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**PERILOUS INFORMATION GAP:
THIRD WORLD MILITARY EXPENDITURES**

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Perilous Information Gap: Third World Military Expenditures

Except perhaps for the topic of arms trade, the matter of military expenditures of less developed countries (LDCs) does not command much attention among economists and in the economics literature. For the overwhelming majority of LDCs, military-capital expenditures account for only a relatively minute percentage of total military expenditures; 95 percent of LDC military expenditures are personnel-related. Further, according to the Arms Control and Disarmament Agency (ACDA) data for 1988, a mere twelve of the roughly 125 LDCs accounted for fully two-thirds (67 percent) of all LDC arms imports. Those twelve countries, in descending order, are: Iraq; India; Saudi Arabia; Afghanistan; Iran; Israel; Cuba; Angola; Vietnam; Syria; Taiwan; and North Korea.

Two aspects of LDCs' military expenditures, other than arms imports, urgently require serious economic analytical investigation. First is the relation between economic growth and military expenditures in LDCs. Second is the question of government budgetary tradeoffs between allocations to the military sector and nonmilitary sectors such as health, education, and infrastructure investments. Especially in these critical areas our current level of knowledge is appallingly inadequate.

Serious research attention to this subject area was initiated by Columbia University's late Emile Benoit, in the second half of the 1960s. On contract for the ACDA, Benoit investigated the relation between LDCs military expenditures and their economic growth record.

A version of his research was published in 1973 by D.C. Heath (Lexington, Mass.) as *Defense and Economic Growth in Developing Countries*. For a sample of forty-four LDCs, Benoit made the surprising discovery that there appeared to exist a positive, instead of the expected negative, correlation between LDCs military expenditures and their rate of economic growth. For Benoit the crucial evidence was:

the finding that the average 1950–1965 defense burden (defense as a percentage of national product) of 44 developing countries were *positively*, not *inversely*, correlated with their growth rates over comparable time periods: i.e., the more they spent on defense, in relation to the size of their economies, the faster they grew—and vice versa. This basic correlation was strong enough so that there was less than one chance in a thousand that it could have occurred by accident.

Puzzled and groping for an explanation, Benoit suggested four possible growth-stimulating effects of military expenditures and three possible growth-retarding effects.

The growth-retarding ones were: (a) an investment effect, where resources devoted to the military sector are withdrawn from potentially productive use in the civilian sector; (b) a productivity effect, which assumes that productivity and the productivity growth of government funded activities is less than that of private-sector funded activities of comparable magnitude; and (c) an income-shift effect, on the argument that decreased levels of civilian investment and

productivity will reduce GNP and hence "shift" income to a lower level than otherwise could be achieved.

The possible growth-stimulating effects of LDCs military expenditures in Benoit's view were that: (a) national security may provide for a more secure and stable environment within which to invest and produce; (b) in a demand-constrained economy, military expenditures serve to stimulate effective demand; (c) some military expenditures may improve a nation's infrastructure through provision of airfields, roads, communication systems, cartographic services, and so on; and (d) the military sector may contribute to attitudes characteristic of "modernization" and general development, such as time-consciousness, awareness of the importance of structured orderly activities, near-unquestioned submission to the demands of authorities, personal discipline, and so on.

Curiously, only after Benoit published a summary of his 1973 book as "Growth and Defense in Developing Countries" in the highly visible Chicago journal, *Economic Development and Cultural Change* (Vol. 26, No. 2 [January 1978]:271–280) did others take note and a new field of research was born. In this field most researchers are sociologists and political scientists; few economists work in this area.

Even though research attention is beginning to be extended to or even shift to the economic *causes* of military expenditures in LDCs, most inquiries deal with the economic *effects* of LDCs military expenditures. Among those, the two most prominent themes are: first, in continuation of Benoit's topic, the relation between military expenditures and economic growth; and, second, the question of whether or not, and if so to what extent, there exist budgetary tradeoffs between government allocations to the military sector vis-à-vis other sectors, such as health and education.

Inadequate economic studies

Initially, an assortment of studies of varying complexity appeared to contradict Benoit's findings. Most prominent among those studies are those by Saadet Deger, whose simultaneous four-equation model relates military expenditures to economywide growth rates but also associates military expenditures with the national savings rate and the balance of trade, which, in turn, are arguments in the growth equation.

With Benoit, Deger finds that indeed the *direct* impact of military expenditures on economic growth is positive for her sample of fifty LDCs (with averaged data for 1965 to 1973). However, her sample also shows that the impact of military expenditures on resource mobilization is negative which, in turn, lowers the overall economywide growth rate. Thus, once all the specified feedback effects are taken into account, the *indirect* effect of military expenditures on rates of economic growth is negative. (See Saadet Deger's 1986 monograph *Military Expenditure in Third World Countries: The Economic Effects*.)

Unfortunately, Deger's model, along with many others, suffers from lack of differentiation. What analytic sense does it make to lump data for all LDCs into one model, unless one were to postulate that all LDCs are somehow alike? But even such sample data splits as one does find in the literature do not necessarily make sense, either. Most such divisions disaggregate the sample data into continental regions only. Such models imply that all African nations are alike, or that all Asian countries and all Latin American countries are alike. But it is not clear at all why, say, the relation between the military expenditures and economy-wide growth rates of Brazil should be taken on par with that for Guyana, or that of Bangladesh with that of Singapore or Hong Kong.

Among the few analytically

interesting sample splits are those produced by Peter Frederiksen and Robert Looney, economics professors at the Naval Postgraduate School in Monterey, California. One such split classifies countries as "resource-abundant" vs. "resource-constrained" (usually with respect to foreign exchange availability). The conjecture is that the former will better be able to afford *both* military expenditures and continued economic development projects. The statistical work finds, indeed, that the impact of military expenditures on economic growth in "resource-constrained" countries is more negative than that in "resource-abundant" countries.

Another Frederiksen/Looney sample division is that between LDC arms producers and non-arms producers. That division finds that the negative impact of military expenditures on economic growth in the case of arms producers is mitigated, if not positive, relative to the case of the LDC non-arms producers. Regrettably, however, Frederiksen and Looney use econometrically unsatisfying single-equation models that do not capture feedback loops as do the Deger models. Nonetheless, when such feedback loops à la Deger are modelled, the Frederiksen/Looney result is confirmed (see Robert Looney in *For Further Reading*).

By the same token, there are no analyses distinguishing the military expenditures—economic growth record between those countries expending "much" of the military sector (say, South Korea) versus those expending "little" (say, Brazil). In other words, does it matter for economic growth just how much LDCs expend on the military? Even though Kenneth Boulding (in a 1974 review of Benoit's book) suggested that such nonlinearities between military expenditures and economic growth across countries may be possible, that issue has not been studied systematically or in any detail at all.

Similarly, there is only one study I know of that examines the impact of military expenditures on private investment. In a 1988 RAND Corporation study, Daniel Kohler finds that in sub-Saharan Africa, those countries using military expenditures primarily for protective purposes tend to increase internal security and stability and thereby attract foreign investment, whereas those countries employing military expenditures for repression and population control repulse foreign investment. Many more such studies are needed to improve the profession's grasp on just how military expenditures and economic performance (and not just growth) are related. In particular, first, sample divisions need to follow lines of analytic interest and, second, theoretic thinking needs to focus more clearly on the causal channels that may relate military expenditures to measures of economic performance in developing nations.

But even apart from these complaints, the empirical record is mixed. Commissioned studies carried out for the United Nations Groups of Experts on the Relation Between Disarmament and Development nearly unanimously show a negative impact of military expenditures on LDC economywide growth. Other studies, however, essentially show neither a negative nor a positive impact. (See Basudeb Biswas and Rati Ram, and David Evans in *For Further Reading*.)

Budgetary tradeoffs?

The empirical record on the budgetary tradeoffs question is mixed, too. This question has been a particularly emotive one since reductions in budgetary allocations for health and education

NOTICE
"Macroeconomic Consequences
Of Disarmament," by Robert Eisner,
Challenge, Jan/Feb 1991,
was based on his conference paper
in *Economic Issues of Disarmament*,
eds. Jurgen Brauer and Manas Chatterji.

might be said to reduce the "social wage" of the poor at the expense of a military sector mostly controlled by the rich. The military portion of government expenditures, of course, can be financed in a variety of ways. By my count, there are at least six ways of which only one involves a "true" budgetary tradeoff. In practice it seems likely that some combination of these six methods is chosen.

The first is through taxation and/or increased efficiency of tax collection. If taxes are increased to finance increased defense allocations, it is important to establish who pays the taxes or, in times of decreasing tax rates, who benefits from tax reductions. The presumption in the literature is, as is my own, that most likely the richer population sections will be able to avoid additional taxes levied on them (or will benefit from tax reductions). However, presumption is not empirical validation.

Second, governments may finance expenditures, in part, through income received from state enterprises, foreign exchange gains, investment income, user fees, and so forth.

Third, budgets can be financed through foreign aid (military and nonmilitary). One needs to examine whom the aid benefits.

Fourth, budgets are, in part, financed through debt, and the eventual cost is borne by taxpayers.

Fifth, budgets can be financed through money creation (increase of the money supply). In the past, this method has been used liberally, particularly in Latin America. The attending problems of inflation generation, are well documented, even in the daily press, to affect the poor disproportionately.

Sixth, of course, one portion of a government budget may be financed through cutbacks in other portions ("true" budgetary tradeoffs).

To make sense one cannot merely correlate year-to-year changes in military sector allocations with those in nonmilitary sector allocations. Regrettably, however, that is

precisely the "state-of-the-art." Authors beautify their studies with a *mélange* of statistical ornamentation running the gamut from simple regression to multiple regression analysis, with and without dummy variables to account for data-series breaks such as war-years and peace-years, with and without correction for autocorrelation in the time-series, use of linear and nonlinear regressions, and of single equation and simultaneous equation models. But almost without exception the studies are silent on whether putative tradeoffs are real or a figment of the method of investigation. For example, suppose government military expenditures are debt-financed. Then, relative to military allocation, nonmilitary allocations will have "declined," yet the poor's social wage will not be any different than before.

But the pertinent literature suffers from an even worse shortcoming. Only once was a study conducted examining budgetary *sub*-categories in the fields of health and education (Bruce Russett, "Who Pays For Defense?" *American Political Science Review*, Vol. 63, No. 2, 1969). That is to say, that even if one were to demonstrate the existence of what I call a "true" budgetary tradeoff, if such tradeoff came solely at the expense of urban hospitals and post-graduate university education, the social rate of return for which is abysmally low in developing nations, the absolutely poor might not have suffered any tradeoff at all. Essentially, any tradeoff such as might have occurred then might merely reflect a transfer of resources from privileged access to higher education to toys for the military sector. In fact, one might even make the argument that inasmuch as the military sector provides employment and income for the poor, increases in military sector allocation will benefit society at large more than increased allocations to further university education.

I am not a proponent of military

expenditures and therefore do not intend to carry this line of argument too far, but my main point should be clear: relating year-to-year changes in budgetary military sector *totals* to year-to-year changes in budgetary nonmilitary sector *totals* is not particularly informative. And again without carrying the argument too far afield, it should be noted that in a number of developing nations the poor are marginalized regardless of the official social-wage they may be entitled to; often the poor are excluded from benefits *de facto* even if entitled to benefits *de jure*. Indeed, the relative government commitment to the lot of the poor may be a more important indicator than budgetary allocations alone might suggest. For example, despite South Korea's high military expenditures, the poor there fare better than they do in Brazil where military-related outlays are very low.

Further, in this field of research investigators tend to be indiscriminate data users. For example, in many countries, the major share of spending on education is not borne by the federal government but rather by state, local, and private entities. It may therefore be misleading to rely on federal education budget data when studying the existence of a tradeoff between allocations to the defense and social sectors in developing nations. Moreover, the mix between private provision and public provision of education and health services varies dramatically from country to country and over time. *In toto*, therefore, data should be used for cross-national comparisons only with greatest caution. However, none of the cross-sectional budgetary tradeoff studies heed that warning.

Additional research needs

Apart from the military expenditures—economic growth nexus and the question of budgetary tradeoffs—there are other areas in dire need of more careful research attention. For

example, the entire domain of indigenous arms production by developing nations suffers from data and analytic inadequacies. It is known that an increasing number of LDCs entered into arms production and arms export ventures during the 1970s and 1980s. Some arms producers were more "successful" than others: compare, for example, Brazil to Argentina or Israel to Egypt.

Some LDCs were more adroit than others: Singapore and Greece, for instance, carefully built upon existing abilities, respectively, to service military aircraft and ocean-going vessels in what may be described as an "extend-to" approach to arms production. In contrast, countries such as Pakistan, the Philippines, and Turkey constructed a hodgepodge of military production sites not well integrated or related to existing production knowledge (perhaps to be called the "jump-in" approach). Some countries engaged in military production as a sort of "add-on" activity to well-established manufacturing abilities such as in the case of Spain (which, in the mid-1970s was still a developing nation) and, to some extent, Brazil, too. Others, such as South Korea and Taiwan essentially were "forced-to" immerse themselves in arms production ventures, after former President Nixon announced plans for United States troop withdrawals from the Far East (the 1969 Nixon Doctrine), and deliberately designed a manufacturing base that eventually would support indigenous arms production.

Still, despite a number of country case studies we do possess little knowledge about the arms industry of developing nations. Industrial Organization specialists might provide very useful services here. Exactly what is the economic cost of LDC arms production? Are there any economic *incentives* that encourage LDCs to produce part of their arms

requirement rather than to import arms? What is the foreign exchange cost of indigenous arms production relative to weapons imports? What are the military manpower requirements of Third World armies? With increasing industrialization even in developing nations, is there evidence of capital-labor substitution in the military sector, too? These, too, are questions scholars are only beginning to ask.

Of all the major international organizations, only the United Nations has any record at all examining the impact of military expenditures on economic performance. The International Monetary Fund and The World Bank, in particular, have been silent, hiding behind their "mandate" not to involve themselves in the internal affairs of their nation-state members. Yet, if the Bank (the Fund) may express judgments on the sectoral composition of, say, the health or education or transportation sector, why may it not also express judgment on the sectoral expenditure composition of the military sector and, for instance, urge the acquisition of defensive weapons which generally are less expensive than offensive weapons? And if the Bank (the Fund) may express judgment on the efficiency with which public funds are administered, why may it not also express judgment on the efficiency with which military expenditures are employed? And if Bank (Fund) staff may discuss to what extent economic aid provided by the Bank (the Fund) is fungible, why may the staff not also discuss to what extent such fungibility implies military expenditures subsidies? And if one argues about socially optimal levels of government expenditures A or B or C, why not also discuss socially optimal levels of military expenditures? And just as the profession discusses alternative ways of providing public goods privately, should the Bank (the Fund) not encourage member

governments to think about alternative ways to provide for their nation's security at less expense?

Do member governments that request aid conduct cost/benefit analyses of military expenditures? Do they know whether or not, and if so by how much, increased outlays for the military sector reduce domestic and foreign investment? Is it known to what extent military expenditures actually improve the investment climate in the affected country? It is my opinion that the Bank and the Fund may legitimately ask these and similar questions precisely because the Bank's and the Fund's mandate requires reasoned economic analysis of member countries' public expenditures as well as responsible use of the entire world's scarce economic resources.

Proposal for new world order

The end of the Cold War does not necessarily signal that developing nations will reduce spending on their military sectors. Toward that goal, I have a simple proposal to make: that economists commit themselves to a serious and sustained effort toward the creation of an International Security Insurance Fund (ISIF) that would work as follows. A nation-state, economically developing or otherwise, may pay into the ISIF an annual premium, in the first premium-year equal to ten percent of its present military outlays. Participating nations may reallocate the remaining ninety percent as they desire but are required to dissolve their respective national armies or at least that part of the army which possesses offensive capabilities. In exchange for the premium, administrators of the ISIF commit to protect the participating country from *outside* aggression through the use of a Peace-Keeping Force (PKF) to be deployed *inside* the nation-state asking for protection. (The PKF itself would consist of people drawn from member states.) Note that the nature

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of the international security-risk tends toward zero the more nation-states participate in the ISIF since the fewer nation-states maintain their own national armies, the fewer neighbors can aggress against each other. By the same token, the ISIF premium can be reduced over time as the security-risk diminishes.

It seems to me that the developments of the late 1980s in Central America should have permitted the creation of a regional ISIF and PKF; likewise, the 1989 and 1990 events in Central and Eastern Europe should permit the creation of a regional European ISIF and PKF so that national European armies can be abolished.

Similarly, had an ISIF already been in place, Iraq's invasion of Kuwait could have been addressed in much the same manner as it is now, except that the United States would not be the warlord. To illustrate: world military expenditures in 1988 amounted to \$1.032 trillion (in 1988 dollars). Subtract the estimated \$13 billion of Iraq's military

expenditures and take ten percent of the remaining trillion dollar. Then, a world ISIF would still have had a \$100 billion annual fund to support an army against Iraq. That is more than the present war against Iraq is expected to have cost. The saved \$900 billion, per annum, would be sufficient to wipe out the entire Third World debt in a scant two year's time.

But can an ISIF be created? Why not? After all, economic arguments helped create GATT and the Bretton Woods international monetary arrangements—economic arguments and economists might as well help create an International Security Insurance Fund!

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VIEWPOINT

Whither the Soviet Empire?

If the Soviet Union breaks up, it is likely that it will shatter into small pieces, but not necessarily with the speed of a collision. Following any breakup, reintegration of the economic area composed of former imperial lands will be a very long process, though some economic ties will persist, based on created comparative advantage.

These are some of the conclusions based on a comparative historical study of multinational empires which have broken up in the last hundred years or so. The empires studied were: the Ottoman Empire; the Hapsburg Empire; the Russian Czarist Empire; the Chinese Empire;

the British Empire; and the French Overseas Empire; as well as the overseas possessions of Germany (1918–1945), Italy (1943–1952), Japan (1945), and the United States (1946–present, referring to the Philippines and Pacific Trust territories).

The pattern of breakup

If breakup occurs owing to insufficient colonization, integration, or military power, it usually occurs in a pattern of LIFO—last in, first out. For solid geographical and sociological reasons, the last province taken in is the first lost.

When recently acquired parts break

off of the Soviet European Empire, even including the Baltic republics, this need not presage the early separation of Central Asia, the Caucasian republics, or the Ukraine and Belorussia, which have been part of the Russian patrimony for from one hundred-thirty to three hundred years. Military reconquest is possible.

Who resists empire?

Usually a multinational empire has an antinational principle of legitimacy—*Kaisertreue* in Austria-Hungary, Orthodoxy (the “Third Rome”) in the Russian Czarist Empire, *la mission civilisatrice* in the French Overseas Empire. These empires could not afford to be racist in principle. In fact, selfconfident emperors frequently invited foreigners and religious minorities into their realms and protected them for their contribution to modernization.

The old imperial order often uses

