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Symposium on natural resources, political economy, and conflict

Article

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A publication of Economists for Peace and Security (U.K.)

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 nonhuman life and for our common habitat. Special attention is paid to constructive proposals for conflict resolution and peacemaking. While open to noneconomic approaches, most contributions emphasize economic analysis of causes, consequences, and possible solutions to mitigate conflict.

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

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Comments and replies as well as book reviews and books available for review are posted at www.epsjournal.org.uk.

Abstracts

Christine Batruch. "Lundin Petroleum AB's experience in East Africa: the role of the private sector in conflict-prone countries." Lundin Petroleum spent over twelve years exploring for oil in Sudan, Ethiopia, and in Kenya. During this period it was faced with an armed conflict in Sudan, the risk of rebel activity in Ethiopia, and tribal clashes in Kenya. This meant the company had to consider operations in remote countries not only from a geological and commercial perspective, but also to take into account ongoing conflicts. This required considering political issues and developing mechanisms to ensure the sustainability of its operations. To this end it developed a corporate responsibility framework which emphasized stakeholder engagement, seeing oil revenues as potentially acting as a catalyst for peace and development.

E. Wayne Nafziger. "The political economy of Nigeria's relentless conflict." This article considers Nigeria's continuing conflict since independence, providing a valuable case study that illustrates the complexity and specificity of the factors and processes that engender conflict within countries. It argues that a major source of this conflict has been the domination of the Federation by the traditional ruling Fulani aristocracy and their allies in the Northern Region, who controlled rents from petroleum in the Delta. It discusses how the British establishment of a tripartite regional structure during colonialism enabled the traditional aristocracy to control the North, with a majority of Nigeria's population; the Northern victories in the clashes over census design; the dominance of petroleum in government revenue and foreign exchange; the negative post-1983 growth amid cycles of boom and bust; and the resulting urgency of the high-stakes rent seeking for controlling mining revenue paid by multinational corporations. Despite the expansion from three regions in 1960 to 36 states in 1996, the lopsided power of Northern elites has remained and so have the conflicts.

Anouk S. Rigterink. "Natural resources and civil conflict: an overview of controversies, consensus and channels." This article reviews the literature on the relationship between natural resource abundance and civil conflict, focusing on cross-country, quantitative research. It concludes that results on natural resources (as a single category) as a cause of conflict onset are quite unstable. A more robust relationship is found looking at specific resources, notably oil and diamonds. Resource abundance potentially increases conflict risk by providing revenue to warring parties, decreasing the cost of rebellion, increasing the 'value' of winning the government or decreasing government quality and economic growth. However, there is little consensus on which (combination of) mechanism(s) is most important, even though this is the most interesting question for policy makers.

Achim Wennmann. "Wealth sharing and peace processes." The article considers the contribution that wealth-sharing arrangements can make to the consolidation of postconflict transitions. It considers the general role of wealth sharing in peace processes before providing a comparative analysis of case studies of the peace processes of Sudan (North-South) and Indonesia (Aceh). It then draws lessons on how wealth sharing can become a more effective instrument for postconflict transitions.

Gilles Carbonnier. "Extractive industries in fragile states and the role of market incentives and regulation." This article considers the so-called resource curse plaguing fragile states with abundant extractive resources. It critically assesses the assumption that nonstate actors such as extractive industries, civil society organizations, and investors have the ability to exert effective pressure on—and can significantly assist—governments in promoting transparency, accountability, and sound management of extractive revenues. As a contribution to this under-researched area, the role of economic actors (extractive industries, investors, financial institutions, consumers) and the effect of market incentives and regulation is examined.

Geoff Harris. "Improving military expenditure decisionmaking in sub-Saharan Africa." This article begins by emphasizing that the number and intensity of armed conflict has fallen substantially but that military expenditure levels in sub-Saharan Africa have nonetheless increased, largely as a result of South African expenditure. The article attempts to answer two questions. First, how can the budget of the security sector be allocated so as to result in effective and efficient security outcomes? Second, how can an appropriate level of military expenditure for a country be determined? It finds that there is a strong case for the military to be treated like any other government activity in terms of justifying its expenditure and being transparent in budgetary terms.

Lundin Petroleum AB's experience in East Africa: the role of the private sector in conflict-prone countries

Christine Batruch

Lundin Petroleum AB acquired rights to explore for oil and gas in South Sudan in 1997, in Ethiopia in 2006, and in Kenya in 2007.[1] In the spring of 2009 the company relinquished its interest in South Sudan and sold affiliated companies that held concessions in Ethiopia and Kenya. It thus put an end to twelve years of oil exploration in East Africa.

This article describes Lundin Petroleum's experiences and how it managed conflict or potential conflict situations. It seeks to make a case for responsible action not only by the private sector, but by other actors, such as governments, academics, media, or civil society, all involved in one way or another with Africa's development process. The article provides an overview of the company's experience in Sudan,[2] followed by an account of its first steps in Ethiopia and Kenya, and concludes with the lessons learned from working in East Africa.

Sudan

When Lundin Petroleum acquired its license in Block 5A, Unity State, Sudan in 1997, the area was unaffected by the civil war that had begun in 1956 and which pitted the Government of Sudan (GoS) against certain forces in the South (represented by the Sudan People's Liberation Movement/Army, SPLM/A). The concession area was ruled by the Nuer tribe[3] whose leaders had entered into a peace agreement—the Khartoum Peace Agreement (KPA)[4]— with the GoS. The KPA foresaw the potential positive economic impact of oil exploration activities and contained provisions as to the sharing of power and revenues among the signatories. Upon signing its exploration and production agreement with the GoS, company representatives met with leaders of the local community whose reaction was overwhelmingly positive as they saw oil activities as the means to promote long-term economic development in their area. They committed themselves to providing a secure working environment for the company.[5] However, security proved to be elusive. The prevalence of arms, coupled with the division of tribes into factions, as well as efforts by the SPLA to vie Nuer militias to their side, contributed to rendering the situation volatile. While the company was not directly affected by fighting, it was nevertheless concerned about the safety of its staff and operations, and by reports of conflict surrounding the activities of a nearby oil consortium.

In response, the company attempted to reinforce its links with the local community by meeting again with representatives, hiring local staff, improving the infrastructure in the area and setting up a Community Development and Humanitarian Assistance Program (CDHAP).[6] The company believed that if local communities became participants in, or beneficiaries of its activities, it would open lines of communications and reinforce links between the company and the communities. Through CDHAP, the company also sought to demonstrate to the authorities that the interests and welfare of the population had to be taken into consideration at all times and that the company was prepared to make significant contributions toward this end, despite the fact that it would not obtain any revenues for a number of years, if ever.[7]

This article describes Lundin Petroleum's experiences working in conflict-prone areas in Sudan, Ethiopia, and Kenya.

Corporate responsibility

The experience in Sudan led Lundin Petroleum to elaborate a strategy to deal with the challenges of working in a conflict prone area to reflect its perceived corporate responsibilities. The company saw itself as a private sector actor whose role is to find and produce oil and gas in an efficient manner and thereby contribute to the economic welfare of the host country.[8] It also recognized that its role could not always be limited to the economic sphere, at a time when the role of oil in the conflict was being questioned. Senior management reexamined the company's role and elaborated a Code of Conduct which establishes the company's aim as to find oil and gas and to develop "this valuable resource in the best socioeconomic manner possible for the benefit of all our partners, including the host country and local communities." The Code also identifies shareholders, staff, host governments, local communities, and the environment as its main stakeholders.[9]

Consultations with central and local authorities in 1997 had revealed a shared view that oil represented a momentous opportunity for the development of the country and the area, but this consensus began to erode in 2000-2001 as local authorities started to join the SPLA, denouncing what they claimed to be violations of the KPA by the GoS. At this stage, Lundin Petroleum suspended its operations and started an active consultation process with all relevant stakeholders, including central and local government representatives, community representatives, NGOs, and mediators active in the area. The overall objective of the consultations was to convey the fact that sustainable operations required a peaceful environment and the company's view that oil revenues could represent the economic foundation for a peaceful Sudan.

With the Sudanese government and the Government of Unity State, the company expressed its view that the long-term security required for sustainable oil activities could only be achieved with the support of the local community, which could be obtained through an equitable sharing of resources, not military action. In its discussions with representatives of the Nuer opposition, the company conveyed its view that oil presented the best opportunity to achieve sustainable peace and growth in the area and encouraged them to seek a peaceful way to assert their rights to the area. Discussions with special interest NGOs that advocated a full cessation of oil activities were difficult, but development NGOs were much more open to company initiatives and presence, as they saw both short and long term benefits accruing to the population. Think tanks specializing on Sudan were interested in how oil could act as an incentive for peace in Sudan above and beyond the obvious positive benefits of oil for the overall economic performance of the country.[10] The company shared with them information about the terms of oil exploration, production and revenue distribution schemes, and drew their attention to the equitable sharing scheme laid out in the Khartoum Peace Agreement.[11]

The company also met government representatives of the key nations acting as peace mediators, such as Kenya, Norway, the U.K. and the U.S.[12] The mediators' role was to help the parties achieve a compromise by offering them support in the form of international monitoring and monetary assistance for purposes of reconstruction. The company presented mediators with its view that oil represented an incentive for peace—in so far as oil activities could not be pursued in a war context, as attested by the company's suspension of activities—and provided the material basis for a sustainable peace.

Eventually, with the active engagement and support of key mediator nations, the two main protagonists in the conflict, the GoS and the SPLM/A (which by then included the Nuer leaders) concluded a Comprehensive Peace Agreement (CPA) in January 2005, an agreement still in force at the time of writing (summer 2009). Power and wealth-sharing provisions, which require revenues generated from oil production to be distributed among the central and southern government, and the producing state, constituted and remain the corner stone of the CPA.

Ethiopia

Operations in Block 5A, Sudan, proved to be successful from an exploration and commercial perspective, as the company made a discovery, which was later brought into production by the company which bought the asset.[13] This led the company to look at Ethiopia, integrating the lessons learned in Sudan. A corporate responsibility analysis was being conducted prior to entering into an agreement with the Ethiopian government. The study found that at the time the country was one of the most progressive and democratic in the region.[14] There were thus no external impediments to initiating activities there and while there were rebel groups active in different parts of the country, these were not indigenous to the concession areas sought by Lundin Petroleum.[15]

During the process of negotiations, special attention was given to security and community matters and relevant clauses were inserted in the agreement to ensure that Lundin Petroleum's corporate responsibility requirements and international standards were met.[16] The licenses obtained were in the Somali region of Ethiopia.[17] In order to ascertain potential risks which the company and local communities could face as a result of the initiation of oil activities in this region, the company commissioned third party surveys of all its concession areas. The objective of the surveys was to assess the area from topographical, social, health, safety, and environmental (HSE) and security points of views as well as to introduce the company and its intention to the communities living in the concession areas.

One of the important features of these surveys was the description of the political structure in the area and its various levels of decisionmaking and decisionmakers, from the regional government through the zonal and local administrations to the clan leaders at the village level; representatives of all these levels would be consulted at various stages of the operations. The surveys also ascertained that the area was suffering from fairly adverse socioeconomic conditions; lack of infrastructure and inadequate supply of fresh water made it difficult for the agropastoralist tribes of the area to achieve sustenance. As had been the case in Sudan, clan leaders met by the assessment team saw exploration activities as a potential for developing alternative means of livelihood and obtaining economic benefits in the form of jobs and community projects.

As a follow up to these surveys, Lundin Petroleum organized a Stakeholder Awareness Meeting (SAM), inviting sixty-five clan leaders from the concession areas, as well as representatives of the Ministry of Mines and Energy. After introductions, three presentations were made by the company. The first outlined the company's structure, activities, and corporate responsibility policy; the second outlined the process involved in oil exploration and production, from the identification of a prospection area, seismic studies, exploratory drilling, and so on; and the third described the terms of the agreement between the company and the government including geographical scope, work commitments, and time frame. Participants were then encouraged to question the executives, clarify issues, comment on proposed plans, express their concerns regarding the potential impact on the communities and/or the environment, and put forth community expectations in relation to oil operations. The outcome of the SAM was the identification of key areas of concern of the clan leaders (employment, compensation for damage, community projects, and consultations) and the following commitments:

- To work and support each other in order to create a conducive and safe environment for Lundin Petroleum to conduct its exploration activities safely and smoothly.
- To respect each other's values, principles, policies, and traditional or customary rules.
- To encourage and to the extent possible create job opportunities and new markets

for local communities.

- To work to achieve a win-win situation and, though regular discussions and consultations, to avoid misunderstandings that can cause conflicts.

Another interesting outcome of the SAM was the rapprochement among certain clan leaders themselves due to the time they spent together traveling to attend the meeting. Clan leaders representing tribes which had traditionally been in conflict over water and grazing rights (members of the Oromo and Somali tribes) thus met face to face and initiated a dialogue which they decided to formalize, once back in their constituency, through the creation of a dedicated intertribal peace committee.

Following the SAM, local NGOs which had assisted the company in gathering the clan leaders were requested to carry out further consultations with the communities to identify key areas of needs and submit community development project proposals. When the company initiated its first field activity—the aeromagnetic survey—it hired members of the nearby community to prepare the base camp and provide logistical services. It dug a water well, which it handed to the community at the end of the survey. It also provided medical services and supplies via the medical doctor hired to assist the survey team in the event of an emergency. Following the survey and in anticipation of the next stage, the company hired a Somali community development coordinator, recommended by a person linked to an international organization dealing with humanitarian issues, and set up an office in the capital of the Somali Regional State (SRS). A field community liaison person was also hired to continue the dialogue initiated with clan leaders.

The reaction to company initiatives by government representatives of the Ministry of Mining and Energy changed over time, reflecting the evolution of the political situation in the country as a whole.[18] While they seemed initially supportive of the company's direct engagement with communities, having participated in the SAM and encouraged the company to liaise with representatives of the Somali Regional State (SRS), they became more reticent to encourage direct engagement with the communities.

By the time of the sale of the Ethiopian assets, none of the proposals developed jointly by local NGOs and by the company and supported by the SRS had been validated by the Ministry of Mining and Energy[19] and no other field activity had taken place, save for environmental impact assessments. During the time Lundin Petroleum was in Ethiopia it also maintained active discussions with a number of representatives of foreign governments and NGOs in order to gauge their assessment of the developments taking place in the country.

Kenya

The approach adopted in Ethiopia was essentially replicated a few months later in Kenya. One notable difference was that no major political or security issues were identified in the region, other than the occasional intertribal conflict. Another significant difference was the type of reaction both by government representatives and by community leaders. Kenyan government officials of the Ministry of Energy were unwavering in their support. This corporate responsibility approach was novel in Kenya; none of the previous operators had such a systematic approach to community engagement[20] and thus governmental officials were keen to hear about its rationale and means of implementation. Participating in the SAM, they received regular updates from the company at meetings held with partner companies and were encouraging.

Communities were again concerned about the potential negative impacts of the operations on the environment and about compensation in the event of use or damage to their land or cattle (as in Ethiopia communities were agropastoralists) but mostly were interested in being informed of the activities and being given job opportunities where available. The request to be kept informed was due in part to a prior negative experience with an exploration company[21] and the desire to start on a new footing.

Lessons learned

Lundin Petroleum faced three types of situations in its East African operations: an armed conflict in Sudan, a conflict prone situation in Ethiopia, and a remote conflict potential in Kenya. In Sudan, the company learned that, despite its inclination to restrict its role to the commercial sphere, it could not ignore the sociopolitical developments in its area of operations or the claims made by some of a possible connection between its activities and the conflict. A reaffirmation of its values in a Code of Conduct, a greater involvement in community life, stakeholder engagement, and the suspension of activities were the tools adopted by the company in response to the challenges it faced. The lessons learned in Sudan and the corporate responsibility framework helped the company anticipate potential problems and better plan its next operations in East Africa. In Ethiopia, the company considered the potential for conflict due to the presence of rebel forces in the Somali region and their expressed opposition to oil exploration activities. It conducted a SAM to ascertain the reaction of the community to its proposed plans and assess whether claims made by rebels were shared by the population in the exploration areas. It initiated dialogue, community projects, and hired a community liaison person to ensure the continuous exchange of information between the communities and the company. In Kenya, the company assessed the risk of intertribal conflict due to its activities as reasonably low so long as consultations and community projects were made on an equitable basis across tribes.

Lundin Petroleum's experience in the three East African countries clearly demonstrates the value of a corporate responsibility policy in providing a mechanism to identify and seek to resolve potential conflict. It places the onus on the companies to consider and mitigate the possible impact of its activities on people and the environment and thereby meet the ever-growing societal expectations of the private sector. It also demonstrates that peace, or the absence of conflict, cannot be achieved by the sole action of the private sector, but needs other actors whose perception of the role of oil can be as important as the actual role itself.

Notes

Christine Batruch is Vice President Corporate Responsibility, Lundin Petroleum AB, Sweden. She may be reached at christine.batruch@lundin.ch.

1. On Lundin Petroleum AB, see http://www.lundin-petroleum.com [accessed 13 June 2010].

2. Activities in Sudan were initiated by predecessor companies, IPC and Lundin Oil.

3. For a more comprehensive description of Lundin Petroleum's experience in Sudan, see Batruch (2004).

4. The main tribe in the area is the Nuer tribe, which has 5 subgroups: the Bul, Lek, Jikany, Jagei, and Dok Nuer. In turn, these groups were affiliated with local militia.

5. The text of the Khartoum Peace Agreement, signed in April 1997, is available at www.sudani.co.za/Documents%20and%20Issues/Khartoum%20Peace%20Agreement.htm. It was signed between the Government of the Sudan, the South Sudan United Democratic Salvation Front (UDSF)—comprising the South Sudan Independence Movement (SSIM) and the Union of Sudan African Parties (USAP)—the SPLM, the Equatoria Defence Force (EDF), and the South Sudan Independents Group (SSIG).

6. The company met with Dr. Riek Machar, who, pursuant to the 1997 Khartoum Peace Agreement, was Vice-President of Sudan and President of the South Sudan Co-ordinating Council (the government representative for the south); with Taban Deng Gai, the Governor of Unity State; and with representatives of the local tribes.

7. As the company never produced oil, it never generated revenues, other than from the sale of its asset in 2003. Community development projects conducted under CDHAP had three objectives: (1) to promote better health, hygiene, education, and general quality of life for the current and future inhabitants of the concession area of Block 5A, Unity State; (2) to contribute to the economic and social development of the area; and (3) to reinforce relationships between the local community and the company. Community projects included infrastructure building (roads, bridges, schools, and clinics), the provision of medical and veterinarian services, as well as capacity building, e.g., training of paramedics, paravets, midwives, community officers.

8. Code of Conduct, "Message from the Chairman." The text of the Lundin Code of Conduct and related documents are available at http://www.lundin-petroleum.com/Documents/ot_lupe-code_e.pdf.

9. The Company witnessed how, over a period of a few years, Sudan shed its pariah nation status and became an attractive place for the international business community. With the oil revenues, Sudan repaid its IMF loans, which resulted in its reinstatement and its heightened credit worthiness. See http://www.imf.org for information regarding Sudan's reinstatement in August 2000 and GDP data. The problem in Sudan at the time was not lack of revenues, but their unequal distribution.

10. Two U.S.-based think tanks devoted particular attention to this issue: the Center for Strategic International Studies (CSIS), Washington, D.C.; and the Carter Center Peace Program, Atlanta, Georgia.

11. The KPA had the following distribution scheme: 40% for the producing state, 35% for neighboring states, and 25% for the central government, a scheme which was much more favorable than the one eventually adopted in the Comprehensive Peace Agreement (CPA) which saw 2% going to the producing state and the remaining share being split equally between the central and southern governments.

12. The first three nations were part of the Intergovernmental Authority on Development (IGAD), based in Nairobi, whose mandate was to broker a peace agreement in Sudan. The U.S. joined as an active peace mediator in June 2001 with the appointment of a Special Representative dedicated to the Sudan peace issue.

13. Petronas Carigali bought Lundin Petroleum's interest in Block 5A in 2003 and operated a concession in Block 5B, where Lundin Petroleum had a minority interest which it relinquished in April 2009.

14. This analysis was conducted prior to the November 2005 elections which resulted in violent protests and repression and caused considerable concern among nations heretofore supportive of the regime.

15. The concession areas Lundin Petroleum eventually obtained were situated in the Somali region of Ethiopia. Within the Somali region, there are a number of tribes among which the Ogadeni, which formed an armed liberation movement in 1984, the Ogaden National Liberation Front (ONLF), aimed at achieving independence of the region. The Oromia tribe also has an armed movement, the Oromia Liberation Front (OLF). Prior to obtaining the concession it was established that the ONLF and OLF were present in areas adjacent to but not in the sought concessions.

16. Reference is made in particular to Lundin Petroleum's Code of Conduct and relevant Policies, as well as the Voluntary Principles on Security and Human Rights, see /www.voluntaryprinciples.org.

17. From a geological point of view, the area has been termed the Ogaden Basin. In April 2007, i.e., a few months after the company signed agreements with the Government of Ethiopia granting it exploration and production rights, the ONLF conducted a military operation against a seismic camp, some 450km away from Lundin Petroleum's concession, killing 65 Somalis and 9 Chinese workers. See news.bbc.co.uk/2/hi/africa/6677787.stm.

18. A proposed law (adopted by the Parliament in January 2009 as the Proclamation for the Registration and Regulation of Charities and Societies) imposed restrictions on the ability of local NGOs to receive funds from foreign entities. For a description of the law and its effects on the ability of foreign entities to work with local NGOs, see www.icnl.org/knowledge/globaltrends/glotrends1-1.htm.

19. The company which bought these assets from Lundin Petroleum plans to continue the work done in this sphere.

20. This was conveyed to Lundin Petroleum's representatives by clan leaders during the SAM as they indicated it was the first time that they were consulted by companies planning operations in their area.

21. When the company conducting exploration activities in this area ceased its operations, it left some harmless waste; however, as there was an outbreak of disease among cattle, the communities suspected the waste as the cause of the disease. Given the presence of Kenyan officials during SAM, this concern was allayed and the results of an environmental study performed by the Ministry of Energy on this same issue communicated to the community.

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The political economy of Nigeria's relentless conflict

E. Wayne Nafziger

Despite its petroleum wealth, the second-highest GNP in sub-Saharan Africa, and seeming potential for growth, Nigeria has been continually mired in political conflict, repression, and violence since independence in 1960. The country is the eighth-leading petroleum exporter (and fourth-ranking exporter to the United States) and has the tenth-greatest oil reserves. Next to South Africa, Nigeria has the highest 2008 GNP—USD177.4 million—in sub-Saharan Africa (and sixth-highest in Africa). Nigeria, with 151 million people and 15 percent of Africa's population, was Africa's most populated country in 2008.[1]

From 1983 to 2007, Nigeria was a lower-middle-income country with negative GNP (and GDP) per capita growth during the period of military repression, 1983-1999 (see Figure 1). Still Nigeria's 2008 GNP per capita, USD1,170, was slightly above average among sub-Saharan African countries. However, sub-Saharan Africa GDP per capita, the lowest among world regions, was about one-half that of South Asia and about one-sixth of East Asian developing countries. Overall Nigeria's 2008 GNP per capita ranked 98th among the 142 countries (in the 31st percentile) listed by the World Bank.

Nigeria has had a federal military government for 29 of its first 49 years. Moreover, the fourth republic, since May 1999, has seen limited improvement in political freedom and order. The Economist Intelligence Unit (2007) estimated that more than 50,000 people were killed in communal violence since 1999.[2] Federal security forces have clashed with militias and criminal gangs from the Niger Delta over petroleum, while deaths from Christian-Muslim conflicts in northern Nigeria have killed tens of thousands of people since 2001. In 2007, armed rebellion and fighting in the Delta contributed to lost oil production of between 750,000 to 975,000 barrels per day (bpd) or 33 percent of capacity, while loss from organized theft was between 20,000 to 40,000 bpd. Moreover, "more oil is spilled from the Delta's network of terminals, pipes, pumping stations and oil platforms every year than [was lost in April-May 2010] in the Gulf of Mexico, the site of a major ecological catastrophe caused by oil that ... poured from a leak triggered by the explosion that wrecked BP/s Deepwater Horizon rig."[3]

The 2007 elections included political assassinations, massive electoral fraud, incomplete voter registration, police arrest, intimidation, disqualification of opponents, a lack of secret ballots in some polling stations, and the announcement of results where no elections were held. Nigeria has not yet had a peaceful democratic transition from one head of state or government to another.

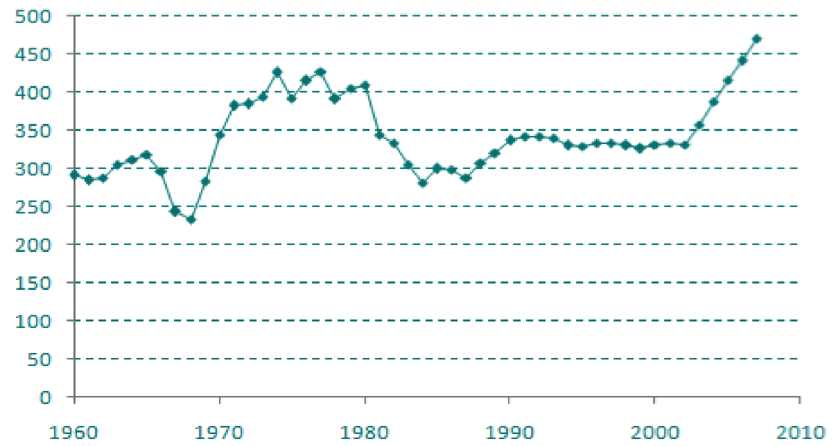

Figure 1: Nigerian per capita GDP in 2000 USD (1960-2007).
Source: World Bank (2007); EIU (2008).

The elevation of Vice-President Goodluck Ebele Jonathan, a Southerner, to the presidency on the death of Nigeria's President Umaru Yar'Adua, a Northerner, in 2010, near the beginning of his expected two terms totaling eight years, forebodes a likely conflict between North and South concerning succession during the 2011 election.

Ethnic divisions and the military

As so often in Africa, the roots of conflict can be found in a country's colonial legacy. British piecemeal penetration of Nigeria contributed to unevenness in social change and modernization among various regions and communities. Several Niger Delta and other coastal regions in the South had centuries of economic contact with the West before British administration was formally established in 1900, and northern and southern Nigeria were never effectively united throughout the decades before independence in 1960. Under colonial rule, British governor-generals established "indirect rule" in the North, where compliant Fulani emirs assumed tax collection and day-to-day administrative responsibility, while eliminating both internal and external opposition and hindering the development of nationalism and a strong indigenous bourgeoisie. In contrast, the coastal regions of southern Nigeria had more experience in parliamentary government, a greater political consciousness, higher literacy, and more developed industrial capitalist institutions than the North.

While ethnic ("tribal") identity was weak among Nigerians during early colonialism, the struggle for modernization's benefits strengthened ethnic nationalism around the mid-twentieth century. After 1948, Yoruba nationalism increased in response to Igbo nationalist leadership, and Fulani-Hausa nationalism in response to potential southern supremacy. The elite accentuated identification with traditional cultural entities, sentiments used to transfer hostility from class to other ethnic communities.

The Nigerian elites, after consultation by the British in 1949, have continually clashed over economic benefits. Although English is an official language, there are more than 200 languages corresponding roughly to ethnic communities. The British rulers, during the terminal colonial period, 1948-1960, when southern elites were impatient for independence, established a tripartite regional structure that enabled Fulani traditional rulers to maintain suzerainty in the north. The colonial power supported a 1958 constitutional conference which gave the Fulani traditional aristocracy dominance in the Northern Region, whose boundaries made possible its majority representation in Nigeria's federation. The three largest communities—Fulani-Hausa, Igbo, and Yoruba—dominated the politics of the three regions (northern, eastern, and western, respectively), each comprising about four-fifths of the respective regional population. The three largest communities were rivals in the federal and economic power struggles during the terminal colonial period and are still the leading communities in Nigeria, despite its expansion to 36 states in 1996.

Northern political power and regional interests

Because of a lack of per capita growth, regional efforts to protect economic interests were not a positive-sum game and the North's political dominance threatened Yoruba and Igbo interests. The North was adept in protecting the regional interest of its Fulani elites during most of Nigeria's sixty years or so: through having independence postponed until attaining a parliamentary majority, using election fraud in 1964-65 and in 2007, resisting censuses showing a northern minority, countering the threat of a unitary civil service in 1966, preventing secession beyond the East in 1967, creating new eastern states in 1967, being on the winning side in the civil war, being prominent in the Second Republic (1979-83), having a northern military head of state in 1966-1976 and 1983-1999, and aborting a 1993 non-northern election victory. The South (initially the eastern and western regions) was not able to use political levers to attain regional economic security and capture massive economic rents for their elites.

Northernization involved regional preferences for northerners when they were available but relying on foreigners to hold positions until northerners were ready. From 1960 to 1966, the northern ruling group could control some Middle Belt communities through economic sanctions, political reprisals, and military and police coercion, and, after 1962, positive inducements such as northernization of the regional civil service and regional quotas for the armed forces. This benefitted the relatively well-educated Middle Belt youth.

As so often in Africa, the roots of conflict can be found in a country's colonial legacy. Nigeria has not yet had a peaceful democratic transition from one head of state to another.

Since the early 1950s, the North's traditional aristocracy, politicians, and officials felt vulnerable with any head of government unwilling to protect northern employment and way of life. Without a head from the North or allied with northern interests (as with the Yoruba president Olusegun Obasanjo in 1976-1979 and 1999-2007), the North feared a threat to northernization and representation in the federal civil service, parliament, and armed forces.

An early threat did occur, from 1949 to 1953, with the northern ruling elite opposed to independence when southerners were dominant. British support of northern resistance, together with southern impatience, led to a 1958 agreement to leave the North intact with a federal majority. East, West, and minority-area based parties supported the agreement, reluctant to oppose self-rule. (Despite Nigerian population censuses in 1952/53, 1962/63, 1973, 1991, and 2006, regional representation has been frozen at 1962-63 proportions largely because initial census numbers threatened a northern majority.) But the Fulani quest to maintain the power of its emirs and of the Native Authority local government resulting in the requirement of northern federal supremacy threatened the elites in other regions. The alarm by the Northern Peoples' Congress (NPC), the instrument of the emirate system, about the 1963 census that initially showed a southern majority inspired a recount that gave the North a majority that approximated the 1952/53 census. "The 1962-63 census crisis provided ... evidence of the ability and determination of the North to go to any lengths to maintain its population majority and the political power that it conferred."[4] Despite eastern protests, the western-based Nigerian National Democratic Party (NNDP) supported its northern ally in the federal parliament, the 1963 figures were accepted, and a challenge to northern supremacy was averted. The southern-led opposition, which started the 1964 federal election with confidence, lost virtually the entire North to the NPC and most of the West to the NNDP before balloting took place, because its supporters were left off voters' lists, its leaders' speeches were frequently forbidden and obstructed, its candidates and spokespersons were violently harassed, and some were arrested while making nominations.

Within a month of the 1964 election, supporters of the southern-based party alliance responded to the election fraud (and the political manipulation of cocoa marketing board prices in the West) by spontaneous riots, ambushes, arson, and armed rebellion against the western regional government. By December 1965, the West was near anarchy.[5] The 15 January 1966 intervention into politics, in which Prime Minister Abubakar Tafewa Balewa and several prominent politicians and army officers were killed, culminated in Major General J.T. Aguiyi-Ironsi becoming head of state. Many interpreted this coup as an attempt to ensure the security of the South, especially

Igbos, by removing the North's firm hold on the federal government. The communal competition for economic shares had been transmitted to the army and politicized its officers. The positions of the conspirators were endangered by regional balance for officers and regional quotas, which favored the North. Additionally, some southern soldiers resented the army's role in the 1962 western party struggle, the 1964 Tiv (Middle Belt community) riots, and the 1964/65 election crisis.

Amid a fear of Igbo hegemony, the Ironsi government decreed a unitary federal administration. Civil service unification, together with the repudiation of northernisation by the northern military governor, aroused northern anxieties about losing jobs. Northern university students, joined by the unemployed, daily-paid laborers, petty traders and contractors, who were symbiotically linked to leading northern politicians, spearheaded the 29-30 May 1966 riots in which hundreds of Igbos in the North were killed and their property destroyed. Moreover, the new regime had antagonized potential allies such as Middle Belt soldiers and bureaucrats who gained from northernization, and westerners.

General Ironsi and Igbo officers were killed, 28-29 July 1966, in a counter-coup launched amid rumors of an Igbo plan to annihilate key northerners. Lieutenant Colonel Yakubu Gowon, a Middle Belt Angas and the only officer receiving the support of rebelling Middle Belt troops and federal civil servants, became head of state. Gowon, in his broadcast to the nation, on 1 August, was dissuaded from northern secession by high-ranking civil servants and judges and British and U.S. emissaries, and announced a return to a federal structure. Nigeria still depended heavily on Britain and the West for military supplies and training, trade, aid, and capital flows.

The rift between the eastern and federal governments began after the July 1966 coup. On 27 May 1967, Lieutenant Colonel Odumegwu Ojukwu, military governor of the East, declared the region the independent Republic of Biafra. The West, by refusing to secede, provided the North a crucial ally. Gowon's replacement, Lieutenant Colonel Murtala Mohammed, a Hausa, strengthened further the power of the federal government. After Mohammed's assassination, General Obasanjo, as head of state, initiated a transition to civilian rule, handing power to the newly elected President Shehu Shagari, a Fulani, who received strong support from northerners and southern minorities. Declines in petroleum revenues and GDP in the years 1981 to 1983, accusation of ethical lapses, and 1983 electoral fraud contributed to public relief upon his overthrow 31 December 1983, after which Mohammed Buhari, a Fulani, became head of state.

Just before the 1967-1970 civil war and after two 1966 coups d'etats, a leading Nigerian political scientist observed: "With political power shifting to the Centre, the real levers of power are actually to be found in the North. Federal super-ordination ... has in practice turned out to be Northern dominance," which continued through 2009.[6]

Muslims and Christians generally had lived in peace among the Yorubas and the Middle Belt. Religious identity became an issue contributing to violence during the 1979 constitutional debates for the second republic. Twelve states introduced sharia, which contributed to Middle Belt Muslim-Christian conflicts.

King petroleum

Regional economic animosities ran rampant in the early to mid-1960s. As early as 1965, eastern secessionist threats were linked to petroleum. Alhaji Yahaya Gusau, subsequently federal commissioner for economic development, stated: "The root cause of the present civil war is really an economic one ... I am convinced that if there were no petroleum discovered in large quantities in parts of the former Eastern Region, the secessionist leaders would not have tried to break up Nigeria."[7]

The dominant prewar structural change was petroleum's increasing share of GDP. Crude oil output grew 78 percent a year from 5,000 bpd in 1958 to 415,000 bpd in 1966. By then Nigeria's annual exports (USD258 million), two-thirds in the East, ranked thirteenth in the world from that region alone. Petroleum, 33.1 percent of exports in 1966, made a N21.7 million surplus contribution to the balance of payments to counter a N27.1 million deficit in other sectors (total merchandise exports were N140 million). When viewed in 1967, the oil sector promised to be even more important in the future. Economist Scott Pearson's projections indicated that the balance of payments impact of oil in 1973 would be N111 million in an independent Biafra and N111 million in Nigeria, each more than double the figure for the entire federation in 1966.[8]

Biafran separation became inevitable with the creation of 12 states in May 1967, which undercut the regional hegemony of the ruling Igbos, who would have been left with control of the landlocked East-Central State, with only 6 percent of Nigeria's oil output in April 1967 and without the East's major industrial city, Port Harcourt, and Nigeria's only oil refinery. Because Biafra's potential gain by and large constituted a loss for the federation, the latter took measures to quash the rebels. Most oil was controlled by minorities, who had faced Igbo discrimination.

A major source of interregional contention in Nigeria was the formula for allocating oil revenue. The East was dissatisfied that, after 1959, only a fraction of the revenue from crude petroleum (that is, none of the profits tax and only one-half of the rents and royalties) was received by the region of production in contrast to all the revenue from agricultural exports. Before 1959, all the export revenues from mineral and agricultural products had been retained by the producing region. If all the petroleum revenue of 1967 had been retained by the producing region, it would have been equal to 59 percent of its approved estimates for current revenue. The East's discontent reached a peak in early 1967 when its Ministry of Information charged that the region had been contributing more to the central treasury than it was receiving and had benefitted least from the siting of federal investment projects in the previous decades.

Since 1973, revenue from petroleum has comprised at least 90 percent of both foreign exchange earnings and domestic revenue for states. Moreover, as the federal government expanded the number of states, the conflict for benefits from petroleum, more than 90 percent of which is produced in the nine states of the Niger Delta (Akwa Ibom, Abia, Bayelso, Cross River, Delta, Edo, Imo, Ondo, and Rivers), remains the epicenter of Nigeria's deadly political violence. The clash is between the federal government-owned Nigerian National Petroleum Corporation and its multinational partners Shell and Chevron, with Igbo and Delta minorities Ijaw, Ibibio, Itsekin, Ogoni, Urhobo, Ekoi, Efik, Eburutu, Annang, Oron, and Kalabari.

The sources of conflict in Nigeria include its ruling coalitions facing pressure from economic stagnation and the high-stakes rent seeking for the control of oil. Delta grievances derive from the lack of community control and land rights, the little revenue for petroleum's producing region (less than 10 percent of the revenue distributed to states), and the environmental degradation and other diseconomies borne by oil-bearing regions. Grievances also come from the lack of democratic accountability, high inequality, and Delta poverty that, while lower than in Nigeria generally, is enough to trigger relative deprivation, the perception of social injustices from discrepancies between expectations and actuality.[9]

Per capita gross product stagnation and decline

As indicated, Nigeria ranks in the bottom third among countries listed by the World Bank. Intrastate conflict is more likely in poorer countries with slow growth.[10] For the time period 1962 to 2001, Nigeria's real five-year moving average GDP per capita, measured in USD, grew only 0.32 percent per year. Nigeria's fall in GDP per capita, 1983 to 1998, was 0.63 percent yearly; and its 1998 average income, after 15 years of military rule, was 85 percent of what it was in 1983 (see Figure 1). Nigeria experienced steady growth from 1960 to the late 1970s except for the 1967-70 civil war. Yearly GDP per capita growth, 1969-1977, was 2.2 percent. Nigeria's international balance of payments surplus increased from N197.6 million to N3,056.8 million, 1973-1974. The Third National Plan, 1975-80, stated "there will be no savings and foreign exchange constraints," not anticipating the growth deceleration of the late 1970s and the per capita income decline during most of the 1980s. The balance of payments never attained its 1974 level again in the 1970s, as consumer imports increased and oil demand grew slowly. The euphoria that led to head of state Yakubu Gowon (1975) declaring that "finance was not a problem to Nigeria" was short-lived, as petroleum export revenue decelerated (see Figure 2).

The government of Brigadier General Murtala Mohammed, Gowon's 1975 successor, announced army reductions more than 50 percent to 100,000 soldiers. Weakened morale and career uncertainty contributed to unrest in which northern Middle Belt middle-ranking officers assassinated Mohammed in 1976. During the war, economic strength shifted from merchants, medium-sized industrialists, and regional interests to federal interests—military, bureaucratic, and quasi-state officials.

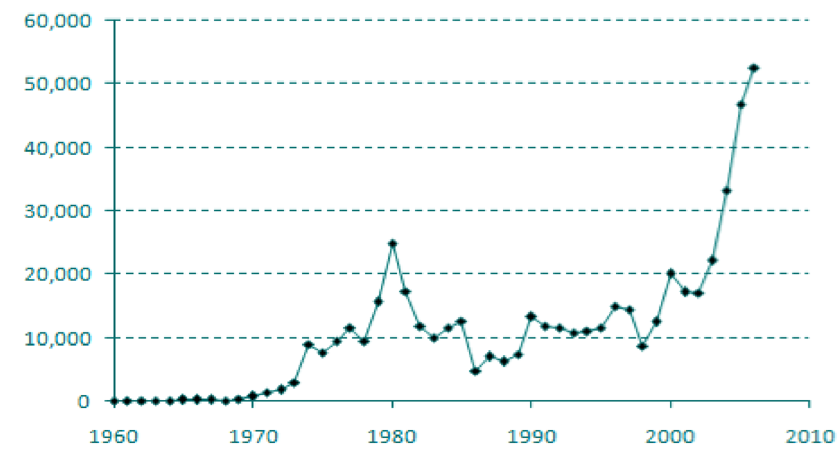

Figure 2: Value of Nigerian petroleum exports (USD, mn), 1960-2006.
Source: OPEC (2006).

Fiscally, federal Nigeria was unitary, thereby weakening regional and local power.

After 1976, the centralization of revenues and rapid income decline changed the game to a high-stakes contest, a negative-sum game, to capture the presidency, a contest that the North and its allies almost always won. After 1973, petroleum comprised more than 90 percent of Nigeria's export revenues. From 1974 to 1980, amid an oil export boom, Nigeria's lowest GDP per capita exceeded any subsequent year to 2000!

Nigeria's 1980s' fall in average GDP resulted from declining net commodity and income terms of trade, placing an intolerable burden on President Shagari's reelected government: it was overthrown in 1983. Furthermore, Nigeria's negative net transfer of resources, 12.5 percent of exports, 1984-86, from debt servicing and falling terms of trade, approximated the war-reparations transfer burden borne by Germany, 1925-32. In 1985, the Buhari military government was overthrown by Middle Belt Major-General Ibrahim Babangida. Declines in living standards put pressure on authoritarian military regimes. Much deadly political violence took the form of state repression of dissent.

Rent seeking

Rent seeking, unproductive activity to obtain private benefits from public action and resources, can become more lethal during a period of negative real per capita growth, characteristic of Nigeria from 1974-1980 and from 1983-2005, periods that encompassed both military (1983-1999) and civilian rule (1999-2005) (see Figure 1). Governing elites, police, and armed forces, and not just insurgents, are at the root of many conflicts and humanitarian crises.[11] Slow (or negative) growth that aggravates relative deprivation puts pressure on ruling elites, who can expand rent-seeking opportunities for an existing coalition, contributing to further economic stagnation that threatens regime legitimacy and increases the probability of regime turnover. Or they can reduce the allies and clients they support with largess, risking opposition by losers. To forestall threats to the regime, political and military elites may suppress discontent or capture a greater share of the shrinking surplus.[12]

These repressive policies may entail the center's violence against politically disobedient groups, rampant during a long period of military rule, 1983-1999, or during civilian rule. Nuhu Ribadu, Nigeria's chief corruption fighter, 2006, estimates that "more than $380 billion has either been stolen or wasted by Nigerian governments since independence in 1960."[13] In 1994, Nigeria's military government and allies expropriated "more than a thousand million dollars annually—equalling as much as 15 per cent of recorded government revenues—flow[ing] to smuggling networks and confidence teams, many of whom operated with connivance of top elites."[14]

Political violence even increased during civilian government, as in western Nigeria in 1964, when the Action Group (AG) tried to put together a progressive coalition from all regions, or in post-1990 Niger Delta state, when ethnic militias and protesting locals tried to increase their oil-revenue share. While some casualties are from election violence in 2007 or ethnic and sectarian conflict in states outside Delta, a substantial number of deaths are from the clashes over petroleum of federal security forces with Delta militias, criminal gangs, and civilians or among Delta groups. The kidnapping of petroleum personnel by militias or criminal gangs has been widespread. Most lost oil production from theft, hijacking, sabotage, and kidnapping can be attributed to armed militia groups or other alienated Delta groups who want regional autonomy. Hundreds have been killed through fighting between Delta dissidents and the federal government or its attack on locals. Since early 2006, the Movement for the Emancipation of the Nigerian Delta (MEND), a guerrilla group trying to be an umbrella group for Niger Delta militias, has been the source of many attacks and kidnappings. Militia members, primarily discontented youth, are increasingly sophisticated, massively disrupting production with attacks on pipelines, pumping stations, and oil platforms. MEND has been involved in intermittent fighting with federal police and armed forces.

Income distribution

Large income inequality exacerbates the vulnerability of populations to political conflict. In Nigeria, as in poor countries generally, income inequality, by fueling social discontent and relative deprivation, increases deaths from conflict.[15] Nigeria's Bureau of Statistics reported poverty rates and Gini coefficients (an income concentration measure) for 36 states, six regional zones, and nationally, 2005-07. Poverty was measured, using a multidimensional concept of poverty, including nutrition, income, assets, education, and health, providing a detailed poverty mapping that indicates potential sources for relative deprivation. At 0.49, Nigeria's Gini coefficient is the 27th-highest of 127 countries in 2005. It is high in the discontented regions of the Niger Delta and the highly urbanized southwest.[16] Moreover, during military rule, when a few men at the center made huge gains from rent seeking, poverty rates increased continually over time and nationwide. Virtually all zones were deprived relative to previous periods, raising the potential for social discontent and political violence. Even under repressive military rule, discontent boiled to the surface, culminating in huge deprivation deficits in 1999. Moreover, the average northerner was deprived relative to southerners. All this occurred amid a falling level of living during military rule. This negative-sum game to win control of the center's oil revenues contributed to increased conflict between northern Christians and Muslims, among ethnic groups, between majority and minority groups, and between state natives and "settlers." High income concentration increases relative deprivation through the demonstration of consumption levels of the relatively well off. The risk of conflict increases with surges of income disparities by class and community. Class and communal economic differences often overlap, exacerbating grievances and potential strife.

Conclusion

What are the economic causes of Nigeria's chronic political conflict and repression? The failed expectations of Nigerians from slow or negative per capita growth put pressure on Nigeria's ruling elites. A zero-sum game means that rulers can no longer expand rent seeking opportunities for members of the ruling coalition without losing support from other allies or clients, thus increasing potential instability. Governing Nigeria becomes even more difficult as economic regress has contributed to increased poverty amid large income discrepancies.

Elites, especially in the North, focusing on regime survival and wealth accumulation, feel compelled to expand rent seeking opportunities that can trigger a vicious circle of stagnation and deadly violence. Moreover, regime survival means choosing personnel for their political support and clientage rather than their consistent and knowledgeable economic policy advice. "The problem is not so much that development has failed as that it was never really on [Nigeria's] agenda in the first place ... Leaders were in no position to pursue development; they were too engrossed in the struggle for survival,"[17] a political struggle that the populous but backward-looking North won and the more innovative South and oil delta states lost.

Since the colonial period, regional and ethnic communities have feared domination by other communities. Amid this concern, regions have competed for employment, revenues, and licenses, distributing economic benefits by ethnicity and clientalism. Since the 1960s and 1970s, with the expansion of crude petroleum and centralization of its revenues, controlling the federal government has become a dangerous high-stakes contest.

A long period of military rule, from 1983 to 1999, has contributed to Nigeria's political decay. Nigeria lacks the economic institutions and governance structures, such as efficient administration and legislation, enforcement of contracts and property rights, and efficient and nonpartisan civil service. Nigeria will need transparent and able leadership to replace the vicious circle of stagnation, conflict, and further slow growth with a virtuous circle based on economic reform to spur faster growth and more equitable income distribution to eliminate the ruling elites' zero-sum games.

In 1976, General Olusegun Obasanjo, responding to political unrest and an overheated economy, pointed out that petroleum revenue was not a cure-all. "Though this country has great potential she is not yet a rich nation ... Our revenues from oil are not enough to satisfy the yearnings, aspirations and genuine needs of our people, development and social services."[18]

Some would use this view to contend paradoxically that petroleum-abundant countries face a "resource curse" from altered incentives, raised expectations, and distorted and destabilized nonoil output, especially in agriculture, contributing to slower growth than nonoil countries. I reject the notion of a curse, contending that Nigeria, while underperforming, especially during 1983-2000, is still a lower-middle income country and largely as a result of its abundant petroleum, wealthier than most sub-Saharan African countries. Thus, we need to examine other problems beyond the "mineral curse."

In Nigeria, as in many other Afro-Asian developing countries, the major factors associated with conflict and repression are slow economic growth and low average income, large income inequalities (by income class and community), the prominence of the military (its highly political role and the high ratio of military expenditure to GNP), conflict over mineral exports, and predatory and authoritarian rule. Both economic stagnation and large income inequalities affect relative deprivation, a perception of social injustice from a discrepancy between conditions expected and procured. This deprivation spurs social discontent, which provides motivation for collective violence. Additionally, to forestall threats to the regime, political and military elites frequently use repression to suppress discontent or increase their share of the shrinking surplus. All in all, the Nigerian case indicates that poverty, inequality, and a perception of relative deprivation by a large portion of the population are major factors giving rise to grievances that contribute to conflict and state violence.

Ironically, although World Bank researchers do not identify inequality or its associated grievance as contributing to war, World Bank policy makers assume the importance of reducing inequality (and poverty) to achieve peace. World Bank President James Wolfensohn asserted that "If you cannot deal with the question of poverty, if you cannot deal with the issue of equity, then you are not dealing with the question of peace."[19]

Given the contribution of low average income, slow economic growth, and high income inequality to conflict and repression, poor sub-Saharan countries, with the support of the international community,[20] must strengthen and restructure the political economy of economically stagnant and inegalitarian countries. The major changes developing country governments need to make are economic and political institutional changes—the development of a legal system, enhanced financial institutions, 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 infrastructural development increases the productivity of private investment and public spending and enhances the effectiveness of governance.

Notes

E. Wayne Nafziger is Professor of Economics at Kansas State University, Manhattan, KS, USA. He may be reached at nafwayne@ksu.edu. This article is based on a presentation made at the 11th Annual Economics of Peace and Security conference, Bristol, UK, June 2007.

1. Reuters (2010); World Bank (2010, pp. 32-34).

2. EIU (2007, cxxii, 4); EIU (2008, cxxi, 4).

3. Vidal (2010, p. 1).

4. Suberu (2001, p. 29).

5. Nafziger (1983, pp. 27-50).

6. Quote from Dudley (1966, p. 21).

7. Gusau (1971, p. 747).

8. All currency references before 1973 are in naira equivalents. In 1973 what had been £N1 became 2N or 2 nairas.

9. Auvinen and Nafziger (1999); Nafziger and Auvinen (2003); Nafziger, Stewart, and Väyrynen (2000).

10. Nafziger and Auvinen (2003, p. 32).

11. Holsti (2000).

12. Nafziger and Auvinen (2003, p. 32).

13. Quoted by Nyambune (2006).

14. Lewis (1996, p. 97).

15. Nafziger and Auvinen (2003, pp. 90-100).

16. Nafziger (2008).

17. Ake (1997).

18. Quoted by Rake (1976, p. 1263).

19. Collier (2000; 2007); Wolfensohn (2001).

20. See Nafziger (2006, pp. 501-653), and Nafziger and Auvinen (2003, pp. 157-198) for ways that industrialized countries and international agencies, such as the World Bank and International Monetary Fund, can undertake policies to modify the international economic system to enhance the economic growth, adjustment, and political stability of African and Asian poor countries.

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Natural resources and civil conflict: an overview of controversies, consensus, and channels

Anouk S. Rigterink

The article reviews the empirical literature on the link between natural resource availability and the onset of civil war. The findings are uneven, with only fragile evidence for a relationship between war and natural resource abundance in general, but stronger evidence on specific resources. Moreover, the discussion on which (combination of) mechanism(s) links natural resource abundance and conflict risk has not been settled either. Resources can be conceptualized as revenue during war, as a premium on winning government, as decreasing the costs of hiring rebels, and/or as causing grievance, weak governance, and slow economic growth. There is evidence for some of these mechanisms, while others have yet to be tested empirically. The question of channel is especially important: different mechanisms inform different policy options.

"`Diamonds are a guerrilla's best friend."[1] This sums up what has become a popular conception: natural resources cause civil conflict. In no small part, this conception arose from quantitative research into the relationship between natural resource abundance and civil war onset. This article reviews this literature. It argues that evidence in support of a causal link between war onset and the presence of natural resources as a single category is fragile. More robust evidence exists for a connection between violent conflict and the abundance of specific resources, such as diamonds or oil. However, debate on the exact mechanisms through which resources would cause civil war is all but settled. A number of interesting theoretical models that go into this have recently been constructed, although not all of them have been tested empirically. Research into the exact processes connecting resources and violence is highly important for designing and evaluating the chances of success of various policy interventions, such as the Kimberley process and the Extractive Industries Transparency Initiative.

This article is organized as follows. The first section reviews empirical evidence on the causal link between natural resources as a single category and civil conflict onset, including challenges and controversies. The second section will do the same with respect to the link between oil and diamonds and war start. The third section goes into mechanisms and policy implications. The fourth section concludes.

Natural resources as a single category

Similar models, different conclusions

Studies by Collier and Hoeffler and by Fearon and Laitin pioneered quantitative research into the causes of civil war.[2] Studies of this type have a number of elements in common: they try to explain the onset of civil war, usually taking the form of a binary variable indicating whether a civil war started in a given country in a given time period. This variable can be taken from a number of different databases on war, most notably the Correlates of War Project and the UCP/PRIO Conflict Dataset. A crucial element of the definition of war is that it has to cause a given number of "battle-related deaths" (one thousand or twenty-five are common threshold levels). Natural resource abundance is one of the explanatory variables in these models, measured as the value of natural resource exports as a percentage of GDP, a measure usually termed sxp. This measure does not distinguish among different types of resources, but takes agricultural exports, exports of renewable resources, such as timber, and mineral resources, like oil and metals, as a single category.

Despite similarities in their models, Collier and Hoeffler and Fearon and Latin reach different conclusions. According to the first pair of authors, resource abundance (measured as sxp) is strongly related to the chances of civil war onset. This relationship is robust to controlling for oil exports over GDP and is found to be shaped like an inverted "u": absence of substantial amounts of resources decreases incentives to fight, medium levels of resource abundance are found to greatly increase war risk, and extremely high levels would earn so much revenue for the government that rebellion becomes infeasible. In Fearon and Latin's model however, sxp is unrelated to war onset. Instead, a binary variable for oil-producing countries is weakly statistically significant, albeit this relationship is linear: war risk increases with the amount of resources present, irrespective of whether a country has low, medium, or high levels of these. The conclusion is that there is no relationship between resource abundance and war, and if there is one, it is mainly driven by the presence of oil resources.

Controversies

What can account for these different conclusions? On the one hand, a number of technical issues are cited in this context.[3] First, there is the issue of how to treat ongoing wars: should country-periods with continuing wars be omitted from the sample or would it be better to code them as having no war start, controlling for conflict in the previous year? Second, Collier and Hoeffler use 5-year periods as the unit of analysis, whereas Fearon and Laitin work with yearly data. It can be argued that using 5-year periods results in inconsistent lag times (variables are lagged to the beginning of the period) and inconsistent treatment of quickly renewed wars, especially when ongoing wars are omitted from the sample. A war starting in quick succession of another may then arbitrarily be coded as missing data or a new war start, depending on whether a period end falls in between. Third, as data from conflict zones is highly erratic, authors have to choose between imputing data or accepting a large loss of observations. It has indeed been shown that the Collier and Hoeffler analysis is sensitive to imputing data, changing the coding of ongoing wars, and using yearly data instead of five-year periods.[4]

Fragility of results on war onset and natural resources treated as a single category seems to go significantly further than this. Analyses of the causes of war in general are sensitive to the choice of war database. Although these databases are generally trying to quantify the same phenomenon using similar criteria, correlations between them are surprisingly low. Highly unreliable reporting of "battle-related deaths," treatment of conflicts that dip below the death threshold for a short period of time and then exceed it again, and death counts that are not proportional to the country population are important issues here. Surprisingly few explanatory variables are consistently related to war in multiple databases, and resource abundance is not one of them.[5] But even when using the same database (there seems to be a consensus to take the UCP/PRIO database as a benchmark), the choice and source of control variables matters. For example, measures of natural resource abundance in the Collier and Hoeffler and Fearon and Laitin analyses cannot be interchanged without a loss of statistical significance.[6] Exploring this in a more systematic way is an analysis identifying 88 possible explanatory variables and regressing every possible combination of four of these on the same war database (using a casualty threshold of one thousand). Given the distribution of results on six measures of resource abundance identified, the hypothesis of no relationship to war is not rejected for any of them.[7]

Even if a robust statistical relation between natural resources and civil war could be established, there is still the question of whether we can conclude there is a causal relationship. The way in which natural resource abundance is quantified, as quantity exported over GDP, is problematic in this respect. Problems may take the form of reversed causality. Companies that can be moved may feasibly flee a country in anticipation of war, decreasing GDP, while natural resource extracting companies are location bound and may maintain production. This may increase the ratio of resource exports to GDP as a consequence of war threat, rather than the other way around.[8] Alternatively, one might wonder what sxp is actually measuring: resource abundance or resource dependence. The latter may be related to irresponsible government policy or an economy "in bad shape," and both factors could feasibly be related to war risk. Indeed, using the stock of natural resources (which is subject to these problems to a lesser extent) either as a measure of resource abundance directly, or as an instrument for resource dependence, has led to the conclusion that there is no evidence for a causal link between natural resources and war.[9]

In sum, the causal relationship between natural resources as a single category and war risk is fragile. Changes in the technical specification of the models, war database, and control variables used can significantly alter conclusions drawn and it is unclear whether correlations observed indeed imply causality.

The way in which some studies quantify natural resource abundance, as quantity exported over GDP, is problematic. One problems involves reversed causality. Suppose that companies that can move flee a country in anticipation of war—thereby decreasing GDP—while natural resource extracting companies that are location bound maintain production. This would increase the ratio of resource exports to GDP as a consequence of war threat, rather than the other way around.

"Rogue resources": oil and diamond abundance

Another strand of research considers the impact of abundance of specific resources on civil conflict. This is partly a response to nonrobust results when taking natural resources as a single category and partly a result of case study evidence suggesting that different types of resources have different effects on different types of war. The argument here is that the type of extraction matters: is the resource extracted at one geographic point or can extraction occur in dispersed locations?[10] Some resources can be examples of both, such as diamonds, which can either be found dispersed in river beds ("secondary diamonds") or concentrated in mining sites ("primary diamonds"). The hypothesis is that point-extracted resources in a specific region would lead to separatist war, point-extracted resources off territory (such as off-shore oil) to strive for control of the government, and dispersed resources to prolonged rebellion, with rebels controlling parts of the territory for long periods of time.

Even though this idea could potentially apply to many types of resources, oil and diamonds are the resources that are most often connected to conflict, especially in the quantitative literature. In this context, an advantage of focusing on a specific resource is that absolute production data can be used, rather than export data relative to GDP. This mitigates worries with respect to causality, at least to some extent.

In general, authors seem to agree that oil and diamond abundance are robustly related to at least some types of conflict.[11] However, the hypotheses outlined above are not always neatly confirmed by the data. A leading study on diamond abundance uses binary variables for the production of primary and secondary diamonds, the first type being an example of a point-extracted resource and the second type being more dispersed.[12] The study concludes that the most robust relationship found is the one between secondary diamonds and ethnic war onset (although the definition of ethnic war is slightly unclear).[13] In contrast, another study, using diamond production per capita, finds that only primary diamonds are related to conflict onset in general. Surprisingly, secondary diamonds are related to separatist conflict in the analysis. In the case of oil, this study concludes that onshore oil production is related to increased risk of war of all types. Consistent with the hypotheses outlined above, off-shore oil is not correlated to separatist conflict, whereas onshore oil is. Off-shore oil is related to national and nonethnic conflict in the analysis.[14]

Overall, the consensus is that there is substantive evidence that oil and diamond abundance are related to conflict, with the evidence on oil being more robust than that on diamonds. Differing and sometimes counterintuitive relationships between different types of war and point-extracted and dispersed types of oil and diamonds have given rise to the question of mechanism: through which process do resources lead to increased war risk?

Mechanisms and policy implications

The mechanics of the resources-war link

There is no shortage of potential ways in which resource abundance and conflict could be linked. (Humphreys speaks of "an embarrassment of mechanisms.") However, determining which mechanism is supported by the data has proven to be a difficult task. As highlighted, differences between point-extracted and dispersed resources might shed some light on the matter, but results are not always conclusive. While some refine empirical techniques, others call for a more rigorous theoretical basis for analysis. The critique on the studies described here is that they are looking for correlations first and then go no further than constructing post-hoc hypotheses on the mechanisms through which they might operate. A preferred way to do analysis would be to first construct a (mathematical) theoretical model making the mechanisms explicit, derive hypotheses, and then proceed to test these in the data.[15] Recently, a number of these formal models have been developed, going deeper into the question of mechanism. However, some of these remain theoretical in the sense that they have not been tested using data.

The real or putative link between resources and war is one of the most important arguments in the "greed vs. grievance" debate. The central question of this debate is whether the motivation for war is "economic" (usually understood as a result of cost-benefit analysis) or political/ideological (a clearly formulated grievance against the government in charge). Collier and Hoeffler interpreted the strong correlation between resources and war as evidence for a greed mechanism: when valuable resources are present in a country, one can always find individuals willing to fight to obtain them. For these rebels, profits from natural resources might either materialize during wartime or they might constitute a "prize" obtained upon taking over government. But, other authors point out, grievance could also be the mechanism connecting natural resource abundance and violence. Natural resource abundance could lead to grievances among citizens in a number of ways. Extracting them could cause environmental damage, the perception might exist that the proceeds are not fairly distributed, governments might be inclined to take harsher preemptive action against separatism in resource-rich parts of their territory, angering citizens in the process, or the presence of natural resources might strengthen regional identities.[16]

Even though "greed vs. grievance" has become part of the vocabulary of research into war, the consensus seems to be that the dichotomy is not always useful. It is argued that the decision to rebel will always be some combination of "greed" and "grievance," as even the most ideologically motivated rebellion will have to finance itself somehow. Following this line of reasoning, even the "intellectual parents" of the greed vs. grievance dichotomy have moved away from it, hypothesizing that the mechanism connecting resources and civil war is opportunity rather than greed. The argument here is that in any society, some groups of people will have grievances. Whether they are able to act upon these, however, would depend on the opportunities to finance a rebellion. Natural resources are said to constitute such an opportunity.

So three potential mechanisms explaining a correlation between resources and war are: greed, which comes in two variations—resources as revenue when fighting and resources as a premium on winning government—and grievance. Formal models of resources and war are all "economic" in the sense that they assume that rebellion will occur if the benefits outweigh the costs, and they go deeper into these mechanisms. Focusing on resources as revenue, it is possible to see a country as consisting of multiple groups commanding safe resources and consider natural resources as contested. The groups then have to choose whether to use their safe resources for productive activities or fighting activities, the latter with the goal to obtain part of the contested natural resources with some probability. Conflict risk in this model will increase with the amount of natural resources and the extent to which they are contested. If the country is a net exporter of the natural resource, opening up to trade will equally increase conflict risk, as the price of the natural resource on the world market is higher than the price under autarky. Conflict risk will decrease when the returns to productive activities increase relative to returns to fighting.[17]

Alternatively, it is possible to model resources as influencing the costs of staging a rebellion, where labor is modeled as the largest expense. Some processes of natural resource extraction can be considered capital-intensive and an increase in the capital-intensity of production would lead to lower returns to labor. Lower returns to labor then lead to lower costs of hiring rebels, increasing the chances of conflict.[18] In contrast to the previous model, this one has been tested empirically in the context of Colombia, and it has been found that an increase in the price of coffee (a labor-intensive natural resource) is correlated to lower levels of violence, whereas an increase in the price of oil (extracted through a capital-intensive process) is associated with more violence.[19]

Natural resources can also be modeled as a premium upon winning the government. The incentive to unlawfully take over the government will then increase with the value of natural resource revenue. An interesting feature of this type of model is that it can include institutions that limit the extent to which a government can distribute the revenue at its own discretion. If institutions are so strong that the government cannot distribute more income to its favored group than to other groups, natural resource abundance does not increase the incentive to stage a conflict. Indeed, this effect can be shown to exist in cross-country data, taking the price of selected natural resources as an explanatory variable.[20]

Other potential mechanisms featuring prominently in the literature include weak governance and low economic growth. An often-heard argument is that governments that derive large revenues from natural resource exports need to raise less tax revenue. This, in turn, is presumed to decrease the accountability of the government to its citizens, which might fuel war against it. A smaller need to tax also decreases the need for the government to actually control its territory, making war more feasible.

The idea that natural resource abundance will lead to slow growth—the resource curse— forms the basis for the last potential mechanism. A high rate of natural resource exports could drive up the exchange rate and the prices of nontradable goods, rendering the manufacturing sector less competitive (a phenomenon called the Dutch Disease). Low economic growth might in turn translate into dissatisfaction with the government and/or lower the opportunity costs of being a rebel.

In terms of formal modeling, both lines of reasoning are slightly problematic. In order to arrive at the conclusion that governments will raise less tax when they receive revenue in the form of resource rents, one has to assume that governments do not maximize revenue, but that they are revenue satisficers. This goes against standard theoretical practice. Furthermore, empirical evidence on the existence of Dutch Disease is meager at best. Combining both mechanisms, and the one on resources as a premium on forming the government, is a model that assumes that large resource rents increase the incentive to stage a coup. This decreases the expected time in office of the incumbent, thereby increasing its discount rate. If this rate is sufficiently high, the incumbent has no incentive to invest in public goods that will bring economic growth in the medium to long term. The result is a predatory incumbent and slow economic growth due to underinvestment.[21] Unfortunately, this model has yet to be tested empirically.

Concluding, resource abundance could increase war risk through its impact on the benefits of rebellion (either during the war or upon taking over the government), the cost of rebellion, grievance, the quality of the government in terms of public goods delivered, and its impact on economic growth. However, these mechanisms can be conditional on other factors, such as the quality of institutions. Empirically, there is some evidence in support of some of these mechanisms, although others have not yet been subjected to empirical testing.

Policy implications

The question of mechanisms is important not only from an academic, but also from a policymakers' point of view. To design effective interventions, the latter need to know the process/es through which resource abundance leads to violence. Different conceptions of this process can be discerned when looking at different policy initiatives.

The Kimberley process, for example, tries to limit the extent to which diamonds from conflict zones can be traded internationally. The underlying thought here seems to be that diamonds constitute revenue for rebels and that by diminishing their tradability their price will go down. Indeed, the website of the Kimberley process explicitly states that "rough diamonds [are] used by rebel movements to finance wars against legitimate governments".[22] Interestingly, cross-country empirical evidence for this mechanism (resources as revenue while fighting) is scarce. Studies distinguishing between primary and secondary diamonds arrive at conflicting results, as emphasized in the previous section. Another interesting point is that the incentives that are created by diamond revenues flowing to governments are not addressed by the Kimberley process even though these are central in a number of the other mechanisms outlined. Lastly, the initiative only acts when countries are already in conflict, while other mechanisms highlight the possibility that diamond revenues increase the incentive to fight irrespective of whether a conflict has already started.

Another prominent policy initiative is the Extractive Industry Transparency Initiative (EITI). Judging by its website, the initiative aspires to "make resources benefit all." It mentions that natural resource revenues can lead to growth in the presence of good governance, which it aims to contribute to through promoting transparency and accountability.[23] This view seems to confirm the bad governance-low economic growth mechanism, although it should be noted that EITI does not explicitly state that decreasing conflict risk is one of its goals. Although this particular model has not yet been empirically tested, good governance or institutional quality features in a number of mechanisms. There is some empirical evidence that resource abundance leads to conflict and/or low economic growth in the presence of low quality institutions, while it leads to improved outcomes in high quality institutional environments.[24] Even so, the extent to which transparency and accountability can improve institutional quality may be limited. Promoting transparency and accountability could feasibly constrain the ability of the government to distribute benefits from resources exclusively to itself and/or its cronies and thus decrease the prize upon winning the government. The studies cited, however, used a broader conception of institutions, considering property rights or strength of government in general, not just in the context of resource policy. If institutions that are not directly resource-related indeed matter, then efforts to improve their quality would equally have to have a broader outlook.

Taking a final look at the list of mechanisms, resource abundance as decreasing the returns to labor and hence the cost of rebellion has not yet been explored. To my knowledge, there is no global policy initiative exploiting this mechanism. If it is indeed at play, it may be possible to reduce the level of violence by setting up projects that employ a significant number of people in unstable regions. This idea seems to partly motivate efforts by the U.S. military in Iraq and Afghanistan where a fund is available to local army commanders to start reconstruction projects that "employ many people from the local population."[25] As there is some evidence that increasing employment and thus the cost of labor decreases violence, this strategy appears to have potential.

Conclusion

Looking at cross-country, quantitative research into the relationship between resource abundance and civil war onset we can say that evidence for such a link is quite fragile when taking resources as a single category. Results are sensitive to changing specifications and are subject to concerns about causality. Evidence for a link between specific resources, notably oil and diamonds, are more robust, although hypotheses about the differences between point-extracted and dispersed resources are not always confirmed by the data. Lastly, the discussion on which (combination of) mechanism(s) links natural resource abundance and conflict risk has not been settled. Resources can be conceptualized as revenue during war, as a premium on winning government, as decreasing the cost of hiring rebels, and as causing grievance, weak governance, and slow economic growth. There is evidence for some of these mechanisms while others have yet to be tested empirically. From a policy standpoint, the question of channel is especially important: different mechanisms inform different policy options. Assessing and predicting their success can be helped by more research in this field.

Notes

Anouk S. Rigterink is a PhD candidate at the Development Studies Institute, London School of Economics and Political Science, U.K. Contact: a.s.rigterink@lse.ac.uk.

1. Malaquias (2001, p. 15).

2. Collier and Hoeffler (1998; 2004); Collier, *et al*. (2009); Fearon and Laitin (2003).

3. Fearon (2005).

4. Elbadawi and Sambanis (2002).

5. Sambanis (2005).

6. Humphreys (2003); later published as Humphreys (2005).

7. Hegre and Sambanis (2006).

8. Ross (2004b).

9. Brunnschweiler and Bulte (2009); Rigterink (2010).

10. Le Billon (2004).

11. See, e.g., Humphreys (2005).

12. See Bulanova (1995).

13. Lujala, *et al*. (2005).

14. Ross (2006).

15. For an example of this critique and an excellent and up-to-date overview of empirical analyses of civil conflict, see Blattman and Miguel (2010).

16. For an overview of potential mechanisms and a number of interesting case studies, see Ross (2004a).

17. Garfinkel, *et al*. (2008).

18. Dal Bó and Dal Bó (2004).

19. Dube and Vargas (2009).

20. Besley and Persson (2008).

21. For this model and mentioned critiques, see Caselli (2006).

22. See www.kimberleyprocess.com [accessed 27 May 2010].

23. See www.eiti.org [accessed 27 May 2010].

24. See, e.g., Besley and Persson (2008); Mehlum, *et al*. (2006); Rigterink (2010).

25. See, e.g., http://usacac.army.mil/cac2/call/docs/09-27/ch-4.asp [accessed 2 June 2010]. Data on this program, the Commander's Emergency Response Program (CERP), has been used by a number of authors, for example Berman, *et al*. (2008). This paper finds a statistically significant negative relationship between CERP spending and insurgency activity.

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Wealth sharing and peace processes

Achim Wennmann

Developing wealth-sharing arrangements as part of a peace process can play an important role in conflict resolution. If disputes over the control of natural resources were factors in conflict onset, they can address a cause of conflict; if natural resources contributed to the financing of armed groups, they can help address the means of conflict and its perpetuation; and they can shape the framework for economic recovery and governance that support postconflict transitions. In this way, wealth-sharing arrangements are part of both backward-looking functions of peace processes that address the ends or means of past disputes and forward-looking functions that shape visions of a new society.[1]

Wealth sharing is often a part of power-sharing arrangements, the reconstitution of normal politics in a postconflict society through new institutional arrangements.[2] Power sharing can shape the incentives belligerents face so that the benefits from participating in a government of national unity or autonomy arrangements are greater than challenging or overthrowing the state. Wealth sharing can be perceived by armed groups as a direct economic benefit and can increase commitment to a peace process by increasing the opportunity cost of continued conflict. It can resolve security dilemmas by balancing the relative gains between the parties to ensure that no party has the means to impose itself militarily. At the same time, power sharing confers responsibility to manage income sources through the shared control of institutions, and so can legitimize resource exploitation and facilitate mechanisms that regulate disputes over natural resources.[3]

How important income sharing is in a peace processes will likely depend on the architecture of the agreements, the priorities of the parties, and the revenue potential of natural resources. It is more important for comprehensive processes that regulate both the past conflict and frame future arrangements. Here the parties want to resolve the conflict and design alternative visions for society, including new economic arrangements. In a step-by-step peace processes, the emphasis is on ending the fighting, and income sharing is likely to be relegated to the postconflict period to reduce the complexity of cease-fire negotiations.

Understanding the circumstances behind the peace processes can provide important leads on the relative importance of income sharing.[4] In particular, there has to be something left to share after the conflict. In both Sudan and Aceh, the resource base has been severely eroded: in Sudan, the most high-value oil will have been explored in Sudan by the end of the interim governance period between North and South in 2011; in Aceh, major oil companies will be closing facilities within a decade. In these circumstances, wealth sharing may only relate to finding fair agreements for the compensation of past exploitation.

Recent evidence on postconflict violence has emphasized the importance of nurturing alternative visions of societies during peace processes. Ensuring that the violence stops is important, but if combatants and populations do not have a notion of what comes next, some may think that their life during the conflict was more profitable and revert back to violent appropriation as a livelihood strategy. The results are criminalized parallel economies, or even full-scale renewal of fighting. Wealth-sharing arrangements may therefore be crucial elements in managing war-to-peace transitions and making postconflict economic opportunities a more tangible prospect.

Recently there have been some suggestions that postconflict transitions can be consolidated by moving wealth sharing upstream into the peace process. This reflects a recognition of the transformative effects of armed conflict, and that economic recovery should start from what exists after a conflict rather then seeking to reconnect to some level of (imagined) preconflict development. Conflict economies are not simply a black box that represents an interruption of a linear process of economic development but rather the context for social and economic transformations.[5]

Thus, talking about natural resources in peace processes has the objective to prepare the ground for postconflict economic recovery and delineate an economic vision for the future. This entails creating employment opportunities and vocational training as well as stimulating private sector entrepreneurship. It also entails addressing extortion, protection, and monopolistic control, making nonviolent behavior more profitable, and increasing the opportunity cost of armed violence.

This article considers these issues by comparing the experiences of Sudan (North-South) and Indonesia (Aceh). It considers how the peace processes managed the natural resource element and investigates if and how the inclusion of such a dimension strengthened postconflict transitions. The concluding section draws lessons on what makes wealth sharing a more effective instrument for postconflict transitions.

Sudan

Sudan's Comprehensive Peace Agreement (CPA) of 9 January 2005 was a landmark deal to settle one of Africa's longest civil wars, between the Government of Sudan (GoS) and the Sudan People's Liberation Movement/Army (SPLM/A).[6] It included agreements for an interim period from 2005 to 2011 on security, wealth sharing, power sharing, as well as on the three regions of Abyei, Southern Kordofan, and Blue Nile, and was hailed a model to resolve Sudan's other conflicts. Crucial future steps included elections in 2009 and a referendum on the future status of Southern Sudan in 2011. The Agreement on Wealth Sharing (AWS) of 7 January 2004 was one of six protocols that constituted the CPA. Wealth sharing became an issue in the peace process mainly because of the location of high-value oil wells in the border region between northern and southern Sudan. Oil represented "an incentive for peace in so far as oil activities could not be pursued in a war context." Oil was part of a larger incentive structure for ending the conflict that contributed to tactically informed choices to relocate the fighting from the battlefield to the negotiation table.[7]

The AWS is a comprehensive agreement that describes the sharing of resources and institutional arrangements for Sudan's postconflict economy in the interim period. Its preamble covers the division of oil and non-oil revenue, the management of the oil sector, monetary authority, and the reconstruction of the south and other war-affected areas. It establishes new institutions for the economic governance of north and south, including the National Land Commission (art. 2.6), the National Petroleum Commission (NPC) (art. 3.2), the Bank of Southern Sudan (art. 14.2), the Southern Sudan Reconstruction and Development Fund (art. 15.1), the National Reconstruction and Development Fund (art. 15.4) and the Multi-Donor Trust Funds (MDTFs) for Northern Sudan and Southern Sudan (art. 15.5).

While the agreement does not address the issues of ownership of natural resources, it specifies that the parties agree to resolve the issue at a later date (art. 2.1), and one of the main provisions is the sharing of net oil revenue from wells in Southern Sudan, according to a 50/50 formula, between the Government of Southern Sudan (GoSS) and the Government of Sudan (GoS) (art. 5.6), with at least two percent of oil revenue to be allocated to producing states or regions in proportion to their production (art. 5.5). Concerning non-oil revenue, the agreement specifies various sources of revenue collection for the GoS and the GoSS, including taxes and fees (art. 6). All national revenue is centralized in the National Revenue Fund (art. 7.1), with 50 percent of the revenue collected in Southern Sudan given to the GoSS (art. 7.3). With these provisions, the agreement organizes the economic governance and reconstruction of postconflict Sudan. Reaching an agreement on wealth sharing has been a major achievement of the peace process. Not only has oil been a major factor in the conflict's onset and dynamics; it also represents an indigenous source for the financing of postconflict recovery.

In the negotiations process toward the AWS, the parties managed to solve a number of critical problems. A deal on resource sharing was facilitated by allowing trade-offs in a single-text document; the deconstruction of complexities through the strategic use of resource persons; a compromise between debt service obligations and economic development needs; and changes in the payment modalities for oil exports. The decoupling of resource ownership and management prevented an early collapse of the negotiations.[8]

The AWS was, however, accompanied by various implementation problems associated with the lack of transparency of oil exploitation and trust between the National Congress Party and the SPLM/A, the absence of any full meetings of the NPC, and concerns about human and environmental consequences. Nevertheless, a first transfer to the GoSS of USD800 million reportedly occurred in February 2006, although this was over one year after the signing of the CPA and there was no indication of a reference period nor whether it corresponded to the 50/50 formula. By 2008, collaboration on wealth sharing had improved with the GoS being recognized to have paid arrears for the period 2005 to 2007. For 2007, GoSS revenue has been calculated to amount USD1,458 million, a not inconsiderable sum. Yet suspicions remained that this did not comply with the sharing formula. Independent verification of oil contracts with international firms, levels of oil exports, and price arrangements were not possible and prevented the investigation of undeclared production, kickbacks, and corruption. Lack of progress in the demarcation of the North-South border also prevented the establishment of clear parameters to calculate oil wealth in the border areas.[9]

In Sudan, oil was part of a larger incentive structure for ending the conflict that contributed to tactically informed choices to relocate the fighting from the battlefield to the negotiation table.

There are a number of reasons why the AWS did not lead to a more substantial peace dividend. The lack of prewar development and the duration and impact of the armed conflict had already been identified in 2005 as likely inhibiting factors for economic development. It also became apparent that the GoSS lacked capacity to systematically collect, store, manage, and allocate oil and non-oil revenue, and there were allegations that this also fostered corruption within the SPLM/A. In addition, the overall security and political context of Sudan was hardly an environment conducive for the AWS to unfold a constructive contribution to postconflict transition. While the CPA stopped the conflict between the GoS and SPLM/A, fighting escalated in Darfur and with Chad, while armed groups proliferated along different and changing alliances. Sudan also became increasingly militarized, with large-scale military assistance from China, increasing levels of weapons imports, and the development of an indigenous arms manufacturing industry. The monumental task of demobilizing and reintegrating about 180,000 ex-combatants has yet to be realized, and, as the United Nations Security Council (UNSC) stated, "the lack of mutual trust and confidence between the NCP and SPLM remains the main challenge for the implementation of the [CPA]." In October 2007, the SPLM even temporarily withdrew from the Unity Government.[10]

The partial treatment of water and land issues in the AWS also created problems. Water issues were not a primary interest of the GoS and GoSS and their inclusion would have extended the peace processes to Sudan's neighbors, which would in turn have complicated negotiations. Furthermore, the AWS only included land issues in vague terms as part of the Land Commission. The inability to systematically address land rights underlines the continued existence of unresolved local conflicts that have been exacerbated by population movements and environmental changes.[11]

A significant decline in the deposits of high-quality oil wells in the south pose a challenge to the future viability of Southern Sudan. The occurrence of oil—particularly the most commercially viable AAA oil—is concentrated in the Abyei region and the Melut basin in eastern Sudan, and production and pipeline construction has focused on these areas. It is estimated that more than half of the reserves in Abyei have been exploited while the Melut basin remained largely untapped by 2006. Abyei's declining production is believed to be the result of a GoS policy to extract as much as possible prior to the referendum in 2011. However, lack of transparency makes it impossible to verify these allegations. These developments have clear implication for the significance and functions of resource sharing in a future peace process.[12]

In the final analysis, the AWS was unable to secure immediate post-agreement peace dividends. While the GoSS did receive oil revenue, its lack of capacity to plan, allocate, and spend these resources limited its contribution to economic recovery. However, these observations need to be measured against the objectives and possibilities of the AWS and the peace process. The CPA was the outcome of a process in which the GoS and SPLM/A continued to fight by other means and so reflected short-term military, political, and economic interests, and its problems reflected "the parties' mistrust, self-interest, and ambiguous agendas and a lack of any shared commitment to addressing the country's key problems and building a common future." In this context, the peace process was never designed, nor mandated, to negotiate outside the bounds of what was perceived as acceptable by the parties. The AWS emerged from interests converging on oil revenue rather than from creating sustainable economies or addressing Sudan's multiple disputes.[13]

Aceh

The conflict in Aceh is often portrayed as a classic secessionist conflict, involving a relatively homogenous population that took up arms in response to military oppression and economic exploitation.[14] It has also been considered a classic resource conflict in which oppressive natural resource exploitation paralleled by local impoverishment created grievances that fanned a pre-existing conflict about self-determination. The discovery of natural gas in northeastern Aceh in 1974 was a central factor in the origin and evolution of civil war. Gas extraction intensified the government's appropriation of revenues, contributed to Aceh's economic decline, and resulted in an increased military presence to protect the gas fields. Three decades of armed conflict ended in 2005 after Aceh had been severely affected by a tsunami. Prior to the natural disaster, the conflict parties had started exploring a negotiated settlement. The Memorandum of Understanding (MoU) of 15 August 2005 closed one of Asia's longest-running civil wars and framed Aceh's postconflict and tsunami recovery.[15]

Systematic attempts at negotiated settlements only developed after the fall of President Suharto who ruled Indonesia from 1967 to1998. In 2000, the Geneva-based Center for Humanitarian Dialogue led the first-ever peace initiative between the Gerakan Aceh Merdeka (GAM, or Free Aceh Movement) and the government, leading to a Humanitarian Pause in 2000 and a cease-fire agreement in 2002. In Jakarta, however, the government was sharply criticized over what seemed to be an international recognition of the GAM. Meanwhile, President Sokarnoputri ratified the Law on Special Autonomy for the Province Naggro Aceh Darussalam (hereafter, "the NAD law") in August 2001, providing unprecedented powers of self-governance and control over natural resources in exchange for cessation of hostilities and the renunciation of independence. It set out a series of provisions on, for example, the enforcement of aspects of Islamic law, direct elections of Acehnese regional representatives and new institutions. A central aspect was that Aceh would receive 70 percent of the revenues generated from Aceh's rich oil and gas fields, with the remaining 30 percent going to the central government. After an 8-year period this share would be equalized to 50 percent each. The government claimed that the special autonomy law was much more generous than previous legal provisions, allowing for an 80 percent retainer from income deriving from natural gas, fishing, general mining and forestry.[16]

Even if engaging on paper, the NAD law had many limitations as a wealth-sharing tool. It failed to realistically address Aceh's economic grievances and prospects and, most importantly, to build local confidence in the government's commitment to its implementation. It neither included baseline assessments on economic reserves nor specific modalities of revenue sharing and gave no consideration to Aceh's economic prospects once reserves have been depleted. It was also unclear if the oil and gas revenues referred to the total production in the province, or simply part of it. In addition, that revenue would first be collected by Jakarta and then be disbursed to local officials fueled suspicions that payments were intended as political tools. This resulted in the NAD law being received unfavorably in Aceh. The revenue-sharing provisions were perceived as a means to provide incumbent political elites with additional opportunities for corruption. Even if some government officials presented the NAD law as a flexible starting point, the complete omission of political representation, the lack of reduction of Jakarta's military presence, and lack of investigation into past atrocities fanned the perception that it was a ploy. The law was also conceived without any input by the GAM or Acehnese civil society, and was therefore devoid of any ownership. Consequently, GAM rejected the NAD law, a decision that echoed a widespread lack of grassroots support and a prevailing mistrust against Jakarta.[17]

In contrast, the government portrayed the NAD law as a generous offer, which increased the scope for Parliament and TNI to pressure the government not to commit to any further compromises.[18] For the government, the NAD law limited the room to manoeuver and complicated its negotiation position. Other political developments were also damaging. In 2003, President Sukarnoputri deployed a multi-track strategy against the GAM that included the NAD law, diplomatic efforts against the GAM's international representations, secret back-channel contacts, and the continuation of military activities. Such a strategy enabled her to manage various constituencies, especially her backers in the military as well as the international community. The Indonesian military agreed with the law, but only under the assumption that the GAM would accept it as a final solution. Six months later, the military convinced

Sukarnoputri to adopt a military strategy and create a new special military command for Aceh. This was the death stroke for the NAD law and its provisions of wealth sharing. The TNI's escalation of the conflict in 2003 undermined the GAM's belief that the special autonomy offer and wealth sharing had been made in good faith by the government.[19]

The destruction caused by the tsunami and the subsequent humanitarian and development investments makes it difficult to isolate the effect of the absence of a more detailed treatment of wealth sharing. The Memorandum of Understanding (MoU) of 15 August 2005 only makes reference to a principal agreement: "Aceh is entitled to retain seventy per cent of the revenues from all current and future hydrocarbon deposits and other natural resources in the territory of Aceh as well as in the territorial sea surrounding Aceh" (art. 1.3.4). However, the lack of precision of wealth sharing in the MoU has been said to complicate its implementation. The MoU does not "mention who will regulate and govern [hydrocarbon revenue sources], or who has the authority to give licences for new explorations. The LOGA says only that the central and Aceh governments will manage the resources jointly. We should have made it right in the MoU."[20]

The overall significance of wealth sharing in Aceh's postconflict and tsunami transitions has also been questioned. Production peaked during the 1990s, and "oil and gas is almost finished." ExxonMobil forecast that oil production in Aceh would end by 2011 and estimates that 90 percent of recoverable gas reserves are depleted, with an expected closure of gas fields in 2016. Due to the decline in gas reserves at the Arun fields, ExxonMobil and Pertamina closed two LNG fields in April 2000. And due to the rapidly depleting oil and gas reserves, Aceh's economy even contracted by 5.8 percent in the first half of 2008, a trend which is expected to continue in 2009.[21]

Thus the role of addressing wealth sharing in the peace process must also be placed in the context of the relative overall importance of oil and gas in Aceh's economy. While in the 1970s they were a driver of the conflict and a curse, the declining resource pool and possible closure of production facilities by the next decade substantially reduces their relative importance. During the peace process, wealth sharing was unable to contribute to a forward-looking perspective to the peace process because the government failed to present it as a credible option of conflict resolution, as a basis for a new economic vision for Aceh. In addition, wealth-sharing provisions of the NAD law had important shortcomings concerning sharing modalities and ownership.

Conclusions

Wealth-sharing arrangements can be an important part of conflict resolution, addressing major obstacles to peace and postconflict reconstruction. However, simply addressing the natural resource dimension in peace agreements provides no magic solution for problems in postconflict transitions. This is clear in the case studies of Sudan and Aceh which, while reflecting rather different experiences, both illustrate that the fate of postconflict transitions depend on so many factors that focusing exclusively on the management of natural resources is unlikely foster long-term development yields. Broader political and military peacebuilding strategies are required, within which wealth-sharing arrangements should be an important component.

The case studies suggest important lessons on how to make wealth sharing a more effective instrument for postconflict transitions. The experience of Aceh shows that it is important to clearly define what is shared, and how to prevent misunderstandings during the peace process and postconflict implementation. Both countries illustrate the value of creating information on the future prospects and value of natural resources to level the playing field and manage expectations, particularly given that information about the occurrence and value of natural resources is often unreliable and scarce after years of conflict. This also means that negotiations need to remain flexible enough to allow resource ownership to remain unresolved in order to enable an agreement on revenue sharing.

Wealth-sharing negotiations need to be as inclusive as possible. The ownership of wealth-sharing arrangements is an important element for them to make a lasting contribution to a peace process. However, the lack of inclusiveness of the CPA increased frustrations of marginalized communities. Crucial for the mediator is to recognize the "sufficient" inclusion of supporters for deal-makers that marginalize spoilers.[22]

Finally, negotiations on income sharing can shift relations between the parties from the emotive to the rational. Interests in revenue sharing can represent an incentive that overrides intergroup or personal animosities.

A practical problem for addressing natural-resource management in peace processes remains the operational distinction between conflict and postconflict phases. This distinction defines institutional mandates in the transition from war to peace. While political and security issues usually concern the United Nations, economic issues fall within the mandate of the international financial institutions such as the International Monetary Fund, the World Bank Group, or regional international economic organizations. In the case of El Salvador's peace process in the early 1990s, this disconnect has been compared to a patient lying "on the operating table with the left and right sides of his body separated by a curtain and unrelated surgery being performed on each side." While much has been improved in interagency coordination since then, there remains a scope to foster integrated approaches that bridge the conflict/postconflict divide, and recognize the continuities and transformations in war-to-peace transitions.[23]

Notes

Achim Wennmann is at the Center on Conflict, Development, and Peacebuilding,

Graduate Institute of International and Development Studies, Geneva. He may be reached at achim.wennmann@graduateinstitute.ch. This article is a revised version of a paper presented at the Thirteenth Annual International Conference on Economics and Security, Thessalonika, Greece, June 2009. It is a condensed version of Achim Wennmann "Wealth Sharing from Natural Resources in War-To-Peace Transitions," in Päivi Lujala and Siri Aas Rustad, eds. *High-Value Natural Resources and Post-Conflict Peacebuilding*. London: Earthscan (forthcoming, 2011). The article also draws on chapter 4 of the author's book *The Political Economy of Peacemaking* (London: Routledge. Forthcoming, 2010).

1. Zartman (2005).

2. These can include different degrees of autonomy, or consociational or integrative governance arrangements. Consociationalism is based on collaborative decisionmaking of different ethnically defined groups. An integrative approach seeks to build multiethnic coalitions surrounding issues in order to integrating society (see Sisk, 2003, p. 141).

3. Siriam (2008, pp. 25, 182); Hartzell (1999, p. 10).

4. Initial circumstances can include for example changes of the international context that foster initiatives to end the conflict through a comprehensive peace process (Guatemala, El Salvador, Mozambique) and international outrage over humanitarian consequences and human rights abuses that define pressures to end the fighting through a step-by-step process (Sierra Leone, Liberia, Afghanistan) (see Suhrke, *et al*., 2007, p. 31). Although wealth and income sharing are not the same thing, for the purposes of this article no differentiation is made.

5. Preconflict: UNDP (2008, pp. xix-xx); transformations: Cramer (2006, p. 197); Cramer (2009); Wennmann (2009a, p. 81).

6. This case study is based on Wennmann (2009b).

7. Quote: Batruch (2004, pp. 159-160); relocation: Wennmann (2009b, pp. 11-13).

8. Wennmann (2009b, pp. 14-17).

9. Environmental consequences: UNSC (2007, p. 4); arrears paid: UNSC (2008, p. 5); 2007 GoSS revenue: SMF (2008); independent verification: ICG (2008, p. 13); borders: ICG (2006, p. 7).

10. Inhibiting factors: Bude (2005, pp. 35-36); lack of governance capacity: ICG (2006, p. 8); corruption allegations: Jooma (2007, p. 12); Darfur/Chad: SAS (2007, pp. 320-326); indigenous arms industry: HSBA (2007a, p. 6); HSBA (2007b, pp. 4-6); ex-combatants: IRIN (2008); UNSC: UNSC (2008, p. 15).

11. Water: Rogier (2005, p. 41); Shafer (2007, pp. 6-8); land: Jooma (2005, p. 14); land rights: IISS (2007, p. 263).

12. Melut basin untapped: ECOS (2008, pp. 22); ICG (2007, p. 9); lack of transparency: ICG (2008, p. 13).

13. Quote: Rogier (2005, p. 41).

14. This section is based on Wennmann and Krause (2009).

15. Pre-existing conflict: Robinson (1998, p. 135); Sukma (2004, pp. 3-6); Reid (2006, pp. 4-6); economic decline: Ross (2005, p. 47).

16. Sharply criticized: Aspinall and Crouch (2003, p. 16); NAD: Miller (2006, p. 301); generous: Department of Foreign Affairs, Republic of Indonesia (2001); ICG (2001, pp. 6-10).

17. Economic prospects: ICG (2001, p. 8); oil and gas revenue: Martin (2006, p. 82); collected by Jakarta: ICG (2001, p. 8); ploy: Aspinall and Crouch (2003, p. 26); lack of grassroots support: Miller (2006, p. 304).

18. TNI is Tentara Nasional Indonesia, the Indonesia Defense Force.

19. Compromises: Huber (2004, p. 47); multi-track strategy: Schulze (2006, pp. 262-262); new military command: Jemadu (2006, p. 281); good faith: Aspinall (2005, p. 18); Wennmann and Krause (2009, p. 15).

20. Lack of precision: Yusuf (2007); quote: Yusuf, c.f. Large and Aguswandi (2008b, p. 81). LOGA is the Law of Governing on Aceh.

21. Quote: Yusuf (2007); expected closure: Indonesia Relief (2005); EIA (2007);World Bank (2008); LNG fields closed: Tse (2000, p. 2); contracting economy: World Bank (2008).

22. Darby (2001, p. 119).

23. International financial organizations: O'Donnell and Boyce (2007, p. 2); quote: de Soto and del Castillo (1994, p. 76).

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Extractive industries in fragile states and the role of market incentives and regulation

Gilles Carbonnier

A crucial question facing parts of sub-Saharan Africa is how oil and mining booms can be turned into a development opportunity rather than a source of violence and misery. Primary commodities, and extractive resources in particular, have long been recognized as a significant vehicle for shaping development prospects in fragile states, but in many cases they have led to the so-called resource curse, where countries discovering abundant natural resources have seen lower economic growth and human development than resource scarce ones. In addition, natural resource abundance has been associated with poverty and armed conflict in fragile institutional settings.

Although several authors question the empirical validity of the resource curse argument, there is a growing consensus that resource abundance can be detrimental to developing countries whose state institutions are weak. The underlying mechanisms that contribute to the phenomenon remain yet unspecified and most academics and policymakers agree that natural resources can and should be an opportunity for development, pointing to countries such as Botswana or Malaysia as success stories. But while they also emphasize that sound resource management is possible, the clarity and evidence is scant on the processes and instruments necessary to turn the curse into a blessing.

Global policy initiatives on increasing revenue transparency in fragile and resource abundant states exist, of which the Extractive Industries Transparency Initiative (EITI) is probably the central international response. At the time of writing (June 2009), the EITI is at a critical phase as 29 candidate countries have to acquire "compliant status" over the next eighteen months, which means translating substantial transparency commitments into legislation and practice in a variety of countries, ranging from the Republic of Congo to Norway. This is a daunting challenge, but if the EITI proves to be a success, it will inspire similar undertakings to address global development challenges elsewhere. If it fails, it will seriously put into question the value added and potential of such multi-stakeholder governance mechanisms.

The article first reviews the evidence on the relationship between extractive resources, state fragility, and the resource curse before considering current policy initiatives that aim to address the curse and then evaluates the potential for the use of market incentives and regulation. Conclusions and avenues for further research are presented, some of which are being pursued as part of a larger research project on the global and local governance of oil and mining in sub-Saharan Africa and Latin America.

Extractive resources and fragile states

By 2006, 23 percent of U.S. oil imports came from Africa compared with only 18 percent from the Persian Gulf. Africa exported USD249 billion in oil and minerals that year, six times more than the amount of foreign aid it received. A scramble for Africa's oil has been taking place.

Oil and minerals are among the top geostrategic priorities of virtually all states and societies and likely to become more important. It is estimated that world demand for oil and gas will increase by 45 percent between 2006 and 2030 because of demographic pressures and economic growth in the developing and emerging economies. African oil represents the last frontier of oil exploration and as new African oil-producing countries have not yet established strong state-owned companies, this provides great opportunities for foreign companies. American, French, and Chinese competition over oil exploration and exploitation rights in Chad, some of which had already started in the 1970s, illustrate the "scramble for Africa's oil" that has been taking place. It also has growing strategic importance for Western countries. By 2006, 23 percent of U.S. oil imports came from Africa compared with only 18 percent from the Persian Gulf. Africa exported USD249 billion in oil and minerals that year, six times more than the amount of foreign aid it received.[1]

Within producer countries, oil and gas sectors have become increasingly important, with taxes on oil and gas production accounting for more than 50 percent of total government revenues for most resource rich sub-Saharan African countries. Over half of their gross domestic product comes from fuels and mineral exports: oil and gas contributed 87 percent to Equatorial Guinea's GDP, 70 percent to Congo's and 57 percent to Angola's GDP, much higher than official development assistance. At the same time, two-thirds of the world's fragile states are concentrated in sub-Saharan Africa, including in resource-rich Angola, DRC, Congo-Brazzaville, Nigeria, and Sudan. State fragility exacerbates the risk of armed conflict in resource-rich countries as access to resources may provide insurgents the means to challenge the state, and oil and mining booms often benefit the politico-economic elite while the majority of the population is left in dire poverty. Such conditions represent an ideal breeding ground for social unrest and armed violence. Fragile states are also seen as a threat to regional and global security because of proliferating armed conflict, terrorism, migration, organized crime, disease, and environmental degradation.[2]

In the literature, debate has focused on both macroeconomic issues, such as Dutch disease and rentier-state theories, and microeconomic issues, such as the incentives provided by resource abundance for violent behavior. It has shown that natural resources are more important to the perpetuation rather than the onset of conflict, as rent capture does not only serve to finance war but can become the main reason for continuing the fighting. It has been argued that, while the abundance of natural resources broadly defined as primary commodities is not correlated to the onset of civil war, the abundance of extractive resources is. Hence, research looked closely at conflict-prone countries richly endowed in oil and gas, metals, timber, and gemstones that can easily be extracted and marketed by rebels. The results of this research have informed several policy responses over the past decade, including fiscal transparency (e.g., EITI), revenue-sharing deals in peace agreements (e.g., North-South Sudan), the introduction of conflict sensitivity in business practices, through instruments such as peace and conflict impact assessments, the curbing of conflict finance (e.g., targeted sanctions by the UN Security Council and expert panel reviews, and the transforming of war economies by spurring investment, diversifying the economy, and creating decent jobs in the formal sector.[3]

It became apparent that to avert the rekindling of tension and a resumption of armed conflict, the linkages between resource extraction and violent conflict needed to be reflected in peace agreements and peacebuilding strategies to favor equitable revenue-distribution patterns. One of the key aspects of a durable peace after violent conflict is building a state with the ability to collect public resources and to manage expenditure in a manner that is acceptable for key constituents, while resource rents need to be kept out of the reach of peace spoilers.[4]

In addition, the importance of the links among oil extraction, global warming, and development became apparent, leading to calls for better resource management schemes. Oil consumption in energy generation or combustion engines is a major source of carbon dioxide and some of these emissions could rather usefully be averted. For example, in African oil producing states, a total of 40 billion cubic meters of gas was flared in 2005, corresponding to more than three times the entire African gas consumption. At the same time, two-thirds of households in the region do not have access to electricity and three-quarters do not have access to clean cooking fuels.[5]

The resource curse

Until the 1980s, economic orthodoxy generally considered resource abundance as a powerful engine of development spurring capital investment and boosting exports. Prebisch and Singer, however, hinted at the natural resource trap associated with the constant deterioration of the terms of trade. The idea that natural resources might be more of a curse than a blessing became conventional wisdom by the end of the cold war, as research demonstrated that extraction of commodities such as oil, gas, and minerals was often associated in weak states with extreme poverty, repressive regimes, environmental degradation, and civil war. Following Auty's use of the term "resource curse" to describe how countries with abundant natural resources had lower economic growth than countries poorly endowed in natural resources, researchers refer to three main economic, institutional and political dynamics.[6]

First, economists documented that high oil or mining export earnings tend to push real wages and the domestic currency value upward, which damages other export sectors and economic diversification efforts, resulting in the so-called Dutch disease. The volatility of commodity prices and the presence of boom-and-bust cycles have also been cited for low growth in resource-rich countries. Second, researchers argued that political and institutional dimensions of the phenomenon are important. Political scientists point to the rentier-state theory and the role of neo-patrimonial networks, arguing that oil rent is detrimental to democracy reducing accountability and increasing corruption. Delivering economic growth and employment opportunities to a large part of the population is less rewarding. Third, research on the causes of civil war underlined the role of rent-seeking behavior of the ruling elite and the insurgency, making civil war and their perpetuation more likely. The often cited finding that "primary commodity exports substantially increase the risk of armed conflict" has not been validated by cross-sectional empirical studies, nor case studies, and is not a robust result. Instead, the origins of armed conflict reflect multiple interacting disputes and security dilemmas and cannot be minimized to mono-causal explanations.[7]

Countering the resource curse

Academics and policymakers alike agree that it should be possible to deal with the resource curse and make resource discoveries an opportunity for development. Economists have emphasized the crucial role of prudent fiscal and budgetary policies, economic diversification, natural resource funds, and direct distribution for managing resource wealth to ensure investment in public goods, citing the successes of Botswana, Chile, and Malaysia. However, these policy prescriptions rest on the assumption that strong and efficient state institutions exist, and, to a lesser degree, on the presence of legitimate state ownership of resources, two elements that are largely absent in fragile states.[8]

Because of the nature of the rentier state, taxation and trade play an important role in fostering sound state-society relations based on mutual accountability. International and domestic efforts have focused on increasing the transparency of national resource revenues and dealings with international corporations, effectively limiting market access by "rough" companies, tracking the financing of illicit commodities, and demanding responsible behavior from companies in their dealings with the governments of resource rich countries. To deal with weak state institutions some have advocated domestic private ownership of resources to improve resource management. Others have argued that at a sub-state level classic state functions are delivered by nonstate actors, and that these can be strengthened through changing the management of the state's revenue from oil and mining. Recent suggestions on governance include "mediated states," "pockets of effectiveness," as well as "limited access orders." However, these processes remain little understood.[9]

The international aid community has recognized the problem of weak political institutions and the World Bank has made support for extractive industry investment one of the cornerstones of its approach to poverty reduction in sub-Saharan Africa and has based its financial provisions on explicit poverty-reduction conditionality for oil-rich African states. The International Monetary Fund also promotes greater transparency and the establishment of special funds to manage petroleum revenues. The best-known attempt by the World Bank, however, is related to the Chad-Cameroon pipeline, backed financially by the International Financial Corporation, and this showed the very limited leverage international organizations have in resource-rich fragile states.[10]

Multi stakeholder initiatives

In response to campaigns by nongovernmental organizations, since 2003 governments and international organizations have been partnering with oil and mining companies, civil society, and investors in the EITI. This requires companies to publish what they pay and governments to disclose what they receive. The expectation is that developing countries will benefit from implementing a standardized and internationally recognized procedure for transparency in natural resource management, one that improves the investment climate and increases governance performance. Certainly, the international development community views revenue transparency as one of the most crucial elements to curb corruption and address institutional weaknesses in resource-rich countries. This high level of priority given to transparency is nonetheless questioned by scholars who argue that the impact of transparency depends on the capacity of those who access information to process it and the incentives and ability to act on this information. This is turn depends on the education level of the electorate and its capacity to hold the government accountable.[11]

New forms of governance have emerged through which a range of stakeholders from the public, private, and civil society sectors gather to create regulatory frameworks in order to tackle a given challenge. In the extractive sector these aim to reinforce security and human rights, such as the Kimberley Process, a certification scheme for the trade in conflict-free diamonds, or the Voluntary Principles on Security and Human Rights for the extractive sector. The Kimberley Process was launched in 2003 to prevent diamonds from fueling armed conflict and civil war. Yet its implementation proved to be extremely challenging. The EITI that came into being in 2003 as well faces no smaller challenges. The civil society coalition Publish What You Pay criticizes that the EITI validation process is moving slowly, with only one country so far having gone from candidate to compliant status (Azerbaijan). Moreover, they worry that candidate country's governments may be using EITI to gain Heavily Indebted Poor Country status without being committed to actual implementation.[12]

The EITI would seem to represent a promising, yet fragile, new form of governance and the next two years should allow its success to be gauged on several fronts: First, measuring the impact in the field, that is, the degree to which the Initiative has achieved its stated goal of providing a sufficient level of transparency on extractive firms' payments to governments and how far the transparency requirement has been translated into national legislation. Second, measuring the impact of the multi stakeholder initiatives on the stakeholders themselves, exploring how far the business and social drivers for joining the EITI have materialized for each stakeholder. Third, the wider impact of the EITI will be measured by the emergence of effective checks and balance mechanisms in producer states. Much of its success may depend on a proper understanding of the workings of incentives and regulations, and how business and civil society can contribute to shaping them in multi stakeholder initiatives in order to address the resource curse. Such multi stakeholder initiatives generally revolve around either operational cooperation, where their legitimacy is derived from their impact and achievements on the ground, and norm-setting and policymaking, where legitimacy relies more on the procedural and deliberative mechanisms, decisionmaking processes, and democratic legitimacy (input legitimacy).[13]

Market incentives and regulation

The behavior of companies is conditioned by incentive structures and regulatory frameworks. Thus, any global response to the resource curse calls for new avenues for action, particularly from nonstate actors, in their capacity to influence the regulatory framework and market incentives.[14] This role for investors, extractive industries, local civil society organizations, and international NGOs has, however, received limited attention in the literature to date.

Investment decisions by extractive firms tend to be dictated by geology, which increasingly force them to invest in fragile states and sensitive environments. Confronted with high levels of instability, they need to build relatively long-term relationships with governments and so generally they do not like to engage the authorities on sensitive political issues—such as human rights or revenue transparency—as this could be to their commercial disadvantage.[15] Market forces and regulations can, however, be used by multi stakeholder initiatives, to provide both positive and negative incentives and so to influence the behavior of the oil-producing states and extractive companies. Such incentives are typically transmitted through financial and consumer-good markets. In this context, investors and financial intermediaries are called upon to play an increasingly active role.

Global financial institutions provide the significant amounts of capital required for exploration and exploitation, as well as providing insurance or export-credit guarantees to limit exposure to commercial and political risks. Thus they can provide important incentives to influence the behavior of oil-producing governments and extractive industries. In the EITI, over 70 institutional investors and asset managers have joined the process and look to influence behavior via their investment decisions and by active engagement with company executives. Stock market supervisory authorities can adopt regulations to foster transparency from listed companies in the extractive sector. In 2008, the Congress of the United States of America has dealt several times with the issue of oil and mining transparency and how to counter the oil curse. Parliamentarians are considering the adoption of the Extractive Industry Transparency Disclosure Act (EITDA), which would require full disclosure of payments to host countries by the largest oil and mining firms that are listed on U.S. capital markets, including Chinese, Indian, and Brazilian companies.[16] At the level of oil and mining commodity markets, research is simply lacking at present. Oil prices are indexed on futures contracts and thus primarily function as financial markets and so price determination is remote from the real economy and the physical products. One possible action that has been suggested is to set the price of oil and gas through an auction system to reduce damaging price volatility.[17]

International financial institutions, such as the IMF, the International Finance Corporation (part of the World Bank Group), and regional development banks, have considerable leverage in promoting transparency and sound governance practices in the extractive sector, notably through policy dialogue and conditionality attached to development finance and project finance. Bilateral donors can also send important signals via their export-credit agencies and aid programs. Indeed, development finance has been used for decades as an instrument to induce recipient governments to adopt certain policies, although experience has shown the limited effectiveness of aid conditionality when there is no political buy-in. Donors can exert significant influence as long as foreign aid represents a significant portion of the recipient budget and as long as revenues from extractive resources are not large enough to shield resource-rich countries from such pressure.[18] Table 1 provides selected examples of options for shaping incentives and regulation with a view to addressing the resource curse.

In the case of oil and gas, consumers cannot exert any pressure as long as the product they buy is not traceable, that is, the origin of oil remains unknown, although oil experts have hinted that traceability could be substantially improved if there is sufficient political will.[19]

An emerging literature emphasizes the link between natural resource governance and political incentives. One pair of authors, for example, argues that if natural resource funds (NRFs) "do not substantially affect political incentives they can be ignored or bypassed by governments and have no beneficial effects." In most settings natural resource wealth leads to a temptation to overspend in unproductive activities in the present, leaving less for future generations. This is often linked to competition for political power and the creation of patronage networks. Empirical work on NRF management indicates three institutional solutions. First, to set clear and binding rules that govern the magnitude and composition of disbursement and so to shift natural resource policymaking from discretionary toward rule-based practices. Second, to separate decisionmaking authority between "how much is spent" and "what it is spent on," allowing different constituencies both within and outside the government to screen, comment, and perhaps even change policy. Third, to define rules for transparent reporting practices which allow more effective monitoring and disciplining of the government by civil society or political parties.[20]

The adequacy of natural resource funds and "future generation funds" is questionable. Why invest in Wall Street rather than in domestic African economies? Investment opportunities and return rates are considerable, starting with the infrastructure and energy sectors.[21]

Table 1: Selected options for incentives and regulations

	Incentives	*Regulatory measures*
Capital market	Shareholder activism, ethical guidelines and investment decisions by institutional investors (e.g., Santiago Principles for Sovereign Wealth Funds), GRI indicators	E.g., draft U.S. EITDA Act; revision of international accounting standards (IFRS 6 and 8) set by the International Financial Accounting Board
Project finance	Equator Principles and IFC environmental and social standards	Export credit agencies' requirements for investing in extractive projects
Commodity markets	Incentives and regulations in commodity markets largely remain unexplored, e.g., discussion on auction system for oil	
Development finance	Environmental, social, and transparency standards set by aid agencies	Ex-ante and ex-post conditionality clauses in aid programs
Trading	Improving traceability throughout the entire supply chain; differentiating products, including through taxation	Import and trade regulation (debate on "like products" and PPMs under the WTO)
Consumer markets	Consumer activism, fair trade, product differentiation, taxation and subsidies	Import regulation, labelling requirements

Conclusion and further research

In the absence of a global governance mechanism for energy and extractive resources, policymakers have started to address specific dimensions of the so-called resource curse over the past decade, contributing to several multistakeholder initiatives such as the EITI. These initiatives often entrust civil society organizations (CSOs) with the task to put pressure on governments and industries for implementation and to act as a watchdog. CSOs are expected to constrain the power of the politico-economic elite in producer states, for instance by demanding more transparency and accountability over extractive revenue. The outcome to date remains below expectations. It tends to confirm that civil society alone cannot radically alter elite's rent-seeking behavior, in particular in autocratic states where civil society organizations have traditionally been weak, divided, or nonexistent. Against this background, market incentives and regulation are critical in putting additional pressure on the elite, as recently illustrated by the Kimberley Process Certification Scheme for diamonds. The deal was struck after just three years of negotiations: the diamond industry and producer states felt it necessary to swiftly address the risk of a consumer boycott in response to the campaign against blood diamonds. The situation is different in the oil and gas market. Consumers cannot vote with their purse when purchasing fuels because products from diverse origins are blended before reaching the consumer market. In such cases, the financial market and development finance have the potential to send strong signals to producer states and extractive firms in favor of enhanced transparency and accountability. Regulation must also play a role beyond incentives. The EITI would for instance receive a welcome and necessary boost if stockmarket authorities require full transparency on payments made to host and home governments by publicly-listed oil and mining companies.

This investigation into market incentives and regulation is embedded into a larger research project on the global and local governance of oil and mining conducted by the Center on Conflict, Development and Peacebuilding, Geneva, in partnership with research institutes in Africa and Latin America. Future work will examine the following propositions:

- That nonstate actors, civil society, and investors in particular can contribute to countering the resource curse if market and political incentives are right;
- That targeted market incentives and regulations help counter the resource curse by changing the behavior of governments and economic actors (investors, trading firms, extractive industries, project and development finance), in producing and importing countries;
- That market incentives and regulations can counter the resource curse by radically altering the risks and benefits associated with and accountability (or lack thereof) for companies and governments;
- That multi-stakeholder initiatives such as the EITI represent an important, but by no means sufficient standard and governance mechanism to address the resource curse.

As illustrated, a variety of optional incentives and regulatory measures can contribute to addressing the resource curse and further research will consider which of these options have the greater potential impact, under which specific conditions, and in how far they represent realistic policy options.

Notes

Gilles Carbonnier is a professor at the Center on Conflict Development and Peacebuidling (CCDP), Graduate Institute of International and Development Studies, Geneva, Switzerland, and may be reached at gilles.carbonnier@graduateinstitute.ch. The author thanks Jana Krause for research assistance, and Achim Wennmann for comments. A version of this article was presented at the 13th Annual International Conference on Economics and Security, Thessaloniki, 24-26 June 2009, and the author is grateful for the comments of the participants.

1. Demand: Karl (1997); Humphreys (2005); OECD/IEA (2008). "Scramble": Ghazvinian (2007).

2. Taxes, GDP, ODA: OECD/IEA (2008); World Bank (2007b). Two-thirds: World Bank (2006, p. 77). Breeding ground: Carbonnier (2007). Security threat: Cammack, *et al*. (2006, pp. ix, 15-16).

3. Perpetuation: Humphreys (2005); LeBillon (2008). Abundance of extractive resources: De Sosa (2002). Policy responses: Carbonnier, Brugger and Krause (forthcoming).

4. Equitable revenue distribution: LeBillon (2008). Key aspect: Wennmann (2007, pp. 87-88).

5. Gas flaring: World Bank (2008). Households: OECD/IEA (2008).

6. End of cold war: Carbonnier (2007). Auty: Auty (1993).

7. Dutch disease: *The Economist* (1977); Corden and Neary (1982); Ebrahim-Zadeh (2003). Volatility: van der Ploeg and Poelhekke (2008). Institutional dimensions: Shafer (1994); Karl (1997); Ross (1999); Mehlum, *et al*. (2006); Robinson, *et al*. (2006); Humphreys, *et al*. (2007). Political scientists: Beblawi and Luciani (1987); Ross (1999; 2001); Karl (1997); Rosser (2006). Growth and employment: Chabal and Daloz (1999). Rent-seeking behavior: LeBillon (2001; 2008). Not a robust result: Collier and Hoeffler (2004, p. 588); Cramer (2002, pp. 1851-1853).Mono-causal: Ballentine (2003, pp. 259-260). More fundamentally perhaps, moral philosophers raise the question of the ownership of natural resources and the ensuing question of the legitimate right to exploit and sell them (Wenar, 2008). Many national constitutions enshrine the principle that natural resources belong to the state and its citizens. Theoretically thus, no one should be allowed to sell the resources without some sort of permission from the people of a country granting a legitimate right to exploit and market the resources. For practical reasons, the government holds

custodial rights over the resources. In current practice, it suffices for some governments to maintain coercive control over a territory and its people to be recognized internationally as legally entitled to sell off the country's resources, as exemplified by Equatorial Guinea for instance. In this framework, one may contend that exploiting Equatorial Guinea's oil violates the property rights its people.

8. Opportunity for development: Humphreys, *et al*. (2007); EITI (2008). Successes: Rosser (2006); Luong and Weinthal (2006, p. 36).

9. Accountability: Beblawi (1987, pp. 49-53, 60-66); Center for the Future State (2005, pp. 4-5). "Rough" companies: Bannon and Collier (2003, pp. 12-15). Private resource ownership: Weinthal and Luong (2006). "Mediated states," etc.: Menkhaus (2006); Leonard (2008); North, *et al*. (2007).

10. Word Bank (2003); Carbonnier (2007).

11. Questioned: for example, Kolstad and Wiig (2008).

12. Kimberley implementation: Global Witness (2007). Publish what you pay: PWYP/Revenue Watch (2006, p. 8).

13. Second: The Conference Board (2008).

14. Shaxon (2007).

15. Wennmann (2007, p. 84).

16. See "U.S. Energy Security Through Transparency Act (S. 1700)." Available at http://www.govtrack.us/congress/bill.xpd?bill=s111-1700 [accessed 29 July 2010].

17. Export-credit guarantees: Bray (2003, pp. 298-301). Auction system: for example, Luciani (2008).

18. See Eden, Lenway, and Schular (2005).

19. Personal exchanges with members of the Society of Petroleum Engineers (SPE) who want to remain anonymous. The SPE website is http://www.spe.org/index.php.

20. Quote: Humphreys and Sandbu (2007, p. 194). Solutions: Humphreys and Sandbu (2007, pp. 208, 213).

21. Collier, van der Ploeg, Spence, Venables (2009, pp. 34-35).

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Improving military expenditure decisionmaking in sub-Saharan Africa

Geoff Harris

At its simplest, economics is about the allocation of scarce resources—be they human, physical, or financial—among the various productive activities which take place in an economy. Among these is the military. As John Kenneth Galbraith has argued, however, economists have paid little attention to the production of weapons, to the trade in these weapons, and to military expenditure. This is a matter of some distress to Galbraith because, in his opinion, "nothing has been universally so damaging as ... military power to a valid use of scarce resources ... [to] effective and compassionate government or to economic development itself."[1] This article is, in part, a response to Galbraith's concern.

Traditional security, military expenditure, and human security

One of the unexpected facts concerning the extent and intensity of war is that both have fallen significantly since 1990. In 1990, the Stockholm International Peace Research Institute reported 30 major armed conflicts; in 2009, there were 17. For Africa, there were eight major armed conflicts in 1990 and eleven in each of 1998 and 1999, after which the number progressively fell to four in 2009 (Rwanda, Somalia, Sudan, and Uganda). These trends are reflected in all types of war: interstate (now rare) and three types of intra-state wars—those where the state is involved, those between nonstate actors, and one-sided violence by the state against civilians. Taken as a whole, these data show that sub-Saharan Africa (SSA) is "dramatically more secure than it was less than 10 years ago."[2]

What happened to military expenditure in SSA in the face of this vastly improved security situation? Data from the SIPRI Yearbook 2009 for the ten years 1999-2008 shows that the region's military expenditure increased by 19 percent (in 2005 prices and exchange rates) over the decade. This was strongly influenced by the 70 percent increase of South Africa, which contributed 40 percent of the region's total military expenditure in 2006.[3]

Sub-Saharan Africa is the world's poorest region. Table 1 illustrates this by comparing SSA and world figures for the components which make up the Human Development Index (HDI). A recent *Human Development Report* shows that of the 45 SSA countries, 22 are in the low human development category as measured by the HDI and 22 are in the medium category.[4] The HDI of 11 of the 38 SSA countries for which HDI indices were available fell between 1990 and 2005. In addition, 24.7 million people were HIV positive at the end of 2006 and only 23 percent of the 4.6 million in need of anti-retrovirals were receiving them.[5]

Table 1: Sub-Saharan Africa and world figures on key development indicators

Indicator	*Year*	*SSA*	*World*
Life expectancy at birth (years)	1995-2005	49.6	68.1
Adult (15+ years) literacy rate (%)	2005	60.3	78.6
Combined gross enrollment ratio - primary, secondary, tertiary education	2005	50.6	67.8
GDP per capita (PPP, international dollars)	2005	1,998	9,543

Source: UNDP (2007).

This should not be taken to mean that there has been no progress. The 2007 *Human Development Report*, for example, reported improvements between 1990 and 2004 in the proportion of the region's population using improved sanitation (from 32 to 37 percent), the proportion using improved water sources (48 to 55 percent), and the proportion of the population which is undernourished (36 to 32 percent). Nonetheless, the magnitude of poverty remains huge and progress is patchy. Human insecurity, it is clear, poses a far greater challenge to SSA governments than traditional security.[6]

Given this background of declining threats in terms of traditional security combined with huge and in some respects increasing threats to human security, the aim of this article is to answer two main questions. First, how can the budget of the security sector—including the military, police, prisons, courts, and the judiciary—be allocated so as to result in effective (achieving the desired results) and efficient (doing so at least cost) security outcomes? Second, how can an appropriate level of military expenditure for a country be determined?

An outline of the budgeting process

At its simplest, a budget is an estimate of expected income and expenditures over the next year or period of years. The typical annual budget process has four parts.

Formulating the budget

This concerns the proposed distribution of funds among ministries and also the allocation of funds within each. The former is made by some combination of the Ministry of Finance, the Cabinet, and the head of government. The latter is made by the relevant ministry, guided by the government's national objectives, the specific objectives of that ministry, and input from the different components which make up the ministry. Standing committees of parliament may also play a role in budget formulation.

Both involve backward and forward adjustments of what the components of the ministry say they need, what the ministry therefore says it needs, and what the Ministry of Finance says it has available until a final draft budget is reached. An important factor in budget formulation, particularly in respect of the allocation to any ministry, is the relative strength of the Ministry of Finance compared with the spending ministries. A key question is whether the proposed budget is consistent with the government's national objectives and the specific objectives of the relevant ministry.

A program budgeting approach may be used to aid this process, which would require the following from any ministry: (1) statement of the ministry's objectives; (2) a set of programs to meet each objective for the budgetary year in question. These will be listed on a priority basis, because there is likely to be budgetary constraints; (3) an estimate of the resources required—personnel, equipment, and so on—for each program; (4) an estimate of the cost of these resources; and (5) a procedure to evaluate performance in carrying out the programs.

A program budget for the Ministry of Defense would include a number of clearly specified objectives, with a number of programs designed to meet each objective. Each program would require a certain number of personnel and items of equipment and would incur operating costs, each of which would be estimated. The overall budget request would be the sum total of the costs of operating each program.[7]

A major benefit of the use of program budgeting is that the Ministry's objectives, and the means they use to achieve them, are transparent and can become a topic of discussion. Setting clear objectives does not mean that they should not change. For example, the South African National Defense Force's primary function in the late 1990s was territorial security but now seems to be involvement in peacemaking, peacekeeping, and conflict prevention across the African continent.

Adopting the budget

The next step occurs when the proposed budget goes to the parliament to be debated, possibly modified, and passed. The standing committees of parliament may also play a role in changing and passing the budget. Important issues include whether parliament is provided with sufficient information (does it have details of last year's actual expenditures? is there sufficient transparency for parliament to change a budget?) and whether parliament actually has the power to change a budget.

> Ideally, [parliament's] role should thus not be confined to being presented with a document which it may either accept or reject. Its competent committee(s) should be consulted early in the process so as to provide an input—reflecting the variety of political visions in parliament—to the policy documents and legislation being prepared ... [Parliament's influence is] "... dramatically enhanced when ... its competent committee can hold a separate debate and vote on each security-related appropriation as well as on the full security policy budget.[8]

Implementing the budget and disbursing the funds

This is generally straightforward but there can be additional sources of funds, known as off-budget incomes, which are more likely to come to the Ministry of Defense than to other ministries.

Auditing the expenditure

This is carried out by the national audit office and involves checking the individual transactions carried out during the year and also the financial procedures used by the ministry to determine the extent of efficiency and the presence of corruption.

Assessing outcomes

Outcome assessment is a fifth possible part to the budget process but is likely to be carried out infrequently, perhaps when the defense sector is subject to a review. Outcome assessment examines the extent to which the financial resources used by the military, for example, have contributed to national security. This has two aspects: first, what has been the outcome in terms of security and, second, could the same outcome in terms of security been achieved in a less costly way?

We now turn to briefly discuss whether the military should be subject to the same budgeting requirements as other government departments.

Is the military a special case?

Military expenditure differs from some other forms of government expenditure in that it has no measurable output. This can be illustrated by considering government expenditure on education, which results in a stream of returns to society as a result of enhanced productivity over the subsequent working life of the learners. Such expenditure has consequences that, measured in monetary terms, can be used to calculate a social rate of return to that expenditure, akin to the rate of return to a business project in the private sector. Government expenditure projects and programs could, in theory, be ranked by their rates of return so as to help government to decide what to spend on. Normally, governments do not actually calculate social rates of return for all possible projects and programs, partly because the benefits of some government activity, including military activity, is not easily measurable in monetary terms.

One way forward is to examine the effectiveness of government expenditure, which means consideration of outcomes or results. For the Ministry of Education, for example, one outcome is the proportion of students who achieve a certain level of competency in a particular field. For the Ministry of Health, it could be the number of people vaccinated against a particular disease. However, it is very difficult to think of the outcomes of military expenditure, apart from not being invaded or attacked, and the problem with using this as a measure of effectiveness is that high military expenditure or a strong military may not have been responsible. If a country is not invaded, it may simply be because there was no enemy with sufficient motivation and the capacity to invade. We can never know what might have occurred if military expenditure or military strength had been different but unless there is a credible threat—a potential invader with both the intention and the capacity to invade—it is wasteful to have high levels of military expenditure because it produces no outcome.

In many countries the military has been allowed to operate as a special case, with much less need to provide a detailed budget, justify its expenditures, and evaluate its performance than other ministries. Four justifications are commonly used to support this.

First, it may be asserted that detailed military budgets will provide information of use to a potential enemy. A number of responses can be made to this concern. Military expenditure is an input measure and is not useful for assessments of security or military strength; a budget would never include strategic information such as the location and strength of military units, or its plans of attack or defense, which might be of use to an internal or external enemy; much information relevant to assessing military strength is already readily available in a number of annual publications which are widely distributed; and, finally, if a country was relying on its military strength to deter potential aggressors, it is in fact desirable for potential enemies to be aware of its military strength.

Overall, the need for a secrecy argument seems to be out of date. It is also out of line with moves for greater parliamentary power over the military. For example, the Geneva-based Center for the Democratic Control of Armed Forces has produced a Model Law on the Parliamentary Oversight of the State Military Organization with the goal of maximizing the transparency of the military. Article 6, paragraph 2, of the law requires Parliament to "legislatively establish a list of information relating to the state military organization that is subject to compulsory disclosure ...". Scilla Elworthy provides a useful discussion of the need to balance secrecy and accountability.[9]

A second justification for treating the military as a special case is that the very survival of the state and its territorial integrity depends (assuming the existence of willing and able invaders) on the military. This belief, which is linked strongly to the idea of deterrence, may be out of date as well. Almost all armed conflicts now occur within countries rather than between them, typically between government forces and groups wishing to secede or take over government. Collier and Hoeffler's comprehensive study found that high military expenditure on the part of developing countries did not deter internal rebellion and that low military expenditure did not encourage it; internal rebellions occur, or do not occur, for other reasons.[10] Given the changed security context, countries can in fact increase their security via various confidence-building measures.

A third justification stems from the notion that if the military does not get is budgetary way, it may stage a coup. Perhaps more common is a situation where the government depends on the military in order to remain in power and so is willing to grant budgetary and other concessions. A fourth justification is that the military may have more opportunities than other ministries to earn off-budget income and so is less dependent on government budget allocations.

None of these seem compelling reasons for special treatment except, perhaps, during wartime. While it is understandable that the military would prefer to be treated as a special case, this has the potential to result in excessive budget allocations, off-budget income and expenditures, inefficiency, and corruption. For such reasons, a major review of transparency issues concluded that

> [f]rom a governance perspective, what matters is that the same principles of accountability, transparency, comprehensiveness and discipline which apply to other portions of the public sector should also apply to the security sector, in particular the military ... Requests from the armed forces [for budget funding] need to compete for funding within the budget process on an equal footing with requests for other purposes.[11]

This perspective fits well with the principles of security sector reform (SSR), a concept introduced in 1997 by Clare Short, then Britain's Secretary of State for International Development. The distinctive emphases of SSR are (1) an expansion of the security sector to include a number of government bodies (police, intelligence services, judiciary) rather than just the military; (2) a more clearly defined relationship between these different security sector bodies; (3) a more clearly defined relationship between the security sector and the various institutions of a democratic state—the government, parliament, judiciary, and civil society; and (4) a more clearly defined relationship between national security objectives and budget allocations to the security sector.

These mean that the various tasks of national security need to be assigned to specific security sector bodies, that each body has known and unique objectives, and that each body is accountable for meeting those objectives. A high degree of transparency is therefore necessary. In the absence of a rational approach to the security sector, there will be, at best, inefficiency and ineffectiveness, that is, more resources will be used than are necessary and a lower level of security will be achieved. At the other extreme, the military may wield excessive power:

> Effective parliamentary oversight has become all the more crucial to ensure that these new responses are devised and implemented with full transparency and accountability. In its absence, there is a danger of security services misinterpreting their mission and acting like a state within a state, either placing heavy strains on scarce resources, or exerting excessive political and economic influence. They may hamper democratisation and even increase the likelihood of [armed] conflict.[12]

Security sector reform, then, involves the establishment of a transparent process under the control of parliament by which government financial resources are allocated to the different sectors in accordance with the security functions they have been allocated and for which they are accountable.

We now turn to the second of our major questions, what is an appropriate level of military expenditure for a country?

Determining an appropriate level of military expenditure

Given the common practice of incrementalism in budget decisionmaking, the level of military expenditure (in current or constant prices, or as a proportion of gross domestic product, GDP, or central government expenditure, CGE) for any year is strongly determined by its level in previous year. Inertia rules. In addition, there are several common rules of thumb: adopt a level which equates the country's military expenditure to GDP (or CGE) ratio to those of neighboring countries, the world average, or some recommended level; or adopt a level not greater than government expenditure on health plus education.

Each of these approaches suffers from the lack of connection of military expenditure with the country's security needs and may result in too little—or, more probably, too much—being allocated to the military. The appropriate level of military capability/strength, and thereby military expenditure, depends on an objective assessment of the country's security environment (perceived threats), both present and future. Given the security assessment, the appropriate level of military expenditure is the minimum amount necessary to provide the military capability needed to achieve an acceptable level of security, with the awareness that perfect security cannot be achieved. Any more is a waste and any less is excessively risky. This is illustrated by the following schema:

Perceived threats plus an acceptable level of security
    => a required level of military strength
        => required military expenditure

Past military expenditure is only useful as a guide to the present if it was appropriate to the security environment at the time and if that security environment has not altered. Rules of thumb such as the three listed at the start of this section are based on one-size-fits-all thinking and do not recognize that, for a range of reasons, each country faces a unique security environment. The inappropriateness of the second rule is illustrated by Japan, which has a constitutional limit restricting its military expenditure to one percent of its GDP. The size of its GDP, however, means that in 2006 it was the world's fifth biggest military spender in market-exchange rate terms and eighth in purchasing-power parity terms.

If threats are nonexistent, the appropriate level of military capability (and therefore of military expenditure) would be zero, whereas being located next to a large and aggressive neighbor might justify high capability and high military expenditure. (The same principle should be applied to any ministry. There would be no sense, for example, in building and equipping a number of hospitals to cope with a possible outbreak of smallpox if the possibility of such an outbreak was close to zero). A number of countries exist without a military, although most have some paramilitary units such as national guards and border guards. The most celebrated case is that of Costa Rica, which did away with its military over 50 years ago and enjoys levels of social and economic development well in advance of its Central American neighbors.[13]

We now turn to examine issues of budgetary transparency with particular respect to off-budget income and hidden expenditure.

How military budgets can fail the transparency test

We have considered the two main questions concerning military expenditure—what level is appropriate for a country, and how can this allocation be used most efficiently and effectively? We have discussed the role of the budget process and program budgeting in helping answer these questions. The major conclusion we have reached is that for a budget to be an effective instrument of democratic governance, it needs to be transparent and subject to accountability. This will help ensure that the outcomes of military expenditure are consistent with public intentions and policy objectives.

Transparency in military budgeting is highly desirable for several reasons. First, it can help ensure that the answers reached to the two major questions for a country are those which provide maximum social benefit, that is, so that enough is allocated to the military to provide an acceptable level of security, but not more than this; and that the budgetary allocation to the military is used in accordance with the budget plans, which reflect national and Ministry of Defense objectives. Second, transparency will help the military to focus on its objectives and not be distracted by temptations to earn off-budget income or to hide expenditures. Third, there will be greater public confidence in the military as an institution.

Opaqueness can occur in two broad ways.[14] The military can receive income from other sources and these may not be listed in the budget or taken into account when formulating the budget; and there may be expenditure on items which are not revealed in the budget, perhaps funded by other sources of income.

Off-budget income

There are two main issues concerning off-budget income. The first is where there is some information in the budget or elsewhere but the information is limited and unclear. The main examples include (1) supplementary budgets, where the Ministry of Defense may receive additional funding for purposes which did not exist or were not raised at the time the budget was formulated; (2) contingency funds, which are designed to help the Ministry of Defense in the event of some unforeseen expenditure need during the year, possibly including overspending by the military as a result of lack of fiscal discipline; (3) nontransparent or highly aggregated budget categories, e.g., personnel costs, capital equipment; (4) diversion of civilian budget allocations to the military, e.g., if funds are unused by the end of the budgetary period, or to pay the military for development work; and (5) procurement of military material through the budgets of other ministries.

Second, there may be sources of revenue which are not mentioned in the budget: (1) the military may engage in business activities which provide additional sources of income; (2) the military may not formally own a business but may engage in natural resource extraction, e.g., Rwandan and Zimbabwean army units in the Democratic Republic of Congo; (3) it may receive funds directly from state-owned enterprises which are not military-owned; (4) it may receive funds by engaging in criminal activities, e.g., the illegal drug trade; (5) it may engage in barter trade, e.g., agricultural products for weapons; (6) it may receive foreign military assistance of various kinds, e.g., training, weapons as a gift or at discounted prices; and (7) it may receive funding from foreign donors, e.g., for demobilizing military personnel.

It also seems that sizeable amounts of revenue from budgetary and nonbudgetary sources in some countries are diverted to military groups or individuals for their private use; this falls under the heading of corruption.

Off-budget expenditures

Off-budget expenditure either does not appear in the budget, particularly when it is financed by off-budget income, or it appears in disguised form in a nonmilitary budget category. This is very difficult to detect but its presence sometimes becomes clear when new military equipment appears which was not included in any recent budget.

Off-budget income and expenditure may occur because the military finds the budget allocation to be inadequate and/or because it wants to engage in secret activities, possibly in defiance of government policy. They are more likely to occur in a political environment where the military is not sufficiently accountable to the civil authorities. In many countries, the military has a tradition of independence from the elected government and no tradition of accountability. This is particularly likely where there is also a tradition of strong executive decisionmaking which generally limits transparency and debate, when the government depends on the military to remain in power, or when there are opportunities to earn off-budget income.

The lack of reliable data resulting from off-budget income and expenditure means that security sector reform cannot be undertaken with any great rationality or confidence in the likely result. Rational security sector reform requires transparent military budgets and accountability of the military to the government.

Some policy options

In his overview of the only study of military budgeting in Africa,[15] Omitoogun compares the performance of eight countries using eight principles: comprehensiveness, contestability, predictability, honesty, discipline, transparency, accountability, and legitimacy. He concludes:

> ... there are many gaps between good practice in military budgeting and what takes place in most of the sample countries. These gaps are caused by a number of factors of which the main one is the prevalent political culture ... of deference to the military and a belief in its need for special treatment.[16]

The foregoing suggests that it is time for the security sectors of African countries to undertake the following as a minimum response to the changed security environment and the need to adhere to public expenditure principles. First, the security sector should adopt a policy of complete transparency with respect to actual and budgeted expenditure. This should be no more but also no less than that required of other ministries, and the information should be provided to parliament and the auditor general and subsequently be made available to the public.

Second, parliaments, civil society, and militaries should engage in wide-ranging reviews of security needs and functions with a view to security sector reform. This would include consideration of the allocations made to different components of the security sector; the development of systems and procedures to oversee the security sector; and the establishment of cooperative procedures with neighboring countries so as to reduce the need for high levels of military expenditure for traditional security purposes.

More widely, there are cost effective alternative ways of building security which could be considered in particular contexts and which may suggest different budgetary allocations, and a concept which is being seriously considered by a number of countries and adopted by several—a Ministry of Peace to implement and coordinate various peacebuilding efforts.[17]

Notes

Geoff Harris is Professor of Economics at the University of KwaZulu-Natal, Durban, South Africa. He may be contacted at harrisg1@ukzn.ac. This article draws on Harris (2005).

1. Galbraith (1996, p. 43).

2. Significantly since 1990: Human Security Center (2005, 2006); Human Security Report Project (2007); major armed conflicts in 1990: Lindgren, *et al*. (1991, pp. 345 ff); 4 in 2009: Harbom and Wallenstein (2010); quote: Human Security Report Project (2007, p. 22).

3. SIPRI (2009, p. 180 and Table 5A).

4. UNDP (2008, pp. 234-237).

5. UNAIDS (2006).

6. UNDP (2007).

7. Some sub-Saharan countries, notably South Africa, do use program budgeting as a tool to assist their military expenditure decisions. An outline of the procedure can be found in the 2004 *Budget Papers* and in the SANDF *Annual Reports*. See http://www.finance.gov.za/documents/budget/2004/ene/Vote%2022%20Defence.pdf and http://www.mil.za/Articles&Papers/Frame/Frame.htm.

8. IPU and DCAF (2003, p. 29).

9. DCAF (2002); Elworthy (1998).

10. Collier and Hoeffler (2002).

11. Hendrikson and Ball (2004, p. 13).

12. IPU and DCAF (2003).

13. Harris (2004a).

14. This section draws on Hendrikson and Ball (2002).

15. Omitoogun and Hutchful (2006).

16. Omitoogun (2006, p. 263).

17. Alternatives: see Harris (2004); Ministries of Peace: see Suter (2004); Mwanza and Harris (2009). Three countries—Nepal, the Solomon Islands, and Costa Rica—and one territorial government—that of the Government of Southern Sudan—now have government Ministries or Departments whose main mandate is to build peace, although the means they use vary widely, as does their resourcing and the status they are accorded by their governments.

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