola's path.

Another economic problem

concerns Angola's external debt. For years, Angola and the IMF have discussed terms of an economic adjustment program. The government oscillated between criticizing the IMF on account of the expected negative social impact of just such a program to begging for urgently implementing it, while the IMF charged the government with not reaching agreed-upon targets of the monitoring agreement and accusing it of lack of transparency of the public accounts, primarily the oil account. It is not unfair to state that the Angolan government is more interested in signing an agreement with the ulterior purpose of appearing before the Paris Club to reschedule its external debt and be free to contract new loans than to genuinely proceed and correct the economic imbalances that are currently damaging the Angolan economy and hurting its people. Either way, it is understood that an IMF "green light" would help the country to attract foreign capital. But foreign capital into which sectors? Fawned upon by U.S. and French oil interests, the elites surely are tempted to reproduce the rent-seeking that characterized Angola's path.

The U.S. in particular has recently expressed a peculiar interest in Angola, for two main reasons. First, in distinction to the troublesome Middle East, Angola is a convenient alternative source for medium and long-run oil supplies. Second, the notion that Angola could potentially fill a useful role as an African regional peacemaker sounds good to the American administration. But potential vested economic interests require actual political stability. It would therefore be interesting to know to what degree, if any, UNITA's military defeat was linked to U.S. intelligence or other support, or was tied in any way to the U.S. desire to "resolve" annoying conflicts in the context of its post-September 1, 2001 anti-terrorism campaign. At any rate, Angola's unfortunate but substantial military experience – both inside and outside the country (direct interventions in Sao Tome, Congo-Brazzaville, Congo-Kinshasa, Namibia, Zambia, and now, it is said, Cote d'Ivoire) – well aligns current U.S. interests with Angolan aspirations to become a regional power. In a bid to counterbalance South African leadership, it is therefore quite possible that Angola's renewed engagement within the Southern African Development Community will shift from the free-rider position it assumed thus far to a much more active agenda. The end of Angola's civil war might have brought hidden ambitions of its rulers to the fore.

Angola's elite has once more received an opportunity to better the country. Wasting it should be considered a crime against the Angolan people.

Certainly, much is possible and Angola's elite has once more received an opportunity to better the country. Wasting it should be considered a crime against the Angolan people. Without the excuse of colonial or civil war, what reason could possibly be given if another development failure does occur?

Note

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War and reconstruction in northern Mozambique

Tilman Brück

This article discusses some of the economic effects of war in northern Mozambique. It indicates how the historical and structural features of the economy of northern Mozambique restricted post-war reconstruction and post-war poverty alleviation. These features include the dominance of only a few cash crops for export, the absence of much rural trading, poor communication infrastructure, and weak political and state institutions. The specific nature of the internal war further weakened the state through the collapse of tax revenue and export earnings and the massive growth of debt and aid, of which little reached rural northern Mozambique. The chapter also summarizes key aspects of the geography, climate, markets, and social institutions of northern Mozambique, which define the potential production opportunities for peasant households. For example, the degree of land abundance in rural areas is illustrated and markets are shown to have been restricted or destroyed entirely by the war in rural northern Mozambique. Finally, the article suggests how post-war reconstruction could have been more effective in achieving faster post-war poverty alleviation in northern Mozambique.

This article suggests how post-war reconstruction could have been more effective in achieving poverty alleviation in northern Mozambique.

Many current economic institutions and policies in Mozambique are strongly shaped by the region's long history of colonial rule, international trade, and internal conflict.[1] Around 800 AD, the town of Sofala (today Beira) emerged as a Muslim-ruled port, integrated into African and Indian Ocean trading networks. Portuguese involvement in Mozambique started with Vasco da Gama's arrival via the Cape of Good Hope in 1498. Owing to the shortage of Portuguese capital, Mozambique was never developed as a settler economy. Instead, several trading companies were granted long-term licenses to run virtually separate states within Mozambique, even issuing their own currency and overseeing forced labor on cash crop plantations.

The Portuguese military coup of 1926 led to the establishment of a fascist dictatorship lasting until 1974. Economic policy was geared toward integrating Portugal with its colonies but protecting them from world trade and prices. The uncompromising view of the fascist leadership toward independence of the African colonies resulted in the start of the war of independence in 1964 in northern Mozambique led by the left-wing Mozambican Liberation Front (FRELIMO).

The independence war came to an unexpected end with the military coup in Portugal in April 1974. In September of that year the Lusaka Accord arranged the transfer of political power from Lisbon to Maputo within nine months but failed to resolve many economic or legal aspects of the changeover. This resulted in an ill-prepared FRELIMO leadership and an economically and politically uncertain future for independent Mozambique.

As South Africa's president from 1978, P.W. Botha introduced a policy of destabilization aimed at weakening left-leaning, black- ruled frontline states, including Mozambique. Rhodesia helped to set up the rebel group RENAMO as a mercenary movement launching strikes against Mozambican and pro-Zimbabwean targets. The Zimbabwean independence in 1979 ended the costly Mozambican participation in the embargo of Rhodesia and induced South Africa to take over from Rhodesia its support for RENAMO. Afonso Dhlakama assumed the leadership of RENAMO in 1980 and continues to hold it in late 2004. The start of the Mozambican internal war is disputed but it is safe to assume that by 1980 at the latest it had become a serious security threat throughout the country.

Despite FRELIMO's earlier decision to convert itself to a communist party, Mozambique's application for entry into the Comecon trading bloc was rejected in 1981. This induced the Mozambican government in 1982 to apply for membership in the International Monetary Fund (IMF), which it joined in 1984. Mozambique was thus the first country ever to undergo both a transition from socialism and a set of structural adjustment programs.

The first IMF structural adjustment program was introduced in Mozambique in 1987. Subsequently almost all state-owned enterprises (including state farms and financial companies) were privatized in one of the most comprehensive privatization programs ever to take place in Africa. In 1990, peace negotiations between the Mozambican government and RENAMO convened in Rome and led to a partial cease-fire in the Zimbabwean-Mozambican railway corridors. In the following two years southern Africa experienced a severe drought, threatening over three million Mozambicans with starvation.

FRELIMO and RENAMO signed a cease-fire agreement in October 1992 in Rome, which led to UN peacekeeping forces (ONUMOZ) arriving in Mozambique from March 1993.[2] The first free parliamentary and presidential elections were held under UN supervision in October 1994. FRELIMO won by a narrow majority in parliament with 44 percent of the vote versus RENAMO's 38 percent. The incumbent president Joaquim Chissano of the FRELIMO party was elected with 53 percent of the vote while the RENAMO candidate Afonso Dhlakama polled 34 percent. The ONUMOZ mandate ended in December 1994.

Since these elections, Mozambique has been a parliamentary democracy with the president's appointing provincial and district governors, except in the largest 13 municipalities. For these, free local elections were held in 1998. Because RENAMO boycotted the elections, FRELIMO and independent candidates won the vote. In December 1999, the second free parliamentary and presidential elections were held. FRELIMO maintained its majority in parliament with 133 seats versus 117 seats held by the RENAMO-led opposition coalition. President Chissano was re-elected with 52 percent of the vote while the RENAMO candidate Dhlakama polled 48 percent. RENAMO did not accept the result of the election in its post- election speeches and political violence has since increased across the country. Large-scale floods especially in southern Mozambique caused significant damage in early 2000.

Historical Impacts on the Mozambican Economy

1. Portuguese colonialism left a legacy of weak economic institutions with monopolistic cash crop traders, highly contested rural political institutions, and forced agricultural labor.
2. The absence of a human capital base at independence and the haste of the independence process led to a serious weakening of central political institutions.
3. The range of international opponents of the FRELIMO regime successfully destabilized the national economy.

These historical developments affect the analysis presented in this article in several ways. First, Portuguese colonialism left a legacy of weak economic institutions with monopolistic cash crop traders, highly contested rural political institutions, and forced agricultural labor up to independence. Second, the absence of a human capital base at independence and the haste of the independence process led to a serious weakening of central political institutions (these were often either misunderstood or unable to influence directly rural economic developments). Third, a range of international opponents of the FRELIMO regime successfully destabilized the national economy in that there was no integration of different regions within the country and an unbalanced integration of the national economy in international trading systems. The integration instead occurred within the landlocked industrial economies of the south, the rural economies in the north, and the settler economies of central Mozambique.

The nature of the war

The post-independence war in Mozambique had external and internal causes.[3] The former, reviewed above, further include the end of apartheid and the Cold War and the international community's desire to assist the victims of the 1991-92 drought. The latter include a failure of FRELIMO to understand rural issues and to persuade large sections of the rural population and their traditional leadership of FRELIMO's case for change. For example, large-scale village resettlement and collective village programs failed as they did not address the underlying causes of underdevelopment and as villagers were not in control of these programs. FRELIMO thus placed itself on many occasions in the position of the hated colonial authorities, creating a climate that fostered implicit or even outright support for RENAMO.

Yet RENAMO did not possess a viable alternative strategy for rural development. Instead, its aim was the destruction of government infrastructure and thus the demonstration of FRELIMO's lack of power. By the end of the war RENAMO did not control a single Mozambican city or town as it was both unable to sustain a major attack and uninterested in territorial gain. Such an aim of destruction required little direct fighting and little central coordination, making the rebels unpredictable, a characteristic also of their behavior in the post-war demobilization period. Given its original war aim, RENAMO's war effort was supremely effective though at a massive cost to the whole country.

Neither the government nor RENAMO were able to sustain the fighting, and the drought of 1991-93 finally forced a settlement.

With the relative lack of easily extractable natural assets in Mozambique (compared to say Angola or Liberia) the end of war was endogenously determined.[4] Neither the government nor RENAMO were able to sustain the fighting financially and the drought of 1991-93 finally forced a settlement. Diplomatically, the war was ended as a draw but politically the FRELIMO government had to compromise little of its initial stance. The fact that politically Mozambique was a very different country at the end of the war owed less to RENAMO's political philosophy or bargaining strength and more to the ability of the FRELIMO party to re-invent itself over the decades, most recently as a largely pro-business party, while being led by a virtually unchanged group of politicians.

From an economic point of view, the key characteristics of the war were thus a high level of uncertainty and a large-scale destruction of assets and infrastructure. These were caused by RENAMO's war strategy, an absence of clearly defined battle lines, a high risk of attack for rural households and rural infrastructure (most towns were reasonably protected by the government army), and a long time horizon. These characteristics of the war strongly shape its expected effects on numerous variables. For example, the constant risk of attack in rural areas meant farmers had to look out for or flee from attacks, thus strongly reducing their effective labor supply. These points emphasize the general finding that the nature of conflict has a strong impact on the nature of the economic effects of war.[5]

Geography, markets, and institutions in northern Mozambique

This section reviews the external constraints facing poor, war-affected peasant households in northern Mozambique, which in many ways is a distinct economy from the center and the south of the country. Northern Mozambique is in fact considered the most agriculturally productive part of the country and has long been an area for cotton cultivation. The soil conditions of coastal districts such as Moma, Angoche, or Nacala are more suited to cassava, rice, cashew, and coconut, while intermediate districts such as Monapo, Meconta, or Montepuez grow predominantly maize, cassava, sorghum, cotton, and some cashew. The interior districts of Nampula province such as Ribaué or Lalaua also have favorable conditions for maize and tobacco and grow some cotton but no cashew.

The rail infrastructure was badly damaged by the war, with the national stock of operational locomotives declining from 222 in 1982 to 158 in 1989.

The main transport corridor (the so-called Nacala corridor) connects the port of Nacala with the provincial capital Nampula, then with Niassa province and finally Malawi by road and potentially by train. The rail infrastructure was badly damaged by the war with the national stock of operational locomotives declining from 222 in 1982 to 158 in 1989.[6] A main road also connects the town of Nampula to Pemba, the capital of Cabo Delgado province. There is little overland traffic or trade with southern Tanzania due to poor infrastructure, the low population density in the border region, and the large river Rovuma dividing the countries. The road connecting Nampula with southern Mozambique was poorly maintained for most of the post-war period.

Nampula city, with about 206,000 inhabitants in 1994, is the third largest town in the country and is the main urban center of northern Mozambique. Overall, Nampula, Cabo Delgado, and Niassa provinces had about 5.17 million inhabitants in 1995, representing 33 percent of Mozambique's total population. Portuguese is the only official language of Mozambique but only 6 percent of the population speak Portuguese fluently while in Nampula province Macua is the dominant local language.[7]

The climatic and topographical conditions of northern Mozambique are suitable for rain-fed agriculture, though conditions are variable both across space and time. The interior districts generally have higher rainfall and better soil conditions compared to the coastal areas. Environmental factors in the north differ significantly from those in the south of the country, suggesting potentially large gains from domestic agricultural trade.

These observations imply that agricultural conditions are generally favorable for rain-fed agriculture in post-war northern Mozambique. National and international trade in agricultural commodities is feasible in northern Mozambique but has been inhibited by high transport costs in the past.

Northern Mozambique has a population density of 19 inhabitants per square kilometer. Partially as a result of this low population density, peasant households do not irrigate their land or use animal-drawn or mechanized ploughs. The use of inputs is also very low, except for some pesticide use in cotton growing.

Land can most easily be devalued through the planting of land mines. This was done frequently and widely in Mozambique. On the one hand, if the exact distribution of the mines is not certain, the planting of only a few mines will increase insecurity and uncertainty significantly and will devalue large areas of land. Returnees in particular may be unaware of mined areas, and children and livestock are at a high risk of accidentally stepping on mines if they leave safe areas or passages. This suggests that the clear demarcation of possibly mined areas and public information campaigns, especially among refugees and in schools, can yield large dividends by reducing mine-induced death and disability.

On the other hand, most land mines do not kill; in particular they tend not to kill local, adult residents. This applies even more to those who did not leave their areas during the war, as they may know which land remains safe. Mine victims are thus mainly post-war returnees, children playing in unknown areas, and people attempting de-mining. This pattern suggests that a key issue in the analysis of the effects of land mines is the distribution of their costs (as well as of their perceived benefits when produced and planted).

Furthermore, in a land abundant country, reducing the supply of land is not a significant economic constraint in the immediate post-war period. It has been estimated that post-war agricultural production in the absence of land mines would have increased by only 4 percent in Mozambique versus 88 percent to 200 percent in Afghanistan and Cambodia where arable land is generally considered to be less abundant.[8] This view was also supported by interviews in Maputo with mine-clearing staff working in Mozambique in 1995 who thought that public information and mine mapping exercises were more useful and cost effective than large-scale mine-clearing programs.

Households increased their dependency on land-based strategies during the war and for much of the post-war reconstruction effort.

Given the relatively low war-vulnerability of land, households increased their dependency on land-based strategies during the war and for much of the post-war reconstruction effort. At the same time, there are no landless households in rural areas and there are only very few large, village-based landowners. In Cabo Delgado and Nampula provinces there are very few other large so-called private (i.e., business-like) landowners, except for a few sisal plantations that derived from colonial land concessions. It is worth noting that there are thus no land-lease, sharecropping, or other principal-agent relations as are common in Asia and other, more densely populated African countries.

This high degree of land dependence coupled with an apparent land abundance but also with an unequal distribution of land can be explained with reference to imperfect land allocation mechanisms. The key institutions governing land access are the traditional, colonial, political, and post-independence political authorities. These authorities emerged and were created at different times in history but continue to co-exist and represent different levels of traditional society and state authorities.

One reason for the internal war in Mozambique was the dispute over the role of these authorities in rural life. This policy issue continues to generate significant debate in the post-war period. The role of traditional authorities generally depends very much on the standing of the individuals, on the war experience of the community, and on the issues under consideration. Low-level authorities, for example, can resolve land disputes if they concern intra-village disputes; but a state authority may better resolve the relatively rare disputes between peasant households and private farmers.

Given these physical and cultural environments, peasant households typically either acquire land through inheritance via maternal or paternal families (the Macua are a matrilineal society) or are allocated new land by traditional authorities. Such new land can often be genuinely new (virgin) land or it may be land previously abandoned (which implies a degree of disowning exceeding that of fallow land) by other households.

Peasant households in Mozambique could not claim full statutory property rights on land in the mid-1990's, as the government formally owned all land. The Mozambican government was reviewing land tenure legislation throughout this period, finally drafting an innovative land law that today grants the right to secure land tenure to entire communities but not to individual peasant households. However, large-scale, private landowners were always able to obtain *de facto* full property rights. A high degree of corruption through large-scale land grabbing has been alleged since the end of the war. Yet the provinces most affected appear to be those with the lowest population density like Niassa or those with a longer history of plantation farming, such as for sugar in the south.

An informal survey of households found that in Monapo district both men and women can inherit land and that they are allocated land without payment primarily by local or traditional authorities.[9] Two thirds of households in Monapo occupied land previously owned by other households while one third of households used virgin land. In Meconta, land is allocated mainly to men through traditional authorities and no payment is made for land there either.[10] In that district, 20 percent of all households farm land that has previously been farmed, while 60 percent of households occupy previously virgin land.

These observations suggest that many peasant households face a large supply of land or even land abundance. Formal property rights at the local level in northern Mozambique are minimal. The war and traditional society were the major influences on peasant household land institutions and allocation decisions. Rural households can satisfy a large share of their demand for land in most cases. In some important cases, however, households are constrained in their land choice, for example through custom for female-headed households. Consequently, land abundance is a household-level concept, not a macro-level concept, in post-war northern Mozambique. Such concept is akin to the concept of commodity and household-specific market failure and has strong implications for the design and interpretation of post-war reconstruction policies.

The war reduced the mean annual population growth rate of Mozambique from 2.5 percent in 1970-80 to 1.7 percent in 1980-97.[11] However, these values mask highly variable mortality and fertility rates, which are both particularly high in the north. In Nampula province, for example, the total fertility rate in 1997 was 6.3. During the war, mortality rates were even more variable. While the average mortality rates fell over time to about 1.6 percent in the late 1980's, civilians living in war zones had mortality rates of up to 14 percent per year.[12]

Other health indicators for 1997 were low, too, with 96 percent of the population in northern Mozambique having no access to piped water, 78 percent having no access to health services, and 39 percent of all children under 3 years of age being moderately or severely underweight. The life expectancy at birth in the north was 41 years in 1997. Interestingly, the gender structure of the northern population was quite balanced (with 50.7 percent of all residents being female in 1997), probably due to the equal effect of the terrorizing war on the civilian population and due to the high share of very young people who were no longer directly affected by the war.

Health Indicators (1997)

- 96percent of the population in northern Mozambique had no access to piped water.
- 78 percent had no access to health services.
- 39 percent of all children under 3 were moderately or severely underweight.
- The lift expectancy at birth was 41 years.

The adult literacy rate in 1996 was 28 percent, a figure that was directly war-related as the rebels specifically targeted schools and teachers in rural areas. In the period 1983-92, 58 percent of all primary schools were destroyed through fighting or had to close due to the high level of insecurity.[13]

The rebels specifically targeted schools and teachers in rural areas. From 1983-1992, 58 percent of all primary schools were destroyed by the fighting or had to close because of it.

In addition to these quantitative and qualitative constraints on labor, rural labor markets in northern Mozambique were very fragmented, weak, and disrupted by the war. There were few agricultural or non-agricultural employment opportunities and few migrant workers, unlike in southern Mozambique. For example, only 11 percent of all rural households occasionally or regularly employed agricultural labor.[14] The Macua culture, the main ethnic group in northern Mozambique, has strong customs regulating the hiring-in of casual labor and the mutual exchange of group labor. Although this may not reduce the level of labor market transactions, it adds an additional layer of meaning to the hiring-in or hiring-out of household labor.

Approximately half of Mozambican households were local, national, or international refugees by the end of the war.

An important feature of the war and immediate post-war labor markets was the extreme degree of displacement induced by the war of destabilization. Approximately half of all Mozambican households were local, national, or international refugees by the end of the war. This indicates that most other household coping strategies failed given the severity of the war and that a large number of households must have been extremely close to the survival threshold to invoke such drastic coping strategies. Furthermore, the scale of migration to government-held areas during the war indicated some trust in the government and its allied NGO's by a large majority of the population of rural areas. This is in stark contrast to the extreme atrocities committed in the rural areas throughout the war, which for example led to 88 percent of children resident in war zones witnessing physical abuse and/or torture.[15]

By the mid- 1990s it could be said that land and labor markets did not exist in rural northern Mozambique.

These indicators suggest that the rural Mozambican labor force in the mid-1990's had extremely poor health and education, was very dependent on own-farm income due to the lack of large-scale labor markets, and had experienced traumatic, life and livelihood threatening displacement until the very end of the war. In fact, these indicators may even suggest that both land and labor markets did not, in fact, exist in rural northern Mozambique as would be expected in more developed or more densely populated areas. These factors can be expected to have had strong implications for the type of agricultural activities households were interested in or capable of pursuing.

Some kinds of agricultural production were particularly vulnerable to war damage. For example, the number of cattle declined from over 1.3 million in 1982 to 0.25 million in 1992.

Agricultural production and the rural infrastructure were severely damaged and destroyed during the war. Facilities in smaller localities or with a higher degree of immobility or visibility endured proportionately more war damage, making some forms of rural production virtually impossible. For example, the number of cattle in Mozambique declined from over 1.3 million in 1982 to 0.25 million in 1992 as rebels looted and killed livestock and rural veterinary services and livestock markets collapsed.[16]

In addition to threats to production, marketing structures were also severely damaged. The number of private shops, which often were the only rural providers of key goods such as tools, salt, and soap, and frequently acted as purchasers of agricultural crops as well, fell by 39 percent while the number of Agricom posts, outlets of the agricultural marketing board, fell by 74 percent in the period 1982-88.[17]

Transport costs of export crops increased due to the cost of protection for the convoys traveling from rural areas to the ports and due to the inability of the state to maintain rural roads in times of already large fiscal deficits and of high levels of insecurity on these roads. Nevertheless in the post-war period, crop markets appear to have become increasingly integrated at the national level, although this did not appear to prevent large, isolated rural areas from being poorly integrated into the post-war distribution and pricing of food crops. This is also confirmed by the large variability shown in particular by food crop prices versus consumer prices as recorded by rural household surveys.

The marketing of tools was very difficult in the post-war period leading to regular shortages of high quality, hand-held tools. This was accentuated by the lack of blacksmiths in rural areas, a phenomenon that may be related to negative cultural perceptions of blacksmiths.

The war involved the deliberate destruction of assets and institutions. The destruction in turn led to sharp rises in transaction costs.

The war hence involved the destruction of assets and institutions in a deliberate and significant way. These war-affected tangible and intangible institutions[18] then led to strongly rising transaction costs. Many peasant households thus ceased to produce large quantities of cash crops or to sell food crops. For example, Mozambican cashew output accounted for 43 percent of world cashew production in 1969-71 but only for 5 percent in 1989-91.[19] Cotton production in Cabo Delgado and Nampula provinces declined from 83,000 metric tons in 1973 to 19,000 metric tons in 1988.[20]

The war-induced isolation of households in rural Mozambique implied that most households were nearly self-sufficient in most commodities and that commerce was mainly limited to low weight, low volume, non-perishable, and essential items such as salt, soap, dried fish, batteries, and T-shirts.[21] The high covariance of output fluctuations reduced opportunities for profitable inter-household exchange (trade across space) within a given area. In fact, the share of purchased food in total food consumption in northern Mozambique was only 22 percent in 1995.

It was also not profitable for households to hold significant stocks of crops beyond those required for expected own consumption in the hungry season. The storage costs and losses would have outweighed the expected benefit of such trade across time. There were hence few regular, annual agricultural output markets within homogenous agricultural areas.

Overall, the effects of war were both direct and indirect and the cumulative effect on the capacity for growth in the whole economy was debilitating. Rural peasant households were forced by the war into an extreme form of subsistence and even autarky.

Other rural institutions

A key sector in many rural development programs is the rural finance sector, which includes savings associations, rural development banks, and moneylenders. However, these institutions exist in virtually no rural areas in northern Mozambique, a result of the effects of the war and the related extreme poverty. The only sources of credit at that time were informal consumption loans among farmers, often in times of ill health to attend hospital.

Further rural institutions include the three cotton joint venture companies (JVC's) – Lomaco, Sodan, and Samo – which were set up in 1990 by the government and by British and Portuguese enterprises.[22] In a set-up not dissimilar to the colonial period, each JVC was allocated an exclusive area of influence and thus monopsony rights for cotton at prices set each season by the government in line with world cotton prices. These spatial monopsonies were intended to help overcome the large costs and uncertainties associated with purchasing cotton in a low-density and insecure area. In return, JVC's had to provide inputs, extension advice, and other services to farmers. In addition, the government annually set a minimum cotton price to protect smallholder interests against the JVC's and from changing world prices.

In 1994-95, about 81,000 peasant households participated in this scheme with these JVC's.[23] In practice, these companies never carried out many of the functions envisaged for the JVC's, in part because the costs of operating in post-war rural areas had been overestimated *ex ante*. Pesticides were allocated to most cotton growers but little extension advice and no fertilizers or other cash or food crop seeds were provided.

Finally, unless located near a main inter-provincial transport corridor, almost no rural farm household would have had access to electricity, telecommunications, postal services, or regular public transport. Some areas were able to receive a state radio station so that owning a radio was a source of information and key status symbol in post-war rural areas.

Macro-economic trends in the post-war period

At the end of the war in 1992, Mozambique was very poor even by African standards. There was hope that the economy would realize a peace dividend, that is, an increase in output and an improvement in the fiscal position as a result of the end of the war. Yet by late 1995, only small progress had been made and expectations of future growth were much reduced.

One objective of this article is to explain why the aggregate supply response in rural areas in northern Mozambique (and indeed national GDP growth) was so muted in the early post-war period. The main hypothesis is that the effects of the war had been underestimated in 1992 and that they had a long-lasting negative effect on agricultural growth (both of food and cash crops) throughout most of the 1990s.[24]

In 1992, Mozambique was very poor even by African standards. Output had dropped to less than 1/5 of the mean level of all sub-Saharan Africa countries.

As a result of de-colonization and the war, Mozambican output in 1987 had dropped to less than one-fifth of the mean level of all sub-Saharan African countries. Output in the period 1987-89 rose by 5 percent due to the increased levels of foreign aid and structural adjustment. During the next two years, growth was below 2 percent as aid flows diminished, the war intensifies, and a drought adversely affected southern Africa. In 1992, the economy shrunk by 1.4 percent while the population growth was still high despite the war. These pressures led to the peace agreement thus permitting a resumption of high inflows of humanitarian aid.

The partial economic recovery of the early 1990's can be explained by the end of capital destruction and the high levels of uncertainty caused by the war, a credible peace agreement and peace process, the high inflow of resources with the factual two-year UN occupation of the country, the return of large numbers of displaced people, related increases in the total land cultivated, favorable weather conditions, continued high levels of aid, continually improved macroeconomic management, increased competition in many markets, and increasing inflows of foreign direct investment.

The economic impacts of the war persisted well into the recovery period. Poor physical infrastructure, fragile social institutions, high transaction costs, and low agricultural productivity combined with high levels of foreign debt, budget deficits, an overvalued exchange rate, and high real interest rates to make the recovery even more difficult.

Persistent constraints in the early 1990's included the low levels of physical infrastructure, the fragility of civil and state infrastructures, the subsequent high levels of transaction costs as well as the geographic, economic, and social isolation of many peasant households, their low agricultural productivity, the poor domestic and regional integration of the economy, the continued high levels of foreign debt, the high budget deficit, the balance of payments disequilibrium, the correspondingly overvalued exchange rate, high real interest rates, and still low levels of government policy-making capacity.

The start of the IMF stabilization program raised the consumer price index of Maputo dramatically in 1987 and led to continued urban inflation until after the departure of ONUMOZ. With normalization of the security situation and of the macroeconomic policy management, urban inflation fell for the first time to below 20 percent in 1996. Maputo prices are strongly determined by southern Mozambican food prices and by the Metical-Rand exchange rate, as South Africa is (southern) Mozambique's main trading partner. However, in the mid-1990's prices were mainly determined by market forces, not by government controls, as was the case for 70 percent of legal market transactions in 1986.[25]

There is no reliable data in Mozambique on rural-urban relative prices and thus on the internal terms of trade. Estimates suggest that increased international trade in cash crops led to reduced marketing margins for cash crops and to increased marketing margins for food crops in the period 1991-96, therefore encouraging the production of food crops by smallholders.[26] This analysis suggests that the lifting of domestic price controls or their non-enforcement, the increasingly liberalized exchange rate mechanism, and the liberalization of foreign trade sent proper market signals to producers, especially from the mid-1990s onwards.[27] Leakages of food aid may have had a depressing effect on some agricultural producer prices at the height of the 1991-92 famine but this effect is unlikely to have been as significant in 1995.[28] The net effects of the war on the price mechanism per se and on rural-urban prices is thus likely to have occurred through significantly raised transaction costs.

Foreign direct investment (FDI) increased dramatically with the end of the war. Total approved annual FDI in all sectors except minerals and commerce was about US$ 30 million during 1985-93. This low value must have been due, at least partly, to the war. In comparison, in the immediate post-war period, mid-1993 to end-1994, US$ 443 million of FDI were approved by the Mozambican government under new investment legislation. Furthermore, US$ 9.6 billion worth of FDI was under consideration or being committed in 1999, mainly in very large projects in heavy industries, natural resource extraction, and commerce.[29]

The key macro indicators were therefore only slowly improving by the end of the war. Consequently, the output response to the end of war (i.e., the production peace dividend) was quite slow in the first post-war years. Food production per capita increased by almost 9 percent per year in the period 1993-96 but this was from a historically low base so that by 1996 the pre-war level of food production per capita had not yet been attained. The productivity of exports for example, expressed in exports per capita, was even more damaged by 1992 relative to its pre-war level and had not yet reached the pre-war level by 1998. Structural adjustment policies also helped to raise export earnings in the late 1980's but failed to affect significantly the supply response of farm households. The dual policy challenge of the post-war period was therefore to identify and remove the constraints to rural development and export performance in order to achieve a long-term, peacetime economic equilibrium.

Such a weak export performance had significant implications for the external equilibrium. Western aid and trade liberalization in the 1980's as well as the ONUMOZ mandate in the early 1990's increased imports by 140 percent in the period 1985-94 thus raising the trade deficit from 10 percent to 61 percent of GDP in the same period. With the departure of ONUMOZ the trade deficit fell significantly but it remained above wartime levels throughout the post-war period. This led the government and donors to support both large-scale foreign direct investment and the adoption of cash crops such as cotton. Yet both policies remain contentious in Mozambique. Even if such policy aim was accepted, there is no broad consensus as to how cash crop exports can be increased most effectively and which consequences this may have for rural development and poverty alleviation.

In addition to the low level of realized output there has also been a strong inequality in distribution of growth across sectors and space. In 1996 agriculture contributed 28 percent to total GDP while manufacturing and construction accounted for 21 percent and services for 51 percent of GDP.[30] The large size of the tertiary sector is in part caused by the large inflow of foreign aid and the related presence of many donors in Maputo.

In fact, the economic development of Maputo still drives a large part of the economic growth of Mozambique, with the city of Maputo accounting for 34 percent of total GDP in 1996-98 but only for 6 percent of the population in 1999. The north of the country accounts for 21 percent of total GDP and 33 percent of total population with Nampula province (which contains the city of Nampula) being the largest province in that region. In the central region it is worth noting that Beira, the capital of Sofala, is the second largest city in the country and the origin of the Beira corridor linking Harare and Lusaka with their nearest port. Mozambique is thus characterized by large regional and rural-urban inequalities that mask even deeper rural and northern poverty than the already low GDP per capita figures indicate.

The scope for raising productive government spending in response to the end of war (i.e., the government finance peace dividend) was quite small in the first post-war years. Total government spending as a share of GDP actually fell from 52 percent in 1990 to 34 percent in 1996, partly as a result of a fall in military expenditure after the ONUMOZ departure. However, this fall was limited and post-war spending on health and education stayed below its peak of 5 percent of GDP. The dominant cause of the falling expenditure and continually low social spending was the low government revenue which resulted in a mean fiscal deficit of 26 percent of GDP in the war-period 1987-92 and of 21 percent of GDP in the post-war period 1993-97.

The Mozambican government has two main sources to help fund this dramatic fiscal deficit, namely external debt and foreign aid. External debt reached its historical high value of 406 percent of GDP in the last year of the war, which in part accounts for the end of the war in that year. Even though the value of the external debt stock started to fall in the post-war period, it still accounted for 262 percent of GDP in 1998.

The other important source of finance for the government and indeed the whole Mozambican economy is foreign aid. Aid from the Organization for Economic Cooperation and Development (OECD) countries started to increase strongly from 1987 and peaked at 118 percent of GDP in 1992. With the receding humanitarian disaster and the departure of ONUMOZ aid then fell rapidly in the post-war period and "only" accounted for 39 percent of GDP in 1997. Nevertheless, foreign aid was still worth more than twice as much as government revenues in 1997, thus continuing to exert a strong "Dutch disease" effect on the competitiveness of Mozambican exports.[31]

Like output, foreign aid was not distributed evenly across Mozambique or across sectors. The United Nations Development Program (UNDP) calculated that aid per capita in the period 1995-97 was spent disproportionately in Maputo city and province. Furthermore, only 9 percent of all foreign aid spent in 1995-97 was allocated to agricultural projects, with 19 percent being committed to humanitarian and food aid, 24 percent to economic management and administration, and the remainder to a range of smaller sectoral programs.[32]

By 1995, the peace dividend in Mozambique had still not materialized.

This evidence suggests that the peace dividend in Mozambique had not started to materialize by 1995, that the capacity of the state to initiate development projects was very weak, and that aid resources were available to help lift the supply constraint but that these resources were not geared toward northern Mozambique or agricultural projects. The average peasant households in northern Mozambique were hence virtually unconnected with post-war government or donor economic activity or indeed post-war output growth.

Conclusions

The discussion suggests that there are several general prerequisites for successful post-war reconstruction policies appropriate for northern Mozambique. These include recognizing the many negative war legacies in the economy, the role of public goods in overcoming them, and the need for decentralizing reconstruction policy. Government and donors can assist post-war peasant households by providing public goods to enhance market participation and investment opportunities. Post-war public policy must recognize the importance of local and individual differences in the experience of war and aim to decentralize its interventions given that different villages or districts may face different constraints to expanding production and trade. Other policy options include re-capitalizing war-affected households and enhancing human capital.

However, there should be no choice between investing in physical capital and investing in human capital. The broad destruction of war at the household and market levels requires an integrated approach to rebuilding human, physical, and institutional assets. It may be administratively easier to organize selective large-scale programs. Yet the key war legacies will only be overcome with integrated rural development programs.

Households under conditions of war maintained their food security to an incredible degree by retreating into food subsistence production. In the post-war period, they faced increasing incentives to return to market-based agricultural and especially tradeable food crop activities. Policy makers can thus encourage war-affected households to consolidate their post-war welfare gains by strengthening rural food crop markets and opening international markets for northern Mozambican food crops. Alternatively, they can try to improve the incentives for adopting cash cops and expanding off-farm activities. Given the persisting war legacy, the consequent need to restore basic market and social institutions, and the weak capacity of the state in rural northern Mozambique, the former policy option appears to offer higher returns for some time to come.

The organization of a widespread rural education network should not take priority from an agricultural production point of view. Enhancing the household coping strategies perfected in a situation of near market autarky during the war appears to be a relatively low-cost and yet effective agricultural development, poverty alleviation, and above all food security strategy for the early post-war period in northern Mozambique.

In summary, post-war reconstruction policies should assist market reconstruction and support the expansion of household production, as this is not possible for many households without outside support. Policies should help to rebuild public goods as well as household-specific physical and human capital and take into consideration the diverse effects of war across locations.

Notes

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1. Hall and Young, 1997; MacQueen, 1997; Newitt, 1995.

2. Barnes, 1998; Synge, 1997; Vines, 1998.

3. Finnegan, 1992; Geffrey, 1991; Hume, 1994; and Vines, 1996.

4. Brück, 2000.

5. Stewart, 2001.

6. Brück, 2000.

7. UNDP, 1998.

8. Andersson, 1995; Human Rights Watch Arms Project, 1994.

9. UNHCR, 1997.

10. UNHCR, 1997.

11. UNDP, 1999.

12. Cliff, 1988.

13. Ministério da Educação, 1994.

14. UNDP, 1999.

15. Boothby, 1991.

16. Ministério da Agricultura, 1994.

17. World Bank, 1990.

18. North, 1990.

19. Cramer, 1999; and UNDP, 1998.

20. Fok, 1995.

21. Brück, 2000.

22. Pitcher, 1996; Isaacman , 1996; and Tschirley and Weber, 1994.

23. Strasberg, 1997.

24. Brück, 2000.

25. Andersson, 1998.

26. Arndt, Jensen and Tarp, 2000.

27. Tschirley, 1999.

28. Tschirley, 1999.

29. Brück, 2000; Muchine, 1999.

30. UNDP, 1999.

31. Brück, 2000.

32. UNDP, 1998.

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The making of arms in South Africa

J. Paul Dunne

Post-apartheid South Africa has seen marked declines in military expenditure but it still spends sixty percent of the total for sub-Saharan Africa, and there seems little chance of this changing. In light of tremendous need in areas such as housing, health, and education, there would appear to have been the potential for converting for civilian purposes the resources monopolized by the military under apartheid, yet this has not happened. There seemed to be little hope for its arms industry, yet it survived and its prospects are improving. Despite the changes in polity and economy and the pressing social and economic problems in the country, the new South Africa has committed itself to maintaining a high degree of militarization.

During the apartheid regime, South Africa built up one of the most advanced arms industries of any developing or newly industrializing economy. This article presents a history of that industry.

During the apartheid regime, South Africa built up one of the most advanced arms industries of any developing or newly industrializing economy. This was part of a strategy, irrespective of economic cost, of attaining self-sufficiency in armaments in order to defend white minority rule against perceived internal and external threats. Central to this strategy was the creation of a large, public-sector defense industry, centered on a single, state-owned arms procurement and production corporation, Armscor, and coinciding with the regime's effort to provide infrastructure and other economic support to large-scale private capital and to secure jobs for working-class Afrikaners.[1] The strategy left South Africa with an advanced and comprehensive arms industry, but at great economic and fiscal cost.

This article presents a history of that industry. It charts the creation of Armscor, the post-apartheid breaking up of its procurement and production roles to form the current arms producer, Denel, and the even more recent restructuring of the industry. It is a story that shows the continuing legacy of apartheid, underlining the strength of the vested interests that make up the country's military-industrial complex, and highlights the important influence international arms producers can have. The article raises concerns over the structure and governance of the industry and over the offset deal associated with the most recently signed major arms acquisition package, and traces the dangers that are present for any small country that becomes embroiled in the international arms market.

The origins of South Africa's defense industry

By the mid-1960's nearly 1,000 private sector firms were involved in various aspects of domestic arms production.

South Africa's defense industry was established with British aid just prior to the Second World War. During the war both public and private sector companies manufactured a substantial amount of basic weaponry for the Union Defence Force and the Allied forces, including armored cars, bombs, and ammunition. As elsewhere in the world, after the war most of the wartime arms factories converted to their pre-war civilian activities.[2] During the 1950's and early 1960's South Africa relied heavily on imports of arms from abroad (mainly Britain). But its withdrawal from the Commonwealth in 1961 and the imposition, in 1963, of a (voluntary) United Nations arms embargo provided the impetus for developing a domestic defense industry. An Armaments Production Board was established in 1964 to control the manufacture, procurement, and supply of all armaments for the South African Defence Forces (SADF). By the mid-1960's nearly 1,000 private sector firms were involved in various aspects of domestic arms production.[3]

In 1967 the United Nations Security Council passed a resolution, calling on all states to stop supplying South Africa with arms. During the same year the Minister of Defence, P.W. Botha, visited armaments factories in Portugal and France as part of an in-depth investigation into various "models" for domestic arms production that South Africa might adopt.[4] The French military-industrial system, with its high degree of integration between the public and private sectors, was then used as the model for South Africa's domestic defense industry.[5] In 1968, the Industrial Development Corporation (IDC) helped to establish a new state corporation, the Armaments Development and Production Corporation, or Armscor. Armscor's initially limited tasks included the take-over and expansion of all state-owned arms manufacturing facilities, the setting up of new facilities, and the administering of all arms exports and imports. New state-owned factories were only built for the production of weapons that were defined as "strategic" or where manufacture was uneconomic by normal business standards.[6] Armscor expanded its production activities through the acquisition of private companies and the establishment of new subsidiary companies.[7]

Increasing international opposition to apartheid, and world-wide demands for a mandatory arms embargo against South Africa, prompted the government to embark on a major reorganization and expansion of its defense industry during the mid-1970's. In the same year in which the UN imposed a mandatory arms embargo against South Africa,[8] 1976, Armscor was reformed and assumed responsibility for the procurement and production of armaments for the SADF.[9] This made Armscor

Armscor was both player and referee in the domestic defense market.

the central player in South Africa's domestic defense industry. As the country's procurement agency it determined the size, structure, profitability, and many other aspects of the local defense market but it simultaneously functioned as one of the country's largest domestic arms producers, with private firms acting as subcontractors. It was both player and referee in the domestic defense market.[10] It thrived until the early 1980's,[11] when declining domestic demand and rising overhead costs led to problems that affected the whole industry.[12] But the mid-1980's saw a resurgence on account of South Africa's growing militarization of the state[13] and its increasing involvement in a number of regional conflicts (e.g., Namibia, Angola). These required a guaranteed supply of weapons of everincreasing sophistication. Arms (and oil) became "strategic industries." As a result, Armscor benefitted from massive state investment and received privileged access to state resources such as foreign exchange, R&D subsidies, and government loans. Thus, by the late 1980's Armscor had emerged as one of the country's largest industrial companies with total employment of over 30,000 people.

South Africa's external strategic environment changed dramatically after 1989. The end of the Cold War and the breakup of the Soviet Union effectively put an end to superpower rivalry in many parts of the Third World, including southern Africa, and provided opportunities for countries to reduce their levels of military expenditure and implement disarmament measures. The linked processes of democratization and disarmament, which occurred in many countries in the region, had a positive impact on the South African state's external threat perceptions, and this led to dramatic changes in the country's defense and foreign policies. South Africa withdrew its armed forces from Namibia and Angola in 1989, formally abandoned its policy of military aggression and regional destabilization (e.g., covert support for UNITA in Angola and RENAMO in Mozambique),[14] and embarked on an ambitious program of diplomatic and economic outreach to African states.[15] These developments, together with the ending of apartheid, removed the dominant source of instability and antagonism in the region and led to a dramatic improvement in inter-state relations between South Africa and its neighbors.

At the same time as these positive political developments were taking place, South Africa experienced its worst domestic recession since the 1930's. As a result of severe budgetary constraints and because of changing government spending priorities, the de Klerk government cut South Africa's defense budget dramatically after 1989 and, as from 1994, the ANC-led government continued the trend. These cuts had a significant impact on the size of the overall South African defense market.[16] Many firms exited the defense market. It became increasingly concentrated, with a few large firms occupying monopoly positions in most of the market's sectors and subsectors. A study undertaken during 1991 to determine how Armscor's assets and technological abilities could be retained came to the conclusion that the best solution would be to separate Armscor's production and procurement roles and form a new company capable of managing the production assets. The cabinet approved the formation of a new public-sector industrial group, Denel Pty (Ltd), in 1992, to be placed under the jurisdiction of the Ministry of Public Enterprises. Armscor remained part of the Ministry of Defence and retained responsibility for the procurement of armaments for the SADF.[17]

Denel's restructuring experience, 1992 to 1996

Denel inherited most of Armscor's production and research facilities, assets valued at R4.5 billion (book value), over 15,500 employees, and a share of Armscor's long-term liabilities.[18] The formation of Denel as a contractor and competitor, separate from Armscor, fundamentally altered the nature of the domestic defense market and the cozy relationship that had been built up between the public and private sector defense industries since the 1960's. From its inception Denel pursued rationalization and restructuring. To remain in the defense market it adopted a "shrink to fit" strategy. This involved cutting internal costs (e.g., reducing capital spending, retrenching workers) while trying to preserve core capabilities and key operations in defense production. Denel also pursued vertical integration, whereby it increased the amount of defense work in-house and reduced sub-contracting to the private sector.[19]

At the time of its formation Denel's business activities were divided into five groups,[20] which in turn consisted of a number of divisions and business units. In 1993, Denel restructured its 18 divisions and subsidiaries into six industrial groups: Systems, Manufacturing, Aerospace, Informatics, Properties, and Engineering.[21]

With marked success, Denel vigorously pursued defense and civilian export markets, particularly since the UN arms embargo was lifted in May 1994.

Denel dominated the declining domestic market, averaging a 48 percent share, while undertaking a number of adjustment strategies to reduce its defense dependence. With marked success, it vigorously pursued defense and civilian export markets, particularly since the UN arms embargo was lifted in May 1994.[22] In doing so the company has benefited greatly from the General Export Incentive Scheme (GEIS), introduced in 1990 to promote manufactured exports. Denel became one of the largest recipients of GEIS subsidies and in 1992 Denel was the second-largest recipient, after steel producer Iscor.

Denel entered into a number of joint ventures and strategic alliances with foreign and local firms.[23] By 1997 it had entered into more than 35 joint ventures covering development, manufacturing, marketing, and product support.[24] The vast majority of these were concluded with foreign defense firms, and concentrated on the Rooivalk attack helicopter and product developments of existing weapons systems and defense products. The success of these international joint ventures and strategic alliances, both in monetary terms and technology transfers, is difficult to quantify but has been vital for the development of the company.

All of Denel's groups and their respective divisions and business units pursued strategies of diversification, particularly the acquisition of non-defense products or firms, mergers and joint ventures with civilian firms, and the development of civilian products derived from existing defense technologies and products. This led to the share of civilian business (both domestic and export) rising from 21 percent in 1992 to 37 percent in 1996.[25] Only one division, Houwteq, pursued a dedicated strategy of conversion that involved the transformation of all its resources and productive capacities from military to civilian use. Having previously been involved in military satellites, the company pursued the development of low-earth orbit civilian satellites for earth resource management and telecommunications. However, this conversion effort was not successful, in part because the company could not find local or international partners. The satellite program at Houwteq ended in October 1994. Divisions such as Informatics and Denel Prop have, however, been successful in converting from defense to civilian markets, given that they – unlike many other of Denel's divisions – did not have to convert technology, plant, and equipment. Still, the strategy of conversion has now been largely abandoned because of the significant difficulties and costs involved in converting facilities to civilian use and the expensive failure of Houwteq's conversion effort.[26]

The changes in the composition of Denel's turnover, particularly the real increases in exports and civilian business, point to the significant progress that the company has made in reducing its dependence on the local defense market. But when one examines Denel's financial performance, and its performance relative to private sector defense companies, it becomes obvious that it struggled to transform itself into a profitable, commercially viable company while adjusting to a dramatic decline in demand for its most important products, armaments.[27]

Recent restructuring of state assets in South Africa

When the ANC-led government came to power in April 1994, it rejected the idea of privatizing state assets. This was because it realized, correctly, that the previous National Party regime had used the privatization of state enterprises, such as chemical producer Sasol and steel producer Iscor, as a vehicle to institutionalize by economic means the political power it was resigned to losing.[28] Yet as a result of pressure from the World Bank, domestic commercial and economic interests, and its own desire to reduce the level of government debt – inherited from the former regime – the Ministry of Public Enterprises published for discussion in August 1995 policy guidelines for the restructuring of state assets.[29] These guidelines combined with the government's decision to purchase weapons from foreign suppliers, with offset stipulations.[30]

The decision to purchase weapons from foreign suppliers made explicit an already implicit government view that the maintenance of a comprehensive, in-country capability in military production was no longer feasible.

This decision made explicit an already implicit government view that the maintenance of a comprehensive in-country capability in military production was not feasible anymore. Developments in the international arms markets implied that South Africa's future would be as a small arms industry, operating in niche markets, possibly in collaboration with a major international player.[31] The recognition of this new reality – that even second-tier producers are unable to sustain a comprehensive arms industry – led to the decision to procure externally. Once this decision was made, it was also decided to maintain the competitive parts of the arms industry by wringing as many concessions as possible from potential foreign suppliers, especially, but not only, in the form of defense-related industrial participation programs (or "offsets"). A major justification for offset packages became their claimed economic benefits.

Offset proposals in conjunction with the most recent arms acquisition deal included direct contracts with South African defense firms, investment in Denel, and various non-defense investments ranging from automotive components to manufacturing, telecommunications, stainless steel and specialty steel plants, gold jewelry, plastics, and high-quality textiles.[32] The industrial participation portion of the foreign companies' tenders was assessed according to "credits" awarded for each type of economic benefit. To illustrate, the number of offset credits for job creation should equal their estimated value of salaries and wages. New investments, research and development, and links with previously disadvantaged persons (either as shareholders or contractors) earned double credits. Bidders must fulfill their obligations within seven years, and must provide a performance guarantee equal to five percent of the offset component.

The Ministry of Finance and the Department of Trade and Industry personnel, who assisted in the final stages of negotiation, are convinced that they achieved a particularly good deal.[33] The defense offsets, especially the defense industrial participation (DIP) components, while undercutting any remaining aspirations for South Africa to maintain its own comprehensive defense industrial base, have certainly provided a substantial lifeline to the South African defense industry. Industry response in general has been favorable, notwithstanding some dissenting voices, especially from the aviation sector.[34] The impact of the offset deal has been more on the side of defense and related industries, as more progress has been made there, than with the non-defense industrial participation (NIP) scheme. But critics raised concerns about the capability of the local industry to benefit from the deals.[35] They suggested that while the aerospace sector seemed best placed to benefit and to prove itself attractive to foreign companies, the electronics sector might have a harder time and the maritime sector was likely to struggle. This would seem to have been borne out by developments.

The impact has been to provide orders to domestic companies and opportunities for companies to develop niches in the international market through links with the foreign companies. Denel and private companies have been drawn into the international circuits of defense production, both in terms of indirect DIP and direct DIP.[36] There is an increasing participation of European defense groups and investors in the South African industry, at prime contractor and sub-contractor levels. This participation is part of an ongoing restructuring and expansion of international defense groups such as EADS and Thales. Local divisions can influence government-to-government dealings to the benefit of the parent company and local subsidiary.

Moves since 1998 to restructure and privatize Denel have come to be closely bound up with the recent arms procurement deal and associated industrial participation program and the decision to find a large international defense company to take a strategic equity partnership in Denel. The visit of the UK Prime Minister to South Africa in 1998 saw the signing of a memorandum of understanding between BAE Systems and Denel. Denel was then internally restructured yet again, in 1999, shifting from a loose network of companies and divisions to more autonomous business groups. The current business units are Denel Aerospace, Denel Ordnance, and a commercial and IT division. There is a small training grouping, the Kentron Training College, which provides bridging programs for aspirant military engineers.[37]

In October 2000, the South African cabinet approved BAE Systems as the preferred strategic equity partner for the Denel Aerospace and Ordnance Groups. Within Denel Aerospace, at a secondary level, Snecma/Turbomeca was approved as the strategic equity partner at division level for the Airmotive business unit. Similarly, within Denel Ordnance, the UK pyrotechnic manufacturer Pains Wessex Defence was confirmed as the strategic equity partner for the Swartklip division.[38] At the macro level, it was hoped that the strategic equity partnership with BAE Systems could be completed by March 2001, but the negotiations have proved lengthier than initially thought.[39] There have also been pressures within Denel to return to concentrating on perceived traditional strengths, although this is not without its contradictions,[40] and to downsize in areas such as small arms.[41] The commercial and IT group is to shift away from Denel Aerospace and Denel Ordnance, and ultimately will be disposed of as a completely separate entity.[42] This restructuring clearly is a continuing process but reflects the policy of breaking up Denel with strategic partners, with privatization planned later when the issue of the involvement of black empowerment has been more fully considered.[43]

Concerns

A number of concerns arise from the reported and planned changes. First, the issue of regulation could be problematic. The continuing links between Denel and Armscor may compromise Denel's role and some consideration has to be given to the control of state and private entities that obtain major strategic partners. There is some concern that rent-seeking behavior within the state, industry, and foreign players may affect the success of the privatization measures. Indeed, the role and influence of the international companies is of concern, as they may be difficult to control, and may lead to the creation of a strengthened military-industrial complex. This could see further pressure to increase military expenditure and to loosen export controls.

There have been some concerns raised over the value of the offset deal to the South African economy. The limited but growing international literature on defense offsets and their economic effects does not instill confidence.[44] Few countries appear to have been successful in using defense offsets well, and to embed and extend technology transfers. Those domestic defense industries that are expected to benefit from offset deals are often characterized by a "technologically sophisticated conservatism,"[45] which does not lend itself to the development of intellectual and social capital. What is required is a "high degree of local technological absorptive capacity" to be achieved through a state-sponsored "civil-military, Science and Technology strategy."[46] In addition, new modes of structuring technology-intensive production may be more appropriate for the "new economy."[47]

While still in a formative stage, the policies have come under public criticism on several fronts. The prices of the new weapon systems have been criticized as inflated by the offset arrangements. In addition, reports have identified beneficiary companies with links to the head of the weapons procurement committee.[48] Hidden costs, including unanticipated capital expenditure to activate imported equipment, increased imports of goods and services, putting pressure on the balance of payments, and the R&D expenditure required to benefit from technology transfers have been highlighted. There are also concerns about the budgetary impact.[49, 50] The initial estimate of 65,000 jobs and earnings of R110 billion on the original R31 billion arms procurement package have been revised downward. These figures and the likely regional effects have been questioned.[51] The DIP may have a positive effect on the defense industry, but at an unclear direct and opportunity cost to the economy.

The move to justify procurement of weapon systems by economic rather than security benefits is problematic, and the obscuring of the true price of weapon systems by offsets creates problems. It provides scope for corruption and policy confusion and compromises debates over alternative paths of security and development. In a new democracy, the impact of companies used to operating in the world of arms trading, with its commissions and bribes and murky deals, is unlikely to be a positive one. The experience of South Africa is not a salutary one for other countries facing similar policy choices.

Conclusions

The current form of the public-sector defense industry in South Africa is very much product and reflection of the role it played in the apartheid system. Considerable downsizing under the new government and the breaking up of Armscor into procurement (Armscor) and production (Denel) units has changed the face of the industry but left many of the underlying structures intact. As Brauer had foreseen in more general studies on second-tier arms producing nations, there was no option other than to further restructure, but there was considerable confusion over how this might be done.[52]

Downsizing of the South African defense industry does appear to be coming to a halt, with the end of cuts in military expenditure and offsets from the arms procurement package steered toward the defense industry. Denel remains as a state-owned producer but is restructuring with foreign strategic partners prior to privatization. Compared with similar countries it could be argued that there is still potential for further reductions in military expenditure, but that the actions of the vested interests involved seem to have stopped the reductions. This reflects development similar to those in other countries of a renewed, less visible, military-industrial complex, enhanced by the involvement of powerful international arms companies.

Future government policy-making needs to recognize this important feature of the political terrain. Given the evidence of the economic costs of defense industries, a large opportunity cost is likely to be attached to any strengthening of their importance in the economy. It would seem better that the government aim to retain intelligent customer status, with a recognizable subsidy where needed, rather than develop policies that maintain a potentially costly resource, with subsidy and costs hidden from view and cloaked under the "offset" label. It is important that research is conducted for the life of the projects to inform future policy-making and to provide important lessons to other countries considering similar policies. There are certainly many lessons to be learned, both for future policy and for other countries facing similar policy choices.

Notes

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1. See Fine, 1997.

2. Cawthra, 1986.

3. The Board took control of the Department of Defence's workshops at Lyttleton and the South African Mint's ammunition factory, and was authorized to coordinate arms production in the private sector. See Batchelor (1996) and White Paper on Defence and Armaments Supply, 1965-67.

4. Frankel, 1984.

5. Landgren, 1989.

6. The definition of "strategic" weapons included: ammunition, guns, missiles, explosives, propellants, mines, and bombs. See Landgren (1989).

7. The Defence Ordnance Workshop at Lyttleton and the Ammunition Section of the SA Mint became the first full subsidiaries of Armscor, namely Lyttleton Engineering Works (LEW) and Pretoria Metal Pressings (PMP). In 1968, a missile test range was set up in northern Natal and a new subsidiary, Kentron, was established to work on the development of missile technology which had previously been carried out by the National Institute for Rocket Research (NIRR). During 1969 Armscor took over Atlas Aircraft which had been set up with government assistance in 1964; and Musgrave, a private firm which manufactured rifles and high-precision arms components. In the following year it also took over two AECI factories that manufactured a variety of propellants and explosives. These two factories became the subsidiaries Somchem and Naschem. In the same year Armscor became the major shareholder in the private firm Ronden, which manufactured pyrotechnic products. This firm was later renamed Swartklip. A new production facility, Eloptro, was set up in 1974 to manufacture optical and electro-optical equipment for various weapons systems. In 1975 the Institute for Maritime Technology (IMT) was established in Simon's Town to provide R&D support for the Navy.

8. Cobbett, 1989.

9. The restructuring and expansion of Armscor was financed by a secret government grant of R1,200 million. See Landgren (1989).

10. Armscor, together with the SADF, was part of the Department of Defence, and was directly accountable to the Minister of Defence. Because of the nature of its activities, Armscor was also a member of the Defence Planning Committee, the highest-level defense planning structure in the country. The organizational structure of Armscor consisted of a Board of Directors (appointed by the State President) and a Management Board.

11. Between 1977 and 1981 Armscor's R&D and production activities were considerably expanded and reorganized and total assets and total employment more than doubled between 1977 and 1982.

12. In 1984, a special committee was formed to deal with Armscor's financial problems. Contracts with private sector companies were canceled or postponed and a number of private defense companies closed down or exited the defense market (Batchelor and Willett, 1998; Landgren, 1989). By 1984, more than 2,000 private sector firms were involved in domestic arms production, either as contractors, sub-contractors, or suppliers (Armscor, 1984).

13. See Cock and Nathan, 1989.

14. See Manuel Ferreira's article on Angola and Tilman Brück's article on Mozambique in this issue.

15. Nathan and Phillips, 1992.

16. The industry has downsized dramatically and total employment in the defense industry declined by over 55,000 between 1989 and 1996, including over 10,000 in the public sector defense industry. Defense industry employment as a percentage of manufacturing employment declined from over 8 percent in 1989 to 5 percent in 1996.

17. Batchelor, 1996.

18. The state is the sole shareholder of Denel and the company operates according to normal commercial practices. It pays company income taxes and an annual dividend to its sole shareholder, the state. Denel inherited a proportion of Armscor's long-term liabilities, valued at R210 million in 1992. See Denel Annual Report, 1993/94.

19. Between 1992 and 1996 Denel shed more than 2,000 employees as part of its restructuring and rationalization program. In 1996 Denel's total labor force was 14,200, down from over 15,500 in 1992. Denel also begun to utilize more contract workers, rather than hiring additional permanent staff; and in 1996/97 more than 25 percent of Denel's total employment was comprised of contract workers (Batchelor and Dunne, 2000).

20. Systems, Manufacturing, Aerospace, Informatics, and Properties and Engineering Services.

21. The major organizational changes took place in the Informatics and Engineering groups, which was split into two separate groups – Informatics, and Properties. The divisions and business units of the Engineering group were rationalized into one division, Dendex. The ownership of Gerotek Vehicle Testing Range, originally part of the Engineering Services Group, was transferred back to Armscor during 1993. However, Denel continues to manage Gerotek on behalf of Armscor. During 1994 a new industrial manufacturing business unit, Dendustri, was established, together with a New Business Development unit. These units formed part of the Business Development Group, formerly the Engineering Group. In October 1994 the satellite business at Houwteq was terminated. However, the facility has been maintained and now forms part of the Business Development Group. The OTB division was transferred from the Aerospace Group to the Business Development Group in 1994. In August 1996 the Musgrave division's production facility in Bloemfontein was closed. Most of the division's assets were sold to private investors, while certain specialized equipment and personnel were transferred to LIW (Vektor Division).

22. The value of total exports increased by about 60 percent in real terms between 1992 and 1995, before declining in 1996. The share of exports in turnover increased from 17 percent in 1992 to 29 percent in 1995 before declining to 20 percent in 1996. To support its export sales, Denel undertakes marketing in approximately 100 countries, and in 1995/96 Denel sold both military and civilian products in over 50 countries.

23. International joint ventures are becoming an increasingly common practice for defense producers worldwide. Joint ventures, alliances, and even cross-ownership have become means by which defense companies can internationalize despite the pressures from governments to remain part of a "national defense industrial capability." It is also a means by which international restructuring can take place to allow firms to survive in the increasingly competitive and concentrated international defense market.

24. Private communication with Denel official, August 1997.

25. Most of the constituent divisions increased the share of their civilian business (exports and local sales) between 1992 and 1996. However, only a few divisions

(e.g., Eloptro, Mechem, Informatics, and PMP) have had relatively successful diversification experiences, with an increasing share and value of their civilian (both exports and local) sales.

26. Batchelor and Dunne, 2000.

27. Batchelor and Dunne, 2000.

28. "State asset sell off. Who Gains?" *Mail and Guardian*, 15 December 1998.

29. Ministry of Public Enterprises (1995) "Discussion document by the Government of National Unity on the consultative and Implementation Framework for the Restructuring of State Assets" (August). See also "Privatisation: A first step on the high road," *Financial Mail*, 8 September 1995.

30. Offsets refers to the widespread practice that for every dollar flowing out to purchase foreign arms, the seller agrees that a dollar (or more or less, as contractually agreed) has to flow back into the country, i.e., "offsetting" purchases have to take place either in the defense or non-defense industry.

31. Dunne and Haines, 2001.

32. Under guidelines that took effect from September 1996, all government and parastatal contracts with an import content exceeding US$ 10 million, must include an Industrial Participation (IP) component. The value of the offsets was to comprise a minimum 30 percent of a bid's imported component for civilian contracts. For defense contracts the offsets should comprise 50 percent of a bid's imported components.

33. The anticipated export percentages of the projects well exceed the stipulated 50 percent level, and returns on the overall cost of the procurement package are estimated to be on the order of 94.5 percent on investment. And during the duration of the deal, exports are expected to be in the region of 280 percent of the original purchase price. Many of the projects under the IP scheme have still to be finalized, and others are in exploratory and negotiation phases (interview with Dr. P. Jourdan, Director Special Projects, DTI, now CEO, Mintek, 30 May 2000; see Dunne and Haines, 2001).

34. Interview with freelance defense consultant, Mr. Dave Verster, *Martin Creamer's Engineering News*, 25 May 2001.

35. Batchelor and Dunne, 2000.

36. For instance, Denel has been contracted to build the tail section of the RAF's fleet of Hawk fighter trainers. It is also building landing gear fuselage sections for the Gripen jet fighter, and rudders and ailerons for other BAE Systems aeroplanes. These are not overly high-tech manufacturing operations and may reflect some watering down of the technological path and expertise of Denel (see Dunne and Haines, 2001).

37. This at least partly reflected the policy developments outlined in the 1999 National Conventional Arms Control Committee discussion document, "Policy on the South African Defence Related Industry", which set out proposals for industry restructuring. This included breaking up Denel by selling off less than 100 percent in clusters, breaking off the attractive bits first to maximize revenue, and a proposal to encourage rationalization of both the private and public industry (Dunne and Haines, 2001).

38. These partnerships are not necessarily discrete or self-standing. Turbomecca, for instance, will provide engines for the new light helicopter (LUH), the Augusta A109, and the Hawk advanced trainers on order from BAE Systems. As part of the SNECMA group, Turbomeca has an extensive set of manufacturing and aircraft maintenance operations internationally. Interview with Mr. Jean-Bernard Cocheteux, CEO, Turbomeca, *African Armed Forces Journal*, 31 January 2001.

39. BAE Systems apparently offered about 50 million pound sterling for a strategic equity partnership of between 20-30 percent in Denel Aerospace and Denel Ordnance (*Martin Creamer's Engineering News*, 31 July 2001). This offer was seen as somewhat low by the South African negotiating team. BAE Systems also requested that Denel's board of directors be reduced from its present eleven members, that it be given seats on the board, and that certain BAE Systems staff be placed in strategic management positions in the business groups (interview with Denel executive, name withheld, 8 September 2001; see Dunne and Haines, 2001).

40. Although Denel appears to be exiting its non-core business, its board has decided to keep property divisions Bonaero Park, Denel Properties, and Aero Properties, as well as Specialized Protein Products, the R140 billion soybean processing plant in Potchefstroom. Irenco, the third-party manufacturer of electronic and plastic injection molding products, and Dendustri, the engineering services provider, would also be kept, for the short-term at least. However, as Botha pointed out, the Group would "manage out low-value property from the portfolio and grow the division with high return properties" (*Star*, 10 July 2001). For instance, Denel Properties (Denprop) added the Waterkloof Ridge shopping center to its portfolio in March 2001. This follows the opening in February 2001 of Denprop's Castle Walk office park in Pretoria (*Pretoria News*, 28 March 2001).

41. This is reflected in efforts to scale down the small arms producer Vector, which is unprofitable and facing a class action law suit in the U.S., along with certain other small arms manufacturers (*African Armed Forces Journal*, 31 May 2001).

42. The recent establishment of Arivia.Kom as a joint venture between the information technology divisions of Eskom, Datavia in Transnet, and Ariel Technologies in Denel is also a step in this direction.

43. Dunne and Haines, 2001.

44. The impact of offsets is often found to be problematic in terms of job creation, the strengthening of backward and forward linkages, and technology enhancement (e.g., Struys, 2001). Nor do they constitute a "third way" for the economic development of developing nations (Matthews 2000; Batchelor and Dunne, 2000). A recent study of Saudi Arabia's defense offset programs reveals that instead of a promised 75,000 local jobs, the various programs had generated employment in the region of 2,000 (Matthews, 2000).

45. BAEC 1987, p. 33; Batchelor and Dunne 2000.

46. Matthews, 2000.

47. Dunne and Haines, 2001.

48. "Shamin 'Chippy' Shaik" (*Mail and Guardian*, 26 May-June 1, 2000; 2-8 June 2000).

49. Government claimed that the impact on the budget would be "relatively attenuated and is entirely manageable." In addition, it claims that the "net effect on the total procurement on the South African economy is broadly neutral." By contrast, the IDASA Budgetary group, anticipates that the R30-43 billion procurement package, despite being spread out over several years, will both increase defense's share of the budget, and reduce somewhat the percentage allocated to infrastructural and public works programs. This will, in turn, undercut the provision of more funds for poverty relief and affect the more peripheral provinces such as the Eastern Cape.

50. Batchelor and Dunne, 1999.

51. Bachelor and Dunne, 2000; Dunne and Haines, 2001.

52. Brauer (1991, 2000).

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The attempt to regulate conflict diamonds

David Gold

The United Nations and the civil war in Angola

During the 1990's, the United Nations made several attempts to mediate and resolve the long-standing civil war in Angola. The civil war in Angola began in 1961, when Angola and Mozambique were Portuguese colonies and political groups within those countries used armed conflict to pressure Portugal for their independence. After Portugal gave up its colonial possessions in 1974, the political movements in Angola split into two broad factions, the Movimento Popular de Libertacao do Angola (MPLA), and the Uniao Nacional Para a Independencia Total de Angola (UNITA). These two groupings soon became part of the Cold War, with MPLA being allied with the Soviet Union and its allies, and UNITA linked with the United States and its allies. By the end of the 1970's, the Angolan civil war was drawing substantial military assistance from the Cold War antagonists, with U.S. supplies and South African military personnel aiding UNITA, and Soviet supplies and Cuban military personnel intervening to help MPLA.

With the end of the Cold War, the situation in Angola changed once again. The United States and the Soviet Union (later Russia) began to collaborate more frequently in the United Nations, including in the Security Council where the threat of great power vetoes had stymied UN actions in the past. A UN-brokered peace agreement in 1991 led to elections in Angola in 1992. But when the MPLA won a plurality in the presidential race and a majority in the legislative elections, UNITA restarted the civil war. The UN imposed sanctions on UNITA in 1993, relating to the importation of arms, military equipment, and fuel. A second agreement, the Lusaka Protocol, was negotiated in 1994 but again UNITA failed to abide by the agreements and the UN extended sanctions to include the freezing of bank accounts, the prohibition of foreign travel for UNITA officials, and the closing of UNITA offices in foreign countries. Further sanctions prohibiting the sale of diamonds were imposed in 1998.

War had become a substitute for an economic system.

By 1999, it was clear that sanctions on UNITA were not effective and UNITA was no closer to abiding by the 1991 and 1994 agreements than it was previously. The long-standing nature of the conflict, meanwhile, had attracted the interest of a number of outside observers. In particular, two non-governmental organizations (NGO's), Global Witness based in London and Partnership Africa Canada in Ottawa, issued reports detailing the role of natural resources extraction in providing financial fuel to continue the conflict.[1] Diamonds were the source of UNITA's financing, and because of their role in Angola, Sierra Leone, Liberia, and the Democratic Republic of the Congo, diamonds from these regions became known as "conflict diamonds," or "blood diamonds." At the same time, MPLA's control of Angola's oil fields provided a source of revenue for the government to continue its part of the civil war. A group of researchers were also evaluating and interpreting the Angolan experience. David Keen, a political scientist, used the Angolan experience, along with the experiences of other countries locked in long-term violent conflict, to argue that extracting the riches from resources had become an end in itself, and no longer just the means to a politically-inspired conflict. In Keen's phrasing, war had become a substitute for an economic system. Paul Collier and a team of development economists at the World Bank produced a body of research arguing that low levels of economic development, the absence of effective governmental institutions, and the presence of a resource ripe for predation, rather than political grievance, were among the most important causes of long-term violent conflict.[2] Private research institutes, including the International Peace Academy, the Overseas Development Institute, and Oxford University's Queen Elizabeth House, sponsored and publicized research efforts. The attention being given to the issue of resources and war was mirrored by a number of accounts in major newspapers and magazines, and by actions taken by members of legislative bodies.

Faced with a stalemate in Angola, and rising public pressure, the United Nations Security Council's Sanctions Committee on Angola, then chaired by the Government of Canada serving its two-year term as a non-permanent member of the Security Council, decided to push the issue and formed a group of experts to intensively study the situation and make recommendations to resolve the Angolan conflict. Canada's permanent representative to the United Nations, Ambassador Donald Fowler, took an active role in the research and dissemination of the Pane''s findings and the resulting report has become widely known as the "Fowler Report."

The Fowler Report and conflict diamonds

The Fowler Report broke ground by naming names: of government officials, of individuals, and of companies.

Ambassador Fowler and the members of the Panel engaged in a substantial fact-finding and data gathering exercise. They traveled to Angola, where they interviewed former members of UNITA among others, and to countries where it was thought that individuals and governments had aided UNITA in its successful sanction-busting efforts. The Report presented this information in a clear and deliberate manner. Indeed, the report broke ground by identifying individuals and companies, and naming names of government officials where there was strong evidence of their involvement in breaking United Nations sanctions against UNITA. This broke tradition for formal United Nations reports, where the activities of governments and government officials are treated gingerly and with circumspection.

Diamonds are a prime means of payment for arms, a store of wealth for rebel leaders, and a means of buying influence among governments.

Ambassador Fowler's panel gathered information on UNITA's ability to circumvent sanctions in four areas: the purchase and delivery of arms, the obtaining of petroleum, the ability to obtain and sell diamonds, and the avoidance of restrictions on financial dealings. Diamonds play a unique role in UNITA's activities. They are a prime means of payment for arms, either via barter or through the prior ability to exchange diamonds for cash. Diamonds are also a store of wealth for UNITA leaders, and a means of buying influence among governments and private organizations.

Security Council resolutions require that Member States take necessary actions to prevent the importation of Angolan diamonds that are not certified by the Angolan Government's Certificate of Origin regime and prohibit the export of mining equipment and services to UNITA controlled territory. The Panel, however, found substantial evidence that these prohibitions were being violated by private individuals and by government officials. In some cases, officials were simply looking the other way with respect to enforcing UN sanctions. There was also evidence of the active participation of government employees and high-level officials in the conflict diamond trade. The Panel also found that UNITA leaders appeared to be benefitting personally in large amounts.

Diamonds have a very high value-to-weight ratio and hold their value well over time. Thus, they are easy to transport and can serve as a store of value and medium of exchange, two of the basic functions of currency.

UNITA obtains diamonds by exploiting mines located in the territory that it controls militarily, and by exerting control over the less formal process of collecting rough diamonds from surface deposits. Angola has no facilities for cutting and polishing diamonds and must ship all of its domestic supply to other countries. Diamonds have a very high value-to-weight ratio and hold their value well over time. Thus, they are easy to transport and can serve as a store of value and medium of exchange, two of the basic functions of currency. This makes diamonds relatively easy to smuggle, easy to use to bribe officials, and easy to use to purchase arms and supplies for war, and to purchase transportation and other services to move them out of war zones to where they can be sold for cutting and polishing. Angolan conflict diamonds would often be labeled with non-Angolan countries of origin, enabling governments and companies to look the other way when the issue of sanctions was broached.

The UN's efforts regarding conflict diamonds extended beyond the Fowler Report. There were expert group reports on Sierra Leone and the Democratic Republic of the Congo, although these and other documents did not contain the level of detail in the Fowler Report, not were they as forthright in naming names. The Security Council continued to pass resolutions, but the momentum established by the Fowler Report soon began to dissipate. The Fowler Report came near the end of Canada's term on the Security Council, and other member countries were less willing to take a leadership role on this issue. Moreover, other developed economies were somewhat hesitant to move forward in establishing legal prohibitions that would conflict with the activities of leading companies. In the United States, for example, legislation was introduced into both houses of Congress to restrict the importation of diamonds originating in zones of conflict. This legislation did not pass the House of Representatives until December 2001 and while it has been introduced into the Senate, the relevant committee has not held hearings as of Summer 2002. The issue, however, did not go away and the politics of conflict diamonds shifted to a new venue.

The Kimberley Process and the attempt at industry control

The rising attention being given to the issue of conflict diamonds and their role in supporting continuing violence soon attracted the attention of the diamond industry. Since diamonds were discovered in quantity in southern Africa in the mid-19th century, the trade in high quality stones has been dominated by a small number of companies, led by South Africa's DeBeers. Most diamonds are found in deep mine shafts, which require substantial capital to dig and maintain, although some are discovered in widely-spread surface deposits, which tend to be mined more casually. While significant diamond fields have been discovered and exploited in Australia, Canada, and Russia, seventy-five percent of gem quality diamonds are mined in Africa. Most African countries, including Angola, lack the legal, technical, and business infrastructure to mine and market diamonds, leaving DeBeers and other large companies with substantial control over the diamond industry. By the 1930's, DeBeers had institutionalized its industry dominance through the Central Selling Organization (CSO), a London-based and DeBeers-dominated organization that allocated gemstones to distributors. In this way, DeBeers not only could determine who would receive its output, but could control the volume and quality of output and thereby the ultimate price, thus acting as a global monopolist. In order to control world prices, however, the CSO had to act as a buyer of last resort, absorbing supply when demand was weak and when countries and mining companies sought to expand their output, and releasing supply when demand strengthened. This system worked for decades but began to show cracks in the 1990's as new mines outside of Africa and increased production from African mines began to strain the CSO's ability to absorb surplus production. DeBeers began to change its market strategy and gave greater emphasis to expanding demand for its product through seeking new markets, such as in Asia, and solidifying its position in existing markets through its "a diamond is forever" advertising campaign.

Perhaps because of the dominance of DeBeers and the ease by which diamonds can be transported, the industry has long been characterized by a combination of formal and informal relationships. Many transactions are consummated verbally among participants with long-standing connections. This absence of a thorough paper trail compounds the difficulties of establishing an effective monitoring regime. Governments have also been lax in establishing procedures. Most rough diamonds are cut and polished in countries other than the country of origin, and then transported again for sale to jewelry manufacturers and manufacturers of industrial equipment, and then transported again to final markets. Import and export data often do not match, partly due to definitional differences and partly due to illegal transport. Countries with small or nonexistent mining operations suddenly became significant suppliers in the 1990's as diamonds from conflict zones were transported and labeled with country of provenance, not the same as the country of origin. Importers tended to ignore this practice, despite knowledge of the scarcity of mining operations in the exporting country.

In this context, the campaign against conflict diamonds pushed the industry to take a position. The sale of diamonds obtained from conflict zones represented an unregulated supply and exacerbated the CSO's problems. Conflict diamond exporters tend to be more concerned with immediate revenue than with maintaining long-term market dominance. Perhaps of even greater importance, the publicity generated by the issue and the promise that NGO's would intensify their campaign threatened to create a public relations nightmare for an industry that relied on the good will of its customers and their governments. DeBeers and other companies announced they would reject diamonds sold by non-official sellers in conflict zones, but such an action is difficult to enforce, given the industry's lack of regulatory structures.

In May of 2000, the major mining and selling firms, along with representatives of governments, NGO's and the UN, met in Kimberley, South Africa, in the first of what became a series of meetings of the "Kimberley Process." Late that same year, the United Nations General Assembly passed a resolution supporting efforts to find a solution to the conflict diamond problem. This resolution was interpreted by a number of governments as providing an international legal justification for the efforts embodied in the Kimberley Process. One of the major issues was the establishment of a system whereby diamonds could be identified in terms of their country of origin. The industry had claimed that it was not possible to separate out diamonds from conflict zones without proper, and widely accepted, documentation.[3] In March of 2002 in Ottawa, after a dozen meetings of the participants, an agreement was reached on establishing regulatory mechanisms for the diamond trade that would enable the segregation of diamonds that were mined and distributed in violation of international sanctions.

These mechanisms, however, appear to be incomplete. The technical aspects of creating a document capable of identifying the origins of diamond shipments as they move throughout the production and marketing system appears achievable. But a country's commitment to play by the new rules is voluntary, with no clear enforcement mechanism and no independent mechanism to gather information on individual country behavior. These weaknesses have been pointed out by NGO's and the United States General Accounting Office in reports issued both prior to and after the March meeting of the Kimberley Process. In reply, the U.S. State Department described the Kimberley Agreement as an early step in an ongoing diplomatic process, and expressed confidence that the process would work.

Conclusion

The context for the trade in conflict diamonds may be changing with the 2002 death of UNITA's leader Jonas Savimbi and with the negotiated peace agreements in Angola and the DRC.

While the Kimberley Process represents a major step in the attempt to control and eliminate the trade in conflict diamonds, a strengthening of the control mechanisms is clearly needed. The context, however, is changing. Early in 2002, Jonas Savimbi, the charismatic leader of UNITA, was killed in battle. Later, the remaining leadership of UNITA negotiated an agreement to end the civil war. At about the same time, a peace agreement was reached in the conflict in the DRC. If both agreements hold and lead to more stable governments, admittedly a big "if" given the recent history in these conflicts, the volume of conflict diamonds on the market is likely to be reduced. The government of Angola has established a corporation to market all of Angola's diamond production.

The history of the struggle against conflict diamonds has involved a number of stakeholders. Initially, NGO's with an interest in peace and development in Africa documented the role of diamonds in conflict while social scientists were researching and modeling the role of natural resources in long-standing violent conflicts. Journalists described what was happening on the ground. The United Nations took an active role as it expanded its mandate to broker and maintain the peace in these conflict zones. And finally, the industry, responding to political pressures and changing economic conditions, joined in the efforts to find a solution. Not all governments participated with equal vigor, and many participants clearly prefer to retain a significant degree of ambiguity in the procedures that are established.

Future prospects may well depend upon these stakeholders maintaining an active involvement in the issue. The stability of governmental institutions in both Angola and the DRC remains in question. The MPLA-dominated government in Angola was able to utilize its control over oil to generate resources for continuing the civil war and there have been allegations of considerable corruption within governmental circles. Of even greater importance, an achievable pattern of economic development that is able to utilize the country's natural resources is needed. Perhaps the example of Botswana, another resource-rich country in the region with substantial diamond deposits, should be examined for parallels. Botswana has attained high growth rates and a more equitable distribution of the products of growth than most other countries. Without such an outcome, Angola will continue to run the risk of restarting a conflict and re-igniting a struggle over conflict diamonds.

Notes

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1. These two NGOs have been formally nominated for the Nobel Peace Prize by three United States legislators.

2. See Paul Collier's chapter in this issue for more on the economic causes of conflict and Neil Cooper's article for further discussion of the Kimberley Process.

3. Some industry insiders challenged this view, arguing that a skilled diamond expert could identify an uncut stone's origin by sight. Once a stone were cut and polished, however, this means of identification would no longer be possible.

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