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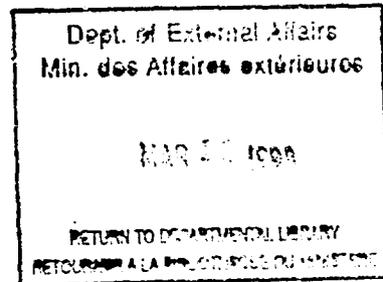


**MILITARY SPENDING  
AND  
SOCIAL, ECONOMIC AND POLITICAL  
DEVELOPMENT:  
INDICATORS AND REGIONAL  
ANALYSES**



**FEBRUARY 1997**

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**FEBRUARY 1997**

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## Preface

There is growing recognition in the post-Cold War era, that security can no longer be defined solely in the narrow military sense of the word. Security also depends on the pace of development and respect for human rights and democratic freedoms. The legitimacy of governments is increasingly challenged when their institutions are unable to provide for the well-being of their people. In order to establish conditions conducive to peace and stability, authorities must therefore promote sustainable economic development, based on national consensus. In many countries, this may require a reallocation of resources previously dedicated to the military establishment toward more productive developmental uses.

Despite a reduction in global military expenditures over the past few years, current levels often remain in excess of legitimate security and defence requirements. Such expenditures in developing countries also reduce the share of scarce public resources available for sustainable development, and can reduce the effectiveness of development assistance. Moreover, the use of the military to maintain corrupt or dictatorial regimes and violate human rights also runs counter to Canada's efforts to promote good governance and democracy. Curtailing military expenditures would free up resources which might then be applied to economic or social development, thus adding to the effectiveness of Canada's development assistance. Developing country governments can also benefit by such reductions in demonstrating non-aggressive behaviour to contending domestic groups or neighbouring states, thus reinforcing internal and regional security.

This study was undertaken as part of the Department of Foreign Affairs and International Trade's efforts to explore the policy implications flowing from the relationship between sustainable development and military expenditures in developing countries. A key difficulty in this area is developing a methodology for identifying countries that may suffer from an excessive military burden. The report focuses in particular on whether an analysis based on regions and drawing upon existing publicly available data can prove insightful for determining countries with an excessive military burden.

This report is being made available to assist officials and researchers in their work on this subject, as part of the Department's policy to share the results of independent research undertaken by the Department's Verification Research Program. The views presented in this report are the author's alone, and do not necessarily reflect those of the Department or of the Government of Canada.

## Acknowledgements

The Department of Foreign Affairs and International Trade wishes to acknowledge the work performed concerning this report under contract by Professor Keith Krause of the Graduate Institute of Strategic Studies, Geneva, Switzerland. The work on this report was completed in the autumn of 1996.

Professor Krause, for his part, wishes to point out that this report had its genesis in the findings and discussion generated by one part of a previous report, *Constraining Conventional Proliferation: A Role for Canada*<sup>1</sup>. It also benefitted from the discussions at a Department of Foreign Affairs consultative meeting held in March 1996. He received feedback on parts of the report from Alan Crawford, James Moore and Hal Klepak. Alan Crawford in particular provided materials, suggestions and extensive comments. Responsibility for any errors of fact or judgement rests with Professor Krause alone.

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<sup>1</sup> Keith Krause, Kenneth Epps, William Weston and David Mutimer, *Constraining Conventional Proliferation: A Role for Canada*, (Ottawa: Department of Foreign Affairs and International Trade, March 1996).

## Principal Findings and Conclusions

Multilateral efforts to constrain or reduce military expenditures represent one of the more difficult international public policy challenges of the century's end. They implicate complex judgements concerning the requirements for regional and local security, strategies for economic growth, and more intangible factors such as social and political development.<sup>1</sup> Nevertheless, the complexity of the issue cannot become a barrier to concerted action, since there exists a broad consensus (as reflected in the recent Canadian strategy document tabled in the House of Commons) that current military spending levels "often remain in excess of legitimate security and defence requirements...also reduce the share of scarce public resources available for sustainable development, and can reduce the effectiveness of development assistance."<sup>2</sup>

Recent work on this topic has attempted to overcome the unproductive divide between "security" and "development," and to analyze more systematically the conflict-security-development nexus. This report summarizes some of these efforts, and provides a comprehensive "road map" or schema of the determinants and consequences (both positive and negative) of security expenditures. Clearly, some level of security expenditure is necessary to provide the basic conditions for social and economic life, and the near-anarchic situation in many states in the Third World testifies to the negative effects of a breakdown of social order on basic human security. On the other hand, security institutions (armed forces and other internal security or paramilitary forces) have often unfortunately been as much the cause of such disorder as the means of its suppression. Likewise, a failure to devote appropriate resources to basic human needs, or to sustainable development, can exacerbate conflicts and violence in societies, and perhaps even between states.

Hence, in many parts of the world, security expenditures are a double-edged sword that must be treated carefully. Efforts to reduce military spending must be coupled with security-building measures (whether domestic, regional or global), and must aim at encouraging a regional and domestic dialogue over the appropriate means to achieve security.

Repeated efforts to analyze systematically the relationship between military expenditures and a variety of economic and social indices (growth rates, social welfare levels, human security indices) have so far failed to uncover any general relationships. Similarly, attempts to determine whether military expenditures are "excessive" suffer from several conceptual and statistical defects (all of which are elaborated in the report).

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<sup>1</sup> Many of these issues were raised in *Military Expenditures in Developing Countries and Arms Control*, report of the consultations sponsored by the Department of Foreign Affairs and International Trade Canada and the North-South Institute, 26 March 1996.

<sup>2</sup> "Reduction of Military Expenditures in Developing Countries: Canadian Strategy Document," 18 June 1996.

On the statistical side, the publicly-available data is so poor that little confidence can be vested in it, and different states have very different standards of reporting and transparency. On the conceptual side, the determination of "excessive" spending requires a benchmark against which this can be measured, whether this is a regional comparison (between potentially similar states), or an internal one (against, for example, the record of economic growth). Nevertheless, despite data and analytic uncertainties, there remain good reasons to think that beyond a certain point, military expenditures do not contribute to enhancing the security (broadly defined) of a state and its citizens.

This report adopts a regional approach to analyzing the publicly-available data, and presents a set of short case studies that illustrate how such data can be used to sketch a preliminary comparative picture of the military burden of various states and regions, and to derive some *prima facie* conclusions about which states might be carrying excessive military burdens.<sup>3</sup> These case studies are *not* a substitute for a detailed contextual analysis, and they cannot be expected to uncover the complex web of causes and consequences of security spending decisions in different regions. They can, however serve as a useful first step, by illustrating how a non-technical scrutiny of the data can help identify states of concern (for which additional information can be solicited), and can perhaps be a starting point for a regional dialogue over appropriate levels of security expenditures.

The rationale for a regional approach is two-fold. First, a regional analysis is more likely to control for politico-cultural, sociological and historical factors, which are more often shared by states in a particular region. Second, the "regionalization" of security issues since the end of the Cold War has meant that the problem of military expenditures might be more productively addressed in a regional dialogue, and with the appropriate multilateral and international interlocutors.

Each case study attempts two things. First, by simple visual techniques, it attempts to determine which states stand out in a regional context as carrying a particularly heavy military burden. The idea of an "excessive military burden," attempts to overcome the previous over-concentration on one or two measures of *expenditures* alone. It makes use of several different indices: absolute values of military spending (which are compared between states, over time), military expenditures as a percentage of GNP, military expenditures per capita, the number of soldiers per thousand population, and the size of the armed forces (when appropriate), in order to identify regional states of concern. Without entering into a detailed study, it offers some tentative explanations of why certain states might be regional "outliers," as an starting point for a more detailed contextual analysis that could follow.

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<sup>3</sup> The cases studied are: Central America, South America, North Africa and the Sahel, Southern Africa, Central Africa and Southeast Asia.

Second, it attempts (again in a non-formal way) to assess whether or not there have been any potential or actual trade-offs between greater military spending and lower economic growth, between greater military spending and lower levels of health and education spending, and between a greater military presence in society and lower levels of political and civil freedoms. The comparative indices used are: average levels of economic growth over the past decade, combined public spending on health and education, and a "freedom index" that assesses comparative levels of civil and political freedoms.

Although these case studies do not discuss in detail any of the possible mechanisms for reducing the military burden on states and regions, the report has made four general findings and drawn four policy-relevant conclusions. More specific issues are also discussed in each of the case studies.

### Findings

- i) one or two states seldom stand out in a region as being of concern on all possible measures of their military burden, although often a state (or states) scores high on two or more indices. Hence it is possible in most of the regions examined here to identify states of concern (a comprehensive list is included in the last chapter).
- ii) it is extremely difficult (if not impossible) to find clear evidence that links the military burden of a state or group of states with specific negative consequences, such as lower economic growth, low levels of social welfare spending, or high levels of repression. In some cases, however, good arguments can be offered for the negative consequences of security spending, taking into account the circumstances and history of particular states.<sup>4</sup>
- iii) related to this, efforts to find an "objective" index of excessive spending have limited utility, and to some extent miss the point. Security, and the means by which it should be achieved, includes an irreducible subjective element, which is best assessed in a cooperative security dialogue (this, at least, is one clear lesson of the East-West confidence and security-building experience that can be fruitfully exported). Hence purely quantitative indicators are useful only as a catalyst to such a dialogue.

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<sup>4</sup> The small number of states in each region studied prohibit statistically robust tests from being performed. It is possible that a more general statistical analysis (large sample) could uncover such relationships, although no previous studies have done so. It is also possible that a more focused analysis (that took, for example, those states identified as *prima facie* carrying an excessive military burden as its sample comparison group) could uncover such relationships. Further work in both areas should be undertaken.

- iv) the most prominent instruments of pressure available to the international community are external debt (or debt relief) and international development assistance (IDA). Although some major (and possibly excessive) military spending states are neither heavily indebted nor dependent on IDA, the majority of states highlighted in this study are open to some pressure on one or both of these scores. Care must be taken, however, not to single out especially vulnerable states whose equally problematic neighbours may not also be engaged in a dialogue for change.

#### **Policy-relevant Conclusions**

- v) attempts to identify the possibly negative consequences of an excessive military burden should adopt a broad definition of security that incorporates societal, human and economic aspects, in addition to the traditional focus on regional inter-state security.
- vi) the appropriate measures for the international community should be cooperative inducements, rather than coercive punishments, and they should be pursued in conjunction with regional and like-minded partners to maximize their effectiveness.
- vii) efforts to improve the transparency of military expenditures, the comparability of government spending, and the utility of national and international data bases are an urgent priority. Increased transparency can act as a regional confidence-building measure (or exercise), can have a positive impact on the domestic political debate, and should be incorporated (where it has not been so far) as a goal of regional and multilateral security dialogues.
- viii) the regional context for reductions in military spending is all-important. Reductions in military expenditures that are urged upon states without due consideration of their regional or domestic security context risk having negative consequences (regional instability or increased ungovernability) that outweigh any potential gains. Hence the security and development sides of the equation must both be present.

## Introduction

Traditionally, *security* has been a public good, provided by governments to their citizens. Conceived in narrow military terms, security from the threat of external armed attack has been provided through national armed forces: by military spending on soldiers, their equipment, and the defence infrastructure.

Even in these restricted terms, however, security remains a notoriously slippery concept. Despite growing international concern with curbing "excessive military spending," or "destabilizing arms acquisitions," the question of "how much security is enough?" has never been satisfactorily answered in a systematic way. Over time, patterns of military spending ebb and flow in response to a wide variety of factors, including changes in the regional and global threat environment, alliance and assistance relationships, the level of economic development of a state, weapons acquisitions cycles, changes in the nature of government and of civil-military relations, bureaucratic and institutional decision-making processes, and internal threats to regime security.<sup>1</sup> But specifying precisely which factors are important, and which concerns legitimate, has always been difficult, if not impossible.

Perhaps the most distinctive feature of security expenditures in many states in recent times has also been their relative isolation from public debate and scrutiny. Military spending was treated as immune from the choices that characterized most public sector spending. Put simply, there was no "guns versus butter" tradeoff: governments and publics simply assumed that an adequate "number of guns" needed to be procured in order to provide the peaceful and secure conditions for "butter production." Military expenditures choices were *prior to* and distinct from other decisions about how to allocate scarce resources to education, health care, social welfare, or other public spending. In addition, determining how to meet the national security needs of the state was the main prerogative of national officials, and was seldom subject to domestic debate or multilateral oversight.

Since the end of the Cold War, however, the artificial division between security issues and other aspects of economic, political and social development has been eroded. There are several reasons for this, but three stand out. The first has been the emergence of broader conceptions of security that include not only external threats of organized violence, but threats to human well-being that can emerge from internal conflict, economic deprivation, weak or poor governance, or repressive regimes. These broader conceptions can be found in a wide range of national and multilateral policy statements. As the Canadian government has noted, for example:

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<sup>1</sup> For a summary of these factors, see Robert West, "Determinants of Military Expenditure in Developing Countries: Review of Academic Research," in Geoffrey Lamb with Valeriana Kallab, *Military Expenditures and Economic Development*, World Bank Discussion papers 185 (Washington: World Bank, 1992), 113-145.

in addition to taking into account traditional military threats, security policy must include recognition of threats to stability, democracy and sustainable development as well as the threats posed by such factors as environmental degradation, overpopulation, involuntary population movements and organized international crime.<sup>2</sup>

Second, the end of the global East-West confrontation has seen the launching of a wide range of cooperative or mutual security dialogues (and concrete arms control, disarmament or non-proliferation measures) that attempt to ameliorate the inter-state "security dilemma," by which the unilateral pursuit of security by states almost inevitably increased the insecurity of other states. Although severe conflicts and tensions remain in many areas of the world, purely unilateral or national security policies are increasingly seen as anachronistic, as greater security can often be obtained via cooperative measures with potentially threatening neighbours than through unilateral steps that can lead to an increasingly burdensome spiral of arms acquisitions and military spending. As a recent IMF report notes, excessive military spending "imposes burdens on both the spending country and on other countries that believe their own security may be jeopardized by such expenditure."<sup>3</sup> This has been captured well in the concept of "cooperative security," by which states would make "a commitment to regulate the size, technical composition, investment patterns, and operational practices of all military forces by mutual consent for mutual benefit."<sup>4</sup> In other words, regional conflict resolution or confidence and security-building measures can facilitate reductions of military and armaments expenditures that would free up resources to address pressing human and social development needs. Perhaps more importantly, appropriate and legitimate military expenditures and arms acquisitions are determined in a *dialogue* with concerned states. This points the way out from the often-fruitless attempts to specify "objectively" such subjective factors as "threats" and "security."

Third, a focus on the *human dimension of security* has highlighted the tradeoffs and choices that are entailed in the pursuit of military security. Although the legitimate security concerns of states still command attention, excessive military expenditures (including those on armaments) are increasingly perceived to impede economic, political and social development, and to represent a pool of resources that could be redirected to other purposes. Seen through the eyes of an economist, *security* is a public good purchased via government spending, which should be evaluated in terms of its "productivity" or

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<sup>2</sup> Government of Canada, *Response to the Recommendations of the Special Joint Parliamentary Committee Reviewing Canadian Foreign Policy* (February 1995), 8.

<sup>3</sup> International Monetary Fund, *Unproductive Public Expenditures: A Pragmatic Approach to Policy Analysis* (Washington: IMF, 1995), 22.

<sup>4</sup> Ashton Carter, William Perry and John Steinbrunner's, *A New Concept of Cooperative Security*, (Washington: The Brookings Institution, 1992). 6.

"efficiency" in delivering security in the same fashion as other public sector spending.<sup>5</sup> Although the precise nature of the relationship between insecurity, military and armaments spending, and development (in all its aspects) remains unclear, multilateral bodies such as the World Bank, International Monetary Fund, or OECD Development Assistance Committee (DAC), and bilateral development assistance policies, have all focused on the issue in recent years. Again, the Canadian government has sought "to raise the profile of the issue of military spending in developing countries across a broad spectrum of international forums and at the bilateral level, including with other like-minded countries, the donor community and several developing countries themselves."<sup>6</sup>

Achieving this goal, however, presupposes a clear means by which to assess the relationship between military spending and security (broadly defined). This report seeks to contribute to this debate in the following way. It will first briefly summarize the existing (and limited) state of knowledge on the linkage between military expenditures and social, economic and political development. It will then sketch a broader "model" of linkages that draws attention to neglected aspects of the problem, and that highlights the causes and consequences of security spending. Section three develops and justifies a list of qualitative and quantitative indicators that can be used to assess "excessive military spending." The bulk of the report assesses in a preliminary fashion the relevance of these indicators through a case-study analysis of patterns of military spending and their relationship to other indices of social, economic and political development in several regional and sub-regional contexts: Central and South America; North, Southern, and Central Africa; and Southeast Asia. Finally, the conclusion discusses the implications of these findings for potential multilateral policies, in light of the "carrots and sticks" available to the international community.

One point needs to be clearly stated at the outset. Although this report makes extensive use of a variety of statistics, it does *not* (for reasons explained below) attempt to develop an "objective" quantitative index or model for assessing excessive military spending. Instead, it argues that a *regionally-specific*, and *mixed qualitative and quantitative* analysis is essential to the formulation of policy on this issue. The regional and sub-regional analysis will illustrate how available statistical information, however imperfect, can be used to help inform what must be essentially contextual and qualitative judgements, and to promote or catalyze a productive policy dialogue with different regional partners.

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<sup>5</sup> As the IMF report puts it, "the public sector employs human and other resources and accumulates capital stock to produce public goods, such as...`judicial services,' `national defence' [and] `protection of the poor.'" *Unproductive Public Expenditures*, 3.

<sup>6</sup> "Reduction of Military Expenditures in Developing Countries: Canadian Strategy Document," 18 June 1996.

## Security, Military Expenditure and Development: Linkages and Existing Evidence

Traditionally, arms acquisitions and military spending have been examined through two different optics: that of "economic development," and that of "inter-state conflict." In the first, the goal has been to determine, through rigorous statistical analyses of economic data, the relationship between such factors as:

- levels of (or changes in) military expenditure and economic growth;
- the opportunity cost of military spending in terms of other public expenditure, such as education or health care;
- the relationship between arms acquisitions and external debt;
- the possible role of external financing (development assistance and military aid) in facilitating the diversion of resources to military spending.<sup>7</sup>

In the second, the goal has been to determine if competitive arms racing (or military buildups) between states has led to or exacerbated conflicts and wars. The strong version of this argument, the *spiral model*, argued that there was a direct causal link between armaments and conflicts, such that increased levels of armaments (or a more rapid rate of acquisition) exacerbated insecurities and/or increased the potential for misperception to lead to war.<sup>8</sup> The weak version, the *tinderbox model*, argues that the exact causal relationship between armaments and conflict is irrelevant: "arms races do not necessarily cause wars, but they do create an inflammable situation between the racing nations where even the slightest spark can push a blaze to war."<sup>9</sup>

The reasons why both economists and political scientists expect to find some relationship are straightforward. For economists, defense expenditure is "unproductive," since it generally represents a diversion of resources that could otherwise be invested to generate future growth. In most models, higher ratios of defense expenditures to GNP (or GDP) means a lower investment ratio for the economy, which

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<sup>7</sup> See, for a summary of this material, Lamb with Kallab, *Military Expenditures and Economic Development*; Saadet Deger, *Military Expenditure in Third World Countries: The Economic Effects* (London: Routledge, 1986).

<sup>8</sup> As Robert Jervis analyzes it, "the spiral model of conflict sees the [resulting] action-reaction dynamic as accelerated by each side's inability to understand the other or to see how the other is interpreting its own behaviour. These processes generate and magnify conflict, leading to unnecessary wars." "Arms Control, Stability and Causes of War," *Political Science Quarterly*, 108:2 (Summer 1993), 244.

<sup>9</sup> James Morrow, "A Twist of Truth: A Reexamination of the Effects of Arms Races on the Occurrence of War," *Journal of Conflict Resolution*, 33 (September 1989), 502. For a review of this literature, see Randall Siverson and Paul Diehl, "Arms Races, the Conflict Spiral, and the Onset of War," in Magnus Midlarsky, ed., *The Handbook of War Studies* (Boston: Allen & Unwin, 1990).

means lower growth.<sup>10</sup> Although a short-term "military Keynesianism" stimulative effect on the economy may exist (as it does with any government expenditure), over the long run this is outweighed by the depression of investment, the distortion of resource distribution, and the diversion of research and development activities towards "military progress at the expense of technological advances in economically-productive areas."<sup>11</sup> A more straightforward "quality of life" argument also suggests that military expenditures consume scarce resources that could otherwise be devoted to social welfare spending, such as health care, education or basic services, whether or not these directly result in increased economic growth.<sup>12</sup> Finally, insofar as defense spending involves the use of scarce foreign exchange to acquire weapons or military technologies, economies that suffer from foreign exchange investment constraints will suffer, even if the overall burden of military spending is not great.

For the political scientist, states and regimes devote resources to the armed forces to meet perceived threats, but the "security dilemma" ensures that uncertainty and suspicion always lead even prudent policy-makers to worst-case planning scenarios. The inability of distinguishing offensive from defensive preparations by potential opponents ensures that competitive arms racing is relatively easy to trigger, and difficult to stop. Whether or not this leads to increased conflict and war, it certainly consumes scarce resources, and makes the durable resolution of inter-state conflicts extremely difficult.<sup>13</sup> With respect to internal conflict and political development, the standard argument has been that increased "militarization" (however defined) can distort economic development (because of the propensity for military intervention in the economy), and can thwart political and social development.<sup>14</sup> Somewhat less obviously, rapid

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<sup>10</sup> David Lim, "Another Look at Growth and Defence in Less Developed Countries," *Development and Cultural Change*, 31:2 (1983), 378.

<sup>11</sup> Malcolm Knight, Norman Loayza and Delano Villanueva, "The Peace Dividend: Military Spending Cuts and Economic Growth," *IMF Working Paper*, WP/95/53 (Washington: International Monetary Fund, 1995), 8.

<sup>12</sup> See W. Dixon and B.E. Moon, "The Military Burden and Basic Human Needs," *Journal of Conflict Resolution*, 30 (1986), 660-684; Peter Hess, "The Military Burden, Economic Growth and the Human Suffering Index: Evidence from LDCs," *Cambridge Journal of Economics*, 13 (1989), 497-515.

<sup>13</sup> See Bruce Bueno de Mesquita, *The War Trap* (New Haven: Yale University Press, 1981); A.F.K. Organski and Jacek Kugler, *The War Ledger*, (Chicago: University of Chicago Press, 1980); Kendall Moll and Gregory Lubbert, "Arms Race and Military Expenditure Models," *Journal of Conflict Resolution*, 24:1 (1980), 153-185.

<sup>14</sup> E.L. Kick, R. Nasser, B. Davis and L. Bean, "Militarization and Infant Mortality in the Third World," *Journal of Political and Military Sociology*, 18 (1990), 285-305; Bruce Moon and William Dixon, "Politics, the State and Basic Human Needs: A Cross-National Study," *Journal of Political Science*, 29 (1985), 661-694; Robert Looney, "Militarization, Military Regimes and the General Quality of Life in the Third World," *Armed Forces and Society*, 17 (1990), 127-139.

economic development and transformation can also trigger competition for scarce or declining resources that may lead to violent conflict (primarily internal).<sup>15</sup>

But systematic empirical evidence to support any of these linkages has proved difficult to find. Cross-sectional (many country) studies that attempted to prove that military expenditures exerted a generally negative impact on economic growth have been inconclusive. One early (and much criticized) study even seemed to indicate that defence spending exerted a positive effect on economic growth, although a careful analysis of the data seems to indicate this correlation was spurious.<sup>16</sup> Likewise, military expenditures and/or arms imports do not appear to have contributed to the dramatic increases in Third World debt in the 1970s and 1980s, despite the simultaneous increase in both.<sup>17</sup>

The internal consequences of military spending and development also proved difficult to pin down, with some studies suggesting that militarization had a positive effect on social development, while others found otherwise.<sup>18</sup> Evidence is equally inconclusive with respect to the inter-state conflict consequences of military spending or arms racing. There appears to be no general and necessary causal relationship between military spending, arms races and conflict or wars.<sup>19</sup> When such relationships do appear to exist

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<sup>15</sup> This has been the emphasis of the projects on Environmental Change and Acute Conflict and Environment, Population and Security that have been led by Thomas Homer-Dixon. See, for an overview, Thomas Homer-Dixon, "Environmental Scarcities and Violent Conflict: Evidence from Cases," *International Security* 19 (1994), 5-40.

<sup>16</sup> The original study was Emile Benoit, *Defense and Economic Growth in Developing Economies* (Boston: D.C. Heath, 1973). See also Emile Benoit, "Growth and Defense in Developing Countries," *Economic Development and Cultural Change*, 26 (January 1978), 271-290. For two (of many) critiques, see Nicole Ball, "Defense and Development: A Critique of the Benoit Study," *Economic Development and Cultural Change* 31 (April 1983), 507-524; Lim "Another Look," 377-384. See also Peter Frederiksen and Robert Looney, "Defense Expenditure and Economic Growth in Developing Countries," *Journal of Economic Development*, 7 (1982), 113-125; Steve Chan, "The Impact of Defense Spending on Economic Performance: A Survey of Evidence and Problems," *Orbis*, 29 (Summer 1985), 403-434; Saadet Deger and Ron Smith, "Military Expenditures and Growth in Less Developed Countries," *Journal of Conflict Resolution*, 27 (June 1983), 335-353.

<sup>17</sup> Robert Looney, *Third World Military Expenditure and Arms Production* (London: Macmillan, 1988), 49; Louis Pilandon, "Influence des relations économique Nord-Sud sur les dépenses militaires des pays en voie de développement," *Revue Études Internationales*, 16 (1985), 75-86. Looney concludes, however, that resource constrained LDCs did in part use external public debt to increase military spending. See, for a more nuanced discussion and conclusion, Michael Brzoska, "Military Trade, Aid and Developing Country Debt," in Lamb with Kallab, *Military Expenditures and Economic Development*, 79-111.

<sup>18</sup> On the "positive effect" side see N.E. Babin, "Military Expenditures and Education: Allies or Adversaries in Third World Development?" *Journal of Political and Military Sociology*, 18 (1990), 267-283; on the other side, Francis Adeola, "Military Expenditures, Heath, and Education: Bedfellows or Antagonists in Third World Development?" *Armed Forces and Society*, 22:3 (Spring 1996), 441-467.

<sup>19</sup> See David Kinsella, "Conflict in Context: Arms Transfers and Third World Rivalries during the Cold War," *American Journal of Political Science*, 38:3 (August 1994), 557-581; Ronald Sherwin, "Controlling Instability and Conflict through Arms Transfers: Testing a Policy Assumption," *International Interactions*, 10 (1983), 65-99; Michael Wallace, "Armaments

in particular regional contexts (such as the Middle East), they seem to depend on other factors, such as the presence of risk-taking leaders, territorial disputes, cross-border minorities, or internal unrest.

More importantly, the relationship between conflict and military expenditure is logically the "other way around": many researchers have argued that we should expect *conflict*, which has deep and often complex roots, to be the *cause* of changes in levels of military spending. This does receive some confirmation in statistical studies, and both the intensity and duration of conflict does seem to push up levels of military spending. A ratchet effect is also at work: once increased, military spending tends to remain at high levels even after conflicts end or recede.<sup>20</sup> This suggests that analysts need to adopt a more comprehensive view of the relationships at work: if military expenditures do exert a negative impact on economic, social or political development, but are in turn the product of the regional conflict environment, then we should not expect policies directed solely at addressing security spending to be effective. States or regimes concerned with external (or internal) threats, and willing to make sacrifices to survive, are not likely to be convinced to change military expenditures simply because some negative consequences ensue!

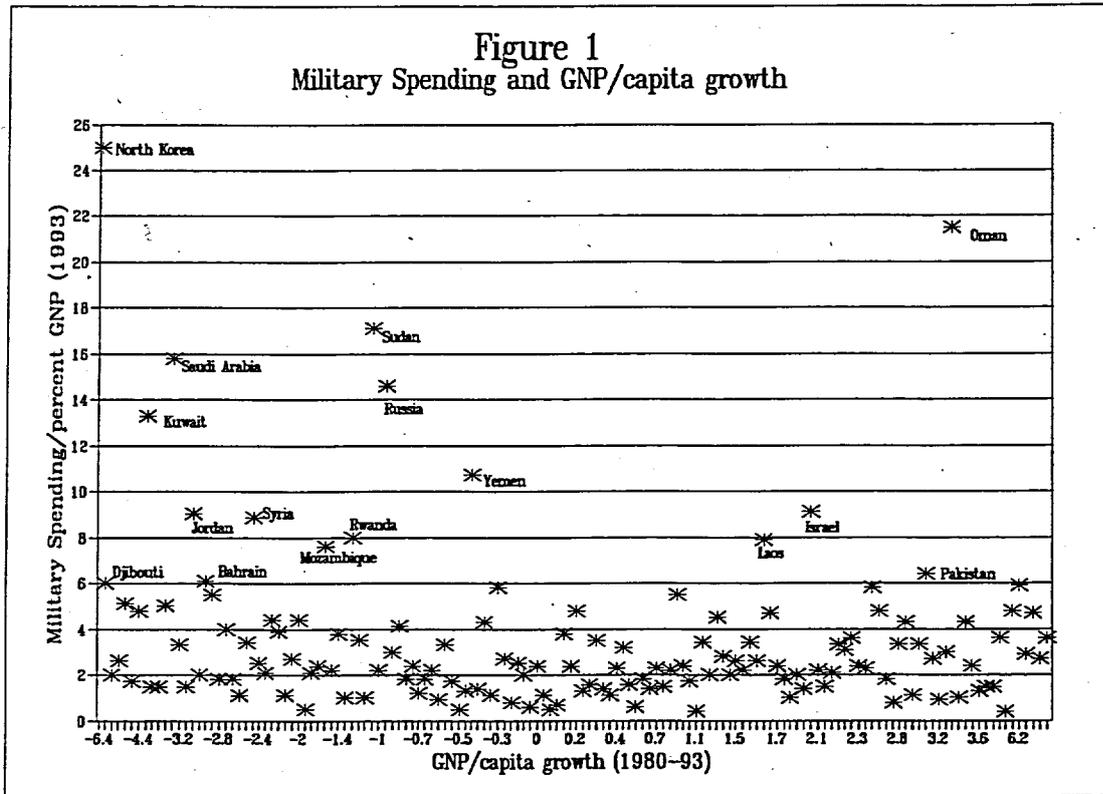
Some very general illustrations of the presence or absence of any global or general relationship are shown in Figures 1, 2 and 3 on the following pages. Figure 1 addresses directly the military spending-economic growth linkage. It tabulates military spending as a percentage of GNP (in 1993) against rates of economic growth (per capita GNP) for the period between 1980 and 1993 (where available).<sup>21</sup> The chart is merely illustrative, since one cannot compare or "correlate" the data for one year at the end of a period (military expenditures) against the average for an entire decade, and no attempt to uncover a statistical relationship has been attempted. But if there were a close relationship between the two variables, one would expect the pattern of markers to be high on the left side (high levels of military spending, low or negative growth rates), and dropping as we move to the right, to high-growth economies. There is no such pattern in Figure 1: although some high spenders (such as North Korea, Libya or Saudi Arabia) are economically in crisis (or have suffered negative growth), other high spenders (such as Oman or Pakistan) appear to enjoy relatively strong growth. Likewise, some low spenders have high growth (Indonesia, Mauritius), while others (Ivory Coast, Haiti) have stagnated even without a high military burden. This finding is not surprising, since any relationship would likely be confounded by other variables, such as the economy's resource base, the threat environment, the form of government, or cycles of economic growth.

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and Escalation: Two Competing Hypotheses," *International Studies Quarterly*, 26 (March 1982), 37-51; Paul Diehl, "Arms Races and Escalation: A Closer Look," *Journal of Peace Research*, 20:3 (1983), 205-212.

<sup>20</sup> Robert McKinlay, *Third World Military Expenditure: Determinants and Implications* (London: Pinter, 1989), 82-109.

<sup>21</sup> Obviously, one should use the *average military expenditure percentage* over the same period, rather than the percentage for 1993 to compare with average economic growth. This is done in the regional case studies below.



Sources: Military expenditures are for 1993 (or nearest year) and are from United States Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers, 1993-1994* (Washington: ACDA, 1995). GNP/capita growth figures are from World Bank, *World Development Report 1995* (Washington: Oxford University Press for the World Bank, 1995). Some GNP/capita growth figures have been derived from ACDA figures to fill in missing values.

Note: Ten states (Liberia, Iraq, Afghanistan, Slovakia, Turkmenistan, Czech Republic, Somalia, Angola, Brunei and Slovenia) are not shown since growth figures were not available. Several of them are high spenders: military spending as a percentage of GNP for Iraq is 14.4 percent, for Angola 13.7 percent, and for Afghanistan, 14.8 percent. These states (as well as Liberia and Somalia) have also suffered negative economic growth over the past decade.

Figure 2 charts military expenditures as a percentage of GNP against states' rankings on the UNDP Human Development Index for more than 150 states. The Human Development Index is a composite measure that combines indicators for life expectancy, education levels and income, and it provides a broad gauge of social welfare.<sup>22</sup> Each bar represents a state, and they are arranged from the highest ranking on the left (which in 1994 was held by Canada), to the lowest for which data was available (Guinea). Again, the highest spending states have been labelled. The figure demonstrates (in a static way) that there is no obvious relationship between high levels of military spending and low levels of human development: if there were such a relationship, taller bars would be more prominent as one moved to the right of the table. Yet neither high nor low scoring states as a whole seem to spend a disproportionate percentage of GNP on defence.

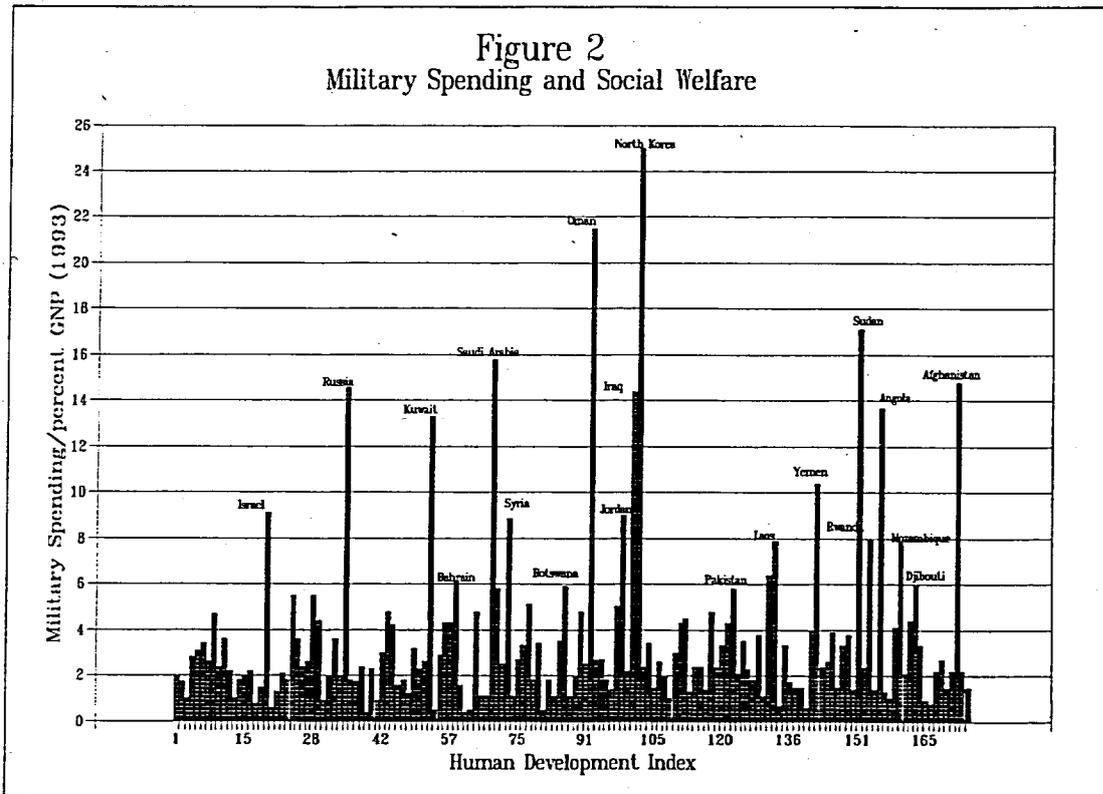
More interesting findings appear to emerge in Figure 3, which charts states according to their relative levels of "freedom," ranked according to Freedom House data. The Freedom Index (which ranges from 1.0 for "free" to 7.0 for "not free"), is based upon a series of qualitative judgements concerning a state's relative level of political freedoms and civil liberties. Taken into account are such things as the existence and powers of representative institutions, military rule, protection of minorities, basic civil rights, free media, the rule of law, freedom of assembly and association.<sup>23</sup> This table, which groups states by score (with the number of states in each category indicated above the bar), measures the height of the corresponding line according to the average level of military expenditure (as percent of GNP) for the group. Again, a connection between military spending and levels of freedom would be indicated by a rising level of spending as one moved from the left to the right of the table (with less free states spending more on the military). The table does in fact appear to present such a pattern, as the average level of military expenditures does seem to increase as the level of freedom of a state diminishes. Without further and more detailed scrutiny, however, it is impossible to know if this is an accidental result, or if it is suggestive of some underlying relationship.

Despite the "blurriness" of this very general picture, a few things are clear from these three figures. Figure 1 has labelled those states that spent more than six percent of their GNP on defence. A quick glance at their identity suggests that levels of military spending are in part determined by the presence or historical

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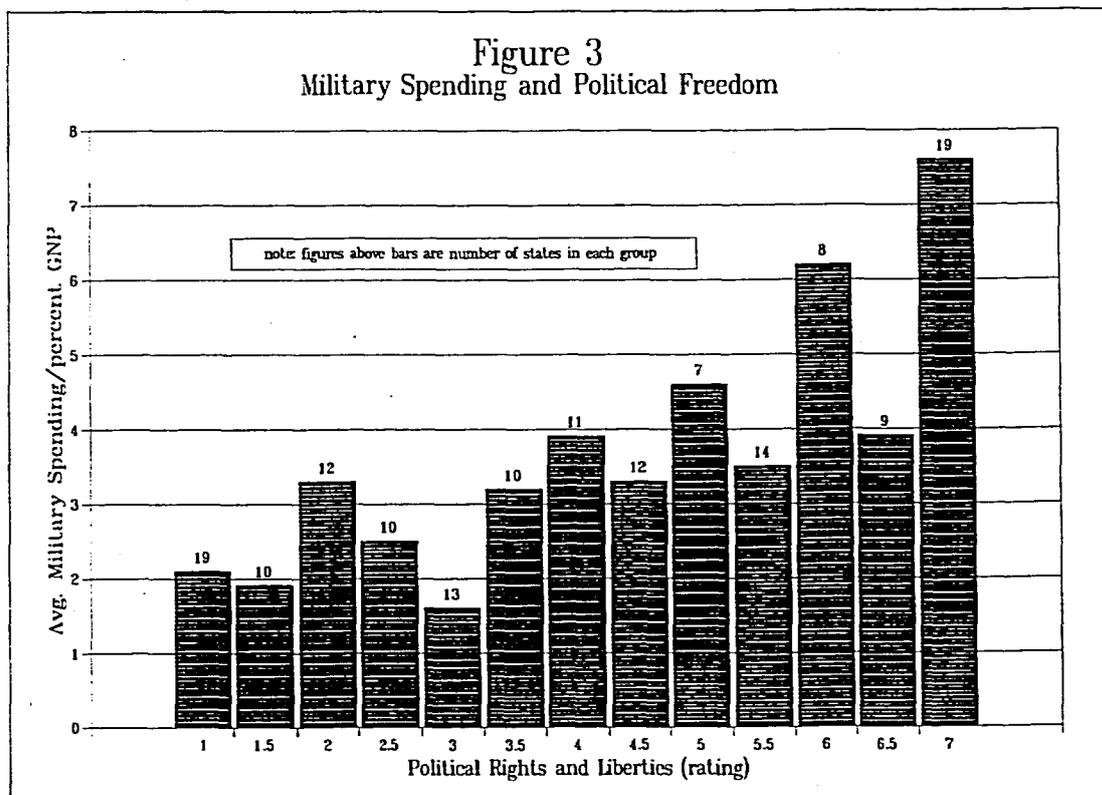
<sup>22</sup> United Nations Development Programme, *Human Development Report 1994* (New York: Oxford University Press, 1994), 90-101.

<sup>23</sup> For a comprehensive description of the index, see Freedom House, *Freedom in the World, 1993-1994* (New York: Freedom House, 1994), 671-676.



Sources: United States Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers, 1993-1994* (Washington: ACDA, 1995); United Nations Development Programme, *Human Development Report 1994* (New York: Oxford University Press, 1994).

Note: Two states, Taiwan and Slovenia, are not listed in this table.



Sources: United States Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers, 1993-1994* (Washington: ACDA, 1995); Freedom House, *Freedom in the World, 1993-1994* (New York: Freedom House, 1994).

experience of intense regional conflicts or wars. Nine of the twenty states noted (only seventeen are shown, since growth data for Angola, Iraq and Afghanistan was not available) are in the Persian Gulf or core Middle East; five others (Angola, Sudan, Afghanistan, Rwanda, Mozambique) have just emerged from or are still embroiled in major civil wars (and in Angola and Mozambique military spending has been declining). The remaining six (North Korea, Djibouti, Russia, Pakistan, Laos and Zaire) are scattered in different regions, and would appear to have dissimilar explanations for their high levels of spending. Twenty-one more states are captured by four percent thresholds, but here too there is no obvious pattern to their distribution, either in terms of geographical regions or level of wealth. This list suggests that a closer examination of particular regional contexts is absolutely essential in order to uncover any precise relationships. This should not be surprising, since there are a whole host of reasons why general relationships might not exist.

One could immediately draw one of two diametrically opposed conclusions from this brief overview of attempts to study the relationship at the most general level: either there is no relationship between military and arms spending and conflict or economic development; or our attempts to study this have all been preliminary and fundamentally flawed. Most analysts have adopted the second argument, and criticized the cross-sectional (many countries) and/or longitudinal (over time) quantitative studies as "substituting the computer for analysis."<sup>24</sup> As Nicole Ball puts it:

the considerable variations in the ways in which Third World economies actually function and in their potential for development, as well as differences in the size and nature of the security outlays of individual countries, greatly reduce the likelihood that one pattern could be discovered to describe the situation in all developing countries at all times.<sup>25</sup>

These differences of course extend beyond the economy: the different responses of states in threatening versus peaceful regional environments, or which face intractable internal or communal conflicts, or which possess low levels of regime or state legitimacy, all suggest that a more discriminating and qualitative analysis must be employed to examine any possible linkage.

Likewise, there remain compelling logical reasons to think that there is *some* relationship between the conflict and threat environment, military spending, and economic, social and political development. Even if the linkages are more complex, defence expenditure still represents a significant drain on current government resources, a drain that carries opportunity costs. Although there may be some indirect benefits from military spending (such as a higher level of education and training, spin-offs to the manufacturing and managerial sector, or general "modernizing" effects on the economy), these must be weighed off

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<sup>24</sup> Ball, *Security and Economy*, chapter 4.

<sup>25</sup> Ball, *Security and Economy*, 390, 123-157, 405-408.

against the benefits that could be gained from a direct investment of resources into industrial development or training. Similarly, the hard currency arms imports that most countries must make to equip their forces represent a drain on possible civilian capital investments (heavy machinery, for example), and can exacerbate balance of payments or debt problems. Finally, even if the "security dilemma" makes conflict resolution difficult, the progress that has been made in creating a "zone of peace" in Europe, and the low levels of conflict between democratic states, suggest that a state's threat environment can be ameliorated, and that the military burden on the economy and society can be reduced.<sup>26</sup>

Although these arguments are all very plausible, the statistical evidence that can be brought forward for them tends to be weak, and perhaps no definitive conclusions will ever be drawn. Most of the weaknesses with quantitative studies arise, however, from *methodological* or measurement problems, not from any weaknesses in the arguments for linkages. The following section will briefly describe the most serious problems associated with formal quantitative studies, in order to highlight the impossibility (and wrong-headedness) of searching for general statistical models to describe complex political and economic relationships.

#### The Problem of Indicators

Overwhelming conceptual and statistical problems with the available data bedeviled these modelling exercises, whether they are concerned with defining military expenditures, development, or "security." Five issues stand out as crucial statistical weaknesses, with an additional five more conceptual problems being important. Most of these have created difficulties for attempts to develop more comparable data, in, for example, United Nations' efforts to encourage the use of a standardized reporting instrument, or the efforts of the development community to go beyond crude economic measures of development. Some of the statistical and conceptual weaknesses highlighted below are exclusive to military expenditures, others represent broader concerns.

First, the *level of openness* in security expenditures is very low. Although recent efforts by multilateral financial institutions to make national accounts more transparency and systematic have borne some fruit, measuring security expenditures in most states remains a tricky exercise. As Nicole Ball points out, states have historically had strong incentives to conceal or manipulate military spending figures, through mechanisms that include double-bookkeeping, extra-budgetary accounts, highly aggregated budgetary

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<sup>26</sup> On the democratic peace argument see Edward Mansfield and Jack Snyder, "Democratization and War," *Foreign Affairs*, 74:3 (May/June 1995), 79-97; and the essays in "Give Democratic Peace a Chance," *International Security*, 19:2 (Fall 1994), 5-125. See also Aaron Wildavsky and Max Singer, *The Real World Order: Zones of Peace, Zones of Turmoil* (Chatham, N.J. : Chatham House, 1993).

categories, offsetting military assistance, and the manipulation of foreign exchange accounts.<sup>27</sup> One example of this was provided by a detailed World Bank study of Argentina, which concluded that during the 1970s actual spending was 50 percent higher than was revealed in public reports. As one analyst notes, "unless detailed records are studied, it is not possible to judge the extent of misrevelation of the data."<sup>28</sup>

Second, the *comparability of national statistics* on military spending is low. Legitimate differences in national accounting procedures can result in huge differences in reported figures. For example, states differ widely in their treatment of weapons procurement, research and development costs, and military construction (even for civilian products), with some including them in defence budgets, others treating them under other headings. Nuclear (or other weapons of mass destruction) programs have often been reported under non-defence categories (the Department of Energy in the United States, for example). States such as Iraq have concealed expenditures or entire programs under apparently "benign" categories.<sup>29</sup> By contrast, the armed forces in a country such as Egypt are involved in a wide range of civilian projects, including road construction and agricultural production. Inclusion of these items would artificially inflate the level of "security" expenditure, although it does reflect the role of the military in economic, social and political life.<sup>30</sup>

Third, the radically *different structures and organization* of armed forces makes even comparable figures misleading. For example, all things being equal, an all-conscript force is much less expensive than a paid professional force. On the other hand, the armed forces of a state with a strong national mobilization policy (such as Israel or Switzerland) or a large "militia" (such as Burkina Faso or Libya) cannot be easily compared to the standing army of its neighbours. Does Switzerland, for example, have 31,000 soldiers (its 3,400 regular forces, plus annual recruits), or 396,300 (its total reserves)?<sup>31</sup> The former figure is the 91st largest force in the world; the latter is the 19th largest - just behind Germany. Likewise, in some states security expenditures include resources devoted to national police or internal security forces, while in

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<sup>27</sup> Nicole Ball, "Measuring Third World Security Expenditure: A Research Note," *World Development*, 12:2 (1984), 157-165; Nancy Happe and John Wakeman-Linn, "Military Expenditure and Arms Trade: Alternative Data Sources," *IMF Working Paper*, WP/94/69 (Washington: International Monetary Fund, 1994).

<sup>28</sup> Sonmath Sen, "Military Expenditure Data for Developing Countries: Methods and Measurement," in Lamb with Kallab, *Military Expenditure and Economic Development*, 5.

<sup>29</sup> David Kay, "Denial and Deception Practices of WMD Proliferators: Iraq and Beyond," *Washington Quarterly*, 18:1 (Winter 1995).

<sup>30</sup> See Robert Satloff, *Army and Politics in Mubarak's Egypt* (Washington: The Washington Institute for Near East Policy, 1988); Robert Springborg, *Mubarak's Egypt: Fragmentation of the Political Order* (Boulder: Westview Press, 1989).

<sup>31</sup> The figures are from International Institute for Strategic Studies, *Military Balance, 1995/96* (London: IISS, 1996).

others these are excluded. Such forces, especially in African and Middle Eastern states, can be easily be as large as the regular armed forces. For example, in sub-Saharan Africa, paramilitary forces are at least half as large as regular forces in the majority of states - in some cases (such as the Ivory Coast or Guinea) they are actually larger!<sup>32</sup> Other states, such as Costa Rica, do not have an "armed forces" at all, but a "civil guard," which cannot be meaningfully compared to the forces of its neighbours.

A fourth problem, which bedevils all international economic statistics is the *comparability of national economies*. Here two issues are especially relevant: *exchange rates*, and *Gross National Products*. At the simplest level, large or rapid shifts in exchange rates could distort year-to-year changes. The decline in the Mexican peso will, for example, translate into a large drop in military spending when a simple conversion to American dollars is made. On the other hand, over- or under-valued currencies (especially for currencies that are not freely traded) would over- or understate levels of spending. At a more complex level, exchange rates capture very poorly actual purchasing power parities, and they thus tend to artificially understate the actual "value" of military expenditure in many parts of the world. For example, an equally-sized and equipped army will "cost" much less in a country in which labour (and hence soldiers) is cheap, for the equivalent military power. Obviously, this is only an issue if one is attempting to determine the military potential derived from a given amount of security expenditure, but it creates problems for all comparisons, especially between the developing and less-developed world. In addition, the way in which GNP is measured excludes the informal or non-monetary sector of an economy, which in many parts of the developing world is extremely large. This tends to overstate the military burden on the economy, by "undercounting" the overall level of economic activity.

Finally, the aggregate sources that are usually used often rely on *non-comparable data*. With respect to military spending, figures are published by the United States Arms Control and Disarmament Agency, the Stockholm International Peace Research Institute, and the International Institute for Strategic Studies. One could construct reasonable comprehensive data series from these sources. Yet they differ widely on their estimates of military spending, their definitions, and even their sources. Furthermore, they often derive their data from the International Monetary Fund *Government Finance Statistics Yearbook*, which itself contains internal reliability problems.<sup>33</sup> Even for figures on which one would expect some greater agreement, such as on the total external debt of a country, different sources (such as the Central Intelligence Agency and the World Bank) do not agree. With respect to other categories of social spending, such as public expenditure on education and health (two indices used in this report), the

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<sup>32</sup> See International Institute for Strategic Studies, *The Military Balance, 1995/96* (London: IISS, 1996).

<sup>33</sup> For an excellent discussion of this problem see Ball, *Security and Economy*, 84-122.

different nature of national health and educational systems makes comparisons equally difficult, even between advanced industrial states.

### The Problem of Concepts

On the conceptual level, five problems also stand out. The first is a simple problem of *what is being measured*. The best statistics are worthless unless we have a clear idea what they are intended to represent. As noted above, much confusion surrounds the security-expenditure-development linkage. At the bottom, however, the assumption is that states and regimes make rational decisions about how to allocate their scarce resources based on assessments of the threats they face and the value gained by different "investments." Whether or not this is an accurate or even useful description of affairs is controversial. Even so, analysts must be careful not to use indices that have no plausible relationship to the phenomenon being measured.

Inter-state comparisons of levels of military spending, for example, may indicate greater or lower levels of commitment to the armed forces, but do not necessarily tell us anything about the regional threat environment. Spending does not convert directly into military capabilities, does not capture the aggressive or benign intentions of states, and does not take into account the radically different size and circumstances of states. Pakistan, for example, spends roughly 6.4 percent of GNP on defence, in contrast to India, which spends only 3.3 percent. Yet in absolute terms, India spends at least 2.5 times as much as Pakistan, and would appear to possess overwhelming capabilities. Given continued conflict over border areas, and their regional rivalry, to focus attention on Pakistan alone without examining the patterns of spending and development of its neighbours would be a mistake. A similar set of problems appear when attempting to capture levels of development and social welfare, of internal repression, or of regional conflict.

Likewise, the exclusive reliance on GNP or GNP/capita figures as a measure of "development" is also highly problematic. As the UN Development Programme points out:

wealth is important for human life. But to concentrate on it exclusively is wrong, for two reasons...First, accumulating wealth is not necessary for the fulfilment of some important human choices...Second, human choices extend far beyond economic well-being...Although there is a definite correlation between material wealth and human well-being, it breaks down in far too many societies.<sup>34</sup>

GNP figures tell us little, however, about important dimensions of human security such as personal safety, political and civil liberties, or equality of opportunities. The solution is often to use such indicators as life expectancy or composites such as the Human Development Index (used in Figures 2 and 3 above) or the

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<sup>34</sup> UNDP, *Human Development Report 1994*, 15.

Freedom Index. Such indices cannot, however, be used to draw precise comparisons (for example, to contrast changing levels of social and military spending). Finally, no one has created adequate measures for such things as "security" or "militarization," although a range of indicators, from military expenditure per capita, to the number of soldiers per thousand, to the presence of officers in government, have been used or suggested.<sup>35</sup> This report makes use of the first two measures in an attempt to capture indirectly the military "presence" in a state.

A second conceptual problem concerns the *timing* of the expected effect of military expenditure, on such things as economic growth prospects. Most studies (including this one) rely on "snapshots" of data that capture levels of military expenditure and other economic and security indicators at one moment. Yet any relationship, between levels of military expenditure and economic growth for example, should be apparent only over a long time-scale, and perhaps with variable lags. Statistical manipulations designed to capture an effect at a particular point are unlikely to find significant correlations. Hence in Figure 1, for example, recent levels of military expenditure (which have been declining in most states over the past decade) were compared against the average rate of growth over a 13-year span. This sort of figure does not allow comparisons of the impact of military spending on growth, or of changes in spending on changes in growth over time (although the studies that have attempted to do so have been noted in this report). Longitudinal time-series can help solve this problem, but the amount of time and energy required to collect and analyze the data becomes enormous, and the "value-added" by such an exercise remains questionable. Such data is presented in the regional case studies below.

The third conceptual issue concerns the question of *opportunity costs*, which are at the heart of the expectation that military spending has a negative impact on economic growth or social welfare. Simple assertions or analyses of opportunity costs do not work, for two reasons. First, resources are not easily fungible between different uses. Second, the concept of opportunity costs assumes a comparable measure of "output": a certain amount of money spent on defence will provide one unit of "well-being" whereas the same amount spent on health care will provide two units of "well-being." But since we have no way of specifying what a unit of "well-being" might look like, we are actually comparing apples and oranges!<sup>36</sup> It is also difficult to argue in the abstract that economic growth should be given priority over subjective (and perhaps genuine) perceptions that physical survival would be threatened if resources were taken away from the armed forces.

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<sup>35</sup> Andrew Ross, "Dimensions of Militarization in the Third World," *Armed Forces and Society*, 13:4 (Summer 1987), 561-578.

<sup>36</sup> See David Dabelko and James McCormick, "Opportunity Costs of Defense: Some Cross-National Evidence," *Journal of Peace Research* 14:2 (1977), 145-154, and, for the critique, Carl Hampus Lyttkens and Claudio Vedovato, "Opportunity Costs of Defence: A Comment on Dabelko and McCormick," *Journal of Peace Research* 21:4 (1984), 389-394.

Fourth, the idea of *excessive military spending* is a marginal, not an absolute, one. For an economist, "excessive military spending" is defined as occurring when "the marginal improvement in national security associated with this expenditure is less than its economic cost," with economic cost being determined by how much "growth" or "well-being" could be obtained.<sup>37</sup> But although the last dollar spent on security in most states could probably be better spent on other things, the first dollar is absolutely essential to ensure minimal internal order and external protection. At what point between the first and last dollars security spending shifts from being "appropriate" to "excessive" is not, however, easy to determine, without a qualitative and quantitative assessment of the internal and external threat environment a state and its citizens face. And external interference in this process will not necessarily be welcome.

Fifth and finally, none of the large-scale studies statistical have provided any compelling logical reason for why one should expect to find a *generalizable, global relationship* between conflict, security expenditure and development. Not only is there considerable variation in economies between regions, and wide differences in regional conflict environments, but there are also different domestic (and historical) patterns of civil-military relations, and different expectations about what "security" might be and how much the state can or should provide. All of these issues strongly imply that a mechanistically-applied statistical analysis will have little or no policy relevance in particular regional or sub-regional contexts, unless it is viewed as a first step in the creation of better data, and as one part of a more qualitative and contextual policy assessment.

What can one do then, in light of these statistical and conceptual roadblocks, to make some sense of the conflict-security-development nexus? More importantly, can the available indicators be used in any fashion to inform multilateral and bilateral policy initiatives? One answer to these question is negative: that there is no utility in trying to make policy-relevant judgements and comparisons, since by even modest standards the available data cannot generate statistically meaningful results. This, however, implies that all policy judgements should be based strictly on impressionistic or qualitative assessments. But since even the qualitative judgements of policy-makers usually rest upon *some* interpretation of the available information, however poor it may be, it is still worth trying to assess how (or if) the available data can be sensibly used.

The first step of this report towards this goal requires a theory or "road map" of the linkages that appear to be important, coupled with an explanation of why particular indicators might be useful as "signals" of a situation that deserves to be examined more closely. The second step taken in this report is a regional and sub-regional analysis of selected regions that examines levels of military spending against the regional

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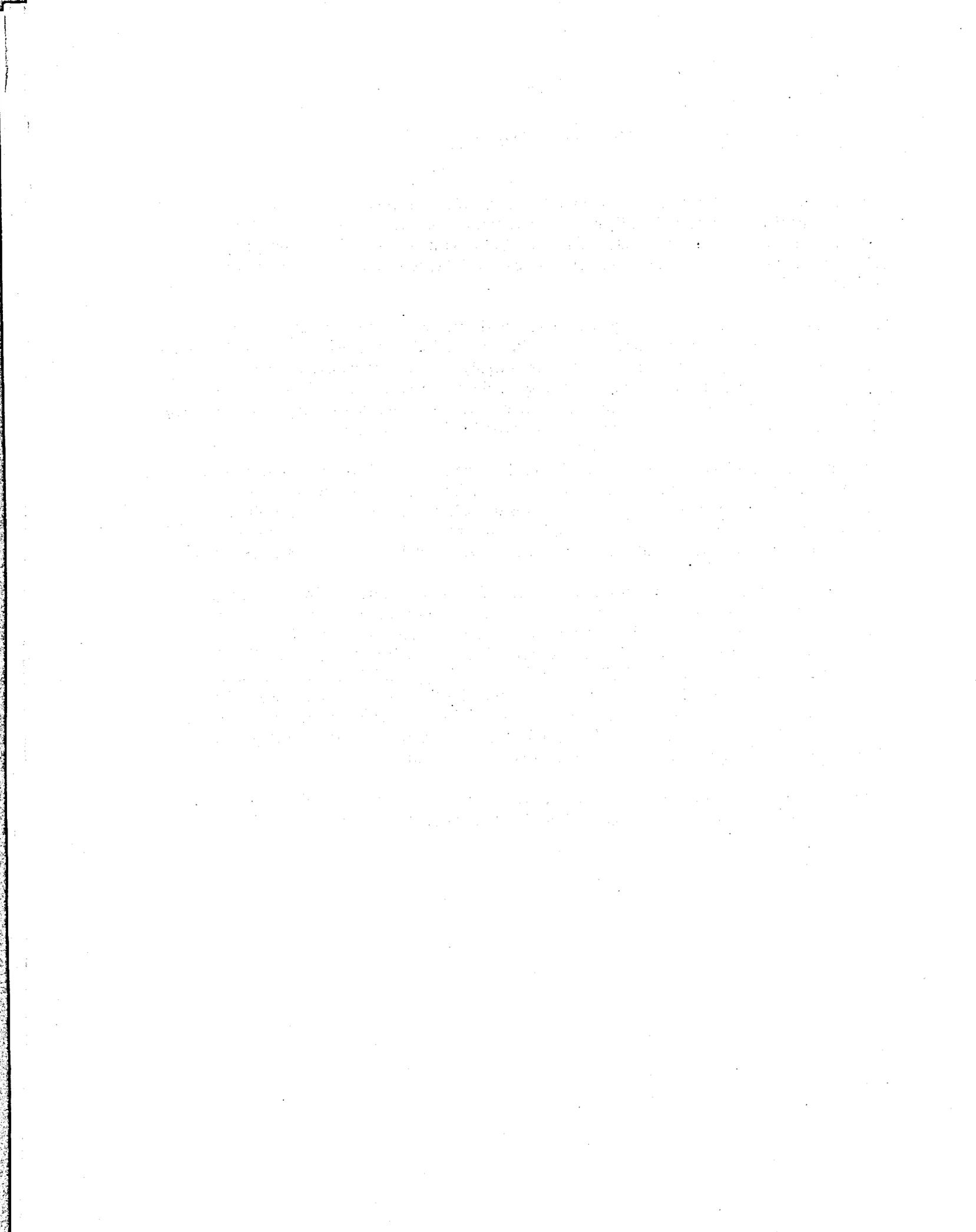
<sup>37</sup> International Monetary Fund, *Unproductive Public Expenditure*, 22.

inter-state security backdrop, in order to help explain the factors that give rise to particularly high (or low) levels of security expenditures.<sup>38</sup>

The goal, however, is not to "target" particular states or regions through a purely quantitative analysis, but to present a picture that can be used to start a productive dialogue either within a region, or between regional and external parties, concerning ways and means to reduce the burden of security expenditures while maintaining or enhancing the security of states and citizens. Shedding greater light on the amount of resources devoted to the armed forces, or catalyzing regional confidence-building and information-sharing dialogues on this issue, might in themselves represent an important contribution to security building that could lead to eventual reductions in the resources devoted to the armed forces.

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<sup>38</sup> In principle, states could also be grouped along other than regional lines, to compare states at similar levels of wealth and poverty, militarization, threat environment, and so forth. This would, however, not enable the findings to be used in regional security-building contexts, but only at a global or bilateral level. For an example of such an approach that categorizes states according to their level of military spending, see James Moore, *Military Spending in the Developing World*, Project Report 9616 (Ottawa: Department of National Defence, 1996).



## Reconstructing the Problem: Linkages, Causes and Consequences

### The Narrow Construction of the Problem

Previous attempts to tackle the problem of security expenditures and development have pursued distinct tracks, depending on whether or not they were concerned with the economic development, or the conflict-security, side of the problem. Aside from all the other difficulties mentioned above, this bifurcation meant that both sides ignored important elements linking the two sets of issues. The more "economic development-oriented" analyses often ignored the issue of the legitimate security needs or threat environment of states, and focused too narrowly on purely the economic growth consequences (such as GNP/capita) of security expenditures. Other issues, such as the provision of a basic level of security for economic activity to flourish, the social welfare of a state and its citizens (investment in such things as health or education), or the impact of military expenditure on *political development* issues (such as democratization, civil-military relations, or communal conflicts) were neglected. On the other side, the more "conflict and security-oriented" analyses focused almost exclusively on *inter-state* conflicts and arms races, and ignored both the internal dimension of insecurity (for states, regimes and citizens) and any deleterious economic, social or political consequences that could follow from the single-minded pursuit of military security.

One goal of this report is to integrate these different approaches more fully, first by charting a wider range of determinants that might contribute to high levels of security expenditure, and second by broadening the range of possible consequences that should be considered. Both sides of the equation are important, since successful policies must be focused on appropriate aspects of the overall problem. Figure 4 illustrates (in a highly schematic form) these possible determinants and consequences of security expenditures.

To begin, security expenditures are determined both by external/systematic causes and by domestic internal factors and insecurities. As Mohammed Ayooob has pointed out, "security-insecurity is defined in relation to vulnerabilities - *both internal and external* - that threaten or have the potential to bring down or weaken state structures, both territorial and institutional, and governing regimes."<sup>1</sup> Among the external determinants, the most important are: regional inter-state conflicts or rivalries; alliance, assistance and security relationships with extra-regional powers; the pursuit of regional hegemony or status; and the existence (and nature) of regional security-building processes. Obviously, which of these factors are at work in any case (and in what combination) matters a great deal for the effectiveness of policies designed

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<sup>1</sup> Mohammed Ayooob, *The Third World Security Predicament: State-Making, Regional Conflict and the International System* (Boulder: Lynne Rienner, 1995), 9, italics in original. See also Edward Azar and Chung-in Moon, eds., *National Security in the Third World: The Management of Internal and External Threats* (College Park, MD: University of Maryland, 1988).

to help reduce military expenditure burdens. Inter-state conflicts, for example, can sometimes be ameliorated through confidence- and security-building measures, or conflict resolution processes, that make use of well-known transparency and tension-reduction measures, some of which focus on military expenditures. States making a bid for regional hegemony (for whatever reason), however, would be considerably less susceptible to external pressure or inducements of this sort. With respect to alliance and security relationships, although these can sometimes provide greater security or balance an unbalanced regional conflict, they can also unfortunately project "global" rivalries and conflicts into a region (as occurred during the Cold War), and result in stability at higher levels of expenditure and armaments. Close relationships between patrons and clients can also lower the "opportunity cost" of perpetuating regional conflicts or even fighting wars.<sup>2</sup> When external support can be counted upon, the incentive to pursue cooperative solutions to conflicts is reduced. Conversely, external security assurances (and the active role of outside powers in peace processes) may sometimes decrease the intensity of insecurity in a region, especially where weapons of mass destruction may be involved.<sup>3</sup>

Among the six sets of domestic determinants listed in Figure 4, probably the most important is the strength of the state itself. In many newly-independent or post-colonial states, often the very *idea* of the state does not enjoy popular support from the citizens, especially if it is an artificial or colonial construct (as is the case in much of Africa, for example). Iraq, the Sudan, and Nigeria, for example, are all products of the colonial experience, and groups such as the Kurds, Southern Sudanese, or Ibos have all at one time or another pushed for a radical redrawing of state borders. Of course, as the United Nations Secretary-General has pointed out in the *Agenda for Peace*, "if every ethnic, religious or linguistic group claimed statehood, there would be no limit to fragmentation, and peace, security and economic well-being for all would become ever more difficult to achieve."<sup>4</sup> There is, however, in principle no reason why the aspirations of different groups cannot sometimes be accommodated within common political institutions, given sufficient resources and flexibility.

In addition, the lack of legitimacy or the repressive nature of many regimes often undermines the possibility for the peaceful resolution of domestic conflicts. Disaffected groups that are victimized by predatory or oppressive regimes pose (from the perspective of the ruling elite) a great threat, and hence

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<sup>2</sup> See, with respect to the effect of arms transfers on regional conflicts, see William Hartung, "Arms Transfers as a Tool for Conflict Prevention: Patterns of Weapons Deliveries to Regions of Conflict, 1985-1994," unpublished paper, 1995.

<sup>3</sup> One example would be the American role in the Israeli-Egyptian relationship since the 1973 war. For a brief discussion of the role of security assurances in the nuclear non-proliferation debate, see Stockholm International Peace Research Institute, *SIPRI Yearbook 1994* (New York: Oxford University Press, 1994), 612-613.

<sup>4</sup> "Report of the Secretary-General pursuant to the statement adopted by the summit meeting of the Security Council on 31 January 1992," General Assembly Document A/47/277, 17 June 1992, para. 17.

security institutions and expenditures are often designed to keep the lid on potentially explosive civil unrest. Often this concern is directly reflected in the design of the armed forces: the regimes in Syria, Zaire and Myanmar, for example, all devote large resources to internal security, in the form of paramilitary or "republican guard" type forces. Initiatives that assume that security expenditures are determined by the external threat environment would be entirely ineffective at changing policies in states where the regime feels threatened from its own citizens, or from its weak institutional capacity to resolve social conflicts.

Bureaucratic and institutional capacities and interests also play a role in the allocation of state resources. In many cases, the institutional weight of the military is strong, and even when not in power, it represents a potential threat to the stability of the governing regime, and hence can only be satisfied with a relatively free claim on scarce resources.<sup>5</sup> In such cases, high levels of military spending may not be dictated by external threats at all, but the security dilemma virtually ensures that a large military establishment can be perceived as a threat by neighbouring states. Institutional inertia and bureaucratic decision-making processes are also a potentially relevant factor: the best predictor of next year's military spending is almost always last year's spending level, and moving resources from one "basket" to another is never a simple process.<sup>6</sup> Thus policies must be sensitive *not* simply to absolute or relative levels of spending between states, but the trends this spending manifests. Declining spending, from whatever level, may represent a signal of an openness to engaging in a regional or domestic security-building exercise.

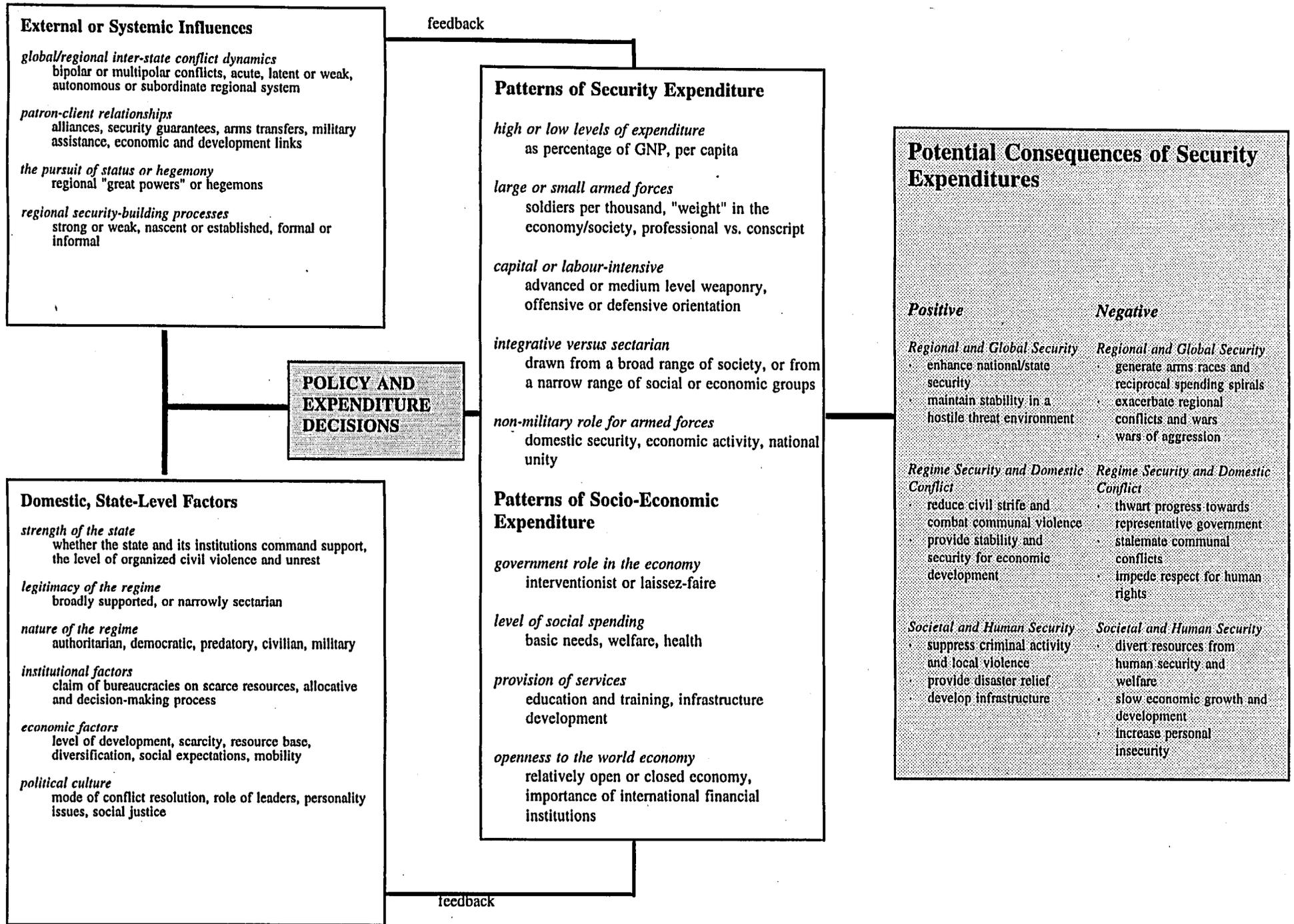
Likewise, the economic condition and prospects of a state play a significant role in determining whether or not any of the above sources of insecurity can be overcome. A state with a weak and heavily dependent economy, with few resources or great scarcity, is much more insecure and vulnerable than one which has a "margin of manoeuvre" to aid its citizens or buy off discontented groups. The image of unpaid soldiers threatening a regime, or of inter-group conflict over scarce resources, is not uncommon. Likewise, access to the world economy can make a huge difference in the ability of a state to mobilize resources to meet citizen's basic needs. Finally, all of these domestic factors are filtered through the lens of "political cultural" factors. Traditions of leadership (which may facilitate the rise of personalist rule), conflict resolution mechanisms, and the role of "social justice" ideas in civil society, can all play a role in determining the place and weight given to the institutions of organized violence in the social order. Such factors are, however, difficult to examine in a systematic or general way.

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<sup>5</sup> This points to an obvious flaw with studies that attempt to determine if military expenditures rise after the military has taken power, since one can argue that in many cases nominally civilian governments are forced to keep the military from taking power with higher military spending. See, for examples, Ball, 59-67.

<sup>6</sup> For a summary of these findings see West, "Determinants of Military Expenditure in Developing Countries," in Lamb with Kallab, *Military Expenditures and Economic Development*, 123-126.

**Figure 4: Security Expenditures and Institutions: A Schema of Determinants and Consequences**



All of these various factors are channelled in one way or another into political and security policy-making and decisions, and influence state expenditure allocations. For the sake of simplicity, the diagram has divided government spending into "security" and "socio-economic" baskets, although this does not in any way reflect the complexity of spending decisions, or (more importantly) the relative weight of security spending, which is almost never more than a small proportion of government spending.<sup>7</sup> Two things are worth highlighting from this section of the diagram. First, security allocations involve much more than simple decisions about "how much to spend." Issues such as the nature of the force (professional vs. conscript), its weaponry, its size, or its social composition, can have a great effect on whether or not it provides or threatens security. Narrowly sectarian armed forces, for example (such as the Alawis domination in Syria, or the Hutu-Tutsi divides in Rwanda and Burundi) can have enormous societal repercussions. Second, socio-economic expenditures are also subjected to a "logic of security": the level of social spending, infrastructure development, or openness to the world economy are often in part conditioned by a sense of how to achieve greater human or societal security and well-being.

### The Consequences of Security Expenditures

With respect to the potential *consequences* of security expenditures, both positive and negative possibilities have been listed. The three dimensions labelled in Figure 4 include the traditional element of inter-state security and conflict, the element of regime security and communal conflict that captures the concerns of states and regimes with the internal aspect of security, and the dimension of societal and human security that captures developmental and human welfare concerns. Again, most attention to date has focused on the inter-state dimension - on the circumstances under which military spending can enhance security or provide stability in a threatening environment, or can contribute to arms races, exacerbate interstate conflicts, or even facilitate wars of aggression.<sup>8</sup> In regions such as the Middle East or South Asia, for example, particular conflict dyads (such as India-Pakistan or Israel-Syria) appear to be strongly influenced by reciprocal military expenditures and preparations, many of which have been "stabilizing" (although of course such conflicts always have deeper roots). As noted above, several of the highest military spending states are currently (or have recently been) embroiled in acute inter-state conflicts.

While important, such a restricted focus fails, however, to take into consideration the other dimensions of the broader definitions of security that today appear to play a role in the policy making of both regional

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<sup>7</sup> The global average of military spending as a percentage of central government expenditures was 11.5 percent in 1993. In roughly sixteen states, it represented more than one-quarter of government spending, and in roughly 50 states, more than 15 percent. Figures from U.S. Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers, 1993-94*.

<sup>8</sup> McKinlay, 83-109; Kendall Moll and Gregory Luebbert, "Arms Race and Military Expenditure Models," *Journal of Conflict Resolution*, 24:1 (1980), 153-185.

and extra-regional states, especially with respect to security-conflict-development questions.<sup>9</sup> Although the armed forces can (and have) played a role in combatting civil strife and communal conflict, and in providing the basic secure conditions for commerce, the negative internal consequences of high levels of military expenditures can also be fairly easily discerned in a wide variety of places. In states such as Pakistan, Ethiopia, Bolivia, Nicaragua, Angola or Mozambique, historically high levels of spending (to deal with a wide range of internal or external threats or wars), have made difficult such things as the transition to civilian rule or post-conflict peace-building efforts. Again, however, the *direction* of causality is not easy to determine: do severe internal conflicts create high levels of military spending, or do high levels of spending exacerbate conflicts that could otherwise be ameliorated if resources were distributed differently? Only a careful case-by-case analysis could disentangle this question.

Finally, the concept of societal and human security attempts to capture the concerns of citizens, for whom "security symbolizes protection from the threat of disease, hunger, unemployment, crime, social conflict, political repression and environmental hazards."<sup>10</sup> Although the armed forces seldom has a direct role in such matters, it can (especially in the developing world) often play a role in combatting crime, engaging in infrastructure projects (road building, agriculture), and disaster relief. These latter roles are often assumed because the military represents one of the few highly organized pools of efficient labour. But a state that devotes a high level of resources to the armed forces in the absence of credible or pressing external threats, or severe problems of internal conflict, may still end up sacrificing progress towards developmental and human welfare goals, either because of the opportunity costs of security expenditures, or the often negative side-effects. In many cases (such as in Myanmar, Central America, Algeria, or Pakistan, for example) a peaceful transition to representative or democratic government, or towards greater respect for human rights, appears to be rendered more difficult by the strong societal role of the armed forces. Likewise, although Figure 2 above suggests that no general relationship between military expenditures and human welfare exists, when relatively resource-rich or high-potential states such as Myanmar or Kenya score relatively low on the Human Development Index (125 and 130 respectively), it raises the suspicion that even moderately high levels of military expenditure (3.5 and 3.8 percent of GNP respectively) can have deleterious consequences.

These numerous determinants and consequences produce a large number of possible causal pathways through which regional wars and conflicts, institutional or political weaknesses, repressive rule, or inter-communal friction, can lead to excessive military spending or other deleterious consequences. Some

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<sup>9</sup> For a strong analysis of broader conceptions of security that includes regional, internal and societal dimensions, see Barry Buzan, *People, States and Fear*, second edition (Hemel Hempstead: Harvester Wheatsheaf, 1991).

<sup>10</sup> United Nations Development Programme, *Human Development Report 1994* (New York: Oxford University Press, 1994), 22.

linkages may be direct "spirals," in which, for example, resources devoted to counter external threats trigger a response from neighbouring states that renders all less secure at higher levels of armaments and expenditure.<sup>11</sup> Others might, however, manifest an *interaction effect*, though which security expenditures that are primarily directed towards coping with one threat (maintaining regime stability or suppressing internal unrest, for example) could exacerbate regional conflicts, as neighbouring states feel threatened. Such forces appear to be at work in Central America, for example, where the civil wars in Nicaragua and El Salvador rendered less secure the neighbouring states such as Costa Rica and Honduras.

Of course, one cannot know precisely which combination of factors and forces is at work in any particular case without detailed case studies, sketches of which will be presented for illustrative purposes below. But the basic point is clear: attempts to uncover simple, linear, and universal causal paths (such as a straightforward link between military spending and wars, or between military spending and economic growth) are almost certainly doomed to miss important elements of the problem, in three ways. First, attempts to "test" in a formal or statistical fashion for linear causal relationships, are prone to uncovering "no relationship" in situations in which many variables may be interacting in complex ways. Hence the possibility of a genuine link between higher levels of military spending and lower rates of economic growth, for example, could be concealed by regional or internal conflict dynamics.<sup>12</sup> Second, by focusing attention on one or two possible negative consequences, the broader range of consequences and potential insecurities - political, economic and social - are obscured and ignored. This cannot lead either to good scholarship or good policy. Third, by neglecting to analyze at all the positive consequences of security expenditures, analysts tend to obscure the legitimate inter-state, internal and human security needs of states and citizens that must be met.

### Indicators and Regional Analyses

How can we proceed from this diagram of possible linkages to an quantitative and qualitative analysis that is sensitive to the complexity of the problem yet which can also lead to useful and policy-relevant knowledge, and possibly to constructive action? One approach is to adopt a regional focus that utilizes some basic quantitative indicators as a starting point for a more contextual analysis. The first step in such an approach is to delimit the specific regional context under examination. In some cases, this is a straightforward question; in others, the precise boundaries of a regional "security complex" ("a group of states whose primary security concerns link together sufficiently closely that their national securities cannot

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<sup>11</sup> A similar "spiral" could exist internally, with government repression of potential threats to the regime leading to greater resistance, and a descent into civil war.

<sup>12</sup> For one attempt to test multiple influences statistically, see Alfred Maizels and Machiko Nissanke, "The Determinants of Military Expenditures in Developing Countries," *World Development*, 14:9 (1986), 1125-1140.

realistically be considered apart from one another"<sup>13</sup>) will be fuzzy and difficult to specify precisely. Even so, there are four powerful reasons to focus the analysis on specific regional contexts. First, there is strong evidence that one of the most important factors affecting a state's level of military expenditure is its immediate external environment. Put prosaically, states in dangerous neighbourhoods spend more on security.<sup>14</sup> Analyses (in particular, arms race models) that focus only on dyadic relationships between pairs of states miss this multilateral dimension of security.

Second, the increased "regionalization" of conflicts since the end of the Cold War has meant that security policies in most of the world are designed and implemented with increasing reference to regional, rather than global (ie: East-West or North-South) conflict dynamics. In general, this can have the side effect of occasionally increasing suspicions and tension in the short-run, as some states find themselves outside of formerly comfortable security umbrellas. Even in cases where extra-regional or global pressures are strong, they are more likely to be similar for states in the same region (unlike the ideological cleavages of the past), and hence can be separated out of the analysis, leaving more regional factors to explain variability in military spending, and possibly excessive expenditures.

Third, a regional focus means that one is more likely to be comparing "apples with apples" when examining the relative burden of security expenditure. The difference in economic, political and social development, and in relative factor endowments, are *inter alia* fewer among, for example, West African or Central American states than between them. Likewise, states in the same region are more likely to share similar "political cultural" attributes. One could, as noted earlier, also classify similar states across regions by, for example, their relative level of wealth, or human development, or military expenditure, but this would only be useful if it were also coupled with a regional analysis (however informal) that helped to supply context.

Finally, from a policy perspective, any prospective measures to diminish the burden of military expenditures will almost certainly be developed, discussed, and implemented in a regional, not global context. Hence only a regional analysis can hope to have much policy-relevance.

The second step in the analysis is to specify a range of possible indicators that could be used to identify states that may be carrying an excessive military burden. This report draws most directly upon eight of them. On the security expenditure side, four are important:

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<sup>13</sup> Buzan, 190.

<sup>14</sup> For evidence on this see Robert Rosh, "Third World Militarization: Security Webs and the States they Ensnare," *Journal of Conflict Resolution*, 32:4 (December 1988), 671-698.

- absolute values of military spending
- military spending as a percentage of Gross National Product
- military spending per capita
- number of soldiers per thousand population

Where useful, reference is also made to the overall size of the armed forces. With respect to the potential negative *consequences* of security spending, use is made of the following four indicators:

- average annual GNP/capita growth
- education spending per capita
- health spending per capita
- political and civil liberties

Where useful (as in Figure 2 above) reference is also made to the Human Development Index.

These indicators are all indirect, in the sense that they do not straightforwardly reflect the security and welfare of citizens (which might be better assessed by such figures as levels of internal and external conflict and deaths, life expectancy, literacy rates, and numbers of political prisoners).<sup>15</sup> They do, however, provide some sense of government priorities and choices for security and broader public spending, and hence are appropriate indicators of possible tradeoffs or opportunity costs. Changes in the absolute levels of military spending, as well as the percentage of GNP devoted to the armed forces can, for example, indicate a changed assessment of the regional or internal threat environment (although low or declining spending might also indicate economic scarcity). Military spending and the number of soldiers per capita places large and small states on a more or less equal footing, and measures the relative "weight" of the armed forces in society. Economic growth figures can capture the possible future investment costs of current military expenditures. Education and health spending illustrate more directly the current opportunity costs of military spending. The last indicator, the level of political and civil liberties, is intended to reflect the possible societal consequences (repressive and authoritarian rule) of excessive weight being placed on the armed forces.

In all cases, the data used is from publicly available sources, and it must be treated cautiously, since the quality of the data is very poor and uneven. As noted above, the comparability of any macro-indicators is suspect, and large differences may not reflect radically different security policies. But again, since the purpose of the analysis is to provide tools that can be used to spur cooperative security dialogues, then publicly-available and recognized data represent a valuable (and sometimes even neutral) starting point.

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<sup>15</sup> For one example, see E. Kick, R. Nasser, B.L. Davis and L. Bean, "Militarization and Infant Mortality in the Third World," *Journal of Political and Military Sociology*, 18 (1990), 285-305. The problem with such analyses, however, is that it is difficult to specify a causal link between the factors, which are undoubtedly mediated by other factors, the most important of which is government policy itself.

Keeping in mind the many data problems that were outlined above, the treatment of the available statistical evidence is informal, and thus no complex statistical manipulations have been performed on the data.<sup>16</sup> Within each regional case study, five basic types of analysis are shown. First, changes in the level of military expenditures over the period from 1983-1993 are given. These can be scrutinized in light of developments in the regional and internal security environment of states in order to determine the nature and possible causes of the shift. Second, the levels of military spending as a percentage of GNP are compared, in order to identify those regional states that are *prima facie* "outliers."<sup>17</sup> This identification of "outliers" in this and other cases is *not* based upon a formal statistical analysis; outlier status is determined purely by visual means, supplemented with occasional contextual observations concerning recent regional or local trends.

The third, fourth and fifth indicators (all given in graphical form) are meant both to illustrate different levels of military burdens and to compare these with different indicators of social, economic and political development. The third indicator compares levels of military spending per capita with levels of combined public health and education spending (in same-year dollars), in order to determine the relative weight of both in government spending priorities, and any possible tradeoff between the two. If there were a clear tradeoff, higher levels of military spending would be associated with lower levels of spending on health and education. Likewise, by comparing the *ratios* of military to social welfare spending, those states that are far from the regional norm can be identified, and a tentative attempt to determine the reasons for this can be identified. When states with similar socio-economic and political structures are also compared, the "best scoring" state in a region can also serve as an illustration of what can possibly be achieved in a region.

The fourth indicator compares the average percentage of GNP devoted to the military (1983-93) to the average rate of economic growth over a similar period (1980-1993). It attempts to illustrate any trade off between economic growth and the foregone investment represented by security expenditures. A strong relationship would associate a high average level of military spending with a lower level of economic growth. Obviously, in this case, however, there are many confounding factors (such as changing raw material export prices, or economic cycles) that will affect any results. Hence the figures are purely meant

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<sup>16</sup> In addition, the small sample size available in most regions makes the most common statistical techniques inappropriate, hence, for example, regressions have not been run on the data.

<sup>17</sup> Although the term "outlier" has a precise statistical meaning, in this report it is used in its ordinary language sense (Outlier: "an outlying portion or member of anything, detached from the main mass or body, or system to which it belongs.." *Oxford English Dictionary*).

to tease out any obvious possible links.<sup>18</sup> Again, no attempt to manipulate the data has been made (by tracking, for example, both series to search for statistically significant correlations over time). Studies that have done so have been cited earlier in the report, and their generally inconclusive findings noted.

The final indicator presented in each regional analysis offers a comparison of the number of soldiers per thousand population with the level of political and civil liberties. This has two purposes. The first is simply to offer an index of the military "presence" in society, to allow comparison between states on another axis of security expenditures. The second is to search for some possible link between security expenditures and political or civil liberties (as an indicator of "human security"). That there might be some link between these factors was suggested in Figure 3, although it compared military *spending* with political freedoms. Since spending does not exert an impact by itself, it made sense to look for a possible mediator, such as the number of soldiers and their relative societal "presence."

It is important at the outset to be clear on what can and cannot be discerned from the data. By themselves, a few data points for several states in a region allow no statistically meaningful conclusions to be drawn. Likewise, simple trend lines (such as declining military spending since the end of the Cold War), or apparent correlations between two variables, do not by themselves tell us what *caused* a change or whether or not the variables are causally linked (and in which direction!). The majority of the judgements made in the cases presented below thus reflect qualitative or contextual assessments, since few statistically meaningful conclusions can be drawn from any of the tables. But since the contextual assessments made in the world of policy-makers depend on *some* interpretation of the available data, it makes sense at least to present the available material systematically, as a springboard for a contextual discussion in different regional contexts.

A few other final caveats should also be noted. There are a range of other possible indicators that could be used and which might prove to be more appropriate (such as levels of political repression, overall government spending, regional conflict indicators). The case studies in this report also do not analyze the possible positive contributions to security that could be made (except by omission), nor do they tackle in a quantitative fashion any aspects of regional or inter-state security. These factors (such as whether or not a state has recently been engaged in a war, or is in a threatening environment) are more appropriately dealt with through "qualitative" analysis. A cursory examination of statistics in such matters is no substitute for detailed contextual analysis. Finally, each of the cases presented in a few pages here could be the subject as an entire report, which took the data provided here merely as a starting point. The purpose of this

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<sup>18</sup> Although it would have been preferable to make use of exactly identical time series, the distortion introduced here is not large at all, since three additional years have little impact on the average of ten.

report, however is to *illustrate how one might use the currently available data*, and the conclusions that are drawn in each section are hence primarily *qualitative*.

### **The Policy Goals of Analysis**

The policy goal that this report seeks to promote can be thought of as a five-step process, only some elements of which will be provided in the case studies offered below as illustrations. First, using publicly-available information, the report attempts to establish regional "baselines" or norms against which comparison of the security expenditure of different regional actors can be made. It is important to note that a state may not stand outside of the norm on some indices, but may do so on others. For example, a resource-rich state (such as Nigeria) in a relatively resource-poor region may actually spend only a small percentage of its GNP on the military, and may hence not appear to be a potentially "excessive" spender, but in terms of the size of its armed forces, it may still have an overwhelming (and possibly even threatening or repressive) military establishment. The use of a variety of indicators, such the number of soldiers per thousand population or military expenditure per capita, allow such differences to be highlighted.

Second, the baseline figures are used to identify "outlier" states in various regions, purely by visual or comparative (not statistical) methods. The indices of security expenditures are then also compared to the economic, social and political indicators noted above, in order to determine in a rudimentary fashion if any of the possible axes of "negative consequences" (inter-state and internal conflict, domestic political and social development, economic development) appear to be associated with high levels of security expenditure. Again, this could vary widely from region to region. In some regions, one would expect the main manifestations of excessive devotion of resources to the armed forces to appear in military spending patterns. In others, it may appear in overly-large armed forces (relative to other states in the region, or to a state's population). In others, the "negative consequences" (such as repression of human rights, or endemic social conflict) may appear even without any clear stimulus from the security sector, suggesting that other factors are at work.

This leads directly to the third, and more qualitative, element of the analysis, which scrutinizes possible explanations for the "outlier" state's pattern of spending. These could include its external threat environment (and recent experience of war), the existence of protracted internal or communal conflicts, or the existence and perpetuation of authoritarian political rule. Several tentative examples can be offered in order to foreshadow the regional analyses to follow. One could, for example, imagine a situation in which a state is a regional "outlier" because it is the "cause" of the regional problem, and represents a threat to its neighbours (one thinks of Iraq or North Korea here). Conversely, Israel also scores high on

several different indices of the resources it devotes to the military, but this is may be in large part explained by the regional insecurities and threats it faces.

One could also expect to uncover states or regions (such as Central America) that devote relatively low amounts of resources to the military (in terms of percentage of GNP), but which are still prone to acute insecurities. In this case, the level of inter-state conflict appears low (and hence regional "arms racing" does not appear important), but the domestic consequences of military spending may be much more important (endemic civil conflict and a difficult transition to representative rule). Conversely, there may be little relationship in a particular region between levels of expenditure and authoritarian rule, in which case policies to advance a democratic transition ought not to focus extensively on security expenditures, but perhaps on other factors, such as fostering reforms within civil society.

The fourth stage of the process requires the identification of possible instruments of policy change that are available to the international community. To date, attention has focused more on positive inducements than sanctions, but even this requires that the international community have some leverage relationship with the state or states in question. In order to assess this question, the last section of this report examines two other statistical indicators: the public debt and foreign aid position of various states and regions. It has already been noted that the list of possible outlier states does not appear at first glance to line up easily with major international foreign aid recipients or debtors. A more fine-grained analysis is needed, however, if only to avoid the situation where the only states who are systematically pressured to lower security expenditures are those over whom the international financial community has leverage. This could lead to the paradoxical situation where such pressure actually exacerbates regional and internal insecurities!

Finally, the information can be used to engage in a bilateral and multilateral policy dialogue, at the regional, bilateral, and multilateral levels. Again, it cannot be stressed too strongly that the goal is to provide the tools and information for catalyzing the dialogue, in a fashion analogous to confidence- and security-building processes. It presumes that, except in extreme cases, a cooperative approach will be undertaken, and that a certain degree of willingness to participate in regional confidence-building is present. With all but the most extreme hard-line, authoritarian or threatened regimes, this is not an unreasonable assumption, since one hallmark of the post-Cold War order has been the publicly-expressed desire of the majority of states to find ways to reduce their level of security expenditure without jeopardizing either external or regime security. Identifying what some of the necessary preconditions are for such progress is a central goal of this report.

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## Regional Case Studies

The main body of this report is a series of brief case studies that seek to demonstrate how the available quantitative data can be used in specific regional contexts to help identify states that are potentially devoting excessive resources to security expenditures. The six regions and sub-regions that have been selected are Central and South America, East, Southern and Central Africa, and Southeast Asia. Although it would be desirable to do case studies of all regions in a more comprehensive analysis, the utility of the approach can be demonstrated from these six, and can perhaps serve as the foundation for more comprehensive analyses. Likewise, it would have been desirable to include a "developed world" region (such as Central Europe), but three considerations precluded it. First, the transition from command economies has resulted in large drops in military spending, and an ongoing restructuring of armed forces that makes comparisons difficult. In fact, about 80 percent in the drop in world military spending that has occurred since 1987 has taken place in Eastern Europe, although it has also been accompanied by a huge drop in the regions' economic output. Second, many newly-independent states do not have a long enough experience of independence to make regional comparisons (such as in Central Asia) useful. Finally, it is in the less-developed regions of the world in which the greatest concerns have been raised about the tradeoffs between international lending/foreign aid and security expenditures, or between military and social expenditures, and hence states in these regions provide a better starting point for the discussion.

In each regional case study, the goal is to show how such an analysis could be a useful tool in policy formulation. It is *not* intended to create "targets" against which inducements or coercive policies should be directed, but rather to provide a means to stimulate a regional policy dialogue (with extra-regional participation by donor states) about the most appropriate means to reduce the regional and national burden of military expenditures. In some case, the result could be external security assurances, in others, assistance with preventive diplomacy or post-conflict peace building, in still others, coercive policies designed to isolate extremely recalcitrant states may be appropriate. In no case can the appropriate policy be determined *a priori*.

The most important objective of the analysis would be to advance dialogue simultaneously on both the "development" and "security" sides of the conflict-security-development nexus, as suggested by the Canadian strategy document on "Reduction of Military Expenditures in Developing Countries." Within the development side, such an analysis can contribute towards a "methodology for defining 'good performers' and 'excessive military expenditures'" and can help to "integrat[e] the military spending issue

into the ODA process, within the context of other priorities and country or regional strategic frameworks."<sup>19</sup>

On the security side, the objective is to encourage security dialogues within the appropriate regional forums concerning the appropriate "size, technical composition, investment patterns, and operational practices of all military forces"<sup>20</sup> in the region, along the lines suggested by the concept of "cooperative security" that was outlined above. One of the first elements of all regional security dialogues is often an attempt to reach a consensus on the nature of the "problem" (if any). States that are encouraged by the process to explain the thinking behind their security expenditure decisions (or even to explain why publicly-available data may misrepresent their situation) are already engaged in a rudimentary exercise in transparency and confidence-building, which might even serve in itself to defuse regional and domestic tensions. The deescalation of rivalry and tension between Argentina and Brazil after their return to democratic rule, for example, highlights the possible impact of such transitions on regional security issues.<sup>21</sup> With respect to domestic transparency, greater involvement by NGOs or other stakeholder groups in security policy-formulation could be encouraged by increasing the amount of information that is publicly available. Similarly, a reluctance to increase transparency in the security budgeting and decision-making process does at least imply that a state is not fully engaged in or committed to democratic norms of openness and good governance. But all of these measures presuppose a careful diagnosis of the nature of the problem (if any), of excessive security expenditures. The report begins with an exploration of these issues through a presentation of the situation in Central America.

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<sup>19</sup> From the framework for action of "Reduction of Military Expenditures in Developing Countries: Canadian Strategy Document," 18 June 1996. See also *Military Expenditures in Developing Countries and Arms Control*, report of the consultations sponsored by the Department of Foreign Affairs and International Trade and the North-South Institute, 26 March 1996.

<sup>20</sup> Ashton Carter, William Perry and John Steinbrunner, *A New Concept of Cooperative Security*, (Washington: The Brookings Institution, 1992). 6.

<sup>21</sup> See Thierry Riga, *Une approche coopérative de la non-prolifération nucléaire: l'exemple de l'Argentine et du Brésil*, UNIDIR Research Papers 29 (1994).

## The Central American Security Complex

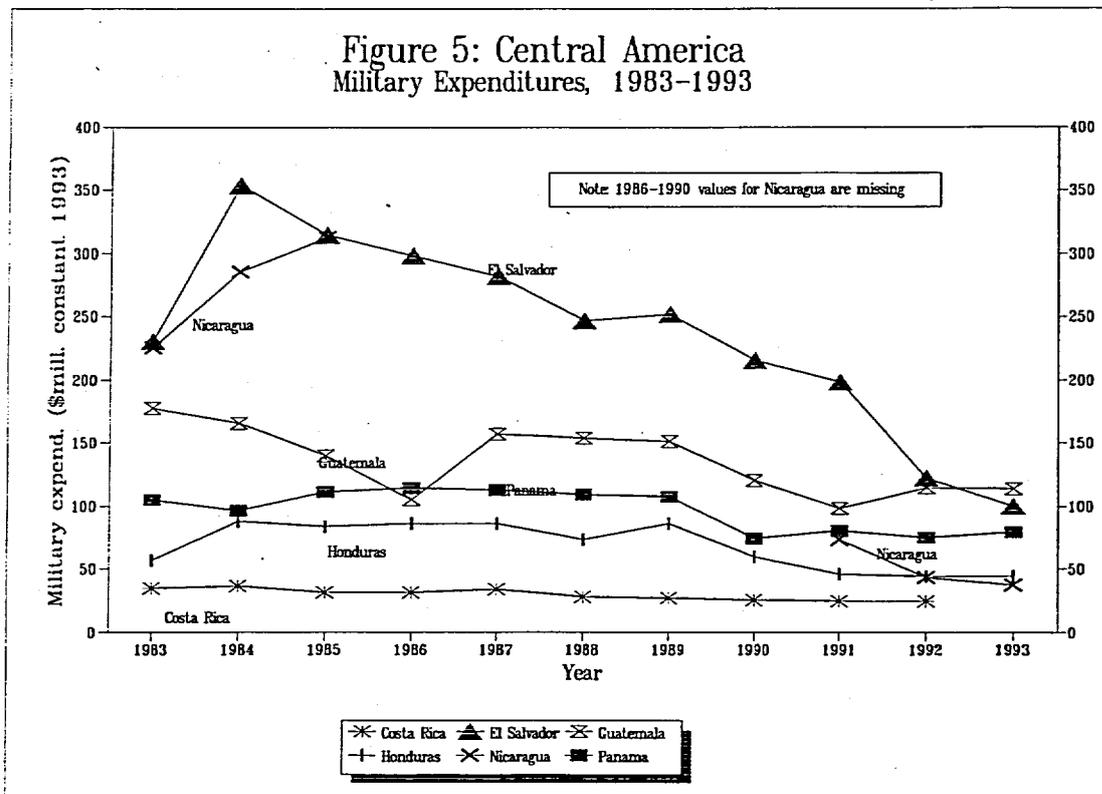
Central America has been witness to some of the most destructive and protracted internal conflicts of the last two decades. The civil war between the Sandinista government and the contra rebels in Nicaragua, between the armed forces and various insurgent groups in El Salvador and Guatemala, and the toppling of General Manuel Noriega by American intervention in Panama, has taken a large toll on the economic, political and social life of the region. Direct external threats between states have been relatively few (the main one being a territorial dispute between Guatemala and Belize), but the spill-over consequences of unrest and insurgencies have been a source of cross-border insecurity, especially for states such as Costa Rica, which does not formally maintain a national armed force (although it does have a paramilitary civil guard). By far the most important issues are regime and societal/human insecurities, generated by the explosion of crime in these states (and the relative inability of national police forces to cope with it), the precarious economic welfare situation of large segments of the population, and the relatively marginalized position of the indigenous populations in some states. These "indirect threats," when coupled with a poor distribution of wealth and relatively weak governance structures (often corrupt), have often resulted in direct consequences - political repression and instability, and social unrest. This general context of insecurity needs to be kept in mind when evaluating the appropriateness of the region's security expenditures.

Since the early 1990s, many of the region's states have started on the road to political democratization and economic reconstruction, one element of which has also been a regional multilateral effort to enhance "democratic security."<sup>1</sup> The most clear evidence of this is presented in Figure 5 below, which charts the decline in the security spending of the states of the region (except Belize). States such as El Salvador and Nicaragua have cut military spending dramatically, from highs of more than \$300 million annually in the early 1980s, to levels of about \$100 million and \$50 million respectively. Guatemala and Honduras have also reduced spending, although not to the same degree, and security expenditures in Panama and Costa Rica (which are not technically "military," since these states do not have armed forces in the traditional sense) have remained relatively constant over the past decade.<sup>2</sup> This table at least implies that security

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<sup>1</sup> Discussions in late 1995 between foreign and security ministers of the regional states resulted in a Regional Democratic Security Treaty that includes elements concerning greater regional transparency and information exchanges, and other confidence-building measures (which could include reductions in military forces and spending). It has not, however, been ratified. *Summary of World Broadcasts, Latin America and the Caribbean, EE/D2466/L, 20 November 1995.*

<sup>2</sup> The 1992 and 1993 entries for Panamanian security expenditures are from the International Institute for Strategic Studies, *Military Balance, 1995-96* and *1993-94*. ACDA lists zero as the military expenditures for Panama for 1992 and 1993, as a consequence of the army having been formally abolished. Security forces, and security expenditures, have not vanished, however.



spending may be responding to internal rather than inter-state security concerns, since changes in spending do not appear to be related to any particular inter-state conflicts in the region. Once again, however, the quality of the data is too poor to allow greater comparisons or more precise conclusions.

The positive signs of Figure 5 do not, however, mean that military expenditures impose no ongoing negative burdens or consequences on the states of the region. Figures 6 to 9 on the following pages illustrate some different ways of analysing these impacts. The raw data on which this is based is also provided in Table 1, and the explanation of why these indicators were chosen and compared appears in the previous section of the report.

Figure 6 lines up the seven regional states according to their level of military expenditure as a percentage of GNP. It shows that most states in the region fall in the same narrow band for spending, between 1.0 and 1.5 percent of GNP. In global terms, this is relatively low. The highest spender, Nicaragua (2.6 percent of GNP), has been reducing its spending since the end of the war, but still appears to be an "outlier" in the regional context. Further support to efforts to bring its spending in line with the rest of the region may be appropriate. Likewise, Costa Rica's low level of resources devoted to security expenditures again illustrates what can be achieved in the region.

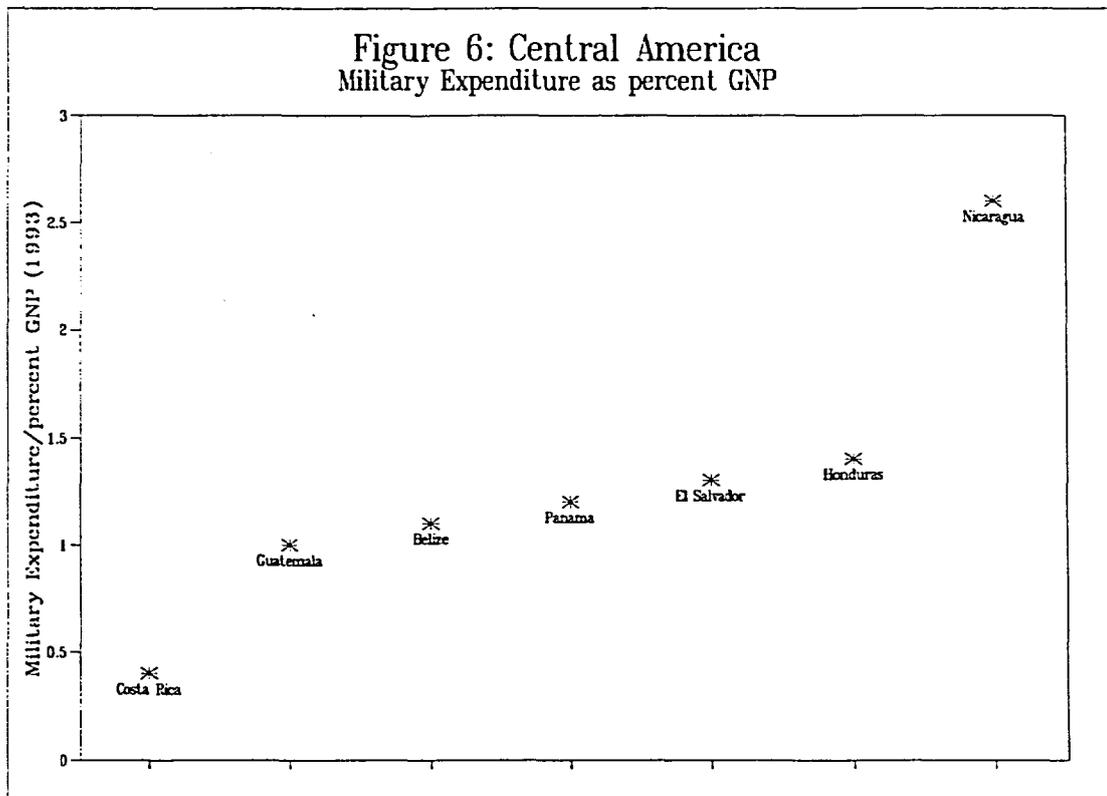
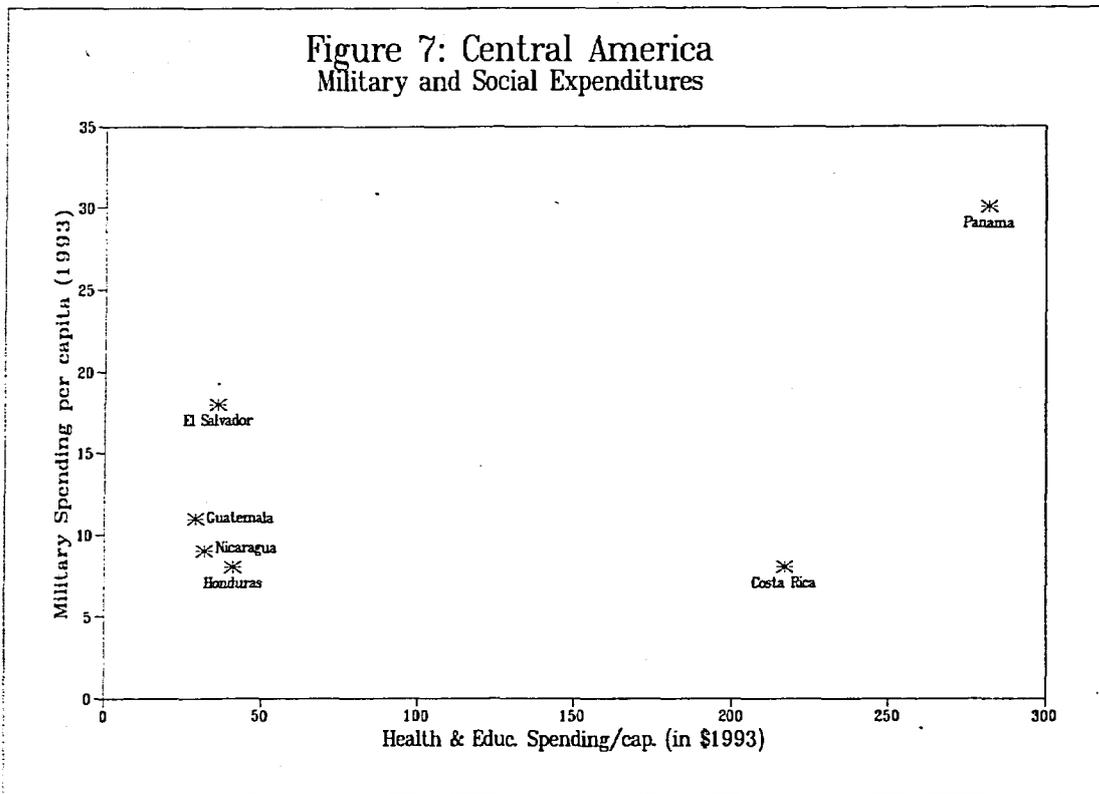


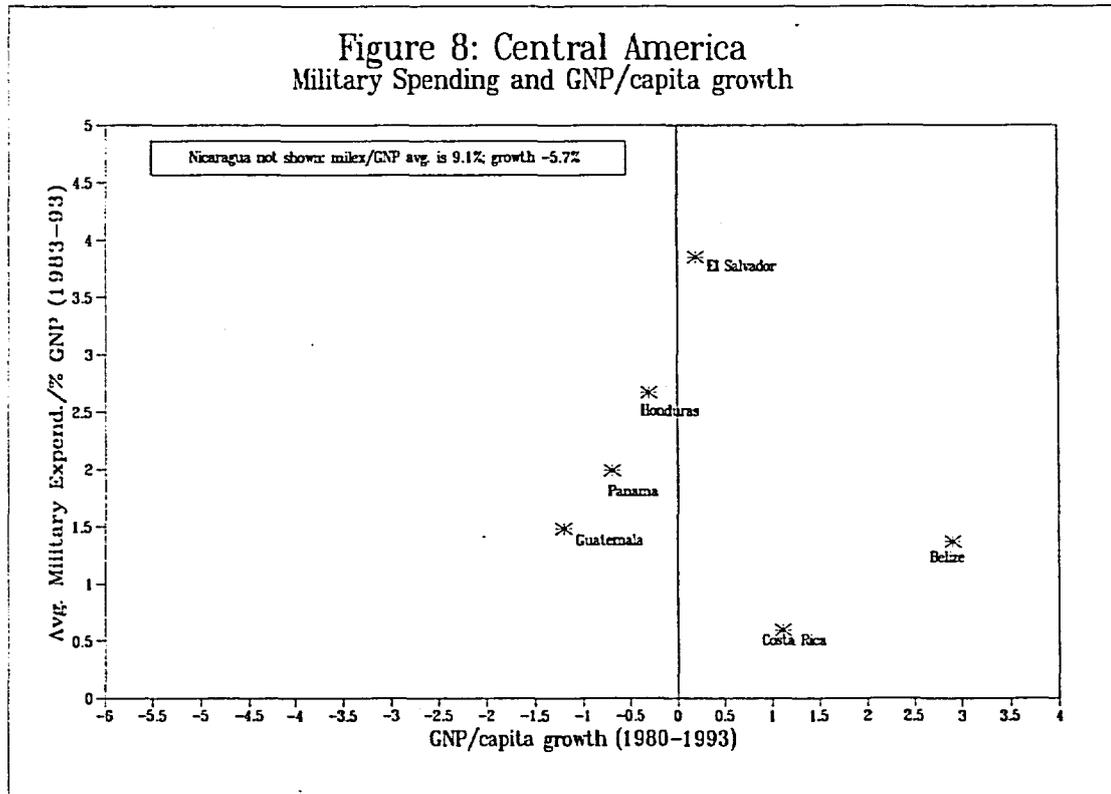
Figure 7 graphs combined public expenditure on education and health per capita against security expenditure per capita (with all figures shown in 1993 dollars). The lowest security spenders are Costa Rica, Honduras and Nicaragua, while El Salvador and Panama spend double and triple (per citizen) the average of the other four states shown. On the other hand, there is no straightforward relationship between social welfare and security spending, since the two states on each ends of the spectrum (the lowest and highest security spenders), Costa Rica and Panama, both spend large amounts on health and education.<sup>3</sup> In between, however, states such as Nicaragua, Guatemala and El Salvador all spend relatively very small amounts on social welfare. One simple indicator that allows a comparison of states at radically different levels is the *ratio* between security spending per capita and combined health and education spending per capita. Only one state, El Salvador, scores relatively poorly, with a ratio of one dollar for the military to every 2.0 dollars to health and education. Guatemala and Nicaragua score better, with 1:2.6 and 1:3.5 ratios respectively, and all the other states in the region are considerably above this level.

<sup>3</sup> Data for Belize was not available.



The explanation for some of this is not hard to find: the ability of a state to invest in social welfare increases as its average level of economic development increases. Costa Rica and Panama, with per capita incomes of about \$2,150 and \$2,600 respectively, are by far the wealthiest in the region, with incomes twice as large as Guatemala and El Salvador, and several times greater than Honduras. They also score much higher on the Human Development Index (in the same range as Portugal and Poland) than their neighbours, who are ranked in the same range as Indonesia, Vietnam or Morocco.

The Panamanian situation is unique because of the historically overwhelming American presence. Costa Rica, on the other hand, which prides itself on a long history of demilitarization and a generous social welfare system, provides an example of what is in principle "achievable" in the region: low levels of military spending, relatively high wealth, and political and civil freedom. There is nothing particularly remarkable about Costa Rica's resource endowment, and although it does have a very homogenous social structure (few class or racial divisions), a major difference in its situation appears to be previous political choices made concerning the role of the armed forces and civil-military relations.



This is also confirmed by the data in Figure 8, which compares economic growth rates throughout the 1980s to the average of military spending as a percentage of GNP over roughly the same period. With respect to any *relationship* between economic growth rates and security spending, there does appear at first glance to be at least a weak relationship between levels of military spending and economic growth, with most states falling near a diagonal from the upper left to lower right corners of the figure. Obviously, however, this is not a statistically significant relationship, since the number of data points are too small to support regression analysis. In any case, it is clear that Costa Rica and Belize, the states that have experienced the lowest levels of civil strife, are the only two regional states that have enjoyed sustained economic growth over the past 15 years. Economic growth has been virtually stagnant in the rest of the region throughout the 1980s, and the war in Nicaragua resulted in the near-total destruction of the economic base of the country. This at least implies that the prospects for future economic development are crucially linked to the resolution of the region's internal conflicts, and to the freeing up of resources for productive investment.

Likewise, differences in wealth do not mean that the poorer regional states could not in principle reallocate some resources from security expenditure to social welfare. Given the figures illustrated in Figure 7, for example, both Panama and El Salvador stand out as states whose level of security expenditure and GNP per capita (triple and double the regional norm) could sustain a shift in resource allocation from the military to social welfare sectors. El Salvador appears to be an interesting case, since the dramatic declines in military spending marked in Figure 5 do appear to have generated a "peace dividend," as measured by public investments in education and health (these rose from \$23 dollars per capita in 1990 to \$36 in 1994 (in current dollars)). But although El Salvador is roughly twice as well off as Honduras, it still spends only about the same amount per capita on health and education.

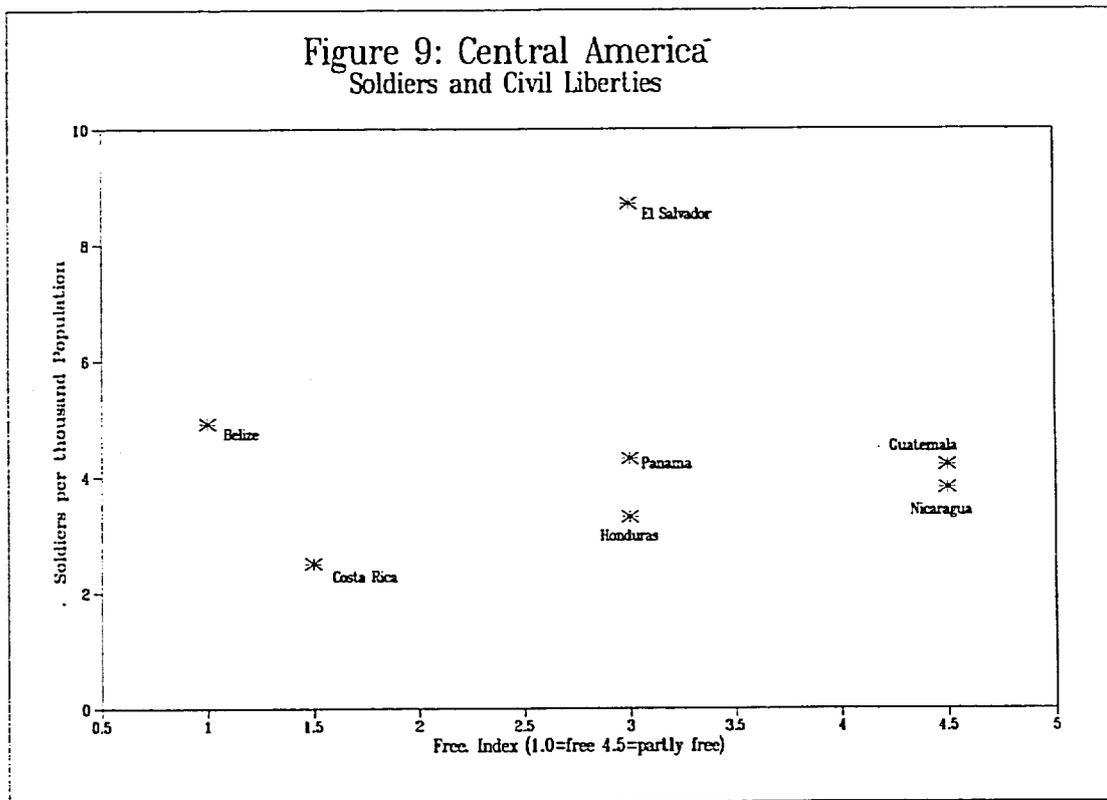
The potential magnitude of the displacement effect that could (in principle) be a consequence of military spending is also significant. Central American states spend between eight and 30 dollars per capita on the armed forces, but between 29 and 282 dollars per capita on combined health and education. The direct displacement effect is thus small for states such as Costa Rica or Panama (where a total transfer of security spending to health and education spending would not increase the latter by much), but rather large for El Salvador, Nicaragua and Guatemala. A near-total elimination of military spending could (again, in principle) be used to increase combined education and public health spending by anywhere between 28 and 50 percent (the Nicaraguan and El Salvadoran cases respectively). It must be noted, however, that the Central American experience shows that the reinsertion of demobilized soldiers into society is extremely costly and difficult to execute.

Finally, Figure 9 attempts to assess indirectly the relationship between the "military burden" (number of soldiers per thousand) and the level of political and civil freedom. Concentrating strictly on the military presence in society, El Salvador in 1993 ranked far above the regional norm of between 3 and 5 soldiers per thousand citizens. This is obviously a product of the civil conflict, although more recent figures show that the size of the armed forces has been reduced to the levels agreed in the 1992 Chapultepec accords, which cut the armed forces from its high of 60,000 down to 30,000. This brings El Salvador much closer to the regional average.<sup>4</sup> It should also be noted, however, that in historical terms, all Central American armed forces are much larger than they were in the early 1970s - at a time when most states in the region laboured under military dictatorships or authoritarian regimes.<sup>5</sup>

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<sup>4</sup> *Military Balance, 1995/96*, reports current strength at about 30,500, which would represent about 5.4 soldiers per thousand, still the highest in the region.

<sup>5</sup> El Salvador's force is six times as strong as during the mid-1970s; Guatemala's is triple in size; Honduras' and Nicaragua's forces are double their mid-1970s size. I am grateful to Hal Klepak for these figures.



Comparing the two sets of figures, Figure 9 again places Costa Rica on the "most free, least militarized" end of the spectrum, with both Nicaragua and Guatemala standing out on the other end as states in which political and civil rights were the least well respected. The poor "freedom index" of Nicaragua is in part an aberration, since it marked a dramatic drop from its previous level of 3.0, and was directly connected to concerns over civilian control of the armed forces.<sup>6</sup> The situation in Guatemala remains fairly bleak, with the armed forces "remain[ing] the final arbiter in how the nation is run."<sup>7</sup>

What overall conclusions can be drawn from this survey of Central America? Three states, El Salvador, Nicaragua and Guatemala, stand out as potentially problematic states on different indices, but not all of the data suggests that their outlier status can be directly connected to the level of resources devoted to the military. Nicaragua in 1993 was an outlier on the relatively high proportion of its GNP devoted to the armed forces, and the key questions would be whether or not it can be encouraged to reduce still further towards the regional norm, and whether or not as a result of the ending of the civil war economic growth

<sup>6</sup> In particular, over the ongoing presence of Humberto Ortega as chief of the armed forces. He has since resigned, and the level of political violence has dropped. Information on Nicaragua and Guatemala from Freedom House, *Freedom in the World, 1993-94*.

<sup>7</sup> *Freedom in the World, 1993-94*, 281.

and reconstruction is taking place.<sup>8</sup> Guatemala scores badly on its level of civil and political liberties, has a poor economic record, and low levels of social spending. It does not, however, struggle under a large military burden, either in absolute dollar terms, as a percentage of GNP, or in terms of the relative size of the armed forces. This suggests that the diagnosis of what needs to be changed in Guatemalan political and economic life cannot focus solely on the resources devoted to the military. El Salvador, by contrast, still has a large armed forces and relatively high military expenditures per capita, and appears to present an opportunity for significant benefits to be reaped from a reallocation of resources. Given the international and regional involvement with the post-conflict peace building process, it might be the most appropriate focal point in Central America for further efforts at regional demilitarization and democratization.<sup>9</sup> All states in the region, however, face significant internal security threats (in particular from crime), and few have yet found a successful balance between military and policy security functions. Obviously, more is at work in the region than the simple impact of military spending on regional, internal, and human security.

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<sup>8</sup> Recent evidence for 1994 and 1995 suggests, however, that military expenditure levels have stopped declining in the region. See *Military Balance, 1995/96*, and data supplied by the Foundation for Development, Peace and Democracy (Arias Foundation), reported by *Xinhua News Agency*, 17 June 1995.

<sup>9</sup> Honduras, by contrast, has been somewhat of a success story, with recent efforts to abolish the draft, increase civilian control over military activities, and separate internal police functions from the military. Military spending is still, however, not transparent. *International Herald Tribune*, 25 March 1996.

**Table 1: Central America**

**Military, Economic, Social and Political Indicators, Early 1990s**

Country	Military Expend. (\$ million, constant 1993)	Military Expend. % GNP	Military Expend. per capita (constant 1993\$)	Armed Forces ('000s)	Soldiers per '000 popul.	Human Development Index (rank)	Education Spending (per capita, 1994)	Pub. Health Spending (per capita, 1994)	Polit. & Civil Liberties (rating)	GNP per capita (\$1993)	Average ann. growth (1980-1993), percentage
Belize	6	1.1	27	1	4.9	88	n.a.	n.a.	1.0	2450	2.9
Costa Rica	24	0.4	8	8	2.5	39	104	113	1.5	2150	1.1
El Salvador	100	1.3	18	49	8.7	112	22	14	3.0	1320	0.2
Guatemala	113	1.0	11	44	4.2	108	18	11	4.5	1100	-1.2
Honduras	44	1.4	8	17	3.3	115	24	17	3.0	600	-0.3
Nicaragua	37	2.6	9	15	3.8	106	15	17	4.5	340	-5.7
Panama	79	1.2	30	11	4.3	47	142	140	3.0	2600	-0.7

**SOURCES:**

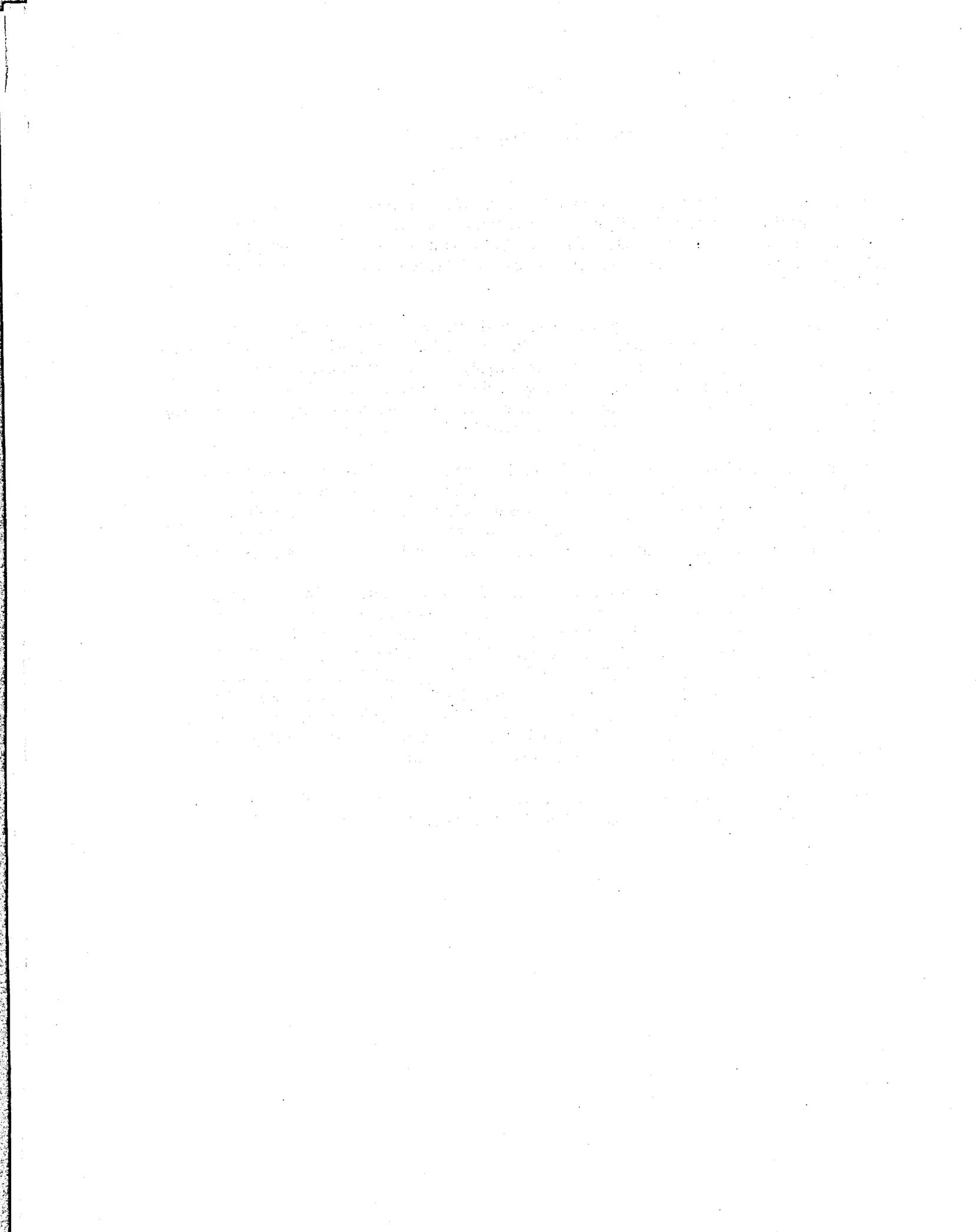
Columns I-V from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, 1993 data or closest available year. Columns I and II are 1991 data for Costa Rica; Columns I-III for Panama are from International Institute of Strategic Studies, *Military Balance, 1995-96*.

Columns VI from UNDP, *Human Development Report, 1994*, tables 21 and 43.

Columns VII and VIII from Ruth Leger Sivard, *World Military and Social Expenditures, 1996*.

Column IX from Freedom House, *Freedom in the World, 1993-94*, and figures are for 1993.

Columns X and XI from World Bank, *World Development Report, 1995*.



## The South American Security Complex

Like Central America, South America (here excluding Mexico and the Caribbean) has not in general been prone to inter-state violence. Aside from a traditional rivalry between Argentina and Brazil, the only recent violent conflict occurred between Peru and Ecuador in 1995, over a long-standing border dispute. The month-long dispute claimed hundreds of lives and millions of dollars of equipment, and was estimated to cost the two states between \$350 and \$600 million dollars - or between 40 and 70 percent of their annual combined defence budgets!<sup>1</sup> Whether or not this will have any future impact on defence spending in the region (in particular on Ecuador) is not clear. Conflicts between Colombia and its neighbours Ecuador and Venezuela have cost lives in recent years, and other unresolved conflicts (mostly over border issues) exist between Chile and Bolivia, Chile and Argentina (the Beagle Channel), and Venezuela and Guyana, but these have not recently erupted into violence.<sup>2</sup> Nevertheless, despite low levels of interstate violence, the region is not free from such insecurities.

More significant insecurities stem from internal sources and threats to governing regimes: from the destabilizing effect of the international drug trade (affecting most directly Columbia, Bolivia and Peru, although also affecting most other regional states to some extent), from guerrilla activities (Peru), and from the threat posed by the armed forces to civilian rule (Venezuela, Paraguay, Chile). Democratic transitions, in particular in Argentina and Brazil, appear to be relatively well-entrenched and making great economic and political strides, but in the rest of the continent the situation, while hopeful, is less clear.

Figures 9 and 10, which display the overall pattern of military spending over the past decade, confirm some of these general observations. For ease of presentation, the data have been presented in two figures, one covering the northern "Andean" region (plus Venezuela); the other covering the Southern cone states. The two largest spenders, Argentina and Brazil, are listed in Figure 9. They have not, despite their geopolitical rivalry, engaged in any systematic arms racing (at least not in terms of military spending). In fact, their spending patterns have been exactly opposed since the early 1980s.<sup>3</sup> Argentinean spending dropped dramatically in the aftermath of the Falklands/Malvinas war and the transition to civilian rule, reaching a level in 1991 that was only one-third what it was in 1984 before increasing somewhat in the early 1990s. Brazilian spending, by contrast, rose steadily throughout the 1980s, only to start a decline that still left it in 1993 50 percent higher (in constant dollar terms) than its 1983 level. More recent figures

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<sup>1</sup> *Military Balance, 1995/96*, 201. Peru and Ecuador also had widespread fighting on their border in 1981.

<sup>2</sup> Argentina and Chile went to the brink of war in 1978 and 1982, and Venezuela raided Guyana in 1969. Of course, Argentina also fought the Falklands/Malvinas war with Britain in 1982.

<sup>3</sup> It is, however, possible that Brazilian spending increases in the mid to late 1980s were a delayed response to the Argentinean buildup associated with the Falklands/Malvinas war.

Figure 10: Southern Cone  
Military Expenditures, 1983-1993

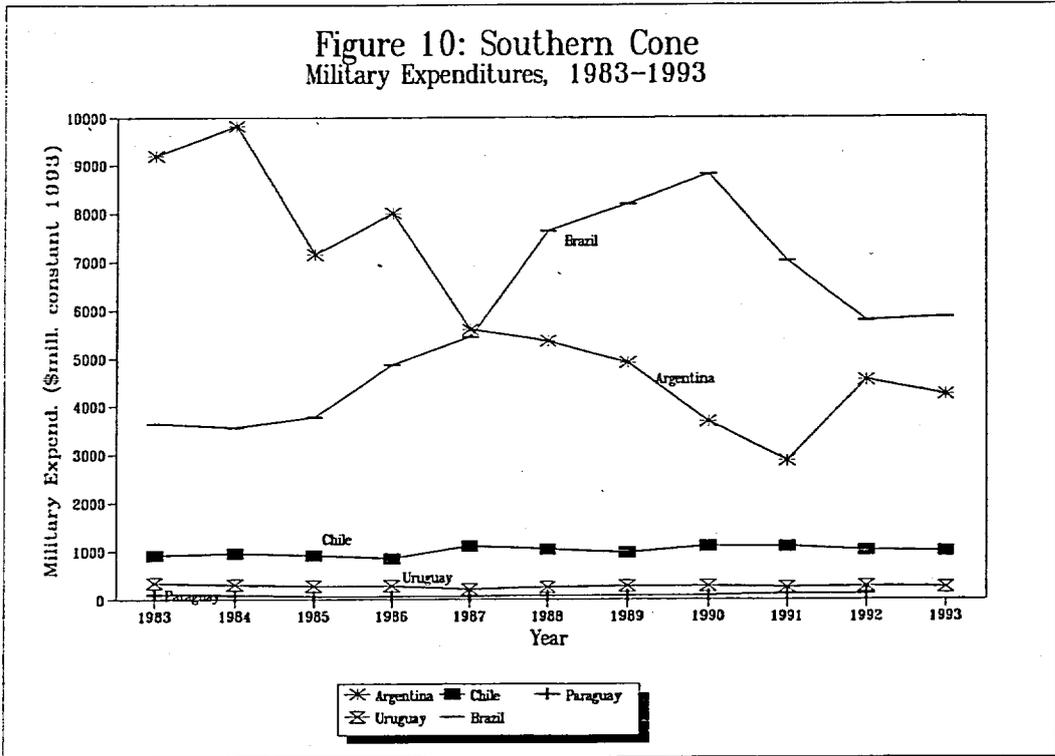
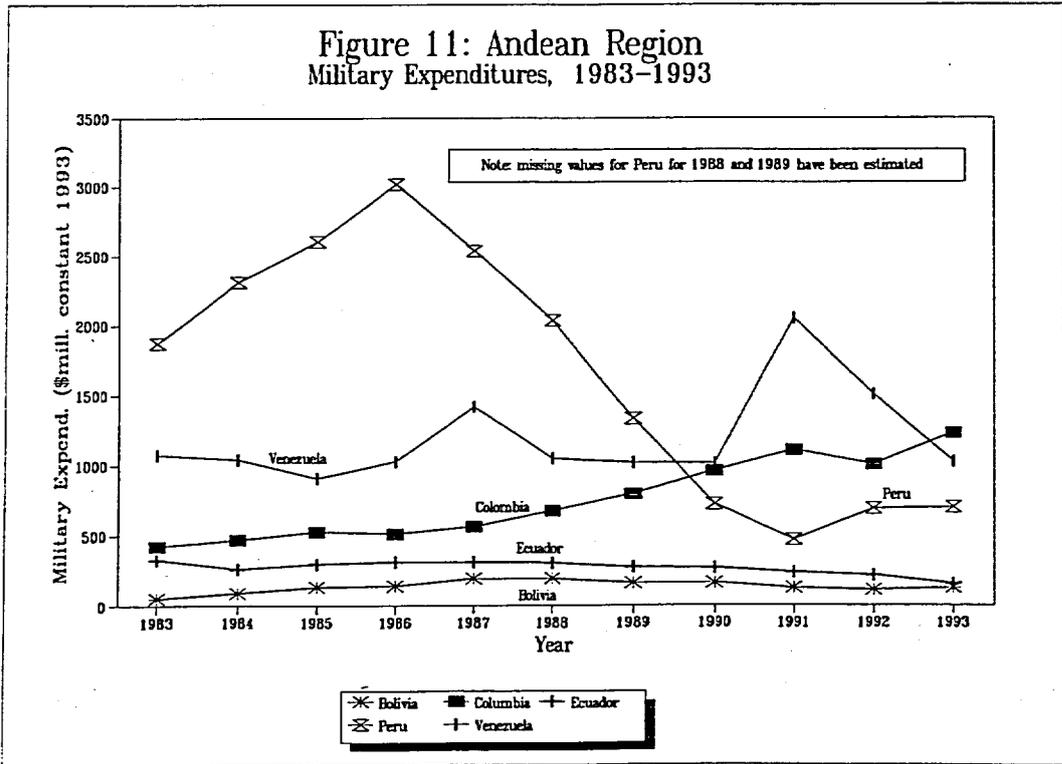
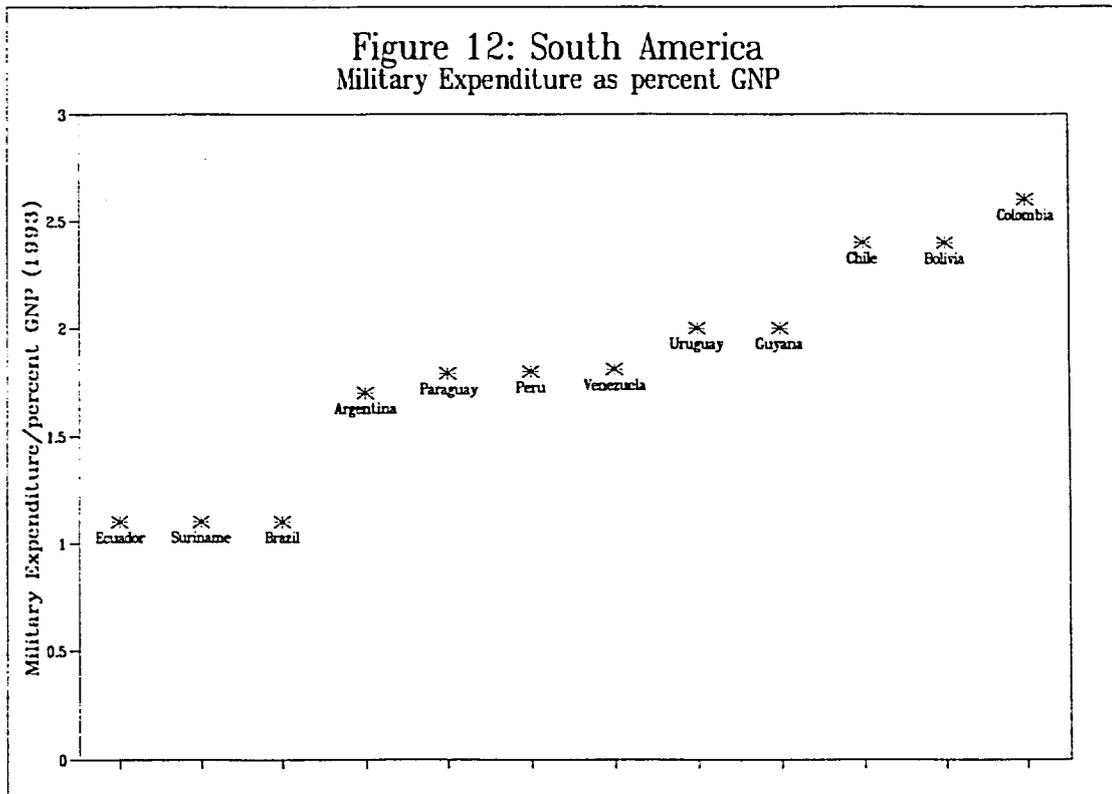


Figure 11: Andean Region  
Military Expenditures, 1983-1993



suggest that spending has remained at more or less the same levels since 1993.<sup>4</sup> The three other Southern Cone states, Chile, Paraguay and Uruguay, have retained more or less constant spending levels throughout the period.

Figure 11 presents another mixed picture. It demonstrates the sharp decline in spending by Peru, as its battle against the *Sendero Luminoso* movement became more and more effective. By contrast, Colombia has steadily increased its military spending as a partial consequence of its "war on drugs," and the



tremendous levels of societal violence that have resulted. Other figures suggested that Colombian spending since 1993 has mushroomed to more than two billion dollars per year, nearly double the 1993 figure.<sup>5</sup> The

<sup>4</sup> See "Latin America's Armies No Longer Armed to the Teeth," *Inter Press Service*, 26 April 1996.

<sup>5</sup> "Latin America's Armies No Longer Armed to the Teeth," *Inter Press Service*, 26 April 1996. This figure may not be directly comparable with the ones used above.

other northern states, Venezuela, Bolivia and Ecuador, have remained roughly at constant spending levels (in spite of the large upward spike in Venezuelan spending in 1991).

Despite its long history of military rule and militarization, South America does not in general devote large sums to the armed forces (again confounding the quest for straightforward relationships). Its overall level of military spending is about 1.4 percent of GNP, well below the global average of 3.3 percent.<sup>6</sup> Nevertheless, the region still presents some clear examples of states that depart from the regional norm, and which might be the legitimate focus of efforts to reallocate resources away from the military. These states are highlighted in Figure 12, which lists South American states by their percentage of GNP devoted to the military. The regional norm falls between one and two percent, but three states - Chile, Bolivia and Colombia, are considerably above it. Although two of these states are engaged in a struggle against the societal and violent consequences of drug production and trade, Chile does not *prima facie* seem to face such a high threat. In fact, the Chilean figures may even be dramatically understated, as a careful accounting of extra-budgetary funding and other spending (military pensions, in particular) suggest that real spending may be two-third higher than public sources indicate.<sup>7</sup>

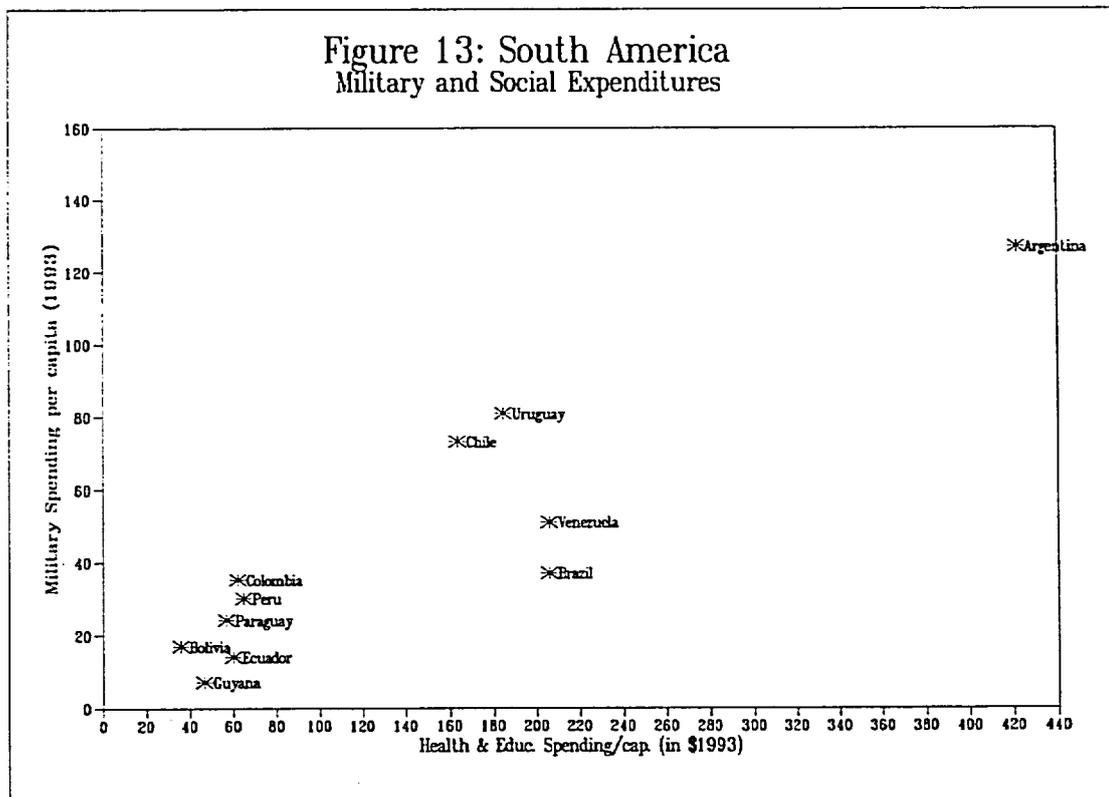
Figures 13 to 15 attempt to tease out any relationship that might exist between the levels of resources devoted to the security apparatus and the possible negative economic and political consequences that might ensue. Figure 13 presents military versus social welfare (health and education) spending, and it indicates that most states are grouped in a fairly narrow band of possible combinations, with some states doing much better than the bulk of the region, but few doing dramatically worse than all others. There also does not appear to be a straightforward "guns/butter" tradeoff; if there were, states would be arranged along a diagonal from the upper left to the lower right corners. If anything, states are arranged in the opposite fashion (lower left to upper right corners); this suggests strongly that military spending is in part a function of overall economic activity. In a growing (or wealthy) economy, with rising (or relatively high) government revenues, more resources are devoted both to the social and military sectors, irrespective of changes in the external or internal threat environment. Of course, the precise historical context matters a great deal, and the experience of some South American states under military or authoritarian rule shows how dramatically resources can be directed towards the military during times of economic plenty.

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<sup>6</sup> United States, Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers, 1993-1994* (Washington: ACDA, 1995).

<sup>7</sup> Because of relatively low levels of transparency, other states may also be as egregious in their under-reporting. See *Military Balance, 1995/96*, 202. Ecuador, for example, may also be under-reporting its defence spending by as much as one-third.

There are also no prominent negative outliers in Figure 13. The worst ratios of military to social welfare expenditure (which place a state "further" from an imaginary diagonal running from bottom left to upper right of the table) are found in Colombia (1:1.7), Peru and Bolivia (1:2.1), but Chile, Paraguay and Uruguay are all in the same grouping (1:2.2 or 1:2.3). By contrast, Brazil and Guyana score well on the positive side of the table, with ratios of 1:5.5 and 1:6.6 respectively; they indicate what kinds of progress could be achieved in the region. The lessons of Brazil can serve as a model for states that are similar (in terms of GNP/capita, for example), such as Uruguay or Chile; while Guyana shows what the poorest state can achieve. Unfortunately, many other states in the region are faced with a daunting array of internal threats that would make dramatic shifts from military to social welfare expenditures difficult to entertain,



in spite of the clear gains that could be made in social welfare spending. A reduction in per capita spending of 50 percent by states such as Bolivia, Colombia and Peru, for example, could (obviously, only in principle) facilitate increases in social welfare spending of between 23 and 28 percent. Whether such a tradeoff could still alleviate the precarious human and societal security situation caused by the drug trade in these countries, however, is impossible to say.

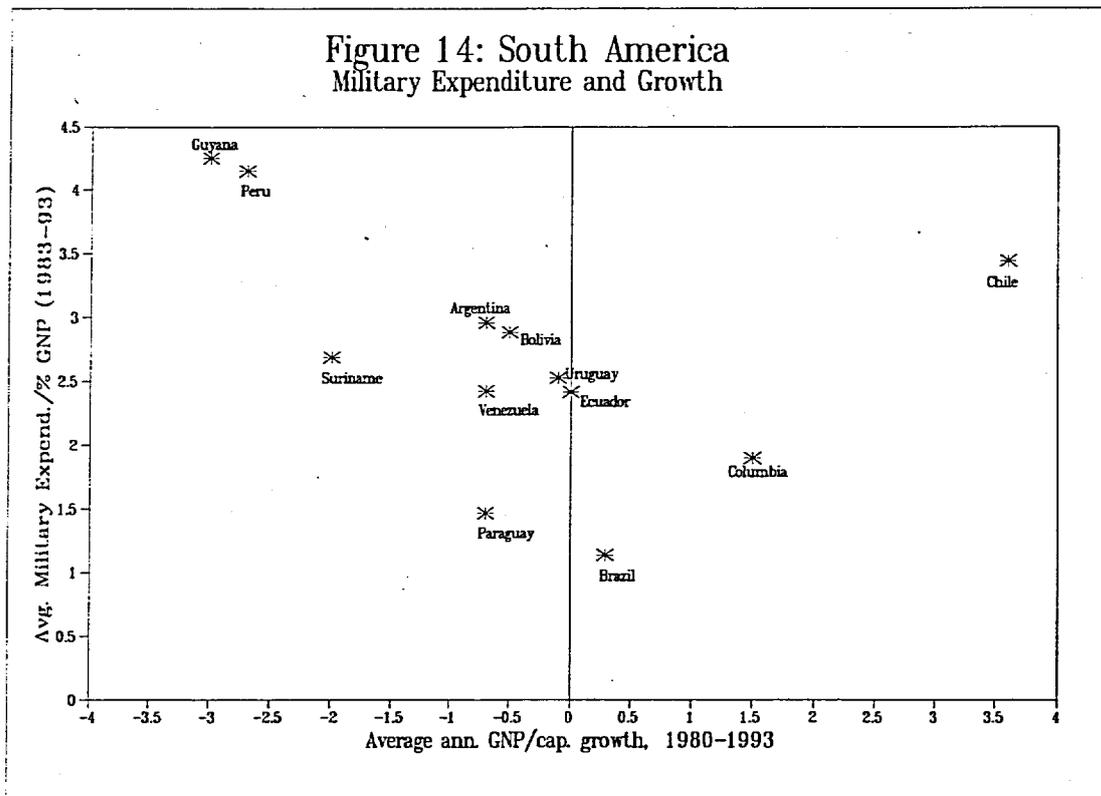
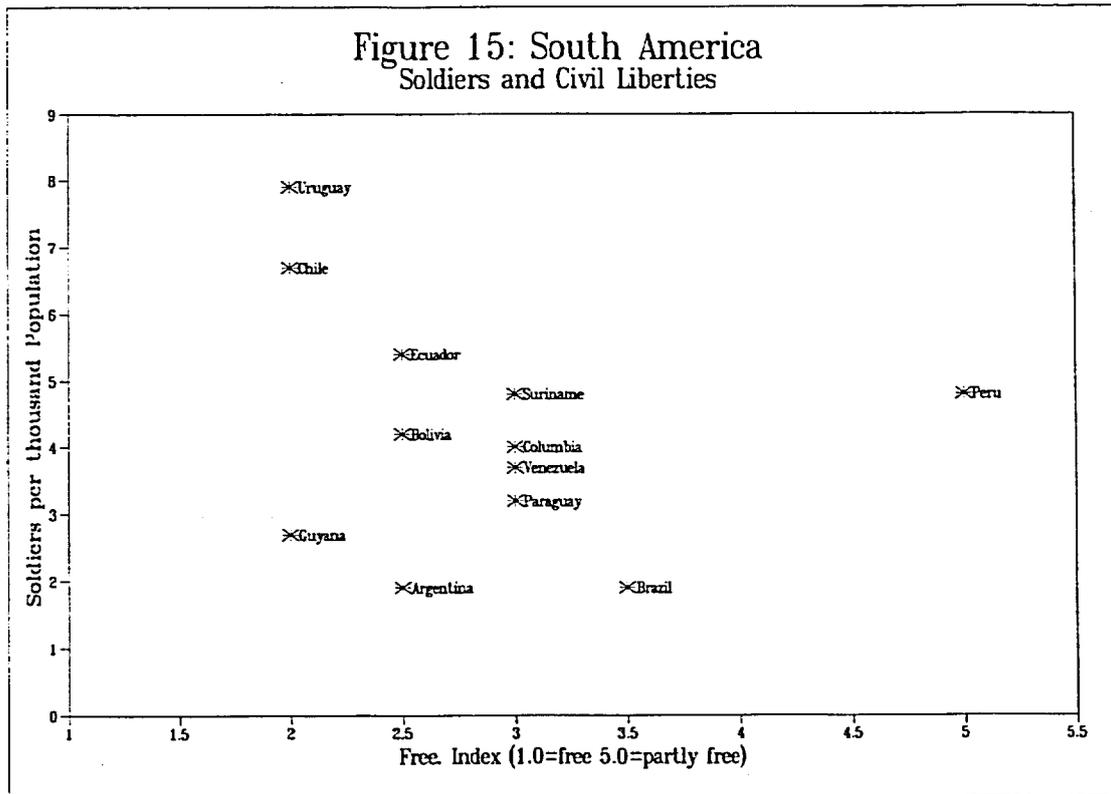


Figure 14 provides some visually suggestive evidence for a link in South America between military spending and economic growth, with all of the region's states except Chile arranged in a roughly descending pattern from the "low growth/high spending" to the "high growth/low spending" corners. One must recognize, of course, that this does not necessarily represent a statistically significant finding, since the sample size is too small, and the uncertainties in the data are too large. But it is worth noting that the *average* percentages of military expenditure/GNP are much higher throughout the 1980s and early 1990s than the 1993 figures. Argentina, Suriname, Guyana, Ecuador and Peru are all spending a much lower proportion of GNP on defence than they averaged in the 1980s. Likewise, only Chile showed sustained economic growth throughout the 1980s, in part a result of economic restructuring and liberalization, in part because of sustained high demand for copper. Many other regional economies may be poised for higher growth in the late 1990s as a result of the recent rounds of economic restructuring and lower overall levels of military spending.

Figure 15, which charts the number of soldiers against respect for civil and political rights again demonstrates that it is not solely the size of the armed forces that determines the level of respect for

democratic and liberal norms. The three states with the largest military "presence" - Uruguay, Chile and Ecuador - are also relatively strong respecters of human rights (at least currently), while the country with the worst current record, Peru, is near the regional norm for the size of its armed forces. Nevertheless, the human rights situation in South America is far from perfect, with at least five other states scoring poorly from the human rights perspective. In many of them, Suriname, Paraguay, and Venezuela, in particular, the political role of the armed forces (in attempting coups or pressuring the government) is cause for



concern, and in several others, the legacy of military and authoritarian rule has left a complex impact on social, political and economic development. The size of the armed forces, or levels of military spending, is only one element in this equation.<sup>8</sup>

What overall conclusions can be drawn for this region? To begin, no state appears as a consistent outlier on all (or many) indices, and several states that are devoting large amounts of resources to the armed

<sup>8</sup> See "Defense Cuts Have Not Reduced Military Might," *Inter Press Service*, 17 May 1996, Freedom House, *Freedom in the World, 1993-1994*.

forces face real security threats (usually internal, as in the case of Bolivia and Colombia, for example). Others, such as Argentina, are spending large amounts (per capita) on security, but are also spending on health and education on a large scale. Perhaps the only two states that would appear to face few obvious current external or internal threats (with the possible exception of the threat posed by the armed forces to the civilian government) are Chile and Uruguay. Chile Both spend above the regional norm in terms of the percentage of GNP devoted to the military (perhaps well above it in the case of Chile), and both have a disproportionately large military establishment (in terms of soldiers/population). In the case of Chile, despite its transition to democratic rule, the role and weight of the armed forces in society has not been curbed as effectively as in Argentina and Brazil, for example, and unusual special funding arrangements (the copper industry turns over 10 percent of its profits directly to the armed forces!) also compromise the subordination of the armed forces to civilian and political control.<sup>9</sup> On the other side, Chile's status as a high military spender does not appear to have any negative economic consequences, since its growth rate, its resource allocation to social welfare, and its respect for human rights, are above or at regional norms. Uruguay may be carrying a somewhat higher than average military burden, but progress has been made in reducing military manpower by about one-quarter since 1984.<sup>10</sup>

Other states that appear to warrant some attention from the figures could be Bolivia and Colombia, primarily for their level of military spending. But in both cases, relatively high levels of military spending are clearly connected to problems of internal security, and Bolivia especially, which is the second poorest state in the region, could use positive assistance to resolve its security problems. Whether or not a coercive military strategy, or a developmentalist strategy are the most appropriate ways to combat their internal insecurity problems is a question on which specialists have reached no consensus.<sup>11</sup>

The need for care in restructuring the region's security policies, expenditures, and civil-military relations is illustrated, however, by some detailed military expenditure data published by the *Military Balance*. It indicates that in states such as Argentina, Chile and Brazil, between 60 and 75 percent of reported military expenditures go to personnel costs - salaries and benefits.<sup>12</sup> Any attempt to reduce the resources going to the military directly threatens the well-being of several thousand people (with access to power and guns!), and effective retraining and redeployment programs need to be undertaken to remove the possible threat drastic changes could pose in other states.

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<sup>9</sup> Reported in "Latin America's Armies No Longer Armed to the Teeth," *Inter Press Service*, 26 April 1996.

<sup>10</sup> Ecuadoran figures cited in *Xinhua News Agency*, 4 May 1996.

<sup>11</sup> See Pablo Dreyfus, "Spillover and Security: The Transborder Problem of Drug Production and Trafficking in Latin America," unpublished DES memoire, Graduate Institute for International Studies, Geneva, 1995.

<sup>12</sup> *Military Balance*, 1995/96, 202. The high levels of these figures suggests, however, continued extra-budgetary funding for such things as procurement.

Table 2: South America

Military, Economic, Social and Political Indicators, Early 1990s

Country	Military Expend. (\$ million, constant 1993)	Military Expend. % GNP	Military Expend. per capita (constant 1993\$)	Armed Forces ('000s)	Soldiers per '000 popul.	Human Development Index (rank)	Education Spending (per capita, 1994)	Pub. Health Spending (per. capita, 1994)	Polit. & Civil Liberties (rating)	GNP per capita (\$1993)	Average ann. growth (1980-1993), percentage
Argentina	4251	1.7	127	65	1.9	37	248	174	2.5	7220	-0.5
Bolivia	126	2.4	17	32	4.2	113	23	13	2.5	760	-0.7
Brazil	5852	1.1	37	296	1.9	63	127	79	3.5	2930	0.3
Chile	1002	2.4	73	92	6.7	38	85	79	2.0	3170	3.6
Colombia	1232	2.6	35	139	4.0	50	50	12	3.0	1400	1.5
Ecuador	150	1.1	14	57	5.4	74	38	22	2.5	1200	0.0
Guyana	5	2.0	7	2	2.7	107	29	18	2.0	350	-3.0
Paraguay	119	1.8	24	16	3.2	84	43	14	3.0	1510	-0.7
Peru	696	1.8	30	112	4.8	95	48	17	5.0	1490	-2.7
Suriname	75	1.1	181	2	4.8	85	n.a.	n.a.	3.0	1180	-2.0
Uruguay	256	2.0	81	25	7.9	33	116	69	2.0	3830	-0.1
Venezuela	1029	1.8	51	75	3.7	46	148	58	3.0	2840	-0.7

SOURCES:

Columns I-V from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, 1993 data or closest available year. Figures for Paraguay and Guyana in Columns I-V are 1992.  
 Columns VI from UNDP, *Human Development Report, 1994*, tables 21 and 43.  
 Columns VII and VIII from Ruth Leger Sivard, *World Military and Social Expenditures, 1996*.  
 Column IX from Freedom House, *Freedom in the World, 1993-94*, and figures are for 1993.  
 Columns X and XI from World Bank, *World Development Report, 1995*.

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## African Regional Security Complexes

The African continent presents several policy puzzles and dilemmas with respect to the relationship between military spending and development. Home to some of the world's poorest states, Africa has also borne witness to some of the most protracted and destructive conflicts in the past two decades. The civil wars in Uganda, Sudan, Angola and Mozambique, the genocide in Rwanda (and the similar conflict in Burundi), the internecine struggles in Liberia, Somalia and Sierra Leone, and the many smaller-scale struggles have resulted in millions of deaths and displaced persons. Repressive and/or military rule in states such as Zaire and Nigeria has also stifled political and social development, and a predatory elite in many states has siphoned off scarce resources for personal enrichment.

On the other hand, if measured by formal indicators, Africa possesses a relatively low level of militarization: its total spending of 11.5 billion dollars represents only 1.3 percent of the global total, and only 3.1 percent of the continent's GNP (it should be noted, however, that this is more than double the levels in Central and South America). Given the region's pressing development needs, however, the opportunity cost of even a low level of military spending is probably high, and recent international attention has hence focused on how to divert resources away from the military sector towards more productive investments in infrastructure, education and basic services.<sup>1</sup>

Huge difference across the continent make a single analysis of its situation impossible. Likewise, the continent does not make up one undifferentiated security complex. Instead, three sub-regional analyses are presented here for illustration: North Africa, Southern Africa and West Africa. Central and East Africa have been omitted, but some states that are not included in the analysis of the three sub-regions above will be discussed in passing.

### North Africa and the Sahel

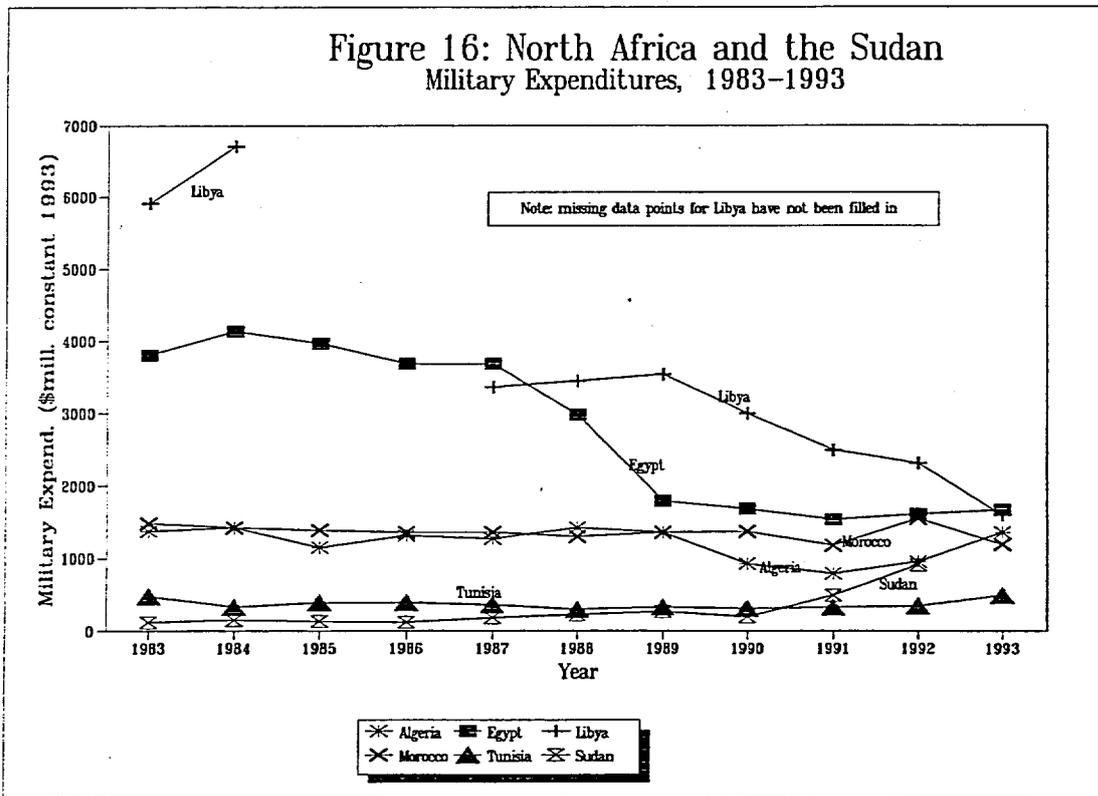
North Africa and the Sahel encompasses ten states, and stretches from Mauritania to Sudan. States such as Mali, Chad and Mauritania are among the world's poorest, ranking 167, 168, and 158 respectively (out of 173) on the UN's Human Development Index. By contrast, oil-rich states such as Algeria and Libya are relatively well off. The entire region has been subject to a complex range of internal and inter-state conflicts, although domestic instability and civil war remain by far the most important security problems. Recent regional conflicts include a conflict between Morocco and Algeria over the Western Sahara (and

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<sup>1</sup> This is especially the concern of a recent joint World Bank/IMF panel. See "Joint IMF/World Bank Panel Urges Support for Poverty Reduction Plans," *BNA International Business and Finance Daily*, 11 October 1995. See also "UNICEF Regrets Failure of Peace Dividend to Materialize," *Inter Press Service*, 11 June 1996.

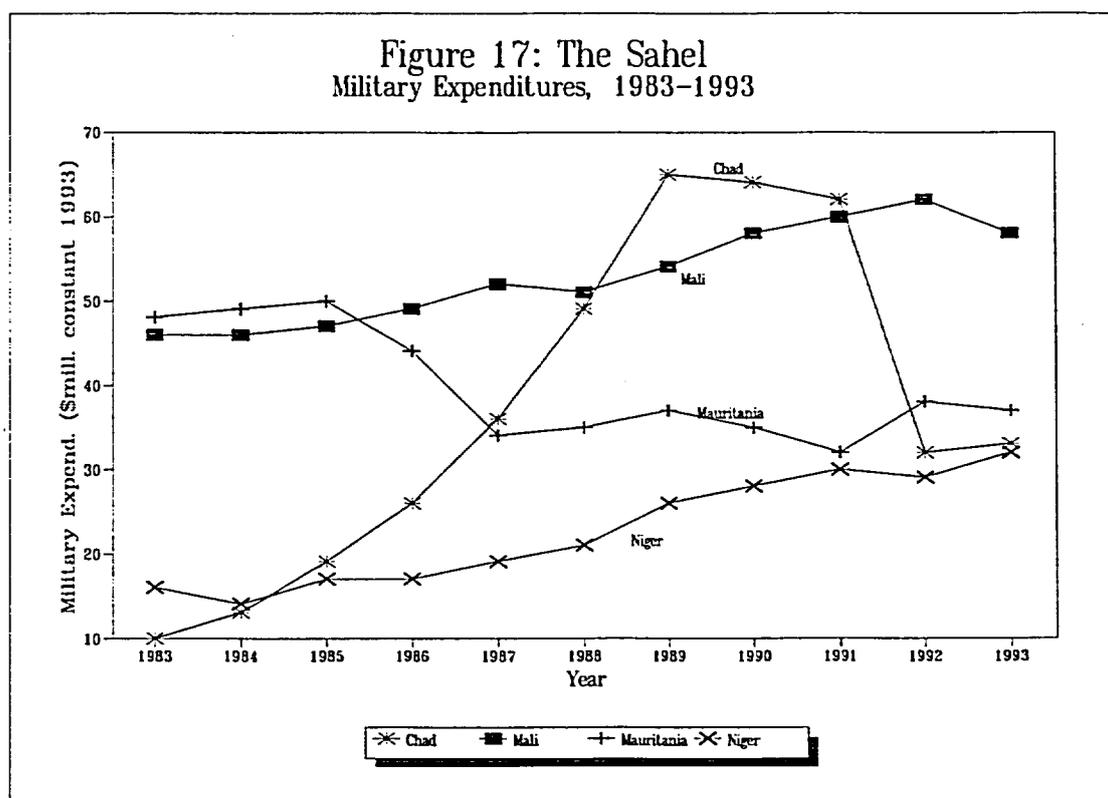
between Morocco and the Polisario independence movement); the civil war in Algeria and Sudan, continued armed clashes between rival groups in Chad (in part fuelled by Libya), a recent coup in Niger, and Islamist unrest in Egypt. Against this backdrop, progress in the political, social or economic realm has been difficult.

Figures 16 and 17 below chart the changing pattern of military expenditure for the ten regional states, and make for some troubling contrasts. First, only three of the ten regional states - Libya, Egypt and Mauritania spent significantly less (in real terms) on the military in 1993 than in 1983. There has been no post-Cold War "peace dividend" in the region, except possibly for Egypt, as a consequence of its peace



with Israel. Second, the scale of spending is radically different between the Sahel and the other states: none of the four Sahel states spends more than \$70 million a year on defence, while none of the Mediterranean coastal states spends less than about \$500 million a year on the armed forces (with only Sudan straddling this geographic divide, and spending more than \$900 million in 1992 - or 17 percent of

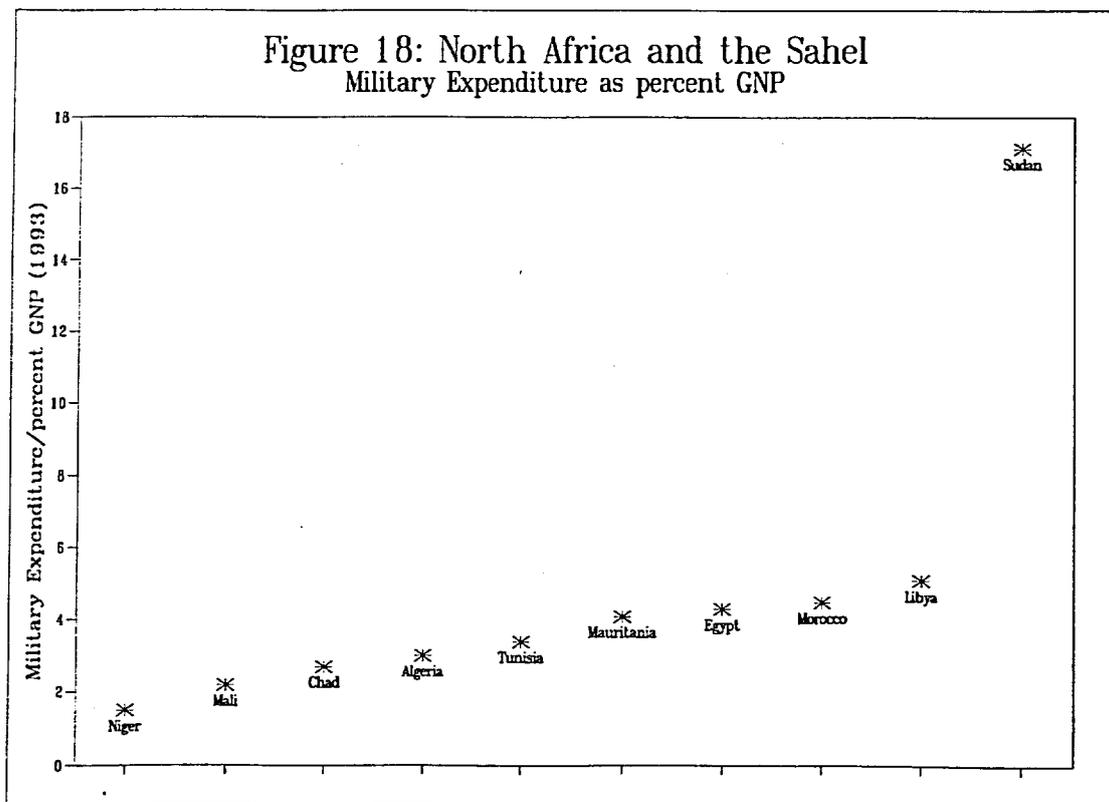
its GNP).<sup>2</sup> Libya, with a population of 5.4 million, spent about \$1.6 billion on its armed forces in 1993, while Chad, with 6.5 million people, spent only \$30 million. It is difficult to argue that the Libyan security environment is that much more threatening than that facing Chad (especially in light of the subsequent resolution of the inter-clan conflict in Chad), and Libya's level of militarization is more likely the product of its oil wealth and the regional and global ambitions of its ruler. A sharper *prima facie* contrast between necessary and excessive military spending can hardly be found.



<sup>2</sup> Sudanese defence expenditures are highly uncertain, in part because of the ongoing civil war. The ACDA does not, even in its most recent edition (*WMEAT, 1995*, covering up to 1994) offer any estimate for 1993 and 1994 military expenditures. It also shows a *quadrupling* of spending between 1990 and 1992. While the IISS data also showed a large upward movement in 1992 defence spending (to \$1,010 million, *Military Balance, 1992-93*; revised downward to \$766 million in the *Military Balance, 1993-94*). IISS data for 1993 and 1994 (*Military Balance, 1995-96*) shows a dramatic drop in spending (to \$304 and \$306 million respectively). There is no way to confirm this figure, and only the ACDA data has been listed here.

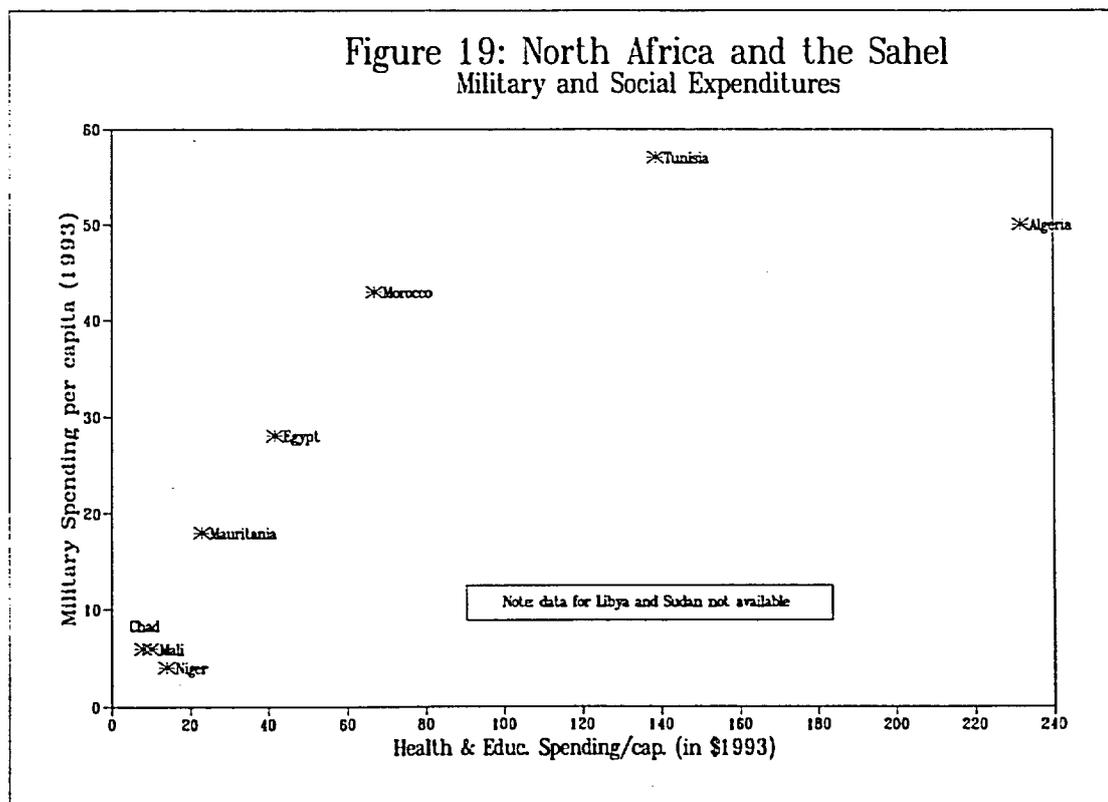
Figure 18 simply lines up the sub-region's states in ascending order according to the percentage of their GNP that is devoted to the military. Somewhat surprisingly, there is no regional "norm" around which states cluster, and states are instead spread evenly from Niger, at 1.5 percent, to Sudan, at 17.1 percent (but note the uncertainty in Sudanese data mentioned above). Against this backdrop, specific outlier states other than Sudan are difficult to identify, although if one takes the sub-regional median as falling below four percent, then Mauritania, Egypt, Morocco, and Libya also are all above it. The scale of Figure 18 is also somewhat deceptive (because Sudan skews it), and one should remember that Egypt, Morocco and Libya are all devoted twice as many resources (in terms of percentage of GNP) to the military as Niger and Mali.

In the cases of Libya and Egypt, military expenditures have, however, declined recently, although this might be more a sign of difficult economic circumstances than any reorientation of security policy. In Egypt at least, both its external and internal security environment have been rendered insecurity by an increase in the early 1990s in Islamist activity in the Upper Nile (and throughout the country), fuelled in



part by incursions from Sudan.<sup>3</sup> Similarly, Sudan is engulfed in a civil war, and military spending is unlikely to fall until this is somehow resolved. By contrast, both Mauritania and Morocco may be candidates for international attention, especially in conjunction with attempts to resolve the status of the Western Sahara (for Morocco), and to improve the extremely poor political and economic situation in Mauritania. Certainly a comparison between Mauritania and the other three Sahel states (which are the lowest spenders in percentage of GNP terms) suggests that some room for spending reductions may exist in the Mauritanian case.

A slightly different picture of which states differ from regional norms emerges from Figures 19 to 21, which attempt to tease out any *prima facie* relationships between military and social expenditures, military spending and growth, or the size of the armed forces and civil liberties. In Figure 19, no clear visual relationship seems to exist between the two variables, except that military and social spending again appear to increase more or less in tandem. With respect to the comparison of military and social expenditures, several states in the region score worse than a 1:2.0 ratio of per capita military to social



<sup>3</sup> See for more details IISS, *Strategic Survey 1995/96* (London: IISS, 1996), 152-157. For details on the decisions of the late 1980s, see Robert Springborg, *Mubarak's Egypt: Fragmentation of the Political Order* (Boulder: Westview Press, 1989); Robert Satloff, *Army and Politics in Mubarak's Egypt* (Washington: The Washington Institute for Near East Policy, 1988).

welfare spending (ie: for every dollar spent on the armed forces, two are spent on public health and education). The worst cases are Chad and Mauritania, whose military/social welfare spending ratios are only 1:1.3 (although were data for the Sudan complete, it would almost certainly score below a 1:1.0 ratio).<sup>4</sup> Likewise, Morocco and Egypt just reach a 1:1.5 threshold, with Mali at 1:1.6 and Tunisia at 1:2.4. By contrast, Algeria, even in the nascent stages of its civil war, still had a ratio of 1:4.5, which reflected the strong educational and health service that had earlier been built on its oil revenues, and Niger, an extremely poor state, nevertheless managed to spend \$3.40 on health and education for every dollar spent in 1993 on the armed forces.<sup>5</sup>

An interesting comparison can be made here with the situation in Central and South America. Despite different scaling for the data in Figures 7, 13 and 19, the military/social welfare spending *ratios* are still themselves somewhat comparable. Only one state in Latin America (Colombia) out of 17 fell below a 1:2.0 ratio for military and social welfare spending, with six others falling between 1:2.0 and 1:2.5 (El Salvador, Peru, Bolivia, Chile, Paraguay, Uruguay). In North Africa, by contrast, five of ten states fall below even a 1:1.5 threshold (including, by estimate, Sudan). A quick comparison with data for the early 1990s (not shown here) indicates that the position of many Latin American states has improved recently, while that of North Africa has declined. More comparisons are needed, but as a general measure of changing government priorities, this ratio hold some promise as a comparative benchmark.<sup>6</sup>

There is no clear *prima facie* relationship between military expenditure and economic growth evidenced from Figure 20 on the next page, with both high and low military spenders more or less anchoring the four corners of the table (Libya and Niger on the "low growth" side; Egypt and Chad on the "high growth" side). The poor growth record of the region is, however, noteworthy: six of ten states have suffered negative growth over the past decade, with those embroiled in protracted civil conflicts scoring poorly (the Tuareg rebellion and recent coup in Niger, civil wars in Sudan and Algeria). States such as Libya, Sudan and Mauritania again stand out as possible candidates that would gain from a reallocation of resources away from the military sector, while states such as Egypt or Morocco do not seem to have suffered excessively (in comparative terms) from their relatively high level of military expenditure.

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<sup>4</sup> If one uses Sudan's 1990 expenditures (adjust to 1993 dollars), one obtains a ratio of 1:1.0. Data from Ruth Leger Sivard, *World Military and Social Expenditures, 1993 and 1996*.

<sup>5</sup> Libya likewise scores a ratio of 1:2.1 if 1990 education spending figures (in 1993 dollars) are used, putting it at the upper end of the scale.

<sup>6</sup> This has been noted by the United Nations Development Program, since its annual *Human Development Report* provides a similar ratio index. The so-called 20:20 proposal for the Copenhagen World Summit for Social Development (20 percent of public spending to human development priorities, with 20 percent of IDA similarly targeted) was also based on this reasoning. It was not, however, accepted by the summit as a benchmark for multilateral action.

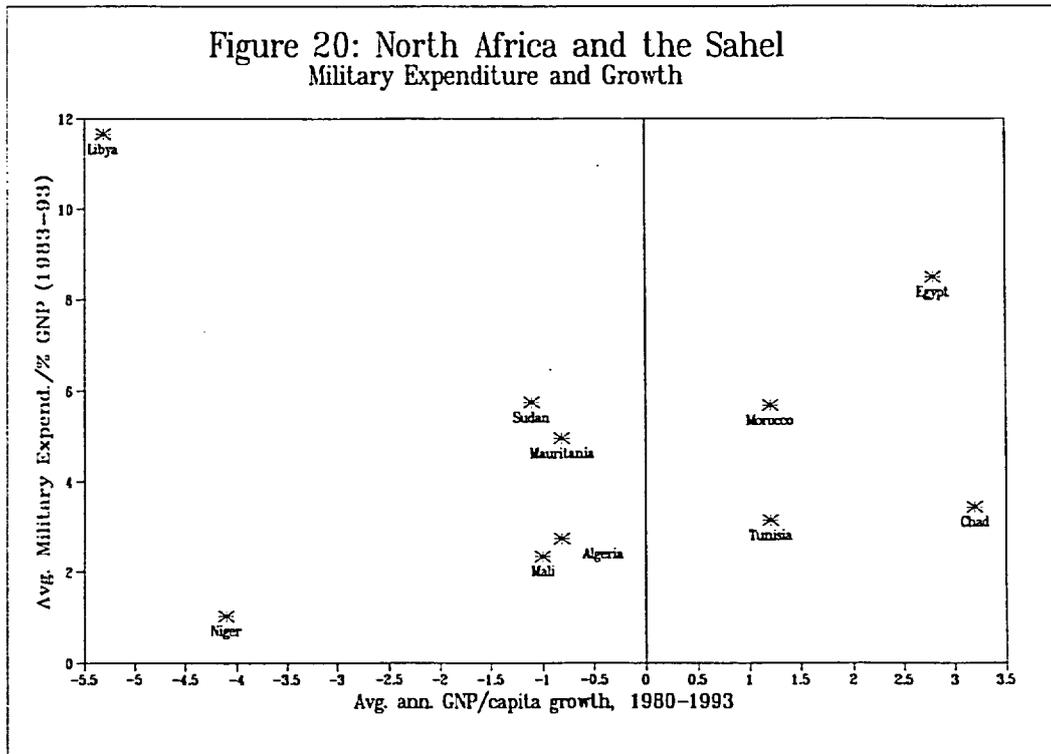
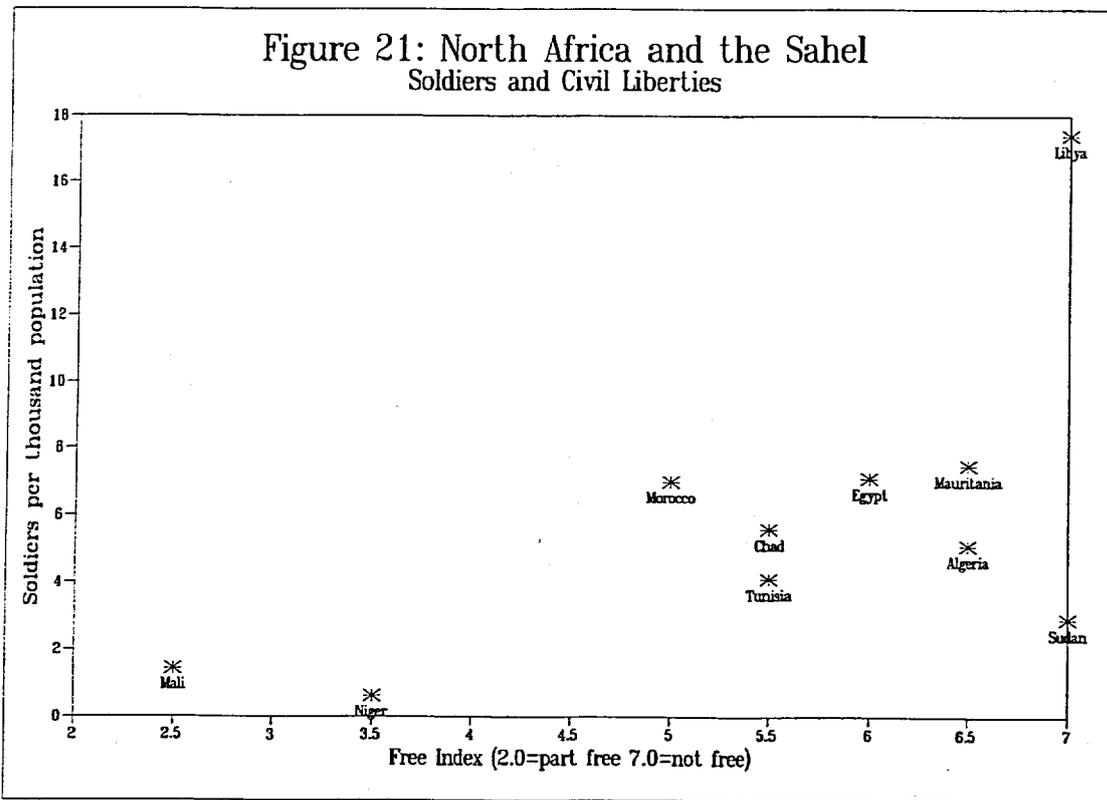


Figure 21 provides two pieces of information - the military presence in society, and the relative level of political and civil freedoms. With respect to the military presence, only Libya stands out as far outside of the regional norm of between four and eight soldiers per thousand, with more than 17 soldiers per thousand citizens. Not surprisingly perhaps, it also scores at the worst end of the freedom index. By contrast, the two states with the lowest number of soldiers per population do score highest on the freedom index, and there is appears to be a tendency to move upwards on the number of soldiers per thousand scale as the political and civil rights situation deteriorates. (One should also note that the figure for the Sudan does *not* include the opposition forces of the Sudanese People's Liberation Army, which may in total be as large as the government's forces, thus effectively doubling the Sudanese figure for soldiers/thousand population). In general, the human rights and political liberties situation in most of these states is also very poor. As of 1993, only two states scored as "partly free" (Mali and Niger), and the subsequent recent coup in Niger will push it back towards "unfree" status.

In comparison with the military presence in society in Central and South America, the overall situation in North Africa is worrisome. Only three states in Latin America had more than six soldiers per thousand population (Chile, Uruguay, El Salvador), and in each case some pressure exists to reduce the size of the armed forces. But in North Africa alone, four of ten states score about the six-soldier threshold. One

reason for this is that the primary function of the armed forces of many of these states is to maintain internal and regime security, since these states often face a wide array of internal threats, ranging from Islamist movements to inter-clan communal rivalries. In addition many of them are "weak states" with little historical tradition as states, and minimal state presence in outlying areas. Unfortunately, the armed forces frequently become caught up in local rivalries and are used to repress the population, and hence some international attention to demobilization and retraining programs might go some distance towards improving the political and societal climate, especially if coupled with a great emphasis on "good governance" issues that strengthen the state without resort to the institutions of organized violence.



Overall, three states in North Africa can be identified as potential candidates for "excessive military spending" on various indices of the resources they devote to the armed forces. Mauritania regularly scores above its Sahelian neighbours on most indices - military spending per capita, military spending as a percentage of GNP, and soldiers per thousand - and its military burden cannot easily be justified by its economic or political situation. This is especially important in light of the 50 percent devaluation of the

CFA franc in 1995, which will result in lower estimates for military spending in Chad, Niger and Mali, but not in Mauritania (which does not use the CFA franc).<sup>7</sup> In North Africa, Libya clearly scores high on all indices, even in light of the dramatic declines in military spending of the past decade. Sudan is also an outlier on most indices (highest percentage of GNP on the armed forces, worst ratio of military to social spending, worst human rights record), but its situation is complicated by the ongoing civil war. International efforts to resolve this conflict have so far failed, and perhaps should be stepped up.

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<sup>7</sup> Obviously, I am not suggesting that this implies a reduction in the military burden of CFA states, only that their overvalued currencies may have created the appearance of greater resources being devoted to the military than was warranted.

**Table 3: North Africa and the Sahel**

**Military, Economic, Social and Political Indicators, Early 1990s**

Country	Military Expend. (\$ million, constant 1993)	Military Expend. % GNP	Military Expend. per capita (constant 1993\$)	Armed Forces ('000s)	Soldiers per '000 popul.	Human Development Index (rank)	Education Spending (per capita, 1994)	Pub. Health Spending (per capita, 1994)	Polit. & Civil Liberties (rating)	GNP per capita (\$1993)	Average ann. growth (1980-1993), percentage
Algeria	1360	3.0	50	139	5.1	109	151	81	6.5	1780	-0.8
Chad	32	2.7	6	30	5.6	168	5	3	5.5	210	3.2
Egypt	1670	4.3	28	424	7.1	110	35	7	6.0	660	2.8
Libya	1599	5.1	328	85	17.4	79	n.a.	179	7.0	6380	-5.3
Mali	58	2.2	6	12	1.4	167	6	4	2.5	270	-1.0
Mauritania	37	4.1	18	16	7.5	158	18	5	6.5	500	-0.8
Morocco	1193	4.5	43	195	7.0	111	58	9	5.0	1040	1.2
Niger	32	1.5	4	5	0.6	169	9	5	3.5	270	-4.1
Sudan	901	17.1	32	82	2.9	151	n.a.	1	7.0	200	-1.1
Tunisia	492	3.4	57	35	4.1	81	103	36	5.5	1720	1.2

**SOURCES:**

Columns I-V from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, 1993 data or closest available year. Figures for Chad in Columns I-IV are for 1992.

Columns VI from UNDP, *Human Development Report, 1994*, tables 21 and 43.

Columns VII and VIII from Ruth Leger Sivard, *World Military and Social Expenditures, 1996*.

Column IX from Freedom House, *Freedom in the World, 1993-94*, and figures are for 1993.

Columns X and XI from World Bank, *World Development Report, 1995*. Figures for Libya and Sudan are from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, and are for the 1983-1993 period.

## Southern Africa

The end of apartheid in South Africa, the independence of Namibia and the end of the civil wars in Angola and Mozambique have given rise to many hopes for the future of security relations in Southern Africa. The twelve states, large and small, that make up the region's security complex have suffered from the insecurities created by the apartheid regime, with its long-standing involvement in efforts to destabilize or overthrow neighbouring regimes. The post-apartheid transition has, however, brought its own insecurities, as neighbouring states are concerned with the continued possibility of South African hegemony in the region, or the possible consequences that a failure of its democratic experiment could bring.

Overall, the region would seem ripe for a possible transition to a peaceful security community, since the level of inter-state conflict and rivalry is relatively low. Such security cooperation has been promoted by various regional organizations, most notably by the Southern Africa Development Community (SADC), and it has frequently been linked to the need to unlock resources for development.<sup>1</sup> Nevertheless, the post-apartheid, post-Cold War, peace dividend has so far only been manifest sporadically, at least as indicated by the data in Figure 22 below, which provides military expenditure data for six of the more important regional states. Although military spending has declined for states such as South Africa, Zimbabwe, Zambia, and Angola (not shown), it has increased in states such as Botswana, Swaziland and Mauritius (not shown).<sup>2</sup> Even in Zimbabwe, defence spending may actually have increased since 1993, and is projected by government spokesmen to remain stable for the near future.<sup>3</sup> In South Africa (note that figures are not shown to scale in Figure 22), defence spending has declined sharply from the apartheid-era high of \$4.9 billion in 1989 to only \$2.9 billion for 1993, a drop of more than 40 percent. But the

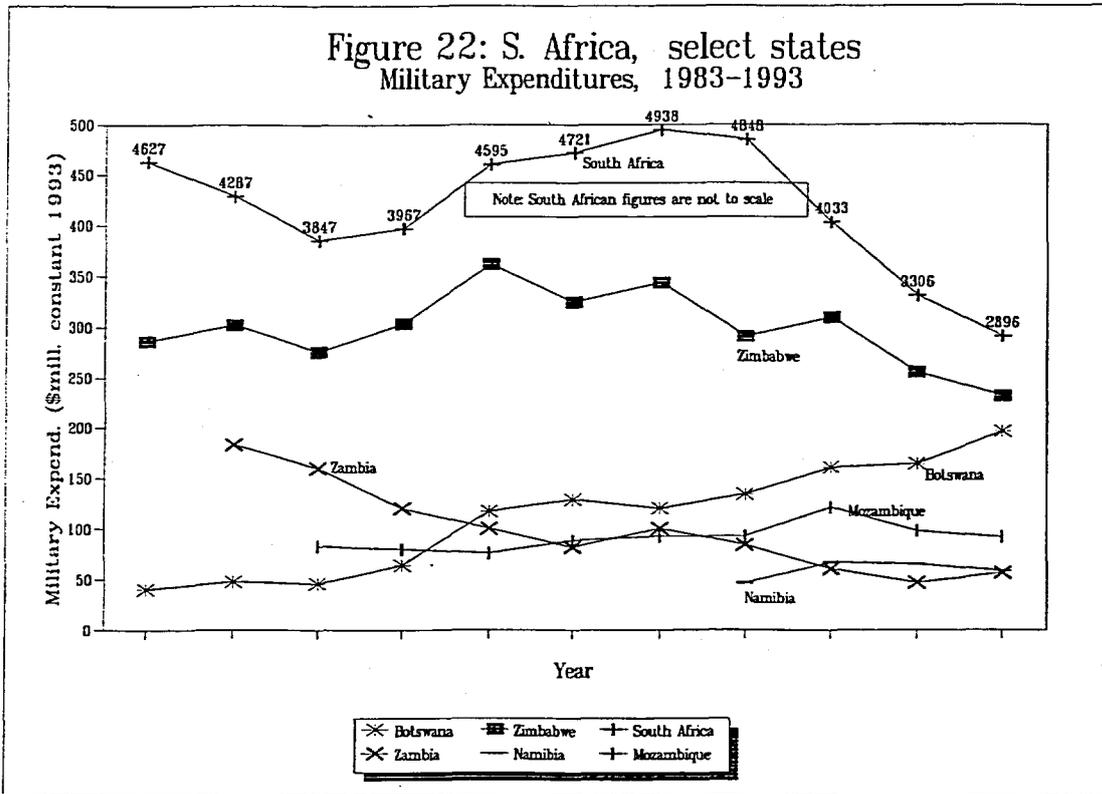
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<sup>1</sup> For a general discussion of regional security issues in Southern Africa, see Ken Booth and Peter Vale, "Critical Security Studies and Regional Insecurity: The Case of Southern Africa," in Keith Krause and Michael C. Williams, eds., *Critical Security Studies: Concepts and Cases* (Minneapolis: University of Minnesota Press, forthcoming); See Ken Booth and Peter Vale, "Security in Southern Africa: After Apartheid, Beyond Realism," *International Affairs* (London), 19 (1995), 285-304.

<sup>2</sup> Mozambique's military expenditures may also have declined slowly since 1993. Details of the Mozambican agreement with the IMF to cut military salaries and weapons purchases by up to 50 percent were offered in BBC, *Summary of World Broadcasts*, AL/W0373, 28 February 1995. The *Military Balance, 1995/96* also indicates that Mozambican defence spending will drop to \$89 million in 1995, from more than \$100 million in 1992. Swazi military spending increased from \$10 million in 1989 to an estimated \$21 million in 1993; Mauritian spending from \$6 million to 11 million over the same period. Figures from ACDA, *WMEAT, 1993-1994*.

<sup>3</sup> Defence was allocated a budget for 1994/1995 of \$212.3 million, up from the previous year's figures of \$204 million. Although these figures are not comparable with those offered in Figure 21, they do capture the trend line. See "Africa - Disarmament: Big Armies, Small Economies," *Inter Press Service*, 23 May 1996.

integration of former resistance fighters and homeland armies will involve an increase in defence spending for the next three years, and will not allow reductions in the overall size of the armed forces.



What this suggests is that a regional effort concerted with outside partners could make significant progress in reducing the region's military burden and entrenching the transition to representative rule that is well underway, especially as some of the acute interstate and internal conflicts in the region are resolved. A closer look at the data in Figures 23 to 26 illustrates where some of the key points for attention may lie.

Figure 23, which ranks states by the percentage of GNP devoted to the military, shows clearly that the two most important outlier states in 1993 were Mozambique and Angola, both of which spent more than seven percent of GNP to the armed forces. Continued international support (and pressure) for the post-civil war transitions in these two states, should encourage them to reduce spending to approach more closely the regional norm of less than 3.5 percent. Somewhat worrying, however, are the situations in Botswana and Zimbabwe, where spending is still above 4 percent of GNP (5.9 and 4.3 percent respectively), still well above the regional average. This is somewhat surprising, in light of the fairly dramatic transitions that

have occurred in their regional security environment, and can only be explained by internal factors connected with the nature of security policy and decision making. In fact, in 1995 Botswana was allegedly one of sub-Saharan Africa's largest arms importers.<sup>4</sup>

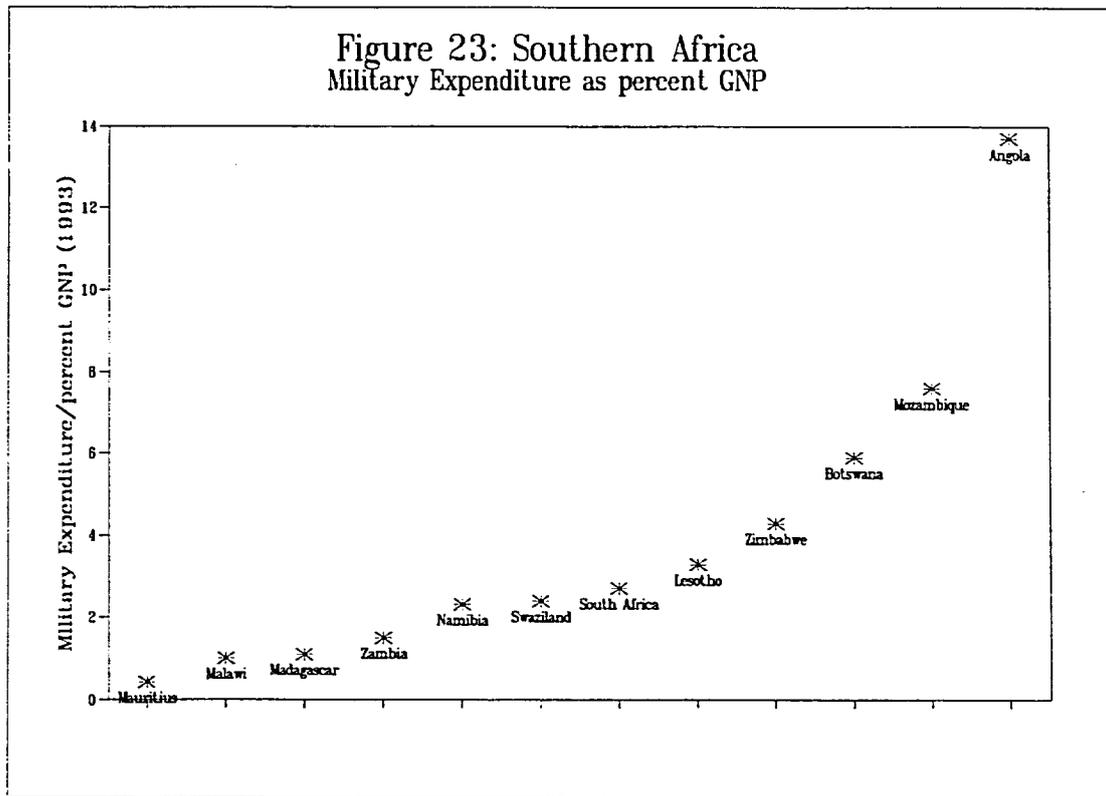
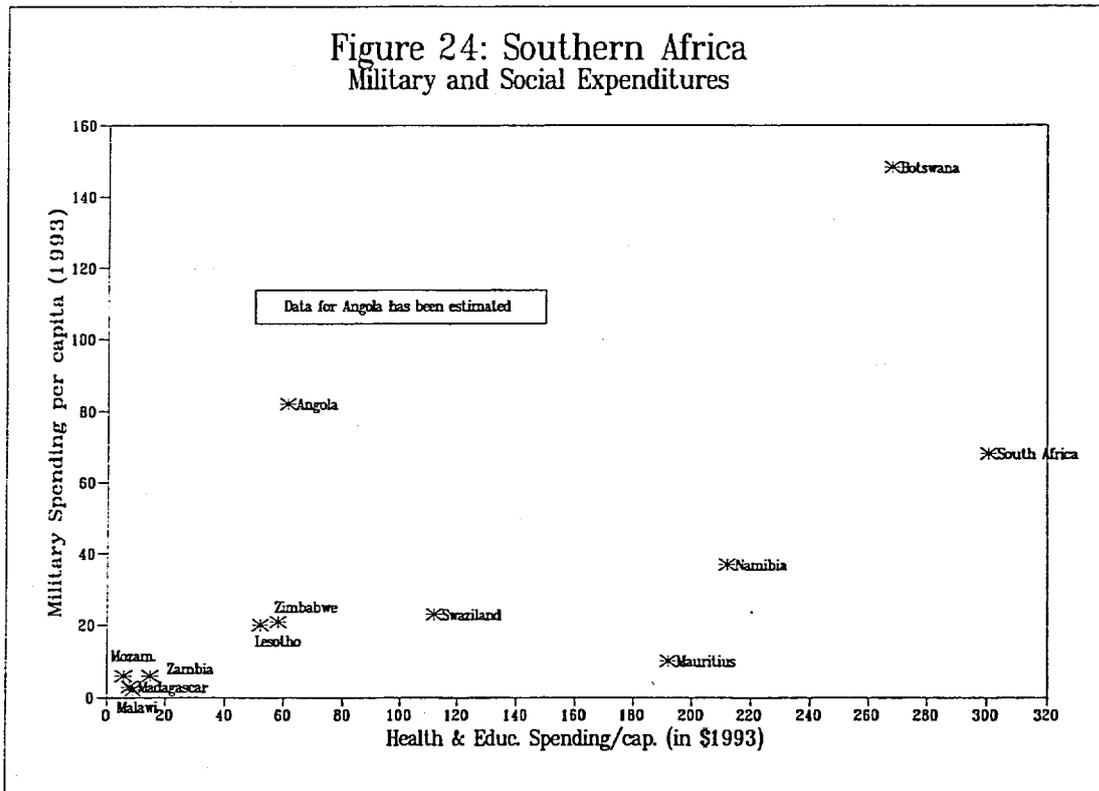


Figure 24 provides some additional nuance to this picture. With respect to the ratio of military to combined health and education spending, most states in the region (with three exceptions) score better than the 1:2.0 ratio. The worst state is Angola, with an estimated ratio of 1:0.7, while Mozambique and Botswana both also score relatively poorly, with military to social spending ratios of 1:1.0 and 1:1.8 respectively.<sup>5</sup> Among the number of very poor states clustered at the bottom (Malawi, Mozambique, Zambia and Madagascar), one (Malawi) has a good military/social spending ratio (1:4.4), while the other

<sup>4</sup> *Inter Press Service*, 23 May 1996. There have also been rumours of increased security cooperation between Botswana and the United States. *Freedom in the World, 1993-1994*.

<sup>5</sup> The figure for Angola was estimated by using the 1990 data (converted to 1993 dollars) for education spending, and more recent data for health care spending.

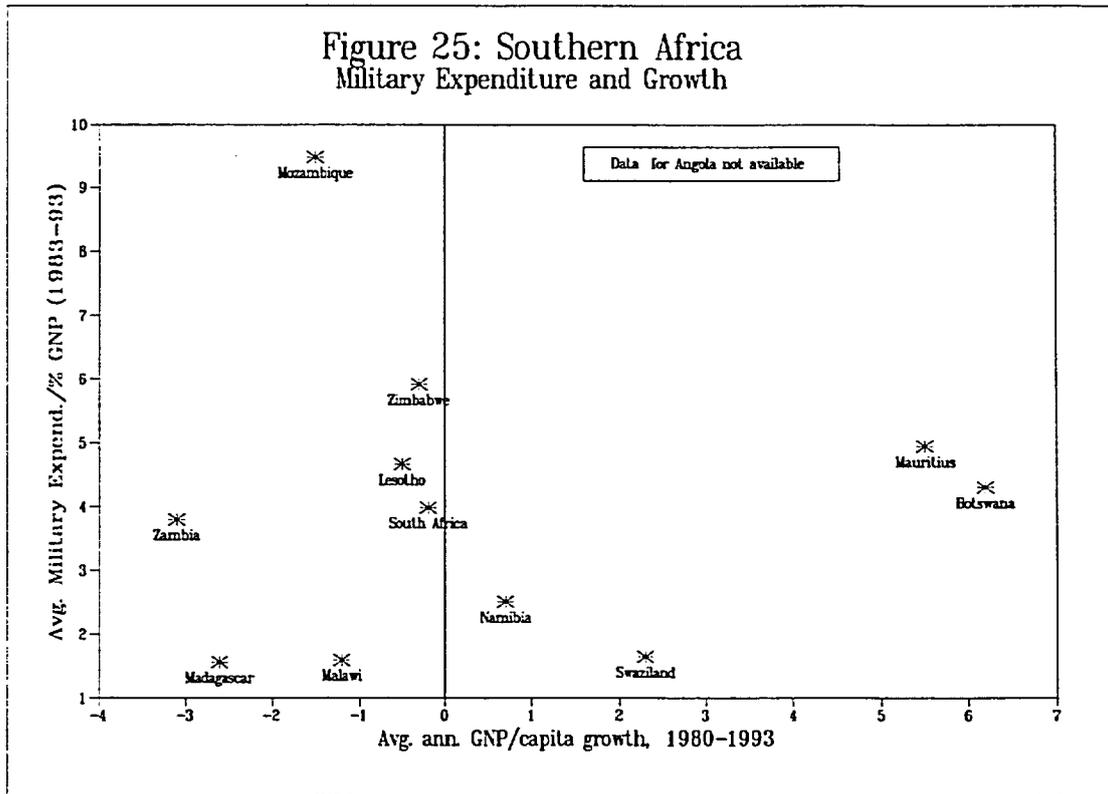
two, Zambia and Madagascar, have scores of 1:2.4 and 1:2.6 respectively.<sup>6</sup> More wealthy states such as Namibia (with the best ratio, excluding Mauritius) represent a "best case" to which others could aspire, and states such as Zimbabwe, Lesotho and Swaziland could all potentially move in its direction. Again, Angola and Mozambique, together with Botswana, represent the regional states in which there appears to be the greatest room for a reallocation of resources to social welfare rather than to the military.



On the other hand, Figure 25 demonstrates that for Botswana at least, its relatively poor military/social expenditure ratio is paired with by far the region's highest growth rates over the past decade. Its GNP per capita of \$2,790 is the third highest in the region, behind only South Africa and Mauritius, which permits much higher absolute levels of social welfare spending while at the same time facilitating relatively high military expenditures (in terms of spending per capita, or as a percentage of GNP). Likewise, there is no clear pattern of "high military spending/low economic growth," with low spending states such as

<sup>6</sup> Although their absolute levels of spending are so low that simple rounding of numbers could shift the ratios considerably.

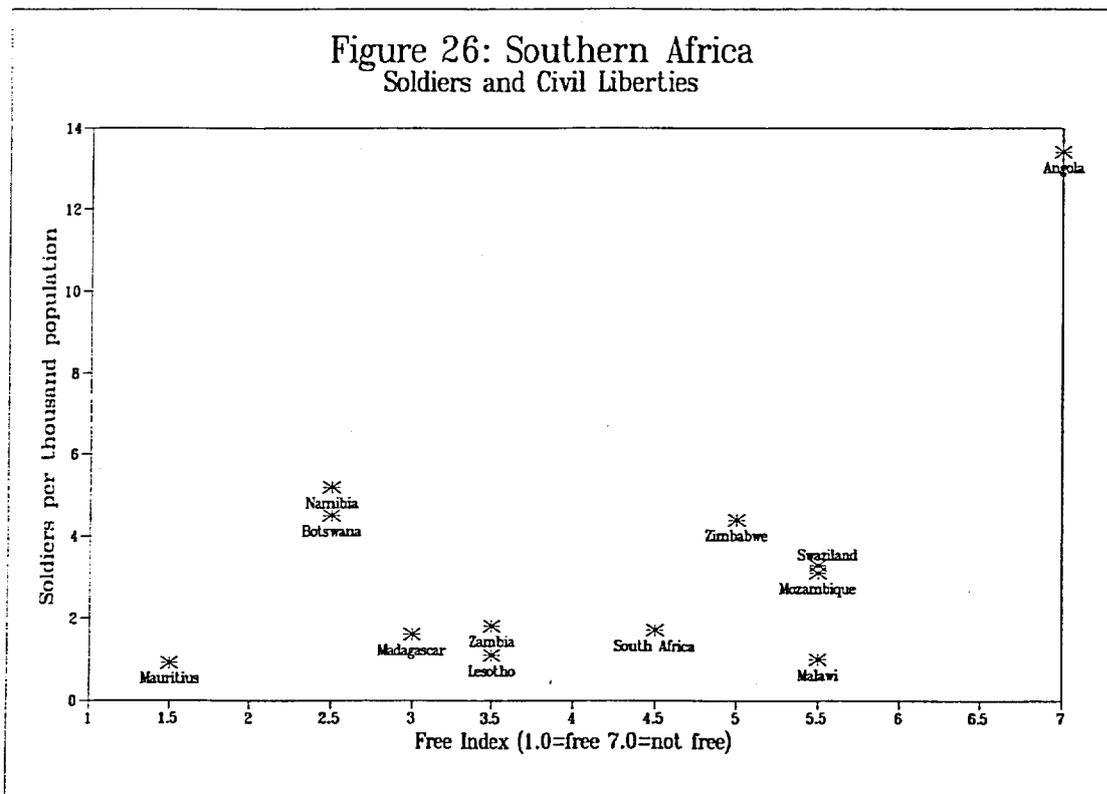
Madagascar and Malawi enjoying poor growth, along with high spending (and war torn) Mozambique and Angola (not shown). This once again confounds the quest to find a clear negative effect of military spending on economic growth. On the other hand, very few states in the region enjoyed positive growth



over the past decade, and the future prognosis for the economy in states such as Zambia, Madagascar or Malawi is not great. All are relatively low military spenders, however, so policy initiatives to spur economic development need not concentrate excessively on reallocating resources from the security sector. Such attention could be paid, however, to Zimbabwe, Angola and Mozambique, as recent initiatives from the IMF towards Mozambique suggest.

Finally, the military presence in Southern African societies is captured by the data in Figure 26. Somewhat surprisingly, most states in the region enjoy relatively low levels of militarization by this measure, with only one state - Angola scoring more than six soldiers per thousand population and appearing over-militarized (with 13.4 soldiers per thousand population). Again, Botswana and Zimbabwe (along this time with Namibia) appear next highest though, reinforcing already-noted concerns about their relative status

in the region (in light of the end of apartheid and the amelioration of the regional threat environment). With respect to the other measure on this figure, it provides a mixed picture of civil and political liberties in the region. Regional states range from Mauritius (fully free by Western standards) to Angola, whose citizens enjoy among the fewest civil and political rights in the world. There is, however, no clear relationship between the number of soldiers and overall levels of respect for civil liberties, and although the general political situation in states such as Zimbabwe or Malawi represents potential causes for concern



for the international community, the role of the armed forces in society may not be at the root of the problem.<sup>7</sup>

From the recent developments in the region, one could draw a cautiously optimistic picture for the future of Southern Africa. The relatively low level of inter-state tension, and the general improvement in the management of internal conflicts presents a real opportunity to lower the amount of resources devoted to

<sup>7</sup> See, for example, "Zimbabwe's Leader Scoffs at Critics of Iron Rule," *New York Times*, 27 April 1996.

the military, and to move towards cooperative regional security arrangements. This does not, however, mean that some of the more serious societal and economic security considerations will easily be addressed. Economic growth in the region has been mostly negative for the past decade, and the costs of recovery (rehabilitation of land, clearing of land mines, demobilization of soldiers, infrastructure reconstruction) will be extremely high. Internal tensions also remain, with "tribal" rivalries in South Africa, effective one-party rule in Zimbabwe and elsewhere, and weakly entrenched representative political systems all provide future obstacles that must be overcome before durable development can occur.

The two states that stand out as outliers in the region are obviously Angola and Mozambique. Their situation since 1993, however, has demonstrated at least some progress towards reducing the military burden on their war-torn societies. Two other states, however, give cause for continued concern: Zimbabwe and Botswana. Neither today represents a threat to their neighbours, or necessarily to their citizens, but both could, by pursuing a level of security expenditure well exceeding those of their neighbours provide the fuel for a regional arms race, or present an obstacle to the development of a regional security regime. Zimbabwe as well suffers from a relative absence of civil and political liberties. Both should be scrutinized carefully for their willingness to participate in regional security dialogues, and should be encouraged to participate in the confidence and security-building measures (including greater transparency in security expenditures) that could emerge from them.

Table 4: Southern Africa

Military, Economic, Social and Political Indicators, Early 1990s

Country	Military Expend. (\$ million, constant 1993)	Military Expend. % GNP	Military Expend. per capita (constant 1993\$)	Armed Forces ('000s)	Soldiers per '000 popul.	Human Development Index (rank)	Education Spending (per capita, 1994)	Pub. Health Spending (per capita, 1994)	Polit. & Civil Liberties (rating)	GNP per capita (\$1993)	Average ann. growth (1980-1993), percentage
Angola	780	13.7	82	128	13.4	155	n.a.	7	7.0	n.a.	n.a.
Botswana	196	5.9	148	6	4.5	87	215	53	2.5	2790	6.2
Lesotho	38	3.3	20	2	1.1	120	31	21	3.5	650	-0.5
Madagascar	36	1.1	3	21	1.6	131	5	3	3.0	220	-2.6
Malawi	21	1.0	2	10	1.0	157	6	3	5.5	200	-1.2
Mauritius	11	0.4	10	1	0.9	60	110	82	1.5	3030	5.5
Mozambique	91	7.6	6	50	3.1	159	5	1	5.5	90	-1.5
Namibia	57	2.3	37	8	5.2	127	142	70	2.5	1820	0.7
South Africa	2896	2.7	68	72	1.7	93	196	105	4.5	2980	-0.2
Swaziland	21	2.4	23	3	3.3	117	79	33	5.5	1190	2.3
Zambia	56	1.5	6	16	1.8	138	10	5	3.5	380	-3.1
Zimbabwe	231	4.3	21	48	4.4	121	42	16	5.0	520	-0.3

SOURCES:

Columns I-V from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, 1993 data or closest available year. Data for Lesotho in Columns I-III are for 1992. Data for Angola in Columns I-III is from International Institute for Strategic Studies, *Military Balance, 1995-96*. GNP data for Zambia is from the same source.

Columns VI from UNDP, *Human Development Report, 1994*, tables 21 and 43.

Columns VII and VIII from Ruth Leger Sivard, *World Military and Social Expenditures, 1996*.

Column IX from Freedom House, *Freedom in the World, 1993-94*, and figures are for 1993.

Columns X and XI from World Bank, *World Development Report, 1995*.

## Central Africa

The last region of Africa to be examined in this report is Central Africa, which stretches from Nigeria to Burundi, and includes Zaire, the Congo, Rwanda, Gabon, Cameroon, Uganda and the Central African Republic. Although the inclusion of Nigeria and Uganda in Central Africa is somewhat contestable, the former is Africa's largest and most powerful state (with about 20 percent of the population of sub-Saharan Africa), and the latter has been involved in the political and security crisis (and genocide) in Rwanda and Burundi. Hence their military and economic situations are worthy of some scrutiny. Likewise, East African states such as Kenya and Tanzania have not been included in this section; their security environment is more closely linked to that of the rest of the Horn of Africa.

Like most of the rest of Africa, pure inter-state conflicts are not prominent in this region. On the other hand, almost all of the peoples of the region are profoundly "insecure" and live in "weak states," whose borders do not enjoy unconditional legitimacy (in spite of the Organization of African Unity's injunctions in this direction), whose citizens do not express primary loyalty to the central government, and whose societies are a patchwork of cross-cutting ethnic, communal and religious groupings. The cross-border consequences of the internal conflicts generated by these forces can be profound, as was made clear with the mass exodus of refugees from the Rwandan genocide into Zaire and other neighbouring states, and the civil war waged against the Hutu government by groups based in Uganda.

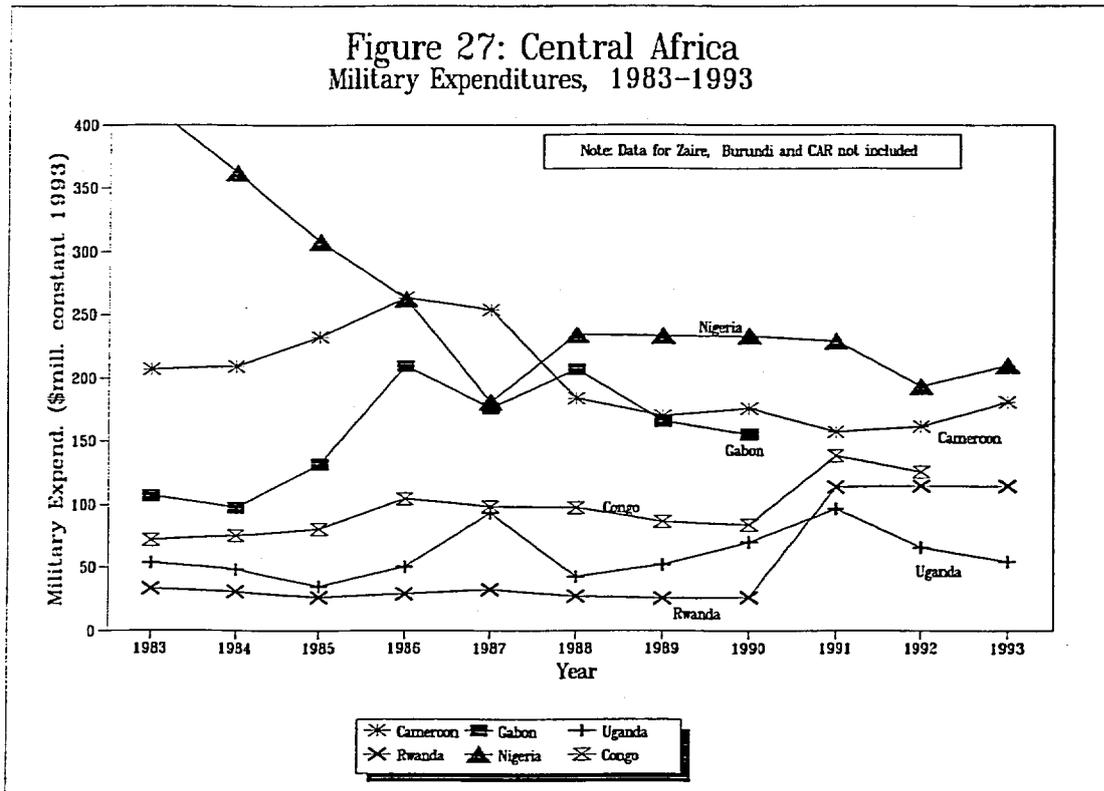
Most of the region's conflicts are communal and societal, and range from the extremely tense situation in Burundi, to the acute repression in Nigeria and Zaire, to the difficult transitions to civilian and more representative rule in Uganda and the Congo. This is the region of potential "failed states": those countries who colonial legacy and post-colonial economic and political misrule have led them to the brink of complete internal collapse, where organized violence is widespread.<sup>1</sup> Although analysts disagree on what can or should be done, most agree that the personal, societal and economic security of citizens in places such as Zaire, Burundi or Nigeria is extremely precarious, and that "new power centres are emerging...such as armed gangs who roam the countryside living off the land, or the local defence committees set up to defend the people against them."<sup>2</sup> Addressing this problem through the optic of military expenditures may not by itself be a panacea, it does provide one window onto possible medium-term measures that might provide a somewhat greater measure of stability and peace in the region.

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<sup>1</sup> For an overview, see Robert Kaplan, "The Coming Anarchy," *Atlantic* (February 1994); Gerald B. Helman and Steven R. Ratner, "Failed States," *Foreign Policy*, 89 (Winter 1992-93). See also Jeffrey Herbst, "Is Nigeria a Viable State?" *The Washington Quarterly*, 19:2 (Spring 1996), 151-175.

<sup>2</sup> For some details, including a discussion of the role of regional mercenary and protection groups, see IISS, *Strategic Survey 1995/96* (London: IISS, 1996), 211-219.

Not surprisingly in light of this, Central Africa has not experienced a post-Cold War peace dividend. Figure 27 charts the last decade's military spending pattern, and reveals that with one exception (Gabon), military spending levels are as high or higher than they were in 1988. Data for Zaire is not available (and appears to have declined recently), but the figures for Burundi and the Central African Republic show little decline either.<sup>3</sup> The only significant declines occurred in the early and mid-1980s, and appear more to have

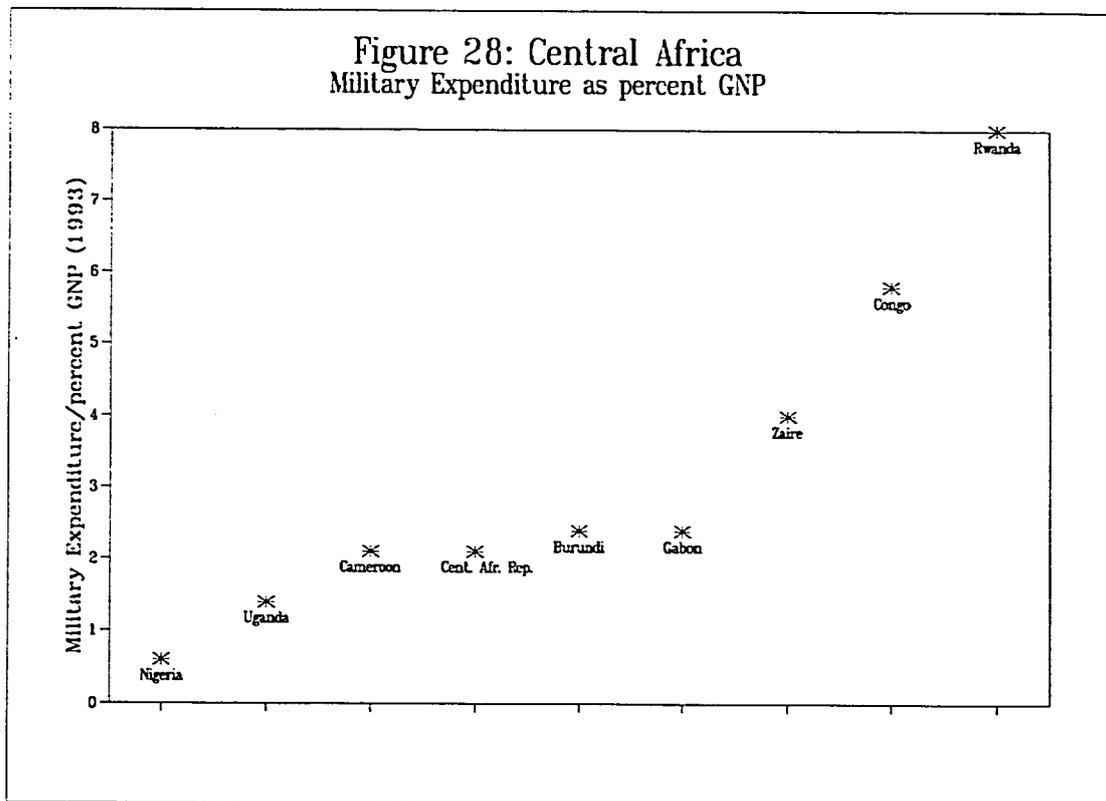


been driven by the economic crisis in the region, and the impact of the oil price drop on Nigerian state revenues. In any case, defence spending fluctuations are more likely driven by a complex and shifting pattern of external, regional and domestic conflicts and pressures. Examples of this are provided by the upsurge in Rwandan spending in the early 1990s, before the genocide, the brief decline in Ugandan spending after the coming to power of Yoweri Museveni in 1986, the second decline as demobilization programs took effect in the early 1990s, and the reported increase in the mid-1990s to deal with cross-

<sup>3</sup> Zaire's military spending in 1993 was as high as in 1988 (about 245 million 1993 dollars), but it apparently dropped in 1994 and subsequently. High inflation makes comparisons extremely uncertain. Nigeria's spending also was apparently rose in 1994 from 1993, and was above the 1988 levels. Details from ACDA, *WMEAT 1995*.

border conflicts with the Sudan.<sup>4</sup> Overall, however, the outlook for significant reductions in military spending throughout Central Africa is probably fairly bleak, especially given the weakness of regional organizations or domestic pressures for change.

Figure 28, which provides the comparative military expenditure/GNP data, affords a clear picture of the military burden (and of which states stand out) in the region. The regional norm for spending is between 1.5 and 2.5 percent of GNP, with Nigeria's percentage being artificially low in part because of its oil revenues (which represent about 80 percent of state income). Rwanda, the Congo and to a lesser extent

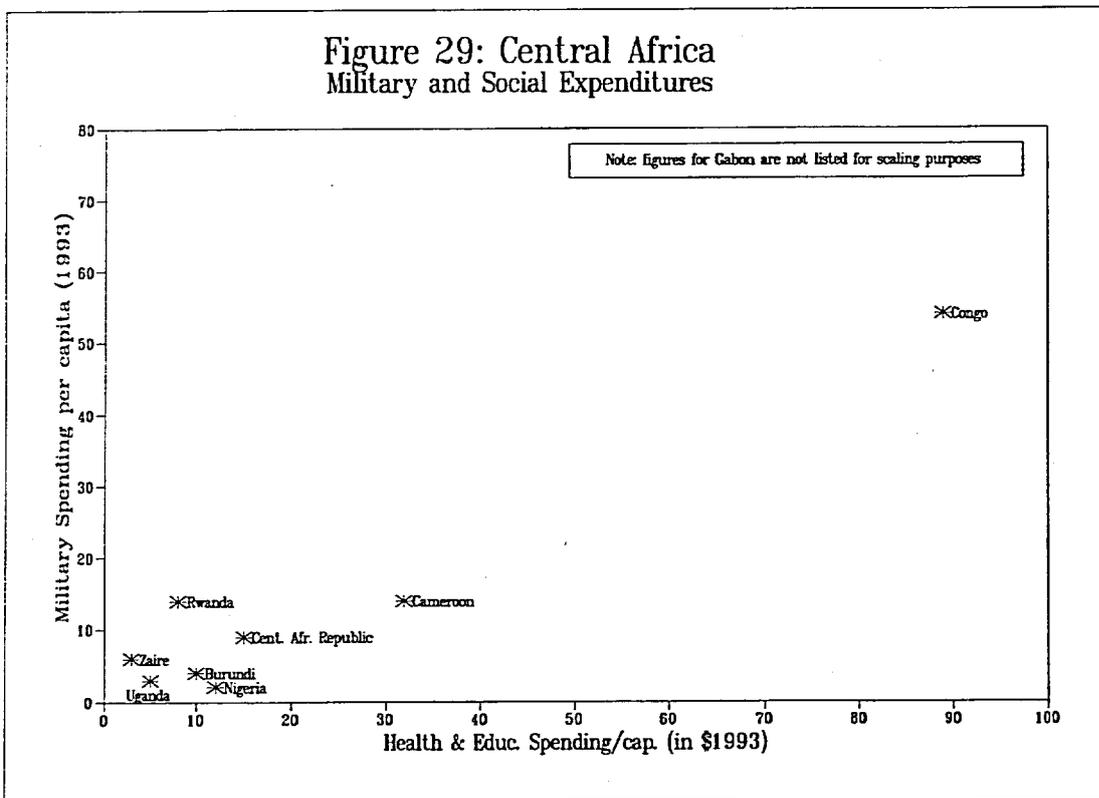


Zaire, do, however, stand out; Zaire spent 4.0 percent of its GNP on the military in 1993, Congo and Rwanda were both about 6.0 percent (although these figures might have declined somewhat since 1993

<sup>4</sup> The increase was reported in *Strategic Survey, 1995/96* and the *Military Balance, 1995/96*, and appears to bring Ugandan spending from about \$54 million in 1994 to about \$94 million in 1995 (in current dollars).

in Congo and Zaire).<sup>5</sup> Obviously, the utility of military spending alone as an early warning indicator is limited, but the high Rwandan figure for 1993 does in retrospect highlight a potential crisis, even if at the time it would have been regarded as an incipient civil war rather than the prelude to a genocide.<sup>6</sup>

Figure 29 contrasts the military and social expenditure burden for Central African states. In all but two cases, the Congo and Gabon (not listed), military expenditures are less than \$15 per capita. In Gabon they represented \$99 per capita in 1993 (compared with combined health and education spending of about \$300), and although military spending might have dropped to below \$100 per capita by the mid-1990s, it remains considerably higher per capita than that of its neighbours. Its geographic situation, bordering



<sup>5</sup> Declines are suggested by figures in ACDA, *WMEAT 1995*. In the case of the Congo, French military assistance (which represented a large proportion of total military expenditures) was also cut drastically in 1994.

<sup>6</sup> For background on the Rwanda situation see Joint Evaluation of Emergency Assistance to Rwanda, *The International Response to Conflict and Genocide: Lessons from the Rwanda Experience*, vols. 1 ("Historical Perspective: Some Explanatory Factors") and 2 ("Early Warning and Conflict Management") (Copenhagen: Danish Ministry of Foreign Affairs, 1996).

the Congo and Cameroon, does not appear particularly insecure (to an outsider), and only its desire to maintain a similar absolute level of spending (between \$125 and \$181 million annually, as indicated in Figure 27) could explain such a relatively high expenditure level.<sup>7</sup> Oil wealth also probably exercises an influence in Gabon's security spending, and although this spending does not impose any undue burdens on its citizens (Gabon's social welfare spending and per capita GNP are very high in relative regional terms, and its ratio of military to social welfare spending is 1:5.9), it could exert pressure on neighbouring states to keep up in a "slow motion" arms race, which could also be detrimental to regional security.

A large number of states in the region also have relatively poor military/social expenditure ratios, scoring below the 1:2.0 point. The worst cases are, perhaps not surprisingly, Zaire and Rwanda, which have ratios of 1:0.5 and 1:0.6 respectively. Likewise, Uganda, Congo and the Central African Republic all score 1:1.6 ratios.<sup>8</sup> Burundi, Cameroon and Gabon all score better than 1:2.0 (1:2.4, 2.2 and 2.9, respectively). On the other end, Nigeria scores very highly, with a 1:5.9 ratio, but the absolute level of its social spending is so low that perhaps this result should not be given much significance. It does confirm, however, that a "good" military/social welfare spending ratio is not incompatible with a military and authoritarian government. In any case, Zaire and Rwanda, along with Angola and probably Sudan, have the worst ratios in the African regions surveyed here. Since three of these states are or have recently been engulfed in violent conflicts, Zaire appears *prima facie* to be spending excessively on the military spending (relative to social welfare).

The last two figures attempt to assess the societal or economic consequences of the region's level of military development. Figure 30 illustrates dramatically some additional examples of the "lost decade" of African economic development: only two states managed positive growth rates since 1990. One of them, Uganda, did so only because it emerged from a bitter civil war that had severely curtailed economic activity. The other, Burundi, risks plunging into genocide.<sup>9</sup> All of the others, from Nigeria to Zaire, saw their economies shrink. Like previous tables of this sort, however, there does not appear at first glance to be a strong possible relationship between economic growth and military spending levels, since the higher spenders are not clustered with the lowest growth rates, and low spenders do not seem to have benefitted in economic terms. But once again, given the uncertainties of the data, the small size of the sample, and the probable existence of a host of confounding factors, any conclusions drawn on the basis

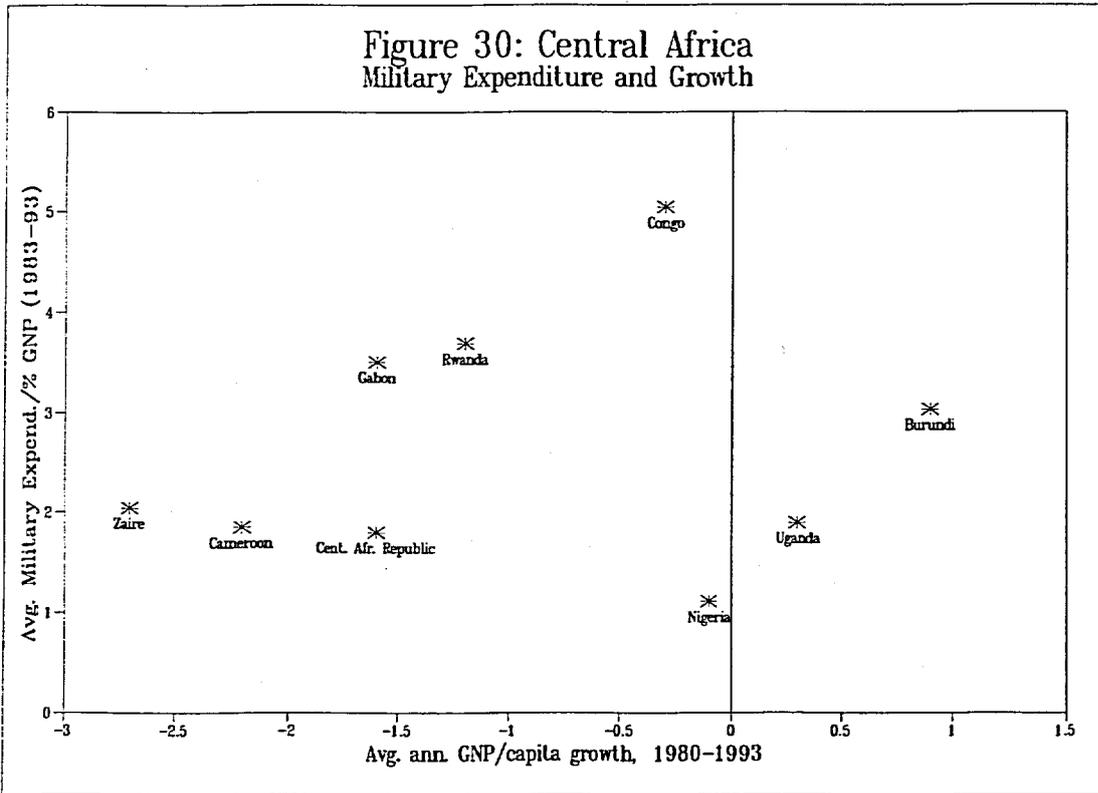
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<sup>7</sup> It should also be noted that Gabon's small population is less than half that of the Congo and 10 percent that of Cameroon.

<sup>8</sup> In order to obtain these ratios, Zaire's education, and Uganda's health, spending for 1990 were used. The figures were two and one dollars per capita respectively.

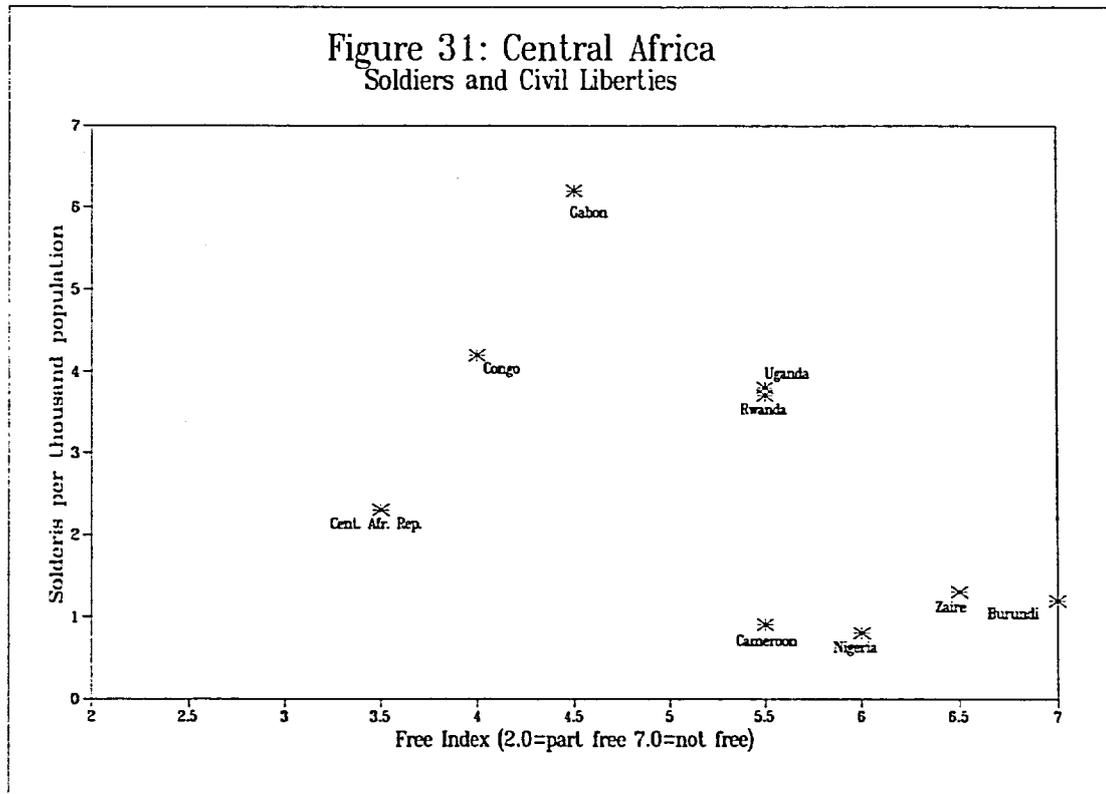
<sup>9</sup> For some details see Philip Gourevitch, "The Poisoned Country," *New York Review of Books*, 6 June 1996.

of a visual examination may simply be spurious. In any case, the absence of a clear relationship does not exclude the possibility that there are benefits to be gained from shifting resources away from unproductive spending towards other sectors, especially for states such as Gabon and the Congo, that are not currently



embroiled in violent conflicts. But as noted above, the rampant insecurities in the region make the consequences of reduced military spending unpredictable (and possible even negative).

Finally, Figure 31 illustrates graphically the appalling human rights and civil liberties situation in Central Africa, and attempts to tease out any relationship between it and the military presence in society. None of the nine states surveyed here scores better than "partly free" (3.5), and several are classified as clearly "not free." Zaire, Burundi and Nigeria all are among the worst African states, and the genocide in Rwanda (subsequent to these assessments) would pushed it to the upper end of the scale. Notwithstanding this record, there is once again no particular relationship between civil liberties and the military presence in society, with in fact the states with the most soldiers/thousand (Gabon and Congo) scoring somewhat better than most of the others in the region. This suggests that the incidence of military rule,



authoritarianism or repression is mediated by a host of other complex social and political factors, in which the purely military factor plays only a supporting role.

On the other hand, it is worth noting that Gabon, Congo, Uganda and Rwanda appear well above the regional average for soldiers per thousand citizens. Uganda in particular has been the target of World Bank initiatives designed to demobilize former soldiers without destabilizing either society or the economy. The \$45 million program has to date reduced the armed forces (which were swollen by the integration of former rebels into the regular army) by about 50 percent, down to about 50,000 soldiers (which would reduce its score to about 2.5 soldiers per thousand citizens).<sup>10</sup> Similar demobilization efforts in Rwanda (before the genocide) were unsuccessful, although programs in Mozambique, Namibia, Eritrea and Ethiopia

<sup>10</sup> "Army Surplus," *Economist*, 17 February 1995; *Military Balance, 1995/96*; "Uganda Dragged into Neighbours Troubles," *Guardian*, 19 December 1995. The threat of refugees and conflict spilling over from the southern Sudan has limited progress at reducing military spending though.

have been somewhat more successful.<sup>11</sup> In light of the above figures, some international attention could also perhaps be given to the situations in Gabon and Congo, in order to avert potential problems in these states.

In general, the above figures paint a mixed picture of which states in Central Africa might be considered states that might be devoting excessive resources to the military, and the purely quantitative indices appear to be somewhat at odds with contextual factors. On the military spending as percentage of GNP scale, Rwanda and Congo stand out, with Zaire also being a concern. On the spending per capita and number of soldiers per thousand measures, Gabon and Congo stand out, with again Rwanda being also of interest. The appearance of Rwanda on these lists would not surprise anyone, given its recent history. But the appearance of Gabon and Congo on these lists belies reality in many ways. In spite of their relatively high proportion of GNP devoted to the military, high number of soldiers/thousand population, and/or high level of military spending per capita, these two states enjoy the highest living standards, and among the most civil and political liberties, in the region. Conversely, two of the region's problem cases, Zaire, Nigeria, tend to rank low on various indices of militarization, despite the fact that their overall political situation graphically demonstrates the destructive power of predatory or military rule.

The real issue for Central Africa (and perhaps Africa in general) may not, however, be the ability of the international community to identify particular outlier states that can be pressured into reforming their military establishments, but whether or not the states in question will survive as viable entities in the 21st century. The tragic example of Somalia, which collapsed into near-anarchy after the flight of the former ruler, Siad Barre, could be repeated, depending on the circumstances, in Burundi, Zaire, Nigeria, and perhaps even in seemingly more stable states such as Kenya. As Jeffrey Herbst provocatively poses the issue, "it is time to ask if some countries simply cannot develop because of the peculiarities of their own national design."<sup>12</sup> Obviously, the international community cannot in advance plot strategies to deal with failed states, but it can attempt to forestall this possibility by reducing the social, economic and political burden posed by the concentrated reservoirs of organized violence that African armed forces often represent, while at the same time exploring means for increasing the basic security of people in the region.

Coupled with this is the institutional weakness of any regional arrangements that might take on a security-building role, such as the Organization of African Unity (OAU) or the Economic Community of West African States (ECOWAS), whose unsuccessful involvement in the Liberian civil war has imposed a great

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<sup>11</sup> "Africa-Conflict: International Support Needed for Demobilization," *Inter Press Service*, 25 July 1995.

<sup>12</sup> Herbst, 153; Robert Jackson and Carl G. Rosberg, "Why Africa's Weak States Persist: The Empirical and the Juridical in Statehood," *World Politics*, 35:1 (1985), 1-24.

burden on Nigeria and other states. Although the level of inter-state tension is not so high as to warrant exploration of conventional confidence and security-building measures (including transparency in military expenditures and decisions), some role in moderating the cross-border consequences of internal conflicts, or in facilitating the emergence of more representative and less predatory rule, could be important to foster through multilateral efforts.

Table 5: Central Africa

Military, Economic, Social and Political Indicators, Early 1990s

Country	Military Expend. (\$ million, constant 1993)	Military Expend. % GNP	Military Expend. per capita (constant 1993\$)	Armed Forces ('000s)	Soldiers per '000 popul.	Human Development Index (rank)	Education Spending (per capita, 1994)	Pub. Health Spending (per capita, 1994)	Polit. & Civil Liberties (rating)	GNP per capita (\$1993)	Average ann. growth (1980-1993), percentage
Burundi	23	2.4	4	7	1.2	152	8	2	7.0	180	0.9
Cameroon	181	2.1	14	12	0.9	124	25	7	5.5	820	-2.2
Cent. African Republic	27	2.1	9	7	2.3	160	11	4	3.5	400	-1.6
Congo	125	5.8	54	10	4.2	123	72	17	4.0	950	-0.3
Gabon	129	2.4	99	7	6.2	114	197	95	4.5	4960	-1.6
Nigeria	210	0.6	2	76	0.8	139	10	2	6.0	300	-0.1
Rwanda	114	8.0	14	30	3.7	153	7	1	5.5	210	-1.2
Uganda	54	1.4	3	70	3.8	154	4	n.a.	5.5	210	0.3
Zaire	245	4.0	6	55	1.3	140	n.a.	1	6.5	220	-2.7

SOURCES:

Columns I-V from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, 1993 data or closest available year. 1992 data is used for the Congo and CAR for Columns I-V, 1991 data is used for Burundi in Columns I-III. Data in columns I-III for Gabon is from International Institute for Strategic Studies, *Military Balance, 1995-96*. Data for Zaire for 1993 is from ACDA, *WMEAT, 1995*.

Columns VI from UNDP, *Human Development Report, 1994*, tables 21 and 43.

Columns VII and VIII from Ruth Leger Sivard, *World Military and Social Expenditures, 1996*.

Column IX from Freedom House, *Freedom in the World, 1993-94*, and figures are for 1993.

Columns X and XI from World Bank, *World Development Report, 1995*. Figures for Uganda and Zaire are calculated from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, and are for 1983-1993 (1983-1991 for Zaire).

## The Southeast Asian Security Complex

Southeast Asia has drawn much attention recently as a possible region in which arms racing and reciprocal military spending increases may have a detrimental impact on regional inter-state security building. Noteworthy increases in the share of global arms imports, and high profile weapons acquisitions, have led some to speculate that this is the site of the "next great arms race."<sup>1</sup> The recent rapid economic growth of states such as Singapore, Thailand or Indonesia has also fuelled speculation about possible bids for regional status or hegemony, and the exacerbation of inter-state rivalries. Although the region is not particularly prone to inter-state conflict, there remain some long-standing tensions between Vietnam and Cambodia, between Thailand and Cambodia (over cross-border rebel groups), between China (not examined in this report) and various states over the Spratly Islands, and between other littoral states over conflicting maritime claims.<sup>2</sup>

On the other hand, several internal conflicts (of varying intensity) continue to plague the region, and to create significant security concerns. Indonesia has been faced with ethnic separatist or autonomy movements in East Timor, Java and Aceh. The Philippines, Cambodia, Myanmar and Papua New Guinea also face internal threats either from ethnic minorities or violent political opposition, although in recent years these have moderated considerably.<sup>3</sup> The cross-border impact of such activity is felt in several states, including Laos and Thailand.

The states of this region do not, however, form one neat "security complex," but rather a series of interconnected and overlapping zones of cooperation and potential conflict. The western edge of the region includes Myanmar (Burma), Thailand, Laos and Cambodia, all of which are enmeshed in a series of internal conflicts that have spill-over or cross-border effects. Offshore and resource management concerns are important for states such as Thailand, Vietnam and Malaysia. Cooperation among the ASEAN states

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<sup>1</sup> Michael Klare, "The Next Great Arms Race," *Foreign Affairs*, 72:3 (Summer 1993), 136-152. See also, for an excellent overview, Shannon Selin, *Asia Pacific Arms Buildups* parts one ("Scope, Causes and Problems") and two ("Prospects for Control"), working papers 6 and 7 (Vancouver: Institute of International Relations, UBC, 1994); Desmond Ball, "Arms and Affluence: Military Acquisitions in the Asia-Pacific Region," *International Security*, 18:3 (Winter 1993/94), 78-112.

<sup>2</sup> The Spratly dispute implicates China, the Philippines, Vietnam, Taiwan, and Indonesia. *The Military Balance, 1995/96*, 168.

<sup>3</sup> These threats range from the Khmer Rouge in Cambodia, to the Bougainville Revolutionary Army activities in Papua New Guinea, the Muslim Moro separatist movement on Mindinao in the Philippines, and the Karen and Shan rebellions in Myanmar. The recent moderation of rebel activity in some of these states (especially Myanmar), is not necessarily a sign, however, of greater accommodation from the government to their demands.

has increased in recent years, and has taken on an increased security (internal and inter-state) dimension.<sup>4</sup> Although the region is host to (or part of) a wide range of security "dialogues," there is not a strong and coherent regional institutional presence, despite some potential for the ASEAN Regional Forum (ARF) to develop in this direction.<sup>5</sup> Perhaps the most important generalized threats to the regimes and states of the region arise from the societal and political pressures that have emerged as a result of rapid economic growth and social transformation, which have put authoritarian or unrepresentative structures under great pressure, (especially in places such as Vietnam or Myanmar), and which have even strained democratic transitions in relatively free states such as Thailand or the Philippines.

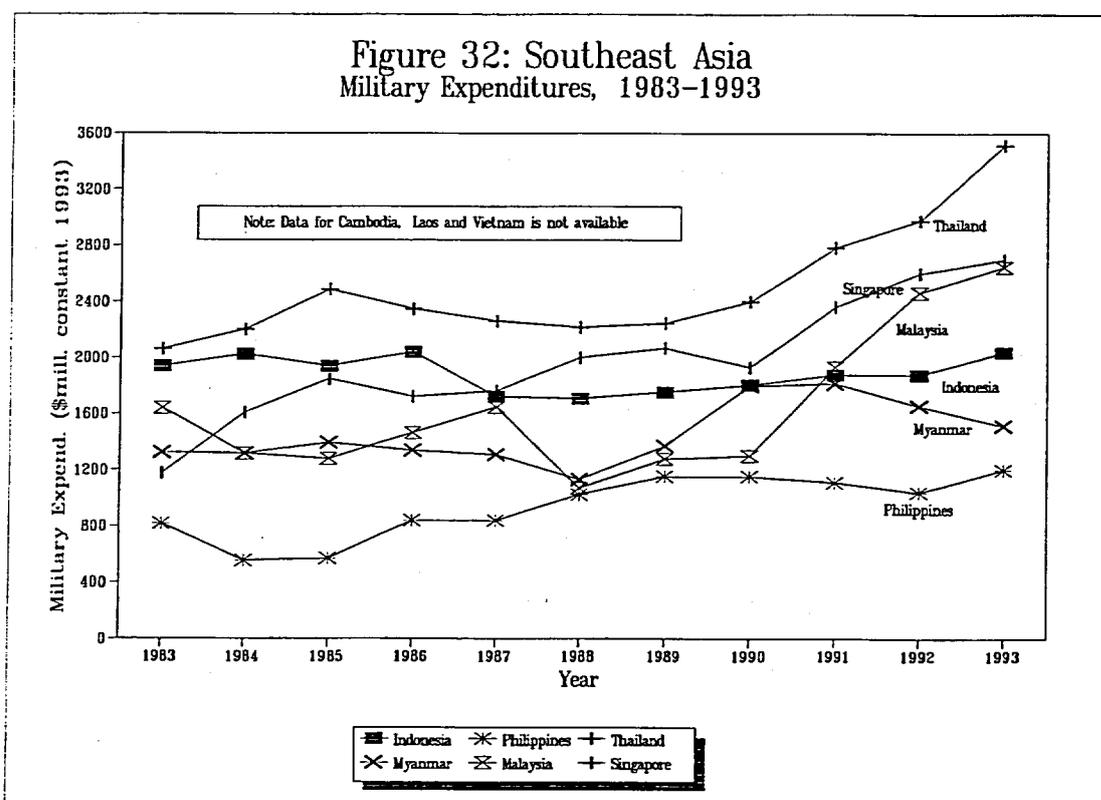
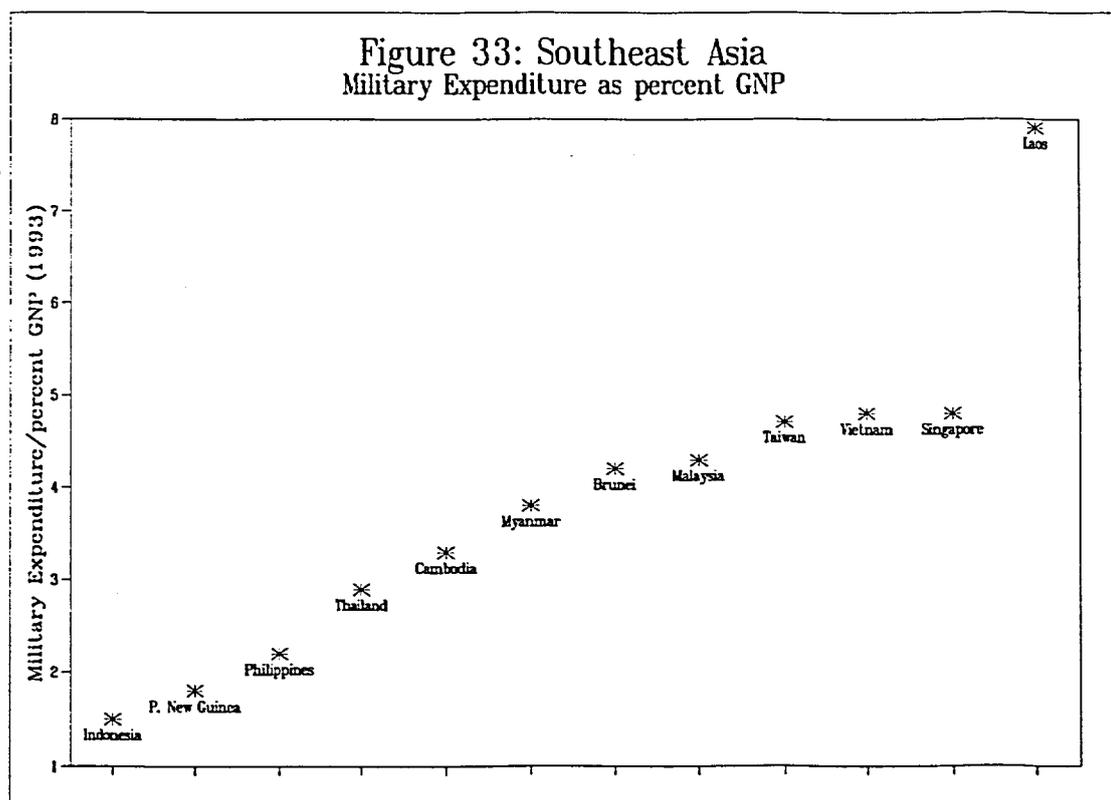


Figure 32 presents military expenditure data for six of the region's principle states. Consistent time series data for important states such as Cambodia, Vietnam and Laos is unfortunately unavailable, but the overall

<sup>4</sup> ASEAN has been expanded with the entry of Vietnam in 1995, and the granting of observer status to Cambodia.

<sup>5</sup> See, for details on the potential and weaknesses of the ARF, Michael Leifer, *The ASEAN Regional Forum*, Adelphi Paper 302, International Institute for Strategic Studies (London: IISS, 1996).

picture presents some interesting elements. First, military spending has been in general rising (in some cases by more than 50 percent) since the mid- or late 1980s. None of the six states shown is spending less on defence than in 1983, and the most dramatic increases have taken place in Thailand, Malaysia, and Singapore, with a lesser increase (and recent decline) in Myanmar. Even assuming that military spending may have dropped in states such as Cambodia or Vietnam, the overall regional picture is of rising absolute levels of spending. Whether or not this constitutes an "arms race" is difficult to tell, since increased spending appears also to be connected to the increasing wealth of the region, to military modernization and procurement cycles, or to the diminished American regional presence. As one analyst concludes, although "there has clearly been an arms build-up in Asia Pacific over the last decade," as measured by both defence spending and the size and sophistication of arsenals, there is little evidence that this process has been driven by competitive reciprocal inter-state arms races.<sup>6</sup> But even if these spending increases are



<sup>6</sup> Selin, *Asia Pacific Arms Buildups*, part one ("Scope, Causes and Problems").

driven principally by the increasing wealth of the region, large investments in state-of-the-art weapons and capabilities does increase concern about the impact on regional stability, the destructiveness of any potential conflict, and the possible negative economic and societal consequences of this spending.

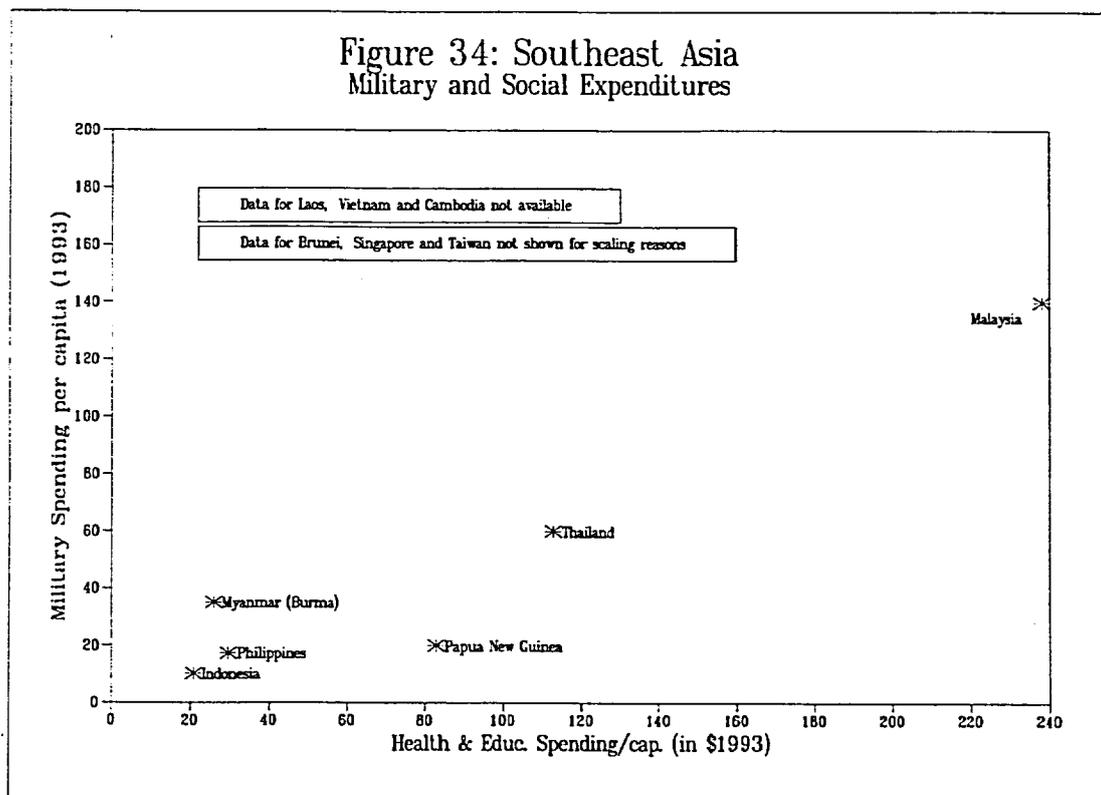
Spending as a percentage of GNP is illustrated by Figure 33, which ranks states according to their overall level of resources devoted to the military. Some important caveats are in order, however, since the level of transparency and comparability of the region's military spending is very low. As one analyst has noted, "large proportions of actual military expenditure (especially when related to internal security and paramilitary forces) may be secreted in other areas of government spending."<sup>7</sup> This is especially problematic for Indonesia and Thailand, making their relatively low scores in Figure 33 suspect. Notwithstanding this, the regional "norm" would probably be between three and four percent of GNP devoted to the military, with a median of four percent. This figure is significantly higher than that of the African or Latin American regions examined in this report. In any case, the regional outlier appears to be Laos, which is spending roughly eight percent of its GNP on the armed forces. Given that it is among the poorest countries in the world (with a GNP per capita of only about \$280), this level of expenditure can be probably deemed *prima facie* excessive, especially in contrast with neighbouring (and perhaps even poorer) states such as Vietnam and Cambodia.

Military and social expenditure data is difficult to obtain for this region, but the available figures are charted in Figure 34, and they present some interesting features. Of the eight states for which information is available, only two, Indonesia and Papua New Guinea, score better than a 1:2.0 ratio of military to social welfare spending. Unfortunately, the huge disparities of wealth (as measured by GNP/capita) in the region make straightforward comparisons of resource allocation impossible. At the bottom, data for the poorest states in the region (Laos, Cambodia and Vietnam) is unavailable, but there are good indirect reasons to believe that their ratios are far worse than even 1:1.0.<sup>8</sup> At the top, relatively wealthy states such as Taiwan, Singapore or Brunei (not shown on Figure 34), may have "poor" military/social welfare spending ratios (1:0.9, 1:0.9 and 1:1.1 respectively), but in absolute terms, they spend far above the regional norm on health and education, and hence their military spending does not create obvious societal hardships or tradeoffs.

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<sup>7</sup> Tim Huxley, quoted in Amitav Acharya, *Governance and Security in Southeast Asia: Assessing the Impact of Defence Spending*, Eastern Asia Policy Papers 9 (Toronto: Joint Centre for Asia Pacific Studies, 1995), 8.

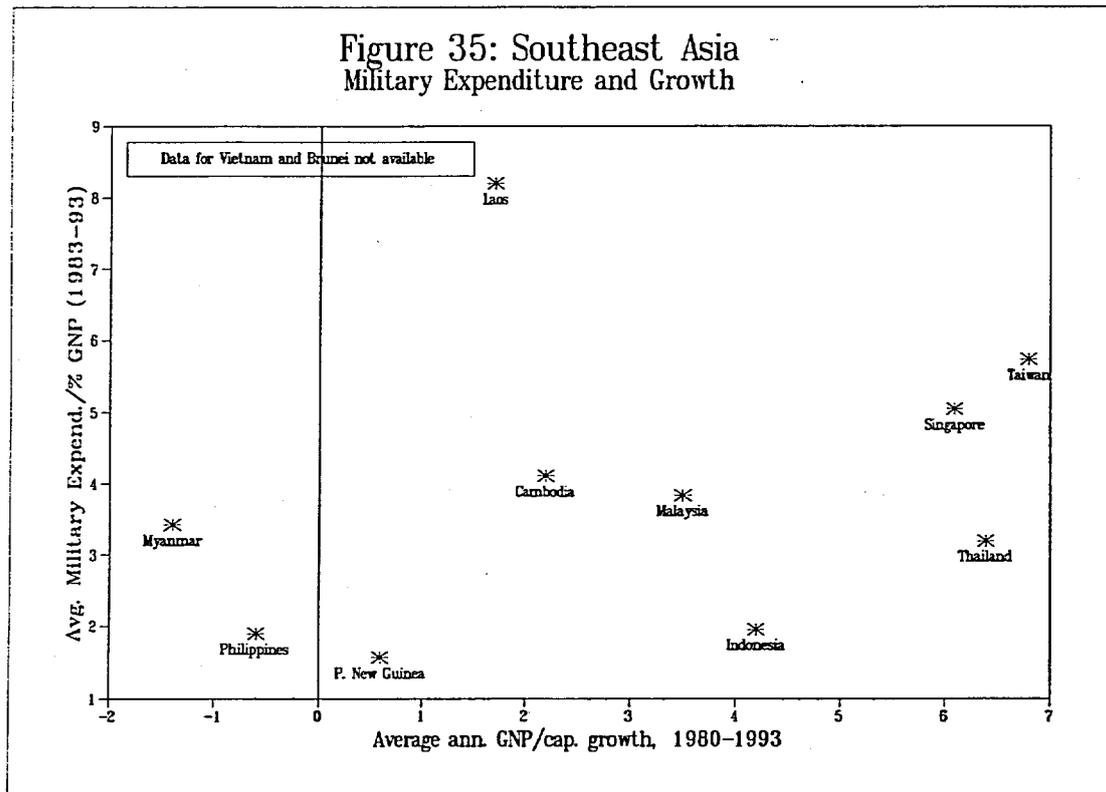
<sup>8</sup> Laos, for example, would have to spend more per capita on health and education than Indonesia (which is almost three times as well off) in order to reach a 1:1.0 ratio; Vietnam's 1994 public health spending per capita of two dollars would require that it spend nine dollars per capita on public education to reach a similar level.



The states in the middle economically, however, are, with two exceptions, clustered near the 1:2.0 norm. Malaysia (1:1.7), Thailand (1:1.8), Indonesia (1:2.1) and the Philippines (1:1.7) all have similar scores, although consistent underreporting of military spending might make these figures misleading. Papua New Guinea (1:4.1) obviously scores well, but it enjoys a somewhat unique status in the region. On the other hand, the greatest concern should probably be with Myanmar, where the military burden is coupled with low levels of social spending (a ratio of 1:0.7), extremely high levels of repression, and negative economic growth, all signals that might point to a military burden that, in regional terms, could be deemed excessive, relative to the security and development needs of the state and its citizens.

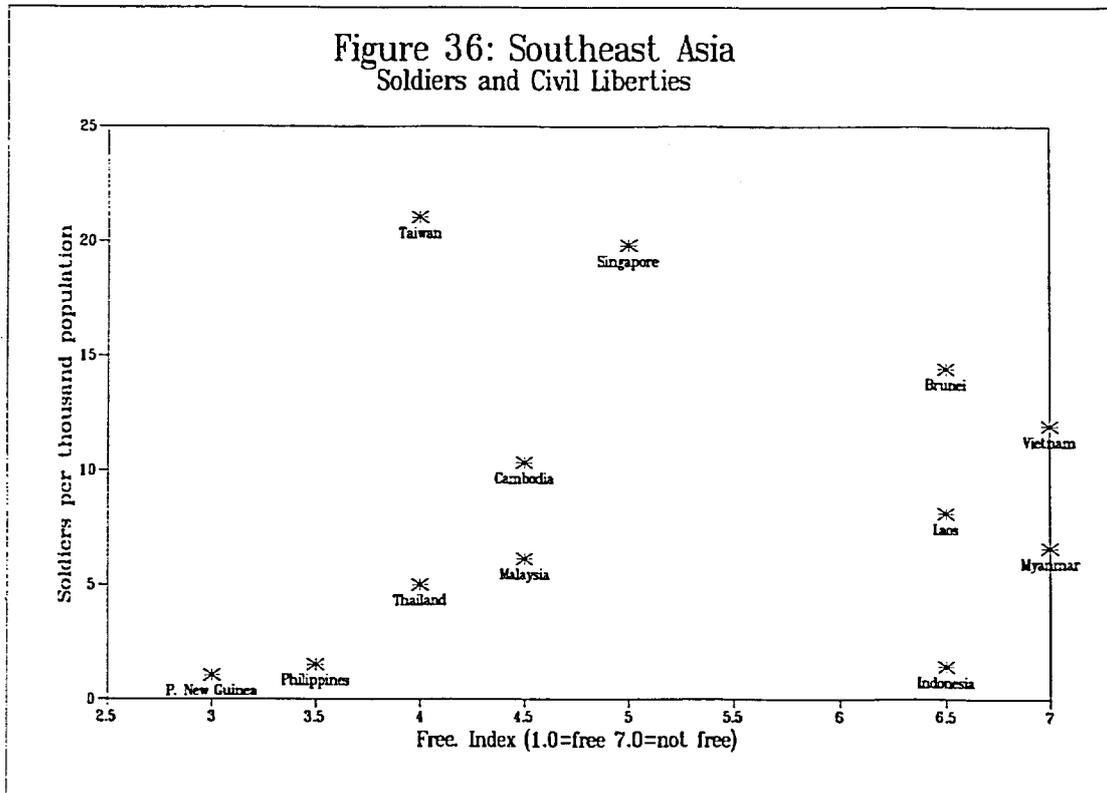
Figure 35, which charts economic growth against military spending, provides a stark contrast with the African cases, and clear evidence of the high levels of economic growth enjoyed in recent years in the region. Only two states, the Philippines and Myanmar, have experienced negative growth in GNP per capita, while several states in the region are among the most rapidly expanding economies in the world. Consistent with previous tables of this sort, there is no *prima facie* visual evidence of a relationship between military spending and economic growth, since low and high defence spenders are scattered

relatively evenly across the table. Again, this is not surprising, since the level of economic development and resource endowments of the region's states vary so widely. The only plausible exception, noted above, is Myanmar, in which the tight grip of the armed forces on the economy and society has (at least until recently) retarded international investment and throttled most economic initiative. This may not, however, be directly linked to military spending, but rather to the economic consequences of authoritarian politics.



Finally, Figure 36 illustrates the possible relationship between the military presence in society and civil and political freedoms. Although there does not appear to be any relationship between the two variables, when examined by themselves, each presents some interesting information. On the side of the number of soldiers, the three highest-scoring states are Taiwan, Singapore and Brunei. All three have small populations relative to potential threatening neighbours (China and Malaysia), and hence their relatively large percentage of soldiers is unlikely by itself to be translated into a potential destabilizing force in the region. The next three states, however, Cambodia, Vietnam and Laos, are all significantly above the levels of their neighbours (Malaysia and Thailand), but they have a deeply scarred recent history of war and cross-border violence that has doubtless shaped the level of their armed forces. As part of broader security

building processes, these states might be candidates for demobilization or demilitarization programs, and Cambodia and Vietnam have in fact been downsizing their forces in recent years.<sup>9</sup>



Two states emerge as potentially carrying an excessive military burden from this overall picture of Southeast Asia: Laos and Myanmar. Both are very poor, economically weak, political unfree, and have either high levels of military spending (as percentage of GNP, in the case of Laos), and/or low levels of social welfare spending (probably in both cases). Other states of some concern would include Cambodia and Vietnam, which have relatively high levels of military presence in society (as measured by the number of soldiers per citizens), and may have overly-high levels of spending as well. Indications are, however, that these two states are reducing their military burdens, although this process is unlikely to continue much further in the absence of international pressures and incentives.

<sup>9</sup> Vietnam's armed forces shrunk from 1.2 million to about 850 thousand soldiers since 1989. Cambodia's forces have gone from about 135 thousand in 1992 to about 90 thousand in 1995. The Laotian armed forces dropped from 53 thousand to 37 thousand in 1992, but has since remained at that level. United States Arms Control and Disarmament Agency, *World Military Expenditures and Armed Transfers, 1993-94; Military Balance 1995/96*.

With respect to the rapidly-industrializing states of the region, in particular Indonesia, Thailand and Malaysia, their economies are well able to support their levels of military spending, despite their relatively poor military/social welfare spending ratios (in comparison with other regions). However, insofar as military spending appears to be expanding as a function of this growth, rather than as a function of a changing constellation of threats, some future concern might be warranted, lest regional political rivalries take on a strong military cast. The regional prospects for political transformation towards more representative government, and the nascent emergence of a regional security dialogue, are steps in the right direction, but concrete confidence and security-building measures, such as increased transparency in military spending and armaments, should be promoted. From the strict point of view of military expenditures, the two states of major concern remain Laos and Myanmar, for both the regional states and the broader international development community.

Table 6: Southeast Asia

## Military, Economic, Social and Political Indicators, Early 1990s

Country	Military Expend. (\$ million, constant 1993)	Military Expend. % GNP	Military Expend. per capita (constant 1993\$)	Armed Forces ('000s)	Soldiers per '000 popul.	Human Development Index (rank)	Education Spending (per capita, 1994)	Pub. Health Spending (per capita, 1994)	Polit. & Civil Liberties (rating)	GNP per capita (\$1993)	Average ann. growth (1980-1993), percentage
Brunei	212	4.2	718	4	14.4	44	679	100	6.5	n.a.	n.a.
Cambodia	74	3.3	7	102	10.3	147	n.a.	n.a.	4.5	220	2.2
Indonesia	2031	1.5	10	271	1.4	105	17	4	6.5	740	4.2
Laos	105	7.9	23	37	8.1	133	n.a.	n.a.	6.5	280	1.7
Malaysia	2642	4.3	140	115	6.1	57	189	49	4.5	3140	3.5
Myanmar	1510	3.8	35	286	6.6	130	23	3	7.0	1030	-1.4
P. New Guinea	82	1.8	20	4	0.9	129	52	31	3.0	1130	0.6
Philippines	1200	2.2	17	107	1.5	99	25	5	3.5	850	-0.6
Singapore	2700	4.8	955	56	19.8	43	688	217	5.0	19850	6.1
Taiwan	10420	4.7	494	442	21.0	n.a.	191	248	4.0	10460	6.8
Thailand	3511	2.9	60	295	5.0	54	84	29	4.0	2110	6.4
Vietnam	756	4.8	11	857	11.9	116	n.a.	2	7.0	260	0.2

## SOURCES:

Columns I-V from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, 1993 data or closest available year. Data in Columns I-III for Vietnam is for 1991; data in Columns IV and V for Papua New Guinea is for 1992; data for Myanmar in Column II is for 1992. Data in Columns I-III for Brunei is from International Institute for Strategic Studies, *Military Balance, 1995-96*.

Columns VI from UNDP, *Human Development Report, 1994*, tables 21 and 43.

Columns VII and VIII from Ruth Leger Sivard, *World Military and Social Expenditures, 1996*.

Column IX from Freedom House, *Freedom in the World, 1993-94*, and figures are for 1993.

Columns X and XI from World Bank, *World Development Report, 1995*. GNP/capita and growth figures for Cambodia, Myanmar, and Taiwan are calculated from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, and are for 1983-1993. Growth figures for Vietnam and Laos are from the same source.

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## The International Options for Response

The preceding analyses sketch a variety of means by which quantitative indicators could be used in a regional context to help identify those states that might be devoting excessive resources to their military sectors, or which might be suffering the adverse social, economic and political consequences of such spending. Obviously, both the indicators and the analysis could be refined, and without detailed case studies of particular states or regions, one cannot be certain about any of the tentative conclusions that have been drawn about which states might be carrying an excessive military burden. But the overall point remains: in spite of fairly major analytic and statistical obstacles, some sensible use can be made of currently available data to draw policy-relevant conclusions that could stimulate or catalyze multilateral or regional discussions.

Perhaps not surprisingly, the cases selected also confirmed the scholarly consensus that it is impossible to uncover any general relationships between levels of military spending and a variety of social, economic or political indicators. In these regional case studies, military expenditures do not appear to be systematically traded off against health and education spending, do not exert any necessarily systematic negative effect on economic growth, and do not (as measured by the number of soldiers per thousand population) appear to be correlated tightly with levels of political and civil freedom. Of course, it might be the case that different groupings of states (by level of economic development, for example) might uncover such general relationships, but those were not undertaken in this report.

On the other hand, two other types of comparisons do appear to be useful. First, regional comparisons of changes in overall levels of military spending, the percentage of GNP devoted to the military, military spending per capita, and the relative size of armed forces, can serve to identify those states that seem to lie outside regional norms. Such "outliers" would perhaps not emerge from a global comparison that did not distinguish among radically different regional contexts. Second, the ratio of military to social welfare spending (as measured by public health and education spending), appears to have some across-the-board utility in making comparisons within (and perhaps even between) regions. It too, however, broke down when comparing states at widely divergent stages of social and economic development (as in Southeast Asia, for example). Nevertheless, the index of a 1:2.0 ratio of military to social spending was helpful in identifying possibly negative government policy choices, and (with appropriate sensitivity to qualitative factors) in highlighting outlier states. Some examples of this from the case studies will be offered below.

But one question remains: what should the policy community do to reduce excessive military spending? This report is not intended to make policy recommendations for appropriate instruments and precise mechanisms, but it can analyze in a preliminary fashion the instruments that have been the main focus of multilateral attention: international development assistance (IDA) and the level of external debt. Linking

IDA in some fashion to policies towards military spending has been the subject of various bilateral and multilateral initiatives, most notably in the OECD Development Assistance Committee discussions, and in the foreign aid policies of Japan, Canada and several Nordic states.<sup>1</sup> International lending and economic restructuring have been the concern of the World Bank and the International Monetary Fund (IMF), with the former assisting in demobilization and retraining programs, and the latter concentrating on reducing "unproductive" public sector spending.

In addressing this question, the first important issue is: to what extent are states that might be excessive military spenders also heavily indebted or dependent on development assistance? Figures 37 and 38 provide some indication of the weakness of any general relationship, and they deserve fairly close scrutiny. Figure 37 charts levels of external debt as a percentage of GNP against military spending as a percentage of GNP, with highly indebted states in the top part of the graph, and high military spenders on the right hand side.<sup>2</sup> Once again, the absence of any general relationship is striking. Virtually none of the highest military spenders are also heavily indebted (using an indebtedness threshold of 100 percent of GNP), with the exceptions of Sudan, Iraq and Angola. Conversely, the high-spending states such as North Korea or Oman are not likely to be susceptible to international pressure.

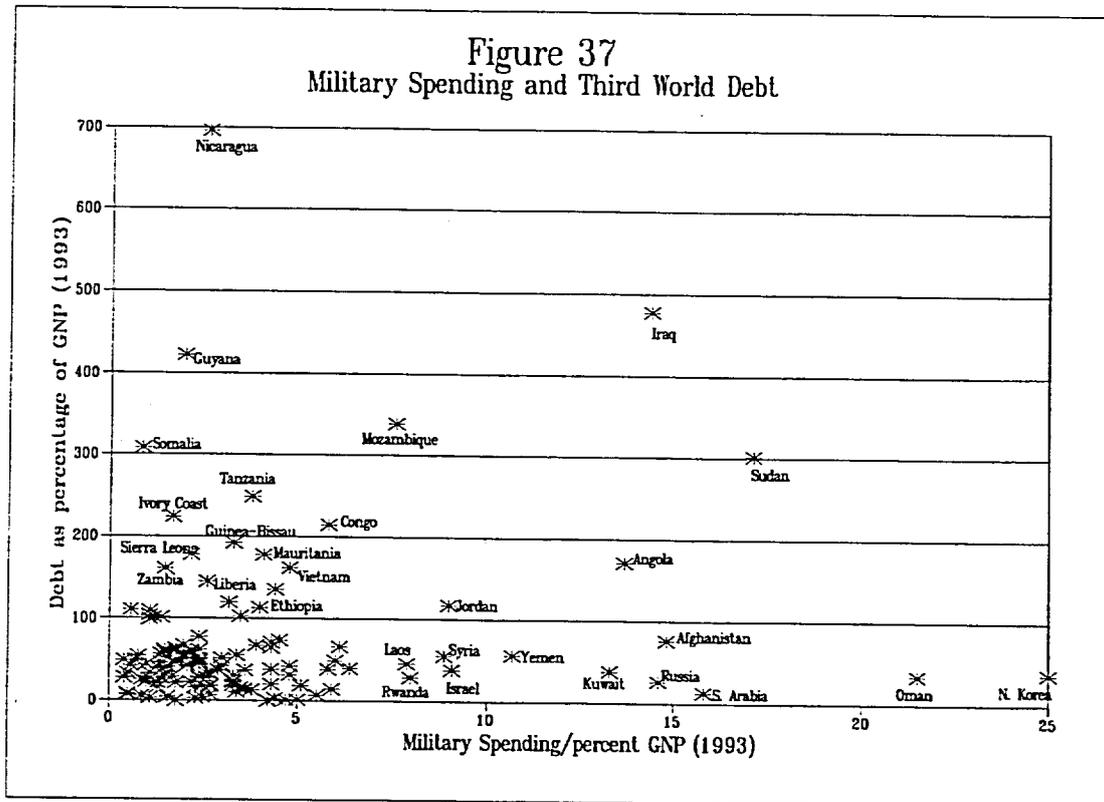
This does not, however, mean that external debt may not represent a useful policy instrument in particular cases, for at least three reasons. First, as the above case studies have indicated, the importance of the regional context for assessing levels of military spending means that several potentially excessive spenders may not appear on the right hand side of the graph, although they may be carrying an excessive burden within a regional context. This would possibly be the case for states such as Nicaragua, Congo, and Mauritania, all of which are labelled as being heavily indebted, and for which levels of military spending near or above five percent of GNP (or even below, in the case of Nicaragua) can still represent a heavy burden on the economy and society, especially in their respective regional contexts.

Second, several states that have very low levels of military spending but which are heavily indebted (more than 100 percent of GNP) may still deserve close scrutiny in order to determine if their regional or internal threat environment would permit (or be enhanced by) a reduction of military spending to even lower levels. Here the examples of Zambia, Sierra Leone or Liberia would be pertinent: none face obvious high

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<sup>1</sup> Specific study projects have also been recently launched within the DAC to examine data and analysis for specific states. For an overview of earlier efforts, see Nicole Ball, *Pressing for Peace: Can Aid Induce Reform* (Washington: Overseas Development Council, 1992).

<sup>2</sup> Figures for external debt are drawn from the World Bank, *World Development Report, 1995*. Some missing values for military expenditures and external debt have been filled in from other sources, including the IISS, *Military Balance* and the Central Intelligence Agency, *World Factbook 1995*.



external threats, all are relatively repressive or illiberal states, and the latter two are in the grip of destructive civil conflicts or wars. Although their absolute level of spending may be below three percent of GNP in all cases, even small reductions might release significant resources for economic or social development, especially if these were coupled with measures to alleviate the internal insecurities of these states and peoples.

Third, even states that do not have high absolute levels of external debt can find themselves in a situation in which reductions in military spending would be useful to obtain either debt relief or other forms of international assistance. Here states on the right hand side of the graph, such as Angola, Yemen or Laos, could become the focus of attention or assistance, especially where they are spending at higher levels than other states in their region. What is important to note here, however, is that there are a number of high military spending states that would not likely become a focus of international attention, because of their relatively invulnerability to the pressure that could be brought to bear by the lending community (such as Saudi Arabia, Kuwait, or Oman). This underscores the need to take the regional context into

consideration in framing policies that might render some states (such as Yemen, for example) less secure simply because they are more vulnerable to international pressure than their neighbours.

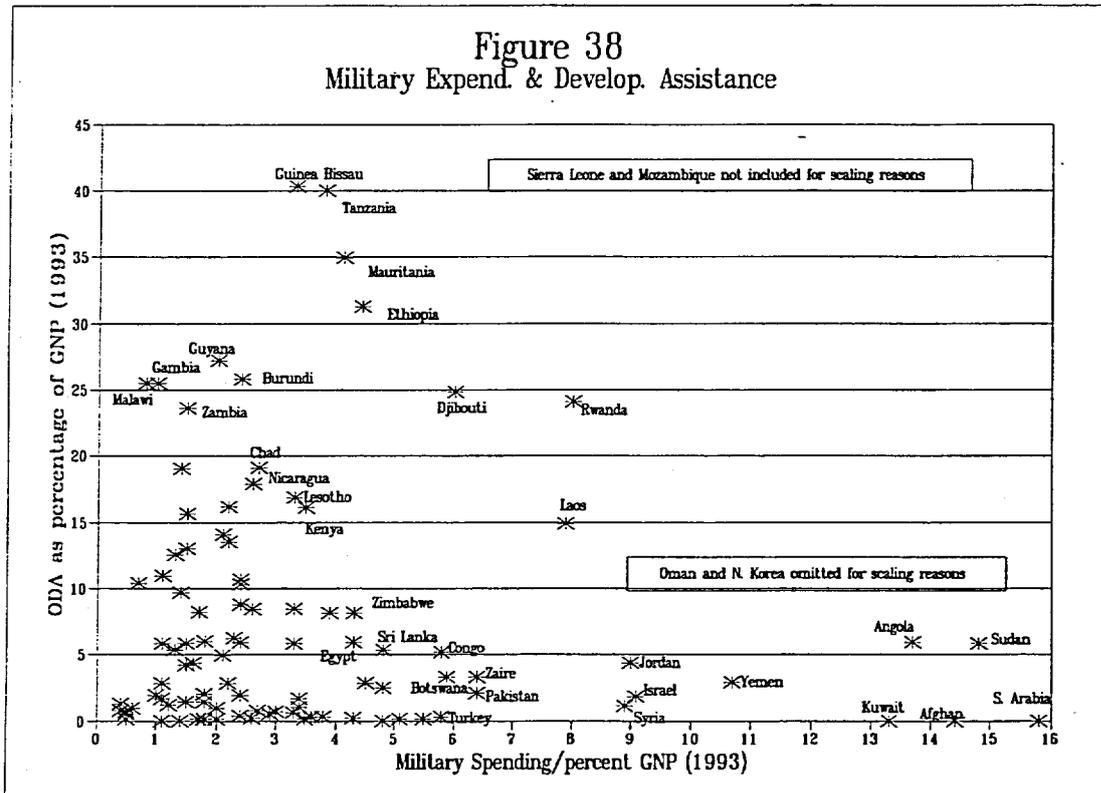


Figure 38 below maps the same type of data for development assistance, with one important caveat: those states that do not receive any (or very little) development assistance (or for which data was unavailable) have been omitted. Hence, for example, high military spenders such as Saudi Arabia are not listed on the chart.<sup>3</sup>

Nevertheless, some interesting features of this figure can be discussed. To begin, the same absence of a clear relationship between development assistance and military spending appears, since any relationship

<sup>3</sup> IDA data was principally derived from the World Bank, *World Development Report, 1995*. Missing values for numerous states were filled in from the United Nations Development Programme, *Human Development Report 1994*, and from the CIA, *World Factbook 1995*. IDA figures for the newly-independent states of the former Soviet Union were mostly unavailable.

would result in states falling on a rough line from the lower left to the upper right corner. This suggests that the displacement effect, where development assistance is alleged to free up funds that go directly to military spending, might be difficult to determine on anything but a case-by-case or regional basis. Again, however, there remain several good reasons why development assistance might be usefully considered as a multilateral policy instrument. The analysis in part parallels that given above for external debt.

First, there are several high military spending states that do receive large amounts of development assistance. Using a four percent military expenditure/GNP threshold, and concentrating on those states for whom IDA represents more than five percent of GNP, 13 states would warrant attention: Mauritania, Ethiopia, Djibouti, Rwanda, Laos, Zimbabwe, Sri Lanka, Egypt, Congo, Angola, Sudan, Mozambique and Oman (the latter two are not shown).<sup>4</sup> Although not all of these were discussed in the case studies, several of those that were did stand out in their specific regional context. A second group of states that are low military spenders but heavily dependent upon IDA could also be examined to see if they represent problem cases within their regions. These could include Guinea-Bissau, Tanzania, Gambia, Malawi, Guyana, Burundi, Zambia, Chad, Nicaragua, Lesotho and Kenya. Several of these scored poorly within their regional context, illustrating once again the importance of this sort of analysis.

On the other hand, the prospects for applying pressure to states such as Zaire, Pakistan or Yemen, none of which are dependent upon development assistance to a significant extent, are relatively slim, at least in the absence of the political will for change on their part. Although the political will to reduce spending may exist in some states in this category (such as Angola), it is unlikely to play a role in many of the other states labelled along the bottom of the graph.

Table 7 on the following page sounds some cautionary notes by providing a statistical snapshot of the possible problems that could be raised by a simple focus on those states that are heavily indebted or dependent upon development assistance. It lists all the states that spend more than five percent of their GNP on defence, and contrasts this with their indebtedness and assistance dependence. What is immediately noteworthy is the number of high military spenders that would be almost completely unaffected by multilateral policies in this area. Libya, Greece, Turkey, Pakistan, Israel, Kuwait, Saudi Arabia, and North Korea (and probably Tajikistan, Lithuania and Russia) are all relatively immune with respect to both debt and development assistance influence levers (if one arbitrarily uses a three percent threshold for development assistance and a 50 percent threshold for external debt).

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<sup>4</sup> Four states have also not been shown for scaling reasons. Sierra Leone and Mozambique have levels of military spending and development assistance of 2.2/16.4 percent of GNP, and 7.6/79.2 percent of GNP respectively. Oman receives 9.2 percent of GNP as development assistance, and spends 21.5 percent of GNP on the military. North Korea receives virtually no development assistance (although recent arrangements for food and energy supplies might be significant).

Table 7

## Military Spending, Development Assistance and External Debt, early 1990s, High Spending States

Country	Military Spending as percentage of GNP	Development Assistance as percentage of GNP	External Debt as percentage of GNP
Tajikistan	5.0	n.a.	1.0
Libya	5.1	0.1	18.1
Greece	5.5	0.1	n.a.
Lithuania	5.5	n.a.	5.5
Turkey	5.8	0.3	38.2
Congo	5.8	5.2	215.0
Botswana	5.9	3.3	13.6
Djibouti	6.0	24.8	48.6
Bahrain	6.1	0.0	64.9
Pakistan	6.4	2.1	39.1
Mozambique	7.6	79.2	339.4
Laos	7.9	14.9	46.0
Rwanda	8.0	24.1	28.8
Syria	8.9	1.1	54.6
Jordan	9.0	4.4	117.1
Israel	9.1	1.8	37.6
Yemen	10.7	2.9	56.4
Kuwait	13.3	0.0	38.0
Angola	13.7	5.9	170.7
Iraq	14.4	0.0	477.8
Russia	14.6	n.a.	25.4
Afghanistan	14.3	5.8	76.0
Saudi Arabia	15.8	0.0	12.0
Sudan	17.1	6.0	301.4
Oman	21.5	9.2	33.3
Korea, North	25.0	0.0	36.3

## SOURCES:

Column I from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, 1993 data or closest year. Data for Sudan, Congo, Yemen and North Korea is for 1992. Figures for Tajikistan, Syria, Iraq, Angola, Zaire and Afghanistan are from International Institute for Strategic Studies, *Military Balance, 1995-96*, and may not be wholly comparable.

Column II from World Bank, *World Development Report, 1995*. Figures for Sudan, Djibouti, Angola, Afghanistan, North Korea, Syria and Libya are from UN Development Programme, *Human Development Report, 1994*, and are for 1992.

Column III from World Bank, *World Development Report, 1995*, with the following exceptions. Figures for Djibouti, Sudan, Bahrain, Zaire, Syria, Israel, Afghanistan and North Korea, from CIA, *World Factbook 1995*, using ACDA, *WMEAT* for GNP figures. Figures for Libya, Iraq, Angola, Kuwait and Saudi Arabia from IISS, *Military Balance, 1995-96*.

This sort of data has led some to conclude that military expenditures cannot be addressed in a consistent or systematic fashion by focusing on multilateral financial instruments. The thrust of this report, however, leads in the contrary direction. Although the mainly oil-rich states of the Middle East are unlikely to be affected by systematically subjecting lending and aid policies to military spending criteria, what is most striking is how few exceptions there actually are beyond these resource-rich states. Just over half of the major military spenders remain vulnerable to some multilateral pressures.

More importantly, the policy goal identified in this report is not necessarily to use the levers of IDA or debt relief as the means to obtain reductions in military spending, but simply as a means by which to catalyze a regional or multilateral dialogue on the appropriate level of military expenditures in various states and regions. Greater transparency in spending and in decision-making is the goal, and the levers of IDA or debt relief can represent appropriate rationales for dialogue. Finally, since one central thesis of this report has been that a regional focus is more appropriate as a means to draw comparisons, attention can be paid to a much wider range of states with possibly excessive military burdens, (defined in regional terms, and along various measures). In sum, the number of states that could usefully be drawn into a dialogue on constraining or reducing military spending is much larger than Table 7 by itself suggests.

The remaining task of this report is to reinforce this conclusion by highlighting the status of those states that were signalled in the various case studies as being *prima facie* states of concern within their regions, in order to see whether or not they are heavily indebted or dependent upon development assistance. Sixty-two states were evaluated in total, and they are listed in Table 8 at the end of this chapter. A total of roughly nineteen states were identified as possibly carrying an excessive military burden, on one or more of the axes measured, in the different regions and sub-regions examined. The most significant or consistent outliers were Nicaragua, El Salvador, Bolivia, Colombia, Mauritania, Libya, Sudan, Angola, Mozambique, Zimbabwe, Rwanda, Zaire, Laos and Myanmar, while several other states warranted some closer examination (Chile, Uruguay, Botswana, Cambodia and Vietnam). These states have been italicized in Table 8 below. Obviously, many of them suffer from a range of internal and external threats to security that explain the high level of resources they devote to the military, but this merely implies that strategies to tackle military expenditures must also take into account broader security-building considerations. One should also note that only eight of these twenty states appear in Table 7 above.

Yet if one looks more closely at this group of twenty states, it confirms the general argument that once a qualitative and regionally-sensitive analysis is conducted, it turns out that the states that are identified are (with a few exceptions), relatively vulnerable to international pressure and attention. Fourteen of the twenty states score as "dependent," when this is defined as having *either* more than four percent of GNP from development assistance or external debt of more than 50 percent of GNP. Not surprisingly, states such as Libya or Chile are not captured in this measure (the other exceptions are Botswana, Colombia, and Myanmar), but enough of the states of potential concern are captured to reinforce the policy-relevance

of these indices. The fact that not every problem state can be engaged can hardly constitute an excuse not to take into account appropriate levels of military spending (and other measures of the military burden on society) when making foreign aid and international lending decisions, especially since the possibility of *increased* foreign aid or access to international finance can also play a role as inducements to change.

One final observation concerns the relative utility of the ratio measure of military to combined health and education spending, listed in the last column of Table 8. Although some of the states identified as being of potential concern have respectable ratios (above 1:2.0), 68 percent for which data was available (13 of 19, including estimates for Vietnam, Laos and Cambodia) scored at, or worse than, a 1:2.0 ratio. On the other hand, the tremendous regional variability in this index makes its value as a general criterion suspect. Only two states in Central and South America fall at or below the 2.0 threshold, while only two states in Southeast Asia fall above it (perhaps only one, given the likely under-reporting of Indonesian military spending). Although the measure itself could be refined, in particular by developing a broader and more sensitive index of public expenditures on social welfare, the overall idea of contrasting different "envelopes" of public sector spending may not have much general applicability outside of particular regional (or perhaps economic) contexts. But further exploration of this issue could dovetail nicely with the emphasis of international financial institutions on increasing transparency and accountability of government spending, and could perhaps form a plank in bilateral and multilateral assistance policies.

### **Concluding Comments**

Little attention has been paid in this report to the precise policy instruments that might be important for significantly reducing military spending in various regions. That task properly follows a diagnosis of the nature and scope of the problem. The current emphasis in the policy community has been, however, on encouraging constructive "positive" engagements, rather than punitive threats of restricted access to aid or financing. Within this emphasis, a wide range of specific initiatives have been proposed, ranging from assistance for the demobilization and retraining of former soldiers, to efforts to identify and eliminate particularly wasteful spending, to pressures to increase budget and spending accountability and transparency, to measures to create more systematic evaluation of defence and security needs, to efforts to catalyze or promote regional security dialogues that could create confidence and reduce insecurity. There is no shortage of ideas in the policy community.

Which of these are pursued in any particular region depends on its conflict and security environment. The data analyzed in this report, while not definitive, hint at the many possible dimensions along which this problem can be tackled: the negative impact on economic growth and development, the consequences for political liberalization and respect for human rights, and the impact on inter-state and regional security. None can be examined in isolation; all should play a role in policy formulation if the goal of reducing military expenditures to the lowest levels consistent with security (in all its dimensions) is to be achieved.

Table 8

**Military Spending, Development Assistance and External Debt, early 1990s,  
All Regional States Surveyed**

Central America	Military Expenditure as percent of GNP	Development Assistance as percent of GNP	External Debt as percent of GNP	Ratio of Military to Combined Health & Education Spending*
<b>Central America</b>				
Belize	1.1	5.8	31.8	n.a.
Costa Rica	0.4	1.3	48.1	26.6
<i>El Salvador</i>	1.3	5.3	21.0	2.0
Guatemala	1.0	1.9	22.4	2.6
Honduras	1.4	9.7	101.2	5.0
<i>Nicaragua</i>	2.6	17.9	695.4	3.5
Panama	1.2	1.2	101.6	9.2
<b>South America</b>				
Argentina	1.7	0.1	28.6	3.3
<i>Bolivia</i>	2.4	10.6	61.9	2.1
Brazil	1.1	0.0	26.3	5.5
<i>Chile</i>	2.4	0.4	44.7	2.2
<i>Colombia</i>	2.6	0.2	32.3	1.7
Ecuador	1.1	1.7	98.8	4.2
Guyana	2.0	27.2	422.0	6.6
Paraguay	1.8	2.0	20.4	2.3
Peru	1.8	1.4	46.1	2.1
Suriname	1.1	0.0	2.6	n.a.
<i>Uruguay</i>	2.0	0.9	54.3	2.2
Venezuela	1.8	0.1	62.6	4.0

## North Africa

Algeria	3.0	0.7	51.3	4.5
Chad	2.7	19.1	31.7	1.3
Egypt	4.3	5.9	70.5	1.5
<i>Libya</i>	<i>5.1</i>	<i>0.1</i>	<i>18.1</i>	<i>n.a.</i>
Mali	2.2	13.5	58.8	1.6
<i>Mauritania</i>	<i>4.1</i>	<i>34.9</i>	<i>177.9</i>	<i>1.3</i>
Morocco	4.5	2.8	72.8	1.5
Niger	1.5	15.6	52.1	3.4
<i>Sudan</i>	<i>17.1</i>	<i>6.0</i>	<i>301.4</i>	<i>1.0</i>
Tunisia	3.4	1.7	54.3	2.4

## Southern Africa

<i>Angola</i>	<i>13.7</i>	<i>5.9</i>	<i>170.7</i>	<i>0.7</i>
<i>Botswana</i>	<i>5.9</i>	<i>3.3</i>	<i>13.6</i>	<i>1.8</i>
Lesotho	3.3	16.8	21.9	2.5
Madagascar	1.1	11.0	108.7	2.6
Malawi	1.0	25.5	42.6	4.4
Mauritius	0.4	0.8	26.5	18.8
<i>Mozambique</i>	<i>7.6</i>	<i>79.2</i>	<i>339.4</i>	<i>1.0</i>
Namibia	2.3	6.2	15.4	5.6
South Africa	2.7	0.8	16.6	4.3
Swaziland	2.4	5.9	26.9	4.8
Zambia	1.5	23.6	160.8	2.4
<i>Zimbabwe</i>	<i>4.3</i>	<i>8.1</i>	<i>64.6</i>	<i>2.7</i>

## Central Africa

Burundi	2.4	25.8	49.6	2.4
Cameroon	2.1	4.9	57.7	2.2
Cent. Afr. Republic	2.1	14.1	41.4	1.6
Congo	5.8	5.2	215.0	1.6
Gabon	2.4	1.9	77.7	2.9
Nigeria	0.6	0.9	110.0	5.9
<i>Rwanda</i>	<i>8.0</i>	<i>24.1</i>	<i>28.8</i>	<i>0.6</i>
Uganda	1.4	19.0	55.7	1.6
<i>Zaire</i>	<i>4.0</i>	<i>3.3</i>	<i>64.6</i>	<i>0.5</i>

## Southeast Asia

<b>Brunei</b>	4.2	0.0	0.0	1.1
<i>Cambodia</i>	3.3	8.4	17.3	<i>n.a.</i>
<b>Indonesia</b>	1.5	1.4	58.5	2.1
<i>Laos</i>	7.9	14.9	46.0	<i>n.a.</i>
<b>Malaysia</b>	4.3	0.2	37.0	1.7
<i>Myanmar</i>	3.8	0.3	12.5	0.7
<b>P. New Guinea</b>	1.8	6.0	60.0	4.1
<b>Philippines</b>	2.2	2.8	59.8	1.7
<b>Singapore</b>	4.8	0.0	0.0	0.9
<b>Taiwan</b>	4.7	0.0	0.3	0.9
<b>Thailand</b>	2.9	0.5	36.5	1.8
<i>Vietnam</i>	4.8	2.5	161.8	<i>n.a.</i>

\* The figure represents the amount spent on public health and education for every dollar spent on the military.

Italicized states are those that have been identified above as states of potential concern as carrying an excessive military burden.

## SOURCES:

Column I from ACDA, *World Military Expenditures and Arms Transfers, 1993-94*, 1993 data or closest available year. Missing data has been derived from other sources, and is indicated in Tables 1-6.

Columns II and III from World Bank, *World Development Report, 1995*.

Column IV is derived from ACDA, *WMEAT 1993-94*, and Ruth Leger Sivard, *World Military and Social Expenditures, 1996*. Ratios were all calculated in 1993 constant dollars.

## Notes:

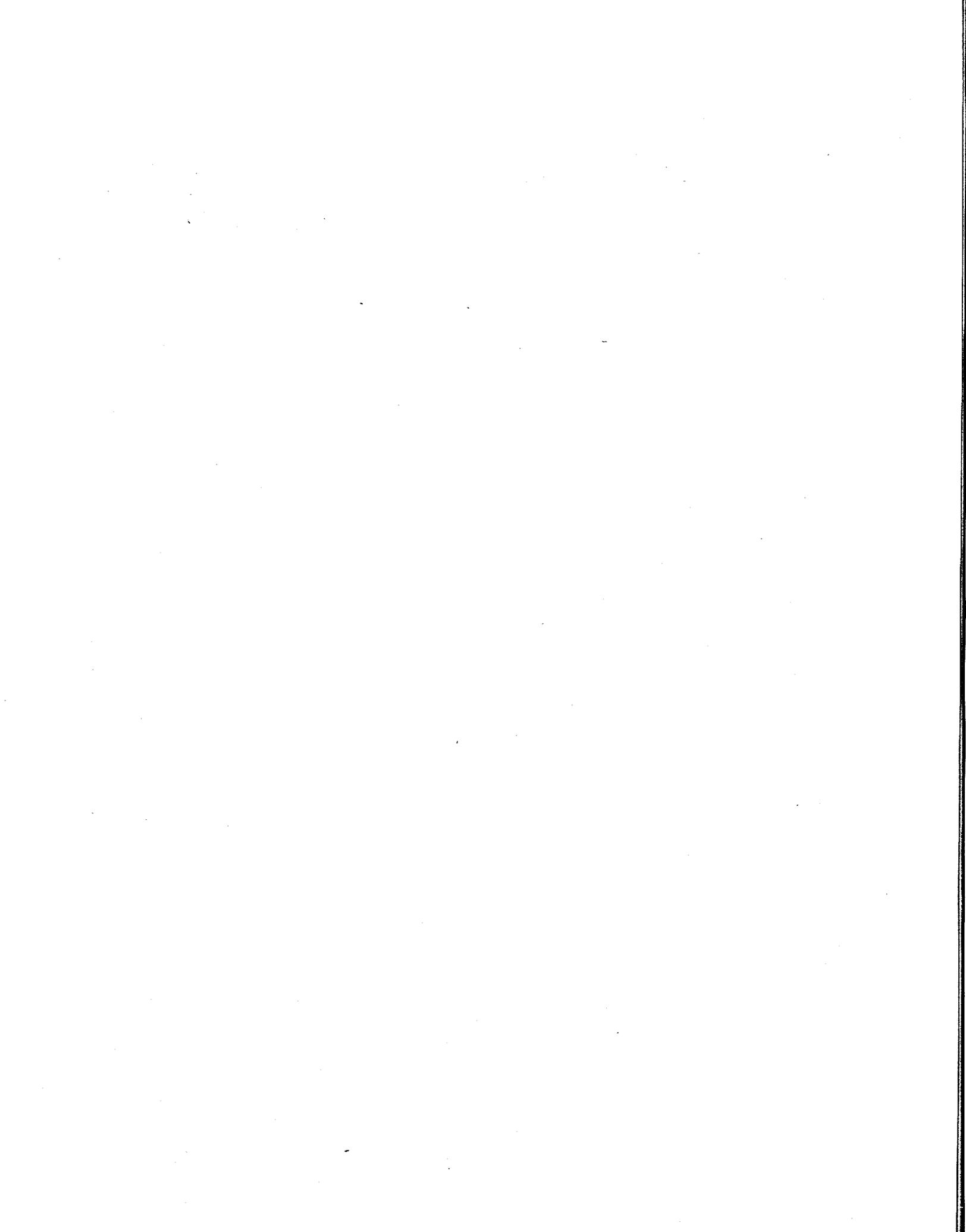
IDA figures for the following states were derived from the United Nations Development Programme, *Human Development Report 1994*, and are for 1992: Angola, Belize, Cambodia, Libya, Sudan, Swaziland, Zaire. GNP figures came from ACDA, *WMEAT, 1993-94*, for: Angola, Libya.

IDA figures for South Africa were derived from the Central Intelligence Agency, *World Factbook 1995*, and the GNP figure was from ACDA, *WMEAT, 1993-94*.

Figures were taken from the IISS, *Military Balance, 1995/96* for the military expenditures (and millex/GNP and millex/capita) of the following states: Angola, Brunei, Gabon, Panama, Zambia. Figure for Zaire for Column I from ACDA, *WMEAT 1995*, for 1993.

Debt figures were taken from the CIA, *World Factbook 1995* for the following states: Belize, Cambodia, Namibia, South Africa, Swaziland, Sudan, Suriname, Taiwan, Zaire. GNP figures came from ACDA, *WMEAT, 1993-94* for these states, and for Myanmar.

Debt figures (including GNP) were calculated from the IISS, *Military Balance, 1995/96* for the following states: Angola, Guyana.



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