Peace Dividends and Development: Retrospective and Prospects

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Introduction

Starting in 1987 and continuing for about a decade, worldwide military spending declined sharply and continuously. The proximate cause for such a decline was the winding down of the four-decade long Cold War, and the largest declines occurred among the members of the North Atlantic Treaty Organization (NATO) and the former Warsaw Treaty Organization (WTO). Once it became widely acknowledged that the drop in military spending would be substantial and long lasting, there were discussions in national and international forums as to how these resources, widely labeled as a “peace dividend”, would be used. One prominent alternative use was to shift resources from the military budgets of developed countries to projects that would aid developing countries.

A focus on utilizing military resources to provide economic assistance to developing countries is an idea that has a long pedigree. Whether the origins are biblical (“swords into plowshares”) or economic (“guns versus butter”), the argument that reductions in expenditures on the military can provide resources for the less well off is one of long standing. The process by which such transformations were to take place, however, is far from simple. Drawing upon the experience of the worldwide decline in military spending following the end of the Cold War, this paper will make the following arguments:

First, the resources available to be transferred are smaller than expected, both because the size of potential declines in military budgets are small relative to development needs, and because there are significant adjustment costs that must be met.

Second, countries with large military budgets have competing claims for any freed resources and policies favoring enhanced development assistance need to assess the institutions and incentives that currently favor these alternatives.

Third, many developing countries also have competing claims and policies designed to promote economic assistance must deal with inter-relationships between economic conditions and national security needs.

Fourth, shifting resources from military budgets to development assistance is a viable strategy but only in concert with other policies that seek to expand resource flows and reduce conflicts among developing countries.

The post-Cold War draw down

Worldwide military spending declined by US$537 billion between 1987 and 1996, measured in constant, 1997 prices, a drop of 38 per cent.\(^1\) Taken as a share of GNP,\(^1\)

\(^1\) This data is from United States Department of State (2000), Table I. For a discussion of various measures of military spending and their drawbacks, see the Appendix.
world military spending has been cut in half, from 5.2 per cent of GNP in 1987 to 2.6 per cent in 1996 and 1997, reflecting both the decline in military expenditures and the rise in global GNP. As a share of central government expenditures the decline in military spending was slightly less sharp, from 18.4 per cent in 1987 to 10.3 per cent in 1996. Military spending has begun to rise since 1996, indicating that the post-Cold War draw down has come to an end.

The data summarized in Table 1 shows that the decline in military spending has been highly unequal. The largest declines occurred among the primary protagonists of the Cold War, the members of the North Atlantic Treaty Organization (NATO) and the former Warsaw Treaty Organization (WTO). The decline in WTO military spending accounts for almost 80 per cent of the global decline, with the bulk of that coming from the former Soviet Union. The remainder of the $523 billion drop in global military outlays comes from NATO, with most of that being accounted for by the United States. There were significant declines in other regions, such as the Middle East, largely due to Iraq, and Southern Africa, largely due to South Africa. But military spending rose substantially in East Asia, South Asia and Central Africa.

Table 1 goes here

One issue is how the decline in military spending should be measured. Starting from the peak of the previous buildup, as was done in reporting the data above, may be unrealistic since a peak may not be sustainable. For example, the peak of the U. S. buildups for the Korean and Vietnam Wars coincided with a high-pressure economy and severe inflationary pressures. Some cuts in military spending would be necessary to restore macroeconomic balance. Using the defense burden, that is, the ratio of military spending to GDP, as the reference point assumes a rising trend in the level of military spending, since GDP tends to rise in almost all countries, which might also be unrealistic. In the United States, real military expenditures have fluctuated around a fairly constant level, since the 1950s, while the defense burden has declined, again with fluctuations, since that time (see Figure 1). Hartley (1997) suggests extrapolating a three-year trend following the peak, but this might be unrealistic in the opposite direction, since it projects a declining trend as the base. This paper will continue to use the previous peak, recognizing that it probably overstates the magnitude of the resources made available by a military spending decline.

Figure 1 goes here

Parallel to the decline in global military spending was a drop in the value of the international trade in armaments. Arms exports declined from US$81.5 billion in 1987, also in 1997 prices and valued at market exchange rates, to US$42.2 billion in 1994, before rising to more than US$44 billion in 1995 and 1996, and US$54.5 billion in 1997. After 1997, the arms trade appears to have declined again, back to 1996 levels (SIPRI,
The sharp drop in the value of the arms trade can itself be seen as a possible peace dividend, since it indicates a reduced flow of weaponry to regions of possible conflict. Thus, arms purchases by countries in the Middle East have declined, largely due to the withdrawal of Iraq as a buyer since the Gulf War. However, there appears to have been an increase in the flow of small arms and light weapons, many of which are traded via clandestine channels and are often the result of the disposal of surplus weapons by large powers, frequently at low or even zero prices (Lumpe, 2000; BICC, 199). These weapons, whose aggregate value is very low compared with the weapons systems and services that dominate the arms trade, have nevertheless been an important fuel in many long-term conflicts.

The arms trade has also changed in a qualitative manner. The sharp drop in demand after the Cold War has not been matched by an equivalent drop in capacity. With domestic military budgets having declined, firms, and governments, have given renewed emphasis to serving foreign markets. This has created a classic “buyers market” with potential buyers being in a stronger position to dictate terms. One result is an increase in offset transactions. Offsets are a form of counter trade whereby buyers demand packages of financial flows that are initially designed to offset the foreign exchange costs of a major weapons purchase, but have now become a mechanism for attracting key resources. Thus, potential buyers have demanded direct offsets, which are essentially a subcontracting arrangement where a portion of the weapons purchases is manufactured in the buying country, and indirect offsets, where economic activities unrelated to the weapons purchase are transferred. Indirect offsets can include foreign direct investment in the buying country, markets for non-military goods and services from the buying country, and other transactions. Because of indirect offsets, an offset package can exceed 100 per cent of the initial transaction, with the selling firm often acting as a broker to involve additional firms in meeting the offset. Developing countries have been increasingly using offsets in an attempt to meet development objectives, by attracting investment and technology and gaining access to foreign markets (Gold, 1999).

One issue of importance is whether the global decline in military spending led to increased resource flows to developing countries. Table 2 presents data on private capital flows and official development assistance to low and middle income developing countries between 1990 and 1998. These dates allow for a lag in the political processes determining official flows. Private flows to developing countries have increased substantially, primarily in the form of foreign direct investment. (These data are in current dollars so are not directly comparable to the change in global military expenditures.) However, official development assistance declined, when measured either in per capita terms or as a share of receiving country GNP.

On the surface, then, there appears to be little if any connection between the decline in military expenditures and resource flows to developing countries. The increase in private flows to developing countries can be seen as part of the process of globalization. Foreign direct investment (FDI) flows to developing countries grew by a factor of seven, with the largest increases in FDI flows being to China, Brazil and
Mexico, primarily the result of changes in the regulatory environment. The end of the Cold War probably speeded the removal of some barriers to both real and financial capital flows, and expanded the reach of the underlying forces that generated globalization. But it is not clear whether any more direct connection can be claimed for a link between falling military budgets and rising private capital flows.

What is a peace dividend?

Although many people refer to the drop in military spending as itself a peace dividend, the decline in military spending is only an initial step. The ultimate dividend is the increase in economic welfare that results from the reallocation of resources. This dividend, most obviously measured in terms of extra GDP or a higher growth rate of GDP, depends both on the size of the decline in military spending and on how the freed resources are used. These transitions have costs and take time, and one way to analyze the process is to use an analogy with investment, where there are initial costs and where the returns are visible over time (UNIDIR, 1993). Peace dividends can also be seen in terms of a series of transitions, first within the defense budget, second within the government budget, and finally within the economy, where the process underlying each transition will be specific to the individual situation (Chan, 1995, Brommoelhoerster, 2000). In contrast, the traditional guns-butter perspective tends to focus on outcomes, that is, what a particular cut in military spending could purchase, and not on costs or the speed of adjustment.

Can economic research provide guidance as to the impacts of cutting military spending? There have been a large number of empirical studies of military spending in both developed and developing countries (Chan, 1985, Gold and Adams, 1990, Dunne 1996). The consensus in both sets of research is that while military spending may yield some economic benefits, such as through spillovers from research and development, the overall impact is most likely negative, or possibly neutral. Econometric studies of cross-national data for developed countries have tended to conclude that military spending substitutes for investment, suggesting that a decline in military budgets would improve growth prospects by stimulating investment (Smith, 1980). However, it is not clear how a change in military outlays affects investment. When the United States is studied alone, the trade-off appears to be with consumption, not investment (Edelstein, 1990, Gold, 1997). Simulation studies of the U. S. have concluded that a drop in military spending that is offset by equivalent increases in civilian government spending or private investment spending would leave the economy better off, in terms of the level and growth of GDP.

Research on developing countries has grown over the last 25 years, in response to a study by Emile Benoit, conducted for the United Nations (Benoit, 1973). Benoit concluded that military spending was positively related to growth in developing countries. Subsequent research, which has divided the sample differently, utilized additional data and newer statistical techniques, has not reproduced Benoit’s initial results. The consensus now is that while military spending might have positive economic impacts in some situations, it is most likely a negative influence on growth prospects. Perhaps more important for the purposes at hand, research on both developed and
developing countries has not identified how military spending changes cascade through an economy, making it difficult to apply this research to concrete events.

*Country experiences*

**The United States**

The United States has the world’s largest economy and the world’s largest military. For more than four decades, the Cold War with the Soviet Union dominated foreign and military policy, and the making of the military budget. When the Cold War ended, it was widely believed that the military budget would be substantially cut and, given the size of the economy and the budget, that these cuts would provide resources for a variety of civilian activities. A decade later, the consensus view is that the decline in military spending helped reduce the deficit in the federal government budget, which in turn allowed the Federal Reserve System to bring down interest rates, thereby stimulating investment and touching off the recovery of the last half of the 1990s. The peace dividend, then, is measured by the strength of the recovery. This consensus view, however, may be misleading.

U. S. military spending reached its most recent peak in 1987, at $450 billion, and declined to $342 billion in 1998, in constant, 1996 dollars, a drop of almost 25 per cent. The budget has been rising slightly since then. Because the economy grew so strongly in the second half of the 1990s, the military share of GDP has dropped to less than three per cent, the lowest share since before World War II. The U. S. military budget, of course, remains the largest in the world, dwarfing that of its major allies and potential adversaries.

Because the budget deficit declined by an amount greater than the drop in military spending, it has been widely assumed that the peace dividend manifested itself through the drop in the deficit. However, tax collections also rose, the combined effect of higher tax rates, more rapid economic growth and the boom in equity prices, which boosted realized capital gains. If tax revenue, military spending and the deficit are taken as a share of GDP, the combination of the rise in tax revenue and fall in military spending is larger than the decline in the deficit; the deficit is then over determined. Assuming the increased tax revenue is all shifted to deficit reduction, no more than 60 per cent of the drop in military spending is taken up by deficit reduction. About 30 per cent can be seen as being shifted to civilian government programs, either allowing some of those to rise or protecting them from further falls. The remaining 10 per cent is taken up with costs of reducing the military, such as closing military installations, environmental clean up of weapons test facilities, costs of de-commissioning weaponry, etc. However, since a large number of budgetary items are changing simultaneously, and money is fungible, it is difficult to trace where a dollar saved ends up. The above percentages are illustrative.

The now standard account of the 1990s is that the decline in the budget deficit permitted the central bank to lower interest rates, which in turn stimulated new

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2 This section summarizes research I have presented in Gold (2000a, 2000b, and 2001).
investment, especially in information and communications technology, which then
touched off a low inflation, high employment boom that lasted through the end of 2000.
But while this standard story fits the broad outline of the period, it does not fit all the
details. For example, empirical studies have not found a clear link between federal
budget deficits and real interest rates or between real interest rates and investment. The
interest elasticity of investment is consistently low or insignificant in econometric
studies. Moreover, at the time the investment boom was beginning, real interest rates
were rising, not falling. Further complicating the story is the behavior of the foreign
sector. In the 1980s, it was frequently argued that the high budget deficit absorbed
domestic savings, resulting in high capital imports and a high current account deficit. But
as the budget deficit declined, and became a surplus, the current account deficit remained
high and capital imports continued. The shift from the federal government being a user
to a supplier of savings was offset by higher borrowing by households and businesses.
The measured national savings rate declined, and the United States remains an economy
dependent upon inflows of foreign capital.

An alternative story is that the investment boom of the 1990s was largely
autonomous, depending upon the spread of information technology, especially after the
commercialization of the web browser opened the Internet to widespread business and
consumer use. Many of the elements behind the technology boom, such as the growth of
a technology-based venture capital industry and changes in government regulations that
fostered the commercialization of government and university research, date from the
1980s. The marginal contribution of the decline in military spending is hard to gauge,
but it is quite possible that a shift of a greater portion of this decline into other spending
categories, such as infrastructure, health and education, would have yielded even greater
benefits.

The U. S. military responded to the end of the Cold War by planning for cuts in
the military budget. These cuts occurred in personnel and weapons purchases, but
research and development remained at close to Cold War levels. The force structure
adopted after the end of the Cold War was similar to one during the Cold War, only
smaller. Thus, there was demand for similar weapons and skills, and with R&D
remaining high, there is a backlog of weapons systems entering the procurement pipeline.
The Clinton Administration programmed increases in military spending for the first
decade of the new century and Bush Administration has indicated that it will increase
those numbers. The Department of Defense instituted major procurement reforms, and
fostered a consolidation among defense contractors in an attempt to reduce excess
capacity. A number of military bases were closed, and some contractor production lines
were closed or scaled back. At the same time, the Clinton Administration increased
efforts to expand military exports, adopting both a national security and economic
rationale and involving a number of civilian government agencies in the effort.

The specific resources freed by the military spending cuts were not immediately
re-deployed. Some former military bases have been converted to civilian uses and others
will be over time. Few military production facilities have been converted, however.
Labor made redundant by the draw down was eventually absorbed as the economy
expanded in the last half of the 1990s but the adjustment process was often slow.
Assistance at both the national and state levels was insufficient to the magnitude of the
problem. Attempts by the Clinton Administration to formulate national policies to utilize military resources in civilian technology endeavors were thwarted by political maneuvers over the budget, as deficit reduction became the dominant theme in Washington. In effect, the boom in information and communications technology became the country’s de facto conversion policy.

South Africa

Military spending in South Africa was cut in half, in real terms, between 1989 and 1995, an average rate of decline of nine per cent per year. The two main factors were the end of the Cold War, which changed the security situation in Southern Africa, and the realization by the ruling National Party that the costs of maintaining apartheid had become far too high. The decline was concentrated in weapons procurement. There were substantial personnel and operations costs involved in restructuring the armed forces after the end of apartheid.

The decline in the military budget was accompanied by some increases in social spending categories, in education and social security and welfare, as well as in public order and safety, a response to the increase in violent crime. The economy weakened substantially after 1989, with negative GDP growth rates between 1989 and 1993, which increased budget deficits and contributed to reduced defense spending. After the change in government in 1994, deficit reduction became a major objective, which limited additional increases in non-defense spending.

Econometric studies, including simulations, indicate that a decline in defense expenditures should have a stimulating effect on the economy with a lag, and especially on industrial production. The economy did pick up after 1994, but fell off again at the end of the decade. The government has not been able to find an effective combination of macroeconomic policy, redistributive policies and policies to stimulate civilian industrial production.

One change is that South Africa’s relations with its neighbors have improved. This has led to stronger economic links and greater cooperation in security matters. South Africa’s military industry developed import-substituting military production during the period of the United Nations arms embargo. As they were unable to purchase or produce major weapons systems, they developed expertise in refitting and upgrading existing systems. This led to a significant export market, particularly among developing countries. During 2000, after several years of negotiations, the government agreed to a large package of arms purchases from Western European contractors, estimated at up to R50 billion or approximately $US7 billion, with substantial offsets attached to the deals. The package includes combat aircraft, ground-based weapons systems, frigates and submarines. This purchase has been controversial, as many critics have charged that South Africa’s security situation does not require such weapons. The deals have been partially justified by the technology, subcontracts and jobs that have been promised by

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virtue of the offsets package. However, a major scandal is brewing with allegations of substantial payoffs to some government official and favoritism to certain contractors, both domestic and foreign. For South Africa, this situation illustrates the country’s inability to move away from utilizing military expenditures as a major economic stimulant.

Russia

There are substantial disputes as to how to measure military expenditures in the former Soviet Union and in the Russian Federation. There can be little dispute, however, that the decline in military spending after the end of the Cold War, first in the Soviet Union and then in Russia, was huge. However, the collapse of the economy after the end of central planning and the failure to revive the economy under the market system left little or no room for the utilization of resources freed from the defense sector.

According to U. S. government sources, Russian military outlays declined by more than 50 per cent between 1992 and 1996, having already declined from their Cold War peaks under the former Soviet Union. Weapons procurement dropped far more than personnel costs, in part due to the substantial disguised unemployment in the Russian defense sector. In attempts to generate revenue, there were sales from existing stocks of weaponry on world markets, as well as sales from inventories of raw materials. In addition, skilled personnel also found themselves on world markets, creating a potential proliferation problem for those whose skills included the development of weapons of mass destruction and their attendant delivery systems.

The government’s budgetary resources were severely restricted as the economy declined and a large foreign debt needed to be serviced. To a large extent, the problems of the Russian economy reflected the legacy of an economy that had been dominated by military production and had avoided the need to meet market competition. The organizational changes that were introduced were insufficient to compensate for this legacy. With the economy remaining weak, there was no real possibility for realizing a peace dividend.

Conclusions

While these three countries represent very different situations, some generalizations can be drawn from their experiences, and those of other countries, with attempting to realize a peace dividend. One conclusion appears to be that a reduction in military spending is not sufficient to provide aggregate economic stimulation, even when empirical evidence strongly suggests that military spending has negative effects on an economy. One explanation for this contradictory conclusion is that military spending changes might be too small to have significant effects on an aggregate economy (Smith and Dunne, 2001). Another explanation is that increases and decreases in military expenditures may have asymmetric effects on an economy, with the impacts of rising outlays not being fully offset by the impacts of falling outlays (Hooker and Knetter, 1997).

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4 This section relies on Gonchar and Shukhgalter (2000) and Fontanel, Samson and Coulomb (2001).
A second conclusion is that the realization of peace dividends may depend upon the achievement of a substantial aggregate economic stimulus that is separate from the decline in military spending. The resources freed by military spending declines will be underutilized in the absence of such an aggregate stimulus.

Third, policy choices can improve the possibility of realizing a peace dividend, but are not sufficient by themselves. Actions by governments, and private sector organizations, can speed the transitions from military to civilian activities. They cannot, however, compensate for the absence of aggregate stimulation.

Fourth, the alternate uses of freed resources reflect a combination of economic and political interests and priorities. Finding resources that can be shifted to developing countries has not been very high on these agendas. While some may characterize this as the lack of political “will,” it is probably more realistic to see this as a reflection of the largely legitimate interests that wield power in any society. In the United States, the country in the best position to expand its foreign assistance, domestic politics had moved toward supporting private, but not public, resource flows to developing countries. In Germany, the decline in military expenditures coincided with the need to shift resources to the absorption of the former East Germany (Dedek, 2000). The task is to see if the interests of developing countries can claim a place in that hierarchy.

Last, the potential for realizing peace dividends does not last. It is not an accident that periods of declining military expenditures are followed, after a lag, by periods of rising outlays. Research programs yield new systems, military establishments seek to replace or add to their stock of weapons, contractors seek new business and political leaders seek new flows of income and jobs for their constituents. Acting relatively independently from changes in security conditions, domestic interests press for rearmament programs.

The Demand for Military Spending

National defense is the classic example of a public good, and because of its public good properties, only governments traditionally supply it. But there is no guarantee that the political processes that determine defense spending, its composition and overall strategies, will yield the optimal level of national defense. Indeed, there are reasons to suggest that there are pressures to expand military spending beyond what is needed for national defense.

The demand for military expenditure is a function of a country’s evaluation of its national security situation, resource constraints, and domestic pressures for jobs, income, profits, etc. The public goods nature of national defense can change on the international level. Free rider problems often plague alliances and make it difficult to adjust military expenditures. In addition, what may be a public good in one country can appear as a public “bad” in another. This is behind the logic of arms races, where an increase in spending by one country can stimulate an increase by another, even though both might be better off in security terms if neither showed an increase (Collier and Huber, 2001).

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5 This analysis is developed conceptually in Smith (1995) and empirically in Dunne and Perlo-Freeman (2001).
Budget constraints and the rising costs of weaponry have limited what many countries can purchase. The growth in military spending in East Asia is partly due to the success these countries have experienced in achieving high rates of economic growth. Similarly, oil revenues and military aid have supported arms purchases in the Middle East. During the financial crisis of 1997-98, a number of countries, including Chile and Thailand, postponed or cancelled major weapons systems purchases due to budgetary stringencies.

One of the features of the post Cold War environment is the increase in civil wars, especially in low-income countries. Many of these conflicts have been associated with ethnic and religious differences, but many are also associated with the control of natural resources. While these conflicts are generally of a low intensity nature, they call forward increases in expenditures for weapons, personnel and supplies. However, the expenditures by rebels would not be included in measures of military expenditures as they are not governmental organizations. The prevalence and persistence of these conflicts has led a number of researchers to conclude that they are the result of the collapse of normal mechanisms of economic, political and social governance, and their replacement by ongoing conflict (Collier, 2000, Keen, 1998, Berdal and Malone, 2000). Economic gain becomes the purpose of war and violence becomes a means to gain. Perpetual war in effect creates the means of economic and political governance that have been unworkable under civil society. One scholar, paraphrasing the famous remark of Clauswitz, has concluded that

...internal conflicts have persisted not so much despite the intentions of rational people, as because of them. The apparent ‘chaos’ of civil war can be used to further local and short-term interests. These are frequently economic: ... war has increasingly become the continuation of economics by other means. War is not simply a breakdown in a particular system, but a way of creating an alternative system of profit, power and even protection (Keen, 1998, p. 11, emphasis in original).

Another example of a link between military and economic activities is the attempt by a number of developing, and some developed, countries to use their military budgets as a tool of economic development. Many countries treat the location of military bases and military production facilities as an element of regional development. Spillovers from military research and development are often counted on to provide civilian products and processes. More recently, countries have sought to use their international arms purchases as a means of obtaining technology and production skills, and using them to either enter defense markets or as potential spillovers for civilian markets. The rapid growth of offsets since the end of the Cold War has allowed countries to justify large arms purchases in terms of attracting development-oriented resources, as the example of South Africa, discussed above, illustrates. So far, the promise has far exceeded the practice but this has not stopped countries from utilizing this mechanism.

One issue is the extent to which arms production and purchases involve rent-seeking behavior. While there is certainly competition on international arms markets,
weapons systems are tailored to individual country’s needs. This leaves substantial scope for negotiations regarding a weapons package, which could include servicing, spare parts, various add-ons, financial terms and offsets. Once a system is purchased, the selling company and buying country face each other in a monopoly-monopsony relationship, which can effect bargaining over additions to the original package or changes in costs. At all stages, then, there is opportunity for negotiations over profits and for corruption.

Prospects

It is not a simple process to translate a potential peace dividend into an actual one. The linkages from guns to butter are complex, and the causal arrows run in both directions providing another example of the economists’ emphasis on simultaneity. It is difficult to convert guns into butter if the demand for butter is not growing, and it is difficult to expand the demand for butter if the stock of guns is growing. Moreover, the window of opportunity to realize a peace dividend is finite, and the one that was opened with the end of the Cold War appears to be closing.

What, then, can be proposed, with specific reference to expanding the resources available for development? Resource flows can be more closely linked to reductions in host country military expenditures. The International Monetary Fund and the World Bank have moved toward treating military spending as one of the issues they evaluate in determining their financial assistance to developing countries, and have reported some success in convincing countries to cut military budgets (Davoodi et al. 1999). In the past, the fungible nature of money has often meant that aid was readily diverted to supporting military activities. Making cutting military spending a criterion for aid transfers makes such diversions more difficult.

At the same time, the perceived security needs of a country should be taken seriously, and ways should be sought to address them. Efforts can be made to strengthen regional organizations that can deal with, or find alternative solutions to, security issues before they escalate into expanded military expenditures. Thus, a Southern Africa Regional Security Organization might be able to convince South Africa that a large weapons purchase is not needed in the present context. In developed economies, arms sales to developing countries are often justified on the grounds that if one country does not do it, another will. Agreements among potential sellers to restrict arms sales, similar to arms control agreements on production and deployment of certain weapons, would reduce this incentive. Such organizations and agreements would be difficult to achieve but the payoffs could be large.

International organizations could approach peace making, peacekeeping and post-conflict reconstruction as more of an economic than a military activity. The purchase of surplus weapons has been effective on a small scale and could be expanded. Programs to establish or reinforce local economic development could make a greater effort to involve private sector firms from developed economies to provide linkages to world markets. Companies could be asked to provide resources, for example in the form of information technology equipment, in return for the rights to distribute output.
The overall approach is to treat disarmament and development as simultaneous, not sequential activities. International organizations could develop programs that involve aid, reconstruction, diplomacy and governance, and that avoid excessive criticisms of existing policies. Cooperative approaches are likely to be more successful than critical ones.
Table 1. Military Expenditures and Armed Forces, 
Selected Country Groupings, 1987 and 1996

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<td>5350</td>
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<td>3.6</td>
<td>38.7</td>
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<td>7.7</td>
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Notes: ME is military expenditure in $US billions, constant 1997 dollars and market exchange rates; AF is armed forces personnel in thousands; ME/GNP is military expenditure as a share of GNP stated as a percentage; ME/CGE is military expenditure as a share of central government expenditure, stated as a percentage.

Source: Bureau of Verification and Compliance (2000)
Table 2. Resource Flows to Developing Countries, 1990 and 1998

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<tbody>
<tr>
<td>Low income</td>
<td>6,648</td>
<td>12,231</td>
<td>2,201</td>
<td>10,674</td>
<td>9</td>
<td>7</td>
<td>2.6</td>
<td>1.3</td>
<td></td>
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</tr>
<tr>
<td>Developing Countries</td>
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</tr>
<tr>
<td>Middle income</td>
<td>35,959</td>
<td>255,469</td>
<td>21,929</td>
<td>160,267</td>
<td>18</td>
<td>12</td>
<td>0.7</td>
<td>0.4</td>
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<tr>
<td>Developing Countries</td>
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</tbody>
</table>

Figure 1: Military Spending in the United States

REFERENCES


