

OECD DEVELOPMENT CENTRE

POLICY BRIEF No. 8

THE DISARMAMENT DIVIDEND: CHALLENGES FOR DEVELOPMENT POLICY

by

Jean-Claude Berthélemy, Robert S. McNamara
and Somnath Sen

- In 1990-1991, worldwide military expenditure amounted to \$950 billion. This bill could be reduced by the year 2000 by over \$300 billion.
- Excessive military expenditure jeopardizes development prospects.
- Policies to achieve transparency and to strengthen military security arrangements should be a priority.
- Excessive military expenditure is stimulated by supply-side pressure on the part of producer countries, including a number of OECD Member countries.
- Donors should consider concerted incentive policies such as defence conditionality in economic aid.

POLICY BRIEF No. 8

THE DISARMAMENT DIVIDEND: CHALLENGES FOR DEVELOPMENT POLICY

by

Jean-Claude Berthélemy, Robert S. McNamara
and Somnath Sen

2

THE OPINIONS EXPRESSED AND ARGUMENTS EMPLOYED IN THIS PUBLICATION ARE THE SOLE RESPONSIBILITY OF THE AUTHORS AND DO NOT NECESSARILY REFLECT THOSE OF THE OECD OR OF THE GOVERNMENTS OF ITS MEMBER COUNTRIES

Table of Contents

Introduction.....	5
The military in development: Guns or butter revisited	8
Data and trends: The necessary knowledge	14
Limiting military spending: The political setting	18
Limiting excessive arms transfers: Economic incentives	23
Aid policies: Is defence conditionality necessary?	26
Conclusion	32
Notes and References	34
Bibliography	36

Introduction

The end of the cold war may be considered the dawn of a new era for both developed and developing countries. The cold war was a major source of threat for non-socialist and socialist countries alike; it caused a costly worldwide arms race; it was also directly or indirectly at the root of a number of local or regional conflicts in developing countries, such as those in Angola, Mozambique and Nicaragua. The end of the cold war provides the international community with a unique opportunity to reduce the costs of excessive militarisation and conflict, and may therefore have a significant impact on development¹.

This *Policy Brief*, written as both opportunities and challenges are becoming clearer, emphasizes *implementable* policies through which countries can realise the peace dividend. The *Brief's* central aim is to show how military spending can be reduced through well formulated economic security policies.

Even under conservative scenarios, world military spending could be decreased within the current decade by over \$300 billion in 1990 prices (total spending amounted to \$950 billion in 1990-1991), if defence structural adjustment policies were consistently followed². This estimate is based on a country-by-country analysis of military-expenditure reduction plans of the major military spenders in both the industrial and developing countries. It includes defence-spending cuts planned, announced and implemented in 1990-1993, as well as forecasts to the late 1990s, for the North Atlantic Treaty Organisation (NATO), the New Independent States (NIS) of the former Soviet Union, Japan, and a few major developing countries. The countries considered account for around 90 per cent of world military expenditure.

In addition to this financial saving, the lessening of interstate conflicts and elimination of tensions in certain regions bring indirect economic spin-offs. In a secure environment, countries can pursue vigorous economic, trade and environmental policies without being distracted by regional

arms races. Finally, the greatest peace dividend is peace itself, which will be enhanced in a less militarised world. Although the emphasis in this *Policy Brief* is on economic issues, the broader relationships among disarmament, security and development should be kept in mind.

For developing countries in particular, the peace dividend could be of great significance. Developing countries contributed almost \$150 billion to the 1990-1991 world total military expenditure of \$950 billion. Although this contribution to the aggregate was small, the share of defence in GDP (often termed the "military burden") was high, exceeding 4 per cent for these countries taken as a whole. Military spending as a share of total central government expenditure in developing countries exceeded 17 per cent³. The burden of military expenditure is particularly heavy for these countries because of their poverty, and because most of the wars of the last four decades occurred in developing countries.

Disarmament is a sign of a peaceful environment; carried out collectively, it fulfils the desires of most countries for regional military stability. Disarmament has been under way since the end of the cold war in both NATO and the former Warsaw Pact alliance. In these countries, the end of the ideological East-West conflict guarantees that military expenditure can be reduced without severe threats to security. Disarmament is occurring in some developing countries as well, but attaining the peace dividend in the developing world is arguably a more difficult challenge for policy makers.

Yet on the face of it, the task of realising the peace dividend in developing countries should not be so difficult, since defence spending in these countries as a whole has been falling steadily since the early 1980s — that is, even before the end of the cold war. For 1985-1990, the rate of decline exceeded 10 per cent. The downward trend was maintained in 1992, though there was a small increase in 1991 due to the Gulf War and the related rise in military spending in the Middle East. Arms imports by developing countries have collapsed, halving in volume in 1990-1992. These declines have been caused primarily by economic constraints and the fall in government budgets as a proportion of GDP in developing countries due to structural adjustment programmes. Though political solutions to regional and national conflicts are increasing in importance (a revitalised United Nations could become a conduit for significant advances in conflict resolution; certainly, its role in peacekeeping has expanded significantly⁴), political stimulus resulting from conflict resolution still lags behind economic pressure for the reduction of military expenditure. Yet economic constraints cannot by themselves create an irreversible trend towards demilitarisation. Witness, for example, Southeast Asia, which is relatively little affected by the economic problems facing many developing countries and is considered by arms sellers as one of the very few promising markets for the near future. The real challenge, therefore, is to strengthen the recent demilitarisation trends so as to lessen the chances of their reversal at such time as economic

constraints become less stringent. In this context, aid policy makers face a new question: how to prevent development assistance policies, whose aim is to alleviate economic constraints, from undermining trends towards demilitarisation?

As is argued below, the challenge is to conceive and implement policies that would result in a *sustainable* reduction of military expenditure and allow political and economic security to be attained simultaneously. An important condition of sustainability is that the policies neither impair regional security balances nor destroy the fabric of society. Meeting this challenge requires consideration of a broad range of options: on the one hand, political policies ranging from UN-sponsored international peace-keeping to promotion of regional security arrangements; on the other hand, economic policies ranging from domestic restructuring of arms production to links between economic aid and demilitarisation. The very diversity of choices, however, makes co-ordination and coherence essential in implementing convincing, effective policies. Finally, it should be recalled that the costs of conversion from military to civilian production are significant, not only in the form of physical assets and financial resources but also in human capital.

This *Brief* emphasizes comprehensive policies, aimed at both advanced and developing countries (sometimes including those in Central and Eastern Europe), that can further the process of demilitarisation. It concentrates on specific issues affecting the relationship between economic and security concerns:

- First, the role of the military in developing countries must be understood clearly, and those elements that are clearly unproductive — and therefore excessive — need to be cut. This is the issue of *unproductiveness*.
- Second, more detailed information on the military sectors of developing countries is required — the issue of *transparency*.
- Third, the political setting cannot be ignored. At a general level, policy dialogue initiatives among all participants need support. In this context, regional security organisations, based on the model of the Conference on Security and Co-operation in Europe (CSCE) which deals with three “baskets” of military, economic and domestic political concerns, should be encouraged. This is the issue of *political security structures*. A related political question concerns regulation by the international community of arms transfers: the issue of *supplier controls*.
- Fourth, economic policies affect military expenditure behaviour. The composition and nature of military assistance directly, and industrial subsidies for defence industries indirectly, should be restructured. This

is the issue of *supply side incentives*. A tax on armaments transfers could also be considered, and could be described as the issue of supplier economic sanctions.

- Fifth, economic aid needs to be related to reductions in military expenditure in recipient countries and support for demilitarisation. We refer to this as the issue of *defence conditionality*.

The military in development: "Guns or butter" revisited

Determinants of military expenditure

The level of military expenditure depends on both security and economic factors. A purely economic cost/benefit analysis of defence allocations is rendered impossible by the very nature of the subject. Military expenditure is an "input" measure of security, and states and governments do have legitimate security interests, particularly those of self-defence. Therefore, minimum or optimum levels of defence expenditures exist, which must be justifiable in terms of security enhancement. However, countries are often locked in arms races involving an action/reaction mechanism in which one country's security becomes a threat for the other. Thus the optimum level of defence allocation suitable for a country in isolation may seem excessive when viewed in the regional context. The trade-off here does not involve domestic resources alone but has implications for resource allocation in all countries in the region. For example, if Pakistan considers India's military expenditure a threat, both countries will tend to spend more than they would have done in isolation⁵. The solution is clearly to promote regional arms control fora where collective action by the countries concerned could reduce defence expenditure jointly. Unilateral action, although feasible, is rarely taken since the risks to national security are considered unacceptably high.

In addition, internal and external factors impinge on one another and it is not easy to untangle this web. Though regional threats are vital elements in the determination of a country's military expenditure, their importance should not be overemphasized: regional arms races and arms acquisition by belligerent neighbours are often used as convenient excuses to increase domestic defence allocations⁶. In various regional contexts, such as those of NATO and the former Warsaw Pact alliance, the Middle East, South Asia, Central America or Southern Africa, the behaviour of neighbouring countries has been cited as part of the justification for domestic spending. Even though there is considerable validity in the action/reaction mechanism, such claims can be exaggerated. Domestic reasons for the demand for military spending may often be the primary or elemental cause,

particularly where military elites are powerful in controlling governments, though perceived external threats are cited as the major reason for spending more on defence.

Technological factors lead to indirect effects on arms spending. For example, even if weapons from abroad are received without cost (as foreign military assistance), infrastructure, training, operations and maintenance can add on substantial sums in domestic variable costs. Military technology is demanded as soon as it is available, since it is believed that the opposition will have an unfair advantage if it has access to the latest weaponry. Invention, as it were, becomes the mother of necessity. The Gulf War, for example, became an advertisement for "smart" or precision-guided weapons that developing countries would like to have in their armouries.

There is considerable debate about the importance of economic constraints in determining demand for military expenditure. While casual observation suggests that economic growth rates could be important in increasing defence spending, formal studies do not show a systematic pattern. The share of the military in national output tends to be fairly independent of the growth *rate* of GDP. In many cases, the causality is the other way around: military expenditure affects the rate of economic growth, rather than being influenced by it. However, economic variables such as the *level* of GDP (or GDP per capita) and the level of central government revenue (or its share in GDP) probably have more impact on defence spending⁷.

The theoretical problem of causality is important since it is not always clear whether military expenditure affects growth or whether the opposite causal relation holds. High growth countries may be apportioning greater shares of GDP to the military on the grounds that security is a public good. In the 1980s, countries in sub-Saharan Africa spent between 3 and 3.5 per cent of GDP on defence; Latin American countries spent around 2 per cent; Asian developing countries on average had a military burden consistently exceeding 4 per cent a year. The former two groups had low growth rates while the last achieved high economic performance. Nevertheless, as suggested above, the main economic cause of military expenditure is not economic growth *per se* but, rather, per capita income or central government expenditures, which reflect more directly the relevant income effects.

The effects of military expenditure on economic growth

Military expenditure affects growth in many ways. Three main elements may be considered here: the government budget, the macroeconomics of savings and investment, and the formation and allocation of human capital.

The clearest negative trade-off is in budgetary programming, where the “eviction” or crowding out effects can be strong. At the level of the central government budget, military spending may evict social and economic expenditures. Further, the financing of defence allocations may increase the burden of internal and external debt. Debt servicing adds to deficits and could create a vicious cycle limiting private investment. Finally, military spending may exhibit resilience in the sense that its share goes up when aggregate central government expenditure falls, increasing the eviction effects on other categories of spending. Which sector loses or gains is not clear *a priori* and there are substantial cross-country variations depending on the preferences of different governments. Sectoral allocations in government budgets — for example, between capital and current expenditures, between primary and tertiary health/education services, between transfer payments and directly productive spending — are also important. Nonetheless, it may be noted that very often initial budget reductions tend to fall on capital expenditures or on purchases of goods and material while efforts are made to protect current expenditures and transfers.

Aggregate growth is also affected by defence spending through *savings and investment*⁸. The main negative impact is on investable resources, which come predominantly from savings. In a supply-constrained economy, defence expenditure could reduce the three components of national savings through: i) increasing budget deficits and reducing government savings; ii) using a part of foreign savings (current account deficit) for arms imports rather than importing investment goods; and iii) reducing the private sector's propensity to save as consumption increases to compensate for government cutbacks on publicly funded socio-economic services. In contrast, a benefit of military expenditure is that it can provide security, which is an essential condition for investment and economic growth⁹. Without security, a country can neither grow nor attract foreign investment. A secure environment creates confidence in investment and potentially raises productivity. Military expenditure could also have a positive impact on investment through various spin-offs, including infrastructure and productive activities that complement civilian economic activities.

In addition, the *human capital* factor involved could be significant in countries suffering from absorptive capacity constraints. There is, of course, a fundamental difference between the human capital element within the military itself and that involved in the defence industries. For the former, the military may in some cases be a useful route to skill formation that would not otherwise be received. In an economy with substantial hidden unemployment, the armed forces might perform a useful function. There is also the sense of discipline and the work ethic provided by the military. However, in war economies, such skills and discipline are often lacking and the armed forces become a power which only serves to destroy productive capital.

Arms production creates some spin-offs but overall there seems to be a loss to the civilian economy when skilled technical labour is diverted to armaments enterprises. Since a major constraint on development is lack of skills, the existence of a defence industry is usually a burden rather than a boon. Case studies of, for example, India, Republic of Korea and Brazil — all significant arms producers — indicate that there has been little spin-off from the arms industry to the civilian sector¹⁰. Rather, arms industrialisation has caused scarce human capital to move away from more directly productive activities.

Socio-economic and political development

Poverty in countries that are smaller than their adversarial neighbours could be particularly affected by high military spending since the relatively small economic base cannot support a large military infrastructure. In addition, within less democratic societies, one of the biggest casualties of high militarisation could be vulnerable socio-economic groups such as women and children, who have little political power to protect themselves against the adverse impact of resource reallocation. Among many other countries, India and Pakistan provide a relevant example of such effects. Pakistan, with defence expenditures at a level of 6 to 7 per cent of GDP during the 1980s, could be considered a case where such military outlays have restricted development. One reason for Pakistan's high defence burden is that India spends three to four times as much in absolute value on military allocations, although India's military burden as such is far lower. Negotiated settlements of territorial disputes between India and Pakistan, coupled with UN Security Council guarantees of territorial integrity, are essential if military expenditures are to be reduced significantly. Yet, while an end to regional conflicts should in theory enable both India and Pakistan to reduce their weapons procurement and overall levels of military outlays, it must be recognised that the armed forces in Pakistan have for many years played a significant domestic role. The political and social conditions that have given rise to such involvement in domestic affairs must also be addressed for regional stability to improve.

At the same time, both countries have significant development needs, at least some of which could be met if additional funding were available. In 1989, for example, only 38 per cent of all primary school age children in Pakistan were enrolled in primary school and only 20 per cent of the relevant age group were receiving secondary schooling. For girls, the corresponding figures were 27 and 12 per cent. Even in Asian countries with lower incomes, such as Sri Lanka, China and the Philippines, primary school enrolment approached 100 per cent and total secondary school enrolment ranged between 44 and 74 per cent. In or around 1989, the number of pupils per teacher in primary education was 61 for India, compared to 14 for Sri Lanka, 22 for China and 33 for the Philippines. Health care statistics

offer a similar picture. In countries such as Costa Rica, China and Sri Lanka, the population per trained nurse ranged from 450 to 1 600 in the mid-1980s, while infant mortality in 1990 ranged from 16 to 29 per thousand live births. In contrast, there were about 4 900 people per nurse in Pakistan and infant mortality was 103; for India, the infant mortality rate in 1990 was 92¹¹.

Clearly, socio-economic development depends on a complex combination of factors and it is not possible to draw hard and fast conclusions regarding poverty and military expenditure from simple statistics. It is also clear, however, that a country like Costa Rica, with only a Civil and Rural Guard Force and which devoted around 0.6 per cent of GDP to military expenditure in the 1980s, would have more resources at its disposal for socio-economic programmes than a country that spent proportionately ten times as much. It is not surprising that Costa Rica, with a per capita income of less than 10 per cent of the OECD average, boasts an infant mortality rate of 16 per thousand live births (for comparison, the OECD level is 8). Often for poorer countries the military/development nexus is at the government expenditure allocation level, where military elites can protect their share at the expense of societal groups with little political power. Since military expenditure is determined as much by domestic economic and political factors as by external causes, its effect is most felt by vulnerable groups. A case study of sub-Saharan Africa in the 1980s showed that resources allocated to the military resulted in reductions of allocations for women and children — these groups being the most vulnerable politically¹².

One important effect of military expenditure that has implications for political advance and economic development is the degree to which it strengthens the political influence of the armed forces at the expense of civilian groups within society. In some parts of the developing world, the formal economic system functions primarily for the benefit of a relatively limited number of people, and political structures are manipulated to guarantee continued elite dominance. If development that meets the needs of all social groups is to occur, a relatively equitable distribution of resources is needed. This in turn depends on a political system that allows all groups to articulate their demands and is capable of producing workable compromises between competing interests. The greater the power of the security forces, the less likely it is that the requirements for democratic governance will be met. The problem, then, is not necessarily military expenditure *per se* but the role of the military in society.

High military expenditure often leads to militarisation, which can produce bad governance and create domestic conflicts. Governmental legitimacy is threatened if military spending is pursued at the expense of other government priorities that could provide socio-economic development. In countries with underdeveloped social structures, such a situation can rapidly lead to a loss of the legitimacy of the state itself, contributing

to a collapse of state structures. It is not always true that military governments necessarily spend more on the military (witness Nigeria in the 1980s, with falling defence budgets under military rule). However, with competing claims on resources, a military holding of power often tends to lead to higher resource allocation for the armed forces than would be permitted a totally depoliticised military. Further, if the military is used to preserve internal security, its resources may be increased as a recompense for services rendered to the government in power.

Another aspect of the problem is the cost of wars. In Africa, for example, many countries have suffered the ravages of war for most of their post-colonial existence. Even in 1991, after the end of the global confrontation between the major powers, which in the past often acted as a catalyst, the number of major wars (defined as involving over 1 000 battle-related deaths) amounted to 30; the overwhelming majority (95 per cent) were in developing countries. There are also costs associated with numerous low-intensity conflicts that ravage developing nations. There is not necessarily a correlation between excessive military expenditure and the incidence of wars; long-lasting conflicts, in particular civil wars, can be conducted without heavy armour. However, the loss of physical assets and use of potential human capital for economically unproductive purposes exact a heavy price. Clearly, not all such costs are economic, and even when they are, the costs may not be measurable. Deaths and injuries, creation of refugee flows, disruption of societal values can all add up to substantial costs.

A 1989 UN report claimed that during 1980-1988 the economic cost of wars in southern Africa was about \$10 billion per year. But such economic calculations, revealing as they are, only tell a small part of the story. During the same period, the number of war-related deaths in Mozambique, Angola and Namibia reached 1.5 million; in Mozambique, such deaths represented 6 per cent of its 1988 population, while in Angola the corresponding figure was 5.5 per cent. The number of refugees from Angola is some 400 000 and those from Mozambique 1.25 million; if the number of displaced persons is counted, at the end of the 1980s almost half the population of Angola and Mozambique may have been uprooted¹³.

In certain rare — and probably extraordinary — cases, countries have managed to have both guns and butter. The Republic of Korea and Taiwan are classic cases where high absolute defence spending in the last two decades has gone hand in hand with rapid socio-economic development. Analysts have noted a “virtuous cycle” in which these countries have enjoyed welfare, security and growth at the same time. However, it is important to remember that the security guarantees received by such countries in the earlier stages of development helped them considerably in making wise choices regarding budgetary allocations. The threats posed by the Soviet Union and China could have led to rapid military expenditure

in Japan, Taiwan and the Republic of Korea during the initial stage of post World War II growth, ruining their chances of economic success. It was possible to avoid “excessive” military expenditure because of the protective role of the United States. Between 1954 and 1968, The Republic of Korea saw only about 20 per cent of its total military expenditure come from domestic allocations; the overwhelming part of defence spending was US military assistance¹⁴.

Data and trends: The necessary knowledge

The need for quality data and transparency

To implement and monitor any economic policy, be it the control of inflation, unemployment or money supply, data and trends need to be known accurately. Policies for curbing military expenditure are no exception. Hence it is important to know what sort of information is available and what is needed. Specific policies to reduce military spending in developing countries can succeed only if proper cost/benefit analyses can be made, based on reasonably good data and information sets. How budgetary transfers are to be made, how armed forces should be retrained, how military industries and research facilities are to be converted, how the costs of restructuring are to be minimised — such questions cannot be answered in the absence of proper data. Democratic accountability and good governance also require that people be made aware of how disarmament and resource transfers are proceeding. Donor governments — concerned about regional security, use of foreign aid to foster conversion and demilitarisation, and any possible misuse of economic aid for military purposes — can evaluate recipient country performance only on the basis of good data¹⁵.

Traditionally, national defence sectors in developing countries have been an area of darkness, shrouded in secrecy. Although the situation is changing somewhat in a number of countries, the need for more transparency has increased. Many analysts believe the time has come to demand more information in order to get a better understanding and evaluation of the military/economic nexus. In particular, disaggregated time-series data on defence spending are essential for an understanding of the mechanics of defence and development. Often, operating costs (military and civilian personnel, operations and maintenance) have direct productivity effects while so-called investment costs (arms procurement, including production and imports, as well as military research and development) are high in terms of absorptive capacity constraints. At a first level of disaggregation, it is imperative to know about such military investment costs.

The issue of transparency and information gathering is of prime importance since no effective policy on other matters can be pursued in an "area of darkness". Transparency must be stressed for its own sake, independently of management efficiency in the defence sector, although it is sometimes believed that such indirect benefits could also result. It is not necessarily true, however, that management efficiency always increases, raising productivity and lowering costs, when more information is openly available¹⁶.

Transparency is a *sine qua non* of all further policy actions aimed at effectively achieving the peace dividend. Costly mistakes in policy implementation cannot be avoided unless actions are based on fuller and more precise information. In the absence of adequate knowledge and data, there will simply be no effective way to implement policies such as linking aid to reductions in excessive military spending. There will be no adequate verification, and the possibilities for cheating are immense.

Poorer developing countries may have serious technical problems gathering the information required for a clearer picture of the defence sector. For some countries, however, adequate statistical services do exist. The basic reason given for lack of transparency is that openness would jeopardise national security. It is not clear how detailed defence budgets would reduce security, since financial figures are only indirectly related to military capability. Furthermore, with the growth of surveillance and other forms of information technology for intelligence, sometimes more may be known about military forces than about military expenditures. The main motivation for secrecy seems to be internal: lack of transparency prevents domestic debate about resource allocation. It is often an indicator of poor governance rather than fears regarding security. In addition, misuse of defence funds through corruption or through transfers to excessive internal security budgets (police, paramilitary) is easier under obfuscated budgets.

Particularly severe data-gathering problems arise in relation to foreign aid received (and related military imports), military debt servicing, pensions of armed forces personnel and the expenses of the paramilitary. *Foreign aid receipts* can decrease domestic military expenditures but have important repercussions in terms of regional security and arms imports into volatile regions. Donor countries could give a country-by-country breakdown of the foreign military assistance they provide, but only the United States does so (and not always completely, as "Irangate" showed). Such information could be coupled with data related to military asset transfers, in the newly established UN Register of Conventional Arms, to allow analysts to make consistency checks. International *debt servicing* on arms already imported is an important item of expenditure for some countries, though debt forgiveness is rising on military-related loans. Data on these transactions are not easy to obtain from debtor countries. Again, the creditor or donor countries could provide the information, but here, too, only the United

States gives exhaustive lists of country by country debt obligations of its clients; other major OECD countries could follow suit. For many countries, *military pensions* are paid by non-military ministries (such as those handling social security). Yet careful records are kept in case of future claims on the government. Thus it should be quite easy to get at least approximate pension data for the armed forces. Defence spending totals can vary by more than 10 per cent depending on whether or not pensions are included. Although this issue is not restricted to developing countries (for example, France, Sweden and Japan do not include military pensions in their defence budgets), the problem is more acute in a general climate of secrecy. In some spectacular cases, like those of Argentina in the 1970s and the Philippines under the Marcos regime, pensions and other retirement gratuities reached huge proportions. Costs of paramilitary forces, which very often have military functions, are also important. Lack of budgetary clarity makes it difficult for analysts to separate the costs of the paramilitary from those of the regular forces.

Available information and how to improve data

OECD countries provide detailed military budgets and policy papers, though disaggregated financial values for arms export data are still not easy to obtain. Developing countries are far more secretive, tending to avoid giving details on their security expenditures — although there are major exceptions, such as India, which provides detailed defence services estimates. Some research institutes and multilateral financial institutions provide data on aggregate military expenditure and arms transfers in developing countries. The former include the United States Arms Control and Disarmament Agency (ACDA), the Stockholm International Peace Research Institute (SIPRI) and the International Institute of Strategic Studies (IISS). Among multilateral agencies, the International Monetary Fund (IMF) gives time-series data on the military expenditures of member countries and the World Bank also has information on military budgets. However, none of these are disaggregated enough for proper evaluation and use.

The United Nations Reduction of Military Budget Programme (UNRMB) is a reporting system in which member states voluntarily supply detailed data on military expenditures, broken down into their constituent parts. In terms of comprehensiveness, the UNRMB data reporting matrix is outstanding. It also provides for countries to give expenditure data on items that constitute investment costs — a useful source of disaggregated data. In recent years, increasing numbers of countries are beginning to participate in the system. More countries should be encouraged to provide as much information as is technically feasible. The response rate for developing countries, however, has been disappointing in the past and is still low. One possible explanation is that the data matrix is too complicated for many developing countries to complete. The UNRMB data reporting system

needs to be simplified and developing countries should be strongly encouraged to provide information to it. In particular, developing countries' procurement or investment costs must be known. As will be made clear, specific policies such as aid conditionality are better linked with investment cost reduction, since procurements are potentially more damaging to security and have high economic costs.

Expertise on data collection exists in advanced countries. For instance, NATO has a wealth of experience in collecting and processing data on military expenditure. Its definition of defence expenditure is widely used and often considered the best in terms of balance between cost measurement and capability evaluation. NATO is co-operating with Central and Eastern European countries, through the North Atlantic Co-operation Council, on a uniform system of reporting military expenditure data for all countries of Europe. It is hoped that such collaboration will be helpful in understanding the causes and effects of military expenditure in economies in transition.

As has been noted, many developing countries simply do not have the statistical expertise to gather sound disaggregated data on military-related spending. In terms of technical advice and assistance to developing countries wishing to create new data sets, multilateral institutions that have some expertise in this field could play a major role. Several focused assistance policies could be initiated. A first initiative, limited but useful, could be to produce a detailed manual on methodology and actual methods of calculation. A complementary task could be sending observers to defence and finance ministries to evaluate and assist in data gathering, at the request of the countries concerned. Help in the preparation and presentation of defence policy papers and statistical information could also be provided. As the costs of such work could be high for smaller developing countries, financial assistance might also be desirable.

The general principle of such policy measures is clear enough, and there is little argument about the desirability of transparency. The problem is its feasibility in terms of implementable measures. Collaboration among official institutions working with military-related data is essential for success. Different sources have different comparative advantages, and information exchange through collaboration would certainly raise efficiency. The sources are not interchangeable; it would not make sense to rely on any one of them exclusively. While one institution could take the lead role in terms of organisation and control of the database, strong collaboration is vital if other policies, such as aid conditionality, are to be based on new types of information.

Turning now to the arms trade, and focusing on arms exporters, policy coherence requires that the Member countries of the OECD's Development Assistance Committee (DAC), as well as other military powers and exporters such as Russia, Ukraine, China, Brazil and Israel, also provide more

data. It is well known among analysts dealing with defence data that few countries disclose detailed information about arms exports. In the past it has been claimed that national security interests prevent full disclosure on this aspect of foreign and security policy. This argument is losing force at the end of the cold war.

A major recent instrument is the UN Register of Conventional Arms, established by the General Assembly in 1991. About 60 states have provided arms-transfer data on seven categories of weapons systems supplied or received during 1992. Little financial data relevant for economic analysis is available, however.

In sum, despite the changing political environment, access to security data and related economic variables is restricted. Success of the policies discussed here hinges crucially on the quality and quantity of data. The establishment of a database dealing with security-related economic data by one or a group of multilateral institutions able to collect, process, monitor, analyse and disseminate such information would be highly desirable. The information should also be available to the public through informed sources such as independent researchers and the media.

Limiting military spending: The political setting

Economic incentives for developing countries to limit military expenditure are important and merit special attention in this *Policy Brief*. However, the broader political perspective has to be stressed first, since it must form the framework within which global demilitarisation can proceed.

Policy dialogue

No policy can succeed without dialogue between those who advocate policies and those who will implement them. In the case of certain policies, such as linking reductions in excessive military expenditure to economic aid, dialogue is necessary to avoid making mistakes and penalising the wrong actors in the process.

Developing countries often wish to demilitarise but are caught up in a web of regional security politics. One objective of policy dialogue would be to allow such countries to express wishes, problems and solutions, which would improve the outcome. A second benefit is that, through policy dialogue, OECD countries or other donors would be able to exchange views and sharpen the focus of policy co-ordination. As will be discussed later, such co-ordination is required for optimum action. Third, the messages and signals that donors wish to convey could be clearly stated and clarified during policy dialogue. Ambiguity could be reduced, and if

unpalatable decisions need to be taken, the consequences could be clearly known in advance. Fourth, procurement expenditures and international arms-transfer policies are often subject to the problem of "adverse selection": the seller may believe the recipient will not misuse the arms, yet the former's lack of knowledge and uncertainty about the behaviour of the latter, or "asymmetric information", may mean that the recipient later reneges on commitments¹⁷. The history of the arms trade is replete with instances where arms were sold to the "wrong" government, although this was not known at the time of sale. Today's ally might become tomorrow's adversary. The most recent example is the 1980s arms sales to Iraq. Policy dialogue would allow more information to be exchanged and thereby reduce the burden of adverse selection. Fifth is a related problem of "moral hazard". A recipient might genuinely be peaceful or have legitimate security interests, yet through higher military expenditures and arms imports could end up using the arms in a way harmful to international concerns. The very act of acquiring arms changes the behaviour pattern of a country. The case of Iran under the Shah is a classic example of regional supremacy fostered by arms purchases. Once again, policy dialogue would allow donors/sellers to make clear the impact of such "moral hazard" and the punishments to be expected for breaking implicit contracts. Sixth, policy dialogue would increase transparency, allowing information on security policy, defence spending and arms procurement costs to be known more fully. The benefits of openness are obvious.

Conflict resolution framework

Limiting military expenditure would certainly imply co-ordinated diplomatic action through regional and global initiatives. To illustrate this point, it is useful to recall the objectives proposed by Robert McNamara to support a new world order:

- i)* External security: provide to all countries/states guarantees against external aggression so that frontiers may not be changed by force;
- ii)* Internal security: codify the rights of minorities and ethnic groups within states, and provide for institutional mechanisms where such groups can seek redress of their grievances regarding violation of rights;
- iii)* Regional conflict resolution: establish a mechanism for regional conflict resolution without unilateral action by the major powers;
- iv)* Economic security: increase the flow of both technical and financial assistance to the developing countries so that their socio-economic development can be enhanced and a major ingredient of domestic conflict removed; and

- v) Environmental security: concentrate on policies for the protection of the global environment and the preservation of sustainable development¹⁸.

These objectives are ambitious and rely on a very optimistic scenario implying a world in which relations between nations would be based on the rule of law, national security would be supported by a system of collective security, conflict prevention and resolution would be institutionalised, multilateral institutions would take on the role of peacekeeping and peacemaking when other methods fail, and broader measures of security encompassing political pluralism, economic development and environmental protection would be emphasized. Clearly, a strengthened United Nations and new and expanded regional organisations would be essential for such a vision to be realised.

Regional security organisations modelled on the CSCE are of importance in this context¹⁹. Although the CSCE concentrated on arms control, it always had three “baskets” of issues for discussion: military security, human rights and economic co-operation. The European situation, complex though it was, was simpler than that faced by developing-country regions in terms of national security concerns. In the former case, clear-cut divisions existed in the form of alliances, which made a forum like the CSCE easier to initiate. In developing-country regions it will be more difficult to create orderly forums, but with political will, such organisations can be built up. One practical method would be to begin with existing institutions such as South Asia Regional Economic Co-operation (SAREC), the Association of South East Asian Nations (ASEAN) and the Organisation for African Unity (OAU), and add new baskets of issues to their briefs (though it is important to note that many such groupings in the developing world originated, and are organised, quite differently from the CSCE). Sequencing of issues is also important. For example, the economic basket of the CSCE was always dormant, which would be a weakness in any regional organisation of developing countries. The primary mutual interests of such countries are in economic and trade relationships, while security is considered a national concern. The success of the CSCE's military basket was due to the formal structure of the two alliances involved — a condition not prevalent elsewhere. Rather, among developing countries, it is preferable for co-operation to start with the economic basket, with military/security issues appended later. Organisations such as SAREC and the Black Sea Economic Co-operation Zone could consider whether they would like to expand their functions into the field of political and military security. Opportunities for regional economic and security co-operation are increasing.

It should also be remembered that regional organisations in the developing world, such as the Organisation of American States (OAS), the OAU, the League of Arab States and ASEAN, all have credible histories of mediation and the promotion of common interests among their members.

In 1992, for example, the OAS attempted to find a solution to the Haitian crisis; the OAU was involved in Somalia; and the Economic Community of West African States (ECOWAS) is actively engaged in mediation of the civil war in Liberia²⁰. Encouragement of such efforts, through aid, technical assistance and equipment, would be helpful in achieving some measure of peace and prosperity, which are interrelated.

Direct regulation of arms exports and production

Most exporting states have national policies for the regulation of arms exports; those of the OECD Member countries are quite explicit and stringent. More general principles should be laid down for all exporters and some form of international policy formulated. The best forum for such policy formulation is the United Nations. The basic issues are clear enough. Policy co-ordination would mean all OECD Members' acting together while working to influence countries like Russia, Ukraine, China, Brazil and Israel, which are significant exporters, to do likewise.

The five Permanent Members of the UN Security Council (P5) clearly have the most responsibility in this area, having supplied 80 to 90 per cent of all major armaments exported to developing nations in recent years. The P5 countries agree that arms exports should be encouraged in cases where such transfers:

- i)* promote the recipient's ability to meet legitimate self-defence needs;
- ii)* serve as an appropriate, adequate response to security and military threats facing the recipient countries; and
- iii)* increase the recipient's ability to participate in regional and other collective security arrangements that are consistent with the UN Charter or are explicitly requested by the UN.

The P5 guidelines suggest avoiding arms sales that would:

- i)* prolong or aggravate existing armed conflict;
- ii)* increase tension in a region or add to regional instability;
- iii)* introduce destabilizing military capabilities in a region;
- iv)* contravene embargoes or other types of international constraints;
- v)* be used for purposes other than legitimate security needs;
- vi)* support international terrorism;
- vii)* be used to interfere in the internal affairs of sovereign states; or
- viii)* seriously undermine the recipient's economy²¹.

Only *viii*) is directly relevant for OECD Member countries as DAC donors and must clearly be incorporated in any aid dialogue with recipients. However, some of the others, such as *ij*), *v*) and *vii*), have indirect implications for development since they could undermine regional stability and thus adversely affect development.

In an ideal situation, one in which countries that dominate the export market — i.e. the P5 — strictly adhered to these principles, there would be little difficulty in controlling excessive arms transfers. The role of the DAC Member countries would be to remind aid recipients of these conditions during policy dialogue. If, as is more often the case, the P5 do not abide by the guidelines, or interpret them loosely, donors could insist on their acceptance by specific recipients. Then, however, policy coherence would be lost and in the long run the impact of such principles in strengthening the aid/defence cuts nexus would be minimal or even negative.

Since, for technological and economic reasons, developing countries form close links with a few suppliers, arms imports tend to be highly concentrated. These links are also important for the sellers — both for defence industries in supplier countries and for governments motivated by foreign policy concerns and strategic considerations. Military aid, concessional loan programmes, industrial subsidies, export credits, political pressure and the like lubricate such relationships and there is often a close connection between arms sales and broadly defined security assistance. In a sense, this tendency among importers to rely on a few suppliers could be useful in curbing arms sales. It is easier for the exporting country to put pressure on importers if the latter are heavily dependent. OECD Member countries could concentrate on dealing with the recipients with which they have intensive trade relationships. Co-ordination will be successful only if similar principles are applied uniformly and special privileges are minimised — and if competition among arms sellers is not overly heated; hence the necessity of avoiding excessive arms supply by producer countries.

Limiting excessive arms transfers: Economic incentives

Attempting to control excessive arms transfers through diplomatic action is ineffective if it is not supplemented with economic incentives for arms producers to reduce supply. This is all the more important since producers' domestic markets have shrunk with the end of the cold war, creating major overcapacity in this industry.

Restructuring subsidies to favour diversification rather than export promotion

The defence industry, like any other heavy industry, has three types of costs: sunk, fixed and variable. Compared to other heavy industry, however, the defence industry has higher sunk costs, due to advanced R&D, and lower variable costs. To recoup investment for sunk or fixed costs, firms are heavily dependent on stable, long-term demand. Historically, domestic procurement budgets of the main military spenders in the OECD, which also have the biggest arms production bases, have generally remained stable over long periods. When domestic demand fell sharply, as in the United States after the Vietnam war, exports compensated for the lack of orders at home. Since the late 1980s, however, domestic procurement budgets within NATO in particular and in the OECD countries in general have been falling rapidly, and not because of technological or business cycles as in the past: the decline reflects a reduction in threats, as well as the outcome of arms-control treaties limiting the number of heavy weapons European countries can have (limited items of the Conventional Armed Forces in Europe Treaty). Clearly, arms industries in OECD Member countries now have overcapacity.

The solution in the past to such overcapacity was to sell abroad, but demand for weapons has also fallen in the developing world, so total sales have stagnated. The arms industries in the major weapons-exporting countries are caught in a "scissors crisis", with both home and foreign demand moving in the same direction: downwards. Yet this low demand could be temporary, linked to economic crisis in less developed countries; the possibility that demand for imported weapons will rise with world economic growth is always present. Hence the developed world should take the opportunity now to reduce capacity and cut the size of the arms industry in the OECD countries.

Enterprises will continue the restructuring begun in the late 1980s, including diversification, conversion, asset selling and reduction of the workforce. The problems of the arms industry are not technically or formally different from those of any other industry going through a structural adjustment and facing a monopsonistic or oligopsonistic market (one, or few, buyers). The policy task is to provide financial and technical assistance to speed up the process of restructuring. Because of the high concentration of the industry, there are also regional effects that can be minimised through regional funds. The macroeconomic impact of declining military industry is not high. Rather, the problems are microeconomic and regional. Hence, industrial policies used elsewhere, such as in the coal or steel industry or in public utilities, can be effectively adapted to deal with an

arms industry in decline. There is little economic reason to treat the arms industry as a special case, simply because a government encouraged output for reasons of national security that are now altered.

Industrial subsidies have generally been high for military industries, but commercialisation and privatisation, such as that of British Aerospace, have begun reducing such subsidies. It is time to change the objectives of subsidies and use them not to continue production but to cut back the arms industry efficiently. It is equally important to use export credit guarantees for arms exports with caution and only for specific purposes. The central point is that arms exports should address security concerns *alone*, rather than be stimulated by economic or industrial motives. In other words, the political concerns behind arms transfers, if any, need to be stressed rather than the apparent economic gains. It is debatable whether arms exports actually benefit the national economy as a whole, though individual companies may make large profits. The net macroeconomic returns of arms exportation are often negative, once various direct and indirect government subsidies are factored in. The reason for encouraging exports is to recoup fixed and sunk costs, but if the policy decision is that a large weapons industry is not necessary in the long run and that a rundown is inevitable, then the logic of recouping fixed costs becomes unconvincing.

Tax on arms transfers

A policy of subsidising diversification of military industries can go hand in hand with a tax on arms transfers. Essentially, the policies could be considered complementary. The tax would generate revenue, part of which could be passed on to industry as a subsidy for restructuring. Alternatively, the tax-transfer mechanism could be seen as a redistributive device allowing the more successful sections of the industry to take up the slack for sections that need to be phased out. Such a tax would reduce the demand for arms in developing countries while restructuring at home reduced the incentive to supply.

A tax on arms transfers was proposed during the development and disarmament debate of the 1980s as a way to raise revenue for the FIDD, or International Disarmament Fund for Development, proposed by President Mitterrand as the "Fonds International de Désarmement pour le Développement". The main reason for rejecting the idea then was that the volume and value of arms sales were simply unknown and no acceptable formula could be found to calculate who pays what.

Now that the UN Register of Conventional Arms is on its way, and it seems possible for governments to reveal their arms export figures in a world of greater trust and transparency, the practical difficulty is being reduced. An additional objection to such a tax was that poorer arms-importing countries would have to share the burden of financing the FIDD. This

objection is also losing force, however, since in an era of collective international security it should be easier to find some subsidy mechanism to compensate countries that are required to pay for desperately needed arms. Certainly a tax on open, registered arms transfers would be easy to implement — technically, at least — since it would be akin to an export tariff, collected at the port of exit by the exporting country's government. From the point of view of equity between donors and recipients, it would also be desirable for some of the revenue to be put in an international fund to be administered by the United Nations. Nobel Laureate Professor James Tobin recently suggested imposing an interest rate equalisation tax on financial capital flows, with the proceeds to be distributed as foreign aid. A similar proposal, applied as an international arms tax, would be easier to implement (on open trade in arms) and the revenue could be used for the same purpose. Given the high concentration of the trade in arms, with ten countries accounting for two-thirds of all developing country weapons imports, only a few developing countries would be dramatically affected. Smaller countries could be compensated through a restructuring of military assistance paid for by the major powers. Since intra-OECD arms trade is growing, the burden will increasingly shift towards the richer countries and away from the poorer recipients. Developing countries might then accept that a tax-transfer mechanism is equitable. The only major practical problem would be the probability of black-market transactions increasing, but such transactions are often a product of quantity restrictions rather than changes in relative prices, thus requiring more surveillance in exporting countries.

Overall, this would be a very opportune time to seriously consider the need for an *ad valorem* tax or tariff on arms exports.

Aid policies: Is defence conditionality necessary?

Official Development Assistance policy

Turning now to the one of the most important policy issues — that of Official Development Assistance (ODA) conditionality, linking economic aid to reductions in military expenditure and arms imports — a number of major principles emerge from recent discussions²². Since there has been considerable analysis of this issue, the presentation here is relatively brief. However, before any such discussion can proceed, it is important to note why it is so vital.

There are a number of arguments for defence conditionality, some of which overlap. The first reason for linking economic aid to reductions in military spending is public concern within donor countries. The growth of access to television has made it possible to see the horrors of war immedi-

ately and vividly. In liberal democracies leaders must perpetually justify sending money abroad at a time of domestic recession when recipients could in principle be “wasting” it on military activities. Clearly, foreign-policy makers are concerned with feelings within their countries and the pressure to “do something”. The usual rhetoric of diplomacy, useful during the cold war era, is now less effective. The second reason is concern about fungibility. Since all aid is potentially fungible, it would be necessary to prevent recipient governments from relaxing budget constraints elsewhere and buying military hardware indirectly. The third reason is the reduction of deadweight losses due to the use of aid money to purchase military equipment directly. The fourth reason is the increasing pressure for greater efficiency in the use of aid. Fifth, donors increasingly stress good governance on the part of recipients; reductions of military expenditure and curbs on the influence of the military could be indirect ways to promote civilian democratic government. Finally, if reducing military spending were to release domestic resources within developing countries, aid dependency could be reduced.

Various concepts could form the basis of sound policy in the field of defence conditionality. First, DAC Member countries could state clearly why they collectively believe that ODA conditionality is not only desirable but indeed is an optimum policy. Such a statement would be required not only to justify a transformation in aid policy but also to render the subsequent implementation more credible. Credible co-ordinated policies achieve the best results. Further, the economic literature on policy formulation notes that if the credibility of a policy announcement is not established, it may be preferable not to have co-ordination. It is essential for a strong policy announcement to be declared, making clear that the policy will be adhered to in general. In this respect, it seems possible to reach a consensus on the need to link ODA conditionality with clear identification of cases of excessive military expenditure. ODA conditionality should not be linked to levels of military spending, defence burdens or shares. Rather, it is essential to observe trends, particularly significant trend reversals. If a country with stable defence spending suddenly decides to increase it, searching questions are called for. Similarly, a rapid rise in arms imports could be destabilising as well as economically costly.

Second, it would be useful for DAC Member countries to commit themselves to assisting actively in military restructuring in developing countries that wish to reduce defence burdens. It is now widely realised that conversion involves substantial initial costs²³. Indeed, conversion (defined as reduction of the level and scope of the military sector overall) can be compared to an investment process with negative net benefits initially and positive net benefits after a period of transition. During this transition, costs outweigh returns and it is highly possible that military expenditure will even

rise before starting to decline. How to reduce this transition period requires detailed cost/benefit analysis and technical expertise, which could also require conversion-related foreign aid.

For countries engaged in demilitarisation, economic aid should be increased to provide technical assistance for conversion and demobilisation. Countries with large military industries could be advised and assisted in their plans for diversification and restructuring. The wealth of experience gained in recent privatisations could assist parastatal and government enterprises in the defence sector. Demobilised soldiers need training and other forms of assistance specifically geared to them. They may have some technical skills, but these are likely to be of little use in civilian areas such as farming. In countries where civil wars have raged for many years and large parts of the active population have been engaged in conflicts, soldiers have lost the economic and technological skills they had prior to the conflict and may not be capable of integrating into civilian life quickly. Countries like Ethiopia and Uganda are good examples of the need for demobilisation to go hand in hand with intensive training for human capital formation.

One aspect of restructuring, closely related to the transparency problem, is how to encourage individual developing countries to produce more information on their defence sectors. Particularly needed are defence policy papers giving far more information on military economics than the single-line entries in official documents that are currently common. This would be particularly important for large spenders that provide almost no disaggregated information on defence-related expenditures and whose official military budgets are believed to be underestimated.

Third, it might be desirable for resources allocated to the military overall, and their distribution, to become part of the general policy dialogue between donors and recipients. Certainly in the case of macro-economic structural adjustment problems stemming from budget and trade deficits, discussing defence allocations is crucial. More generally, defence spending introduces distortions into the economy that are not conducive to overall efficiency. Further, the whole issue of good governance is often related to the behaviour of the military sector and military regimes. Such policy dialogue should not necessarily be confined to countries that spend large amounts on the military. If the discussions can be generalised so that all countries face similar scrutiny, individual states will not feel they are victims of discrimination.

Fourth, DAC Members could instruct their representatives at other multilateral economic fora, such as the international financial institutions, to discuss the issue of defence expenditures and military reforms in developing countries. Whether such instructions should go beyond the strictly economic aspects of defence (such as budgets) or be widened to include security issues is far more debatable. The United States, for example, has the authority to invoke section 701 (b) of the International Financial Institutions

Act to request the Secretary of the Treasury to "instruct each Executive Director [sic] at international lending institutions to consider in carrying out his duties whether the recipient country has detonated a nuclear device or is not a State Party to the Treaty on the Nonproliferation of Nuclear Weapons" (Public Law 95-118, 3 October 1977). Such legal provisions as do exist go far beyond the ODA conditionality being discussed in this *Brief*⁴. It should be stressed, however, that there is always a risk of such action's backfiring. It is not clear, for instance, whether US suspension of military assistance to Pakistan in 1991, due to the alleged possession of nuclear weapons, has had as much impact as originally thought. Certainly it has hardened opinion in Pakistan; it is widely thought to be unfair, given the tension between Pakistan and India and perceptions that the United States has turned a blind eye to alleged nuclear proliferation elsewhere. It would seem that donor-country involvement should not go much beyond the economic dimensions of the problem and should actively concern policies with clear economic implications.

Finally, it should be made clear that ODA support and incentives for demilitarisation are part of a broader package of measures, even though the other measures may lie outside the scope of aid agencies. In particular, DAC Member countries could assert that they will try to use other policy instruments, directly as well as indirectly through pressure on the governments of Member countries, to produce fewer supply-side incentives for arms transfers to developing countries, except in cases of strictly defined legitimate security interests. Policy cohesion would mean donors and recipients sharing the burden of international security. If it is widely thought that developing countries are expected to reduce defence spending and arms imports without any correspondingly strong measures in developed countries to reduce incentives for arms exports/assistance, then cohesion is unlikely to be achieved. This could undermine the credibility of aid-agency initiatives in favour of demilitarisation. There should at least be strong official support for the various other measures analysed above, even those outside the scope of the DAC.

Military assistance

While military assistance is not part of ODA, it may have an impact on development as well as on security. Therefore, policy coherence would require both policies to be designed together, even though military assistance clearly has many other, more political consequences and motives.

The United States is the only country now providing substantial military assistance. Most of it is concentrated on Egypt and Israel, though subsidies for foreign military sales programmes and for economic support funds (classified as security assistance) are more widely distributed. Some other DAC Member countries provide small amounts of military assistance (France's

military aid totals around 1 billion francs, less than 0.5 per cent of its total defence expenditures). If industrial subsidies were counted as indirect aid for military sales, however, the total amount would be substantial for countries such as France, or the United Kingdom before privatisation.

Policy coherence would require that such programmes and subsidies be radically restructured. It has often been claimed that military aid can be conducive to economic development: first, because of spin-off — familiarisation with sophisticated weapons leading to learning by doing or adapting to domestic use — there may be technological advantages in using imported arms paid for by security assistance. A second argument is that training of military personnel in advanced countries may help in dissemination of information when officers return home. Third, it is claimed that military and economic aid may be correlated from the donor's point of view and one may lead to the other; that military and economic security are seen as complements. Fourth, it is argued that military aid releases resources for development programmes. A fifth claim is that, if the recipient country would in any case spend hard-earned foreign exchange because of major perceived security threats, it is better to supply the ally with cheaper arms and allow it to use the balance for more productive ends. Benoit's early statement is still a classic: "Bilateral economic aid of military allies might enable some LDCs to expand their defence expenditures while simultaneously increasing their rate of investment"²⁵.

None of these arguments is really airtight. The spin-off argument is rather weak even for developing countries, such as India and Republic of Korea, that are relatively industrialised²⁶. Military training may not be the most suitable for development purposes. Except in some recipient countries, for some specific short periods — such as Pakistan during the Afghanistan war, Egypt and Israel in the 1980s or Cuba after the 1962 missile crisis — there is little time series correlation between economic and military aid. Socialist developing countries, such as Vietnam, did receive both on a continuous basis, but more for political reasons than for any fundamental intertwining of economic and military security. All aid can release resources, and from an economic point of view there is no particular reason for favouring military aid. The fifth argument, while valid, is essentially a political argument. A better way of achieving balance in an arms race between developing countries is to create regional structures and enhance common security.

A related issue is that of developing countries' debts for military assistance. After a period of commercial transfers of weapons in the 1970s, and the building up of weapons-induced sovereign debt, the United States has increasingly moved towards providing grants for arms purchases²⁷. In 1988, out of a total of \$7.8 billion worth of arms supplied to developing countries, grants accounted for \$4.1 billion. In 1982, loans amounted to 76 per cent of US military assistance programmes but by 1988 the share had

gone down to about 17 per cent. The debt crisis affected military transactions; forgiveness of defence-related debt has grown more acceptable, though it is still not prevalent. In 1989, the total debt owed to the United States through economic and military assistance programmes (plus other loans, such as those from the Export-Import Bank) since World War II amounted to \$61.1 billion.

The Soviet Union also provided substantial military assistance, but this was usually subsumed into long-term debt with high concessionary elements involved. Russia has inherited these claims, together with other types of debt obligations. No precise figures on Soviet military aid are known and the Russian Government has not given any estimates. Data gathered by US intelligence agencies and reported to Congress show high debt levels in the former Soviet Union related to past weapons purchases, and substantial debt creation on defence accounts. Arms export figures revealed in the last few years show over \$16 billion per year of total Soviet sales in the late 1980s. Official figures on both military and non-military debt owed by developing countries to the former USSR, also revealed in recent years, show a debt burden of around \$125 billion (at 1989 prices and exchange rates). Ten countries — Cuba, Mongolia, Vietnam, India, Syria, Iraq, Afghanistan, Ethiopia, Algeria and Democratic People's Republic of Korea — account for 80 per cent of this debt; eight of these states are actively involved in regional arms races, conflicts or wars, as well as having been major Soviet weapons clients. There seems to be a close connection between debt accumulation and military transfers among the former Soviet client states.

Policy coherence might require that such debts be written off, except those of richer developing countries such as Iraq or countries like India that can pay in terms of barter. Poorer economies, such as Ethiopia and Angola, and possibly Cuba in the future, will be confronted with the consequences of a debt overhang if such military debts remain on the books. Donors could finance a Russian write-off of the military debts of poor developing countries, possibly in a programme similar to the so-called Brady plan. Clearly, co-ordination is necessary to produce policies consistent with those of DAC Members that are rescheduling Russian economic related debts in fora such as the Paris Club.

Careful attention, however, needs to be paid to the mechanics of write offs of military debt. In a sense this issue cannot be separated from that of ODA fungibility. A debt cancellation is equivalent to a fungible resource transfer or an aid flow. Egypt increased its military expenditure as a result of the US debt cancellation after the 1991 Gulf war. During the 1980s, when the United States moved from loans to grants as a means of financing arms transfers, the volume of arms exports increased considerably. Clearly, there is a danger of debt forgiveness' becoming an inducement to increase military expenditure and imports. One way to deal

with this dilemma is to impose strict defence-spending conditionality and arms-import surveillance on countries for which debt cancellation is proposed. If structural adjustment programmes or other aid packages by multilateral agencies were already in place for these countries, their terms could be extended to cover arms-related spending. Finally, arms exporters themselves must be careful about sales to countries where debt write-offs have been recently granted.

Conclusion

The end of the cold war affords a historic opportunity to foster worldwide disarmament. Yet while cuts in military expenditure have been observed in many countries, the reasons are not necessarily linked to the end of the cold war. For most developing countries, in particular, the reduction of military procurement observed since the mid-1980s is due to financial constraints rather than to a sustainable change in political attitudes on security and military issues. The challenge is to translate these recent, partly economic-based trends towards reduced defence allocation into a practicable, lasting situation based on political will and consensus.

This *Policy Brief* has underlined a broad range of political, diplomatic and economic initiatives that policy makers could examine to this end.

Economic policies are worth considering in this regard, but they cannot be implemented efficiently without political and diplomatic initiatives to improve the security context in the developing world. Though it is clear that excessive military expenditure needs to be reduced in order to kick-start development in a number of less developed countries, legitimate security interests still need to be protected in a chaotic world. A combination of economic and security policies is required.

In particular, regional policy dialogue should be stressed in regions where countries perceive threats from their neighbours. In order to avoid regional arms races, economic as well as security co-operation among neighbouring states should be sought, for it is not rare to observe conflicts emerging from disputes about the use of economic resources or from regional economic imbalances.

Greater transparency of data on military expenditure is certainly a precondition for any improvement in the security environment through regional policy dialogue. Among the many reasons for transparency, one that sums up a number of related issues needs to be especially stressed. Without transparency, it is much easier for people who have a stake in military expenditure, both in recipient and in arms supplier countries, to persuade policy makers that more arms are needed. In fact, reducing

excessive military expenditure is part of the broader issue of good governance, and transparency clearly is required to foster good governance: without it, misguided policies are virtually inevitable, due to pressure group action as well as corrupt practices.

Economic policies should probably take account of both arms supply and arms demand behaviour.

On the supply side, it is undeniable that military industries in developed countries, as well as in the NIS and China, face a structural adjustment problem and that it is tempting, in a context of reduced military procurement at home, to sell arms abroad. Some countries may consider arms exports necessary to maintain a viable domestic industry in the military sector and, hence, their independence. However, in a world where the threat of an East-West military confrontation has faded, this argument has lost some strength. As long as there is an excessive supply of arms in the world market, it will be difficult to avoid excessive military expenditure in a number of countries. In other words, serious structural adjustment policies in the military sector should be implemented. In this respect, the usual tax-cum-subsidy policies are the best instruments to begin with.

The issue of aid conditionality comes to the fore when one considers the demand side. Well conceived and implemented assistance policies can have a strong impact on military-expenditure behaviour. Positive measures need to be stressed, such as exceptional aid for countries involved in demobilisation and military conversion. As in other good governance issues, policy dialogue between donors and developing countries should be attempted before resorting to negative conditionality measures, such as aid cuts in cases of clearly excessive military expenditure. Such a dialogue can improve transparency and efficiency, as well as help in taking account of the legitimate security needs of aid recipients.

The set of policies outlined here, for both the developed and the developing world, are essentially for the medium to long term and will require coherence and consistency in implementation, as well as co-ordination among actors. Though they are ambitious, they are all interconnected and therefore complementary. If these policies become reality, the peace dividend is attainable. Otherwise, grave uncertainty surrounds the international system and the current reductions in military spending in developing countries will be just another cycle rather than a sustainable change.

Notes and References

1. The overall relationship between development and disarmament was discussed at the Experts Workshop on Military Expenditure in Developing Countries, OECD Development Centre and Development Co-operation Directorate, February 1-2 1993 (hereafter called OECD workshop). UNIDIR (1992) discusses some of the major costs of conversion.
2. A similar estimate can be found in Deger (1993).
3. Data on military expenditure are taken from Deger and Sen (1992*a*), as well as Deger (1993).
4. For the current and future role and activities of the United Nations see *An Agenda For Peace, Preventive Diplomacy, Peace-making and Peace-keeping*, Report of the Secretary-General, United Nations, 17 June 1992.
5. A formal model on the India-Pakistan arms race is presented in Deger and Sen (1990).
6. For case studies see Deger and Sen (1990) for India and Pakistan; Mintz and Russett (1992) for the Middle East and Deger (1990) for Turkey and Greece.
7. Econometric studies are conducted in Maizels and Nissanko (1987), as well as in Hewitt D., "Military Expenditures 1972-1990: The Reasons Behind the Post-1985 Fall in World Military Spending", paper presented at the OECD workshop.
8. A comprehensive survey is given in Deger (1986); see also Deger and Sen (1987).
9. Early analysis of the positive role of the military in development is to be found in Benoit (1973). A recent econometric study on endogenous growth — Barro (1991) — also notes the role of security in fostering growth.
10. The impact of defence industrialization for the Indian case study is in Deger and Sen (1983); for Brazil see Franko-Jones (1992); the South Korean defence economy is discussed in Moon and Hyun (1992).
11. All data from the *World Development Report 1992*, World Bank, Washington DC, 1992.
12. The case is discussed in Deger and Sen (1992*b*).
13. See United Nations Inter-Agency Task Force, "South African Destabilisation: The Economic Cost of Frontline Resistance to Apartheid", Economic Commission for Africa, New York, 1989; and Lake (1990).
14. Analyses of Taiwan and South Korea are given in Chan (1992) and Moon and Hyun (1992).
15. A detailed survey of what data is available is given in Sen (1992).
16. The United States has been more open about its defence purchases than most countries, while the former Soviet Union was the most secretive. Yet it was estimated that in the 1970s an F-15 would cost three times as much as

a comparable MiG-23 even if both were produced in the United States. Among developing countries, India has one of the most open, thorough accounting systems for the Defence Ministry and its economic activities. Yet Israel, which is far more secretive, is considered much more efficient in allocating scarce resources.

17. The theoretical implications of asymmetric information in arms and aid transfers are explored in Levine, Sen and Smith (forthcoming)
18. McNamara (1992).
19. For an analysis of the CSCA, Asian equivalent of the CSCE, see Deger, S., "Research Agenda for Defence, Disarmament and Development", International Conference on Defence and Development: Insights from Southeast Asia, Organized by the Institute of Southeast Asian Studies (ISEAS), 29-31 January 1990, Bangkok.
20. For an earlier survey of peacekeeping operations by regional organizations see *Middle East Arms Control and Related Issues*, CRS Report for Congress, Washington DC, Library of Congress, 1991.
21. "Guidelines for Conventional Arms Transfers agreed by the five permanent members of the Security Council in London, 18 October, 1991", Meeting of the Five on Arms Transfers and Non-Proliferation, London, 17-18 October 1991, UN Conference on Disarmament Document CD/113.
22. See: *Facing One World, Report by an Independent Group on Financial Flows to Developing Countries* (Chairman Helmut Schmidt), June 1989; McNamara (1992); Deger and Sen (1992c); Ball, N., "Options for DAC Members on Using Aid to Promote Military Sector Reform", OECD workshop; Sen, S., "Policy Consistency, Coherence and Coordination : The Interrelationship between Economic and Security Policies among Aid Donors and Recipients", OECD workshop; and Kawakami, T., "Japan's ODA policies for a peace initiative", address given at the Tokyo Conference on Arms Reduction and Economic Development in the Post Cold War Era, Tokyo, November 1992.
23. UNIDIR (1992).
24. Reiss, M., "Pakistan's security in the 1990s", mimeo, 1991, is a comprehensive account of these issues.
25. See Benoit (1973).
26. See Deger and Sen (1983).
27. More details on the interrelationship between economic and military aid are in Deger and Sen (1992c).

Bibliography

- Barro, R. (1991), "Economic Growth in a Cross Section of Countries", *Quarterly Journal of Economics*, May 1991, pp. 407-441.
- Benoit, E. (1973), *Defence and Economic Growth in Developing Countries*, Lexington Books, D. C. Heath, Lexington.
- Chan, S. (1992), "Military burden, economic growth and income inequality: the Taiwan exception", in Chan, S., and Mintz, A. (ed), *Defense, Welfare and Growth: Perspectives and Evidence*, pp. 163-178, Routledge, London.
- Deger, S. (1986), *Military Expenditure in the Third World: The Economic Effects*, Routledge and Kegan Paul, London.
- Deger, S. (1990), "US Bases in Turkey: An economic cost-benefit analysis" in Sharp, J. (ed), *Europe After American Withdrawal: Economic and Military Issues*, pp. 243-273, Oxford University Press, Oxford.
- Deger, S. (1993), "World military expenditure", in *SIPRI Yearbook 1993: World Armaments and Disarmament*, pp. 337-397, Oxford University Press, Oxford.
- Deger, S., and Sen, S. (1983), "Military expenditure, spin-off and economic development", *Journal of Development Economics*, vol.13, August 1983, pp. 67-83.
- Deger, S., and Sen, S. (1987), "Defence spending, economic entitlements and growth", in Deger, S., and West, R. (ed), *Defence, Security and Development*, pp. 83-101, Frances Pinter, London.
- Deger, S., and Sen, S. (1990), "Military security and the economy: defence expenditure in India and Pakistan", in Hartley, K. and Sandler, T. (ed), *The Economics of Defence Spending*, pp. 189-227, Routledge, London.
- Deger, S., and Sen, S. (1992a), "World military expenditure", in *SIPRI Yearbook 1992: World Armaments and Disarmament*, pp. 189-253, Oxford University Press, Oxford.
- Deger, S., and Sen, S. (1992b), "Arms and the Child: The impact of military expenditure in sub-saharan Africa on the survival, protection and development of children", *UNICEF Staff Working Papers* Number 9, September 1992, UNICEF, New York.

- Deger, S., and Sen, S. (1992c), "Military Expenditure, Aid and Economic Development", in *Proceedings of World Bank Annual Conference on Development Economics 1991*, pp. 159-185, World Bank, Washington D.C.
- Franko-Jones, P. (1992), *The Brazilian Defense Industry*, Westview Press, Boulder.
- Lake, A. (ed), (1990), *After the Wars*, Overseas Development Council and Transaction Publishers, New Brunswick and Oxford.
- Levine, P., Sen, S., and Smith, R. (forthcoming), "A model of the international arms market", mimeo, forthcoming in *Defence Economics*.
- Maizels, A., and Nissanko, M. (1987), "The causes of military expenditure in developing countries", in Deger, S. and West, R. (ed), *Defence, Security and Development*, pp. 129-139, Frances Pinter, London.
- McNamara, R. (1992), "The Post Cold War World: Implications for Military Expenditure in the Developing Countries", *Proceedings of the World Bank Annual Conference on Development Economics 1991*, pp. 95-125, World Bank, Washington D.C.
- Mintz, A., and Russett, B. (1992), "The dual economy and Arab-Israeli use of force", in Chan, S., and Mintz, A. (ed), *Defense, Welfare and Growth: Perspectives and Evidence*, pp. 179-197, Routledge, London.
- Moon, C., and Hyun, I. (1992), "Muddling through security, growth and welfare", in Chan, S., and Mintz, A., (ed), *Defense, Welfare and Growth: Perspectives and Evidence*, pp. 137-162, Routledge, London.
- Sen, S. (1992), "Military expenditure data for developing countries: Methods and measurement", in Lamb, G. (ed), *Military Expenditure and Economic Development: A Symposium on Research Issues*, pp. 1-18, World Bank, Washington D.C.
- UNIDIR (1992), *Economic Aspects of Disarmament: Disarmament as an Investment Process*, United Nations Institute for Disarmament Research, United Nations, New York.

DEVELOPMENT CENTRE POLICY BRIEFS

In its research activities, the Development Centre aims to identify and analyse problems whose implications will be of concern in the near future to both Member and non-Member countries of the OECD. The conclusions represent a contribution to the search for policies to deal with the issues involved.

The *Policy Briefs* deliver the research findings in a concise and accessible way. This series, with its wide, targeted and rapid distribution, is specifically intended for policy and decision makers in the fields concerned.

Tightening financial constraints in the 1980s produced a tendency towards reduced military spending in many developing countries. The ending of the cold war led to hopes that this trend would continue into the future and to everyone's benefit. This *Policy Brief* seeks to resituate the question of military-spending reduction within the wider context of development policy. While the cost of excessive military expenditure is clearly very high, it must be recognised that national security is an important policy consideration. This *Brief* shows that the international community, and in particular the Member countries of the OECD, can help the developing world to resolve the conflict between national security and growth in a number of complementary ways: by promoting co-operative regional-security initiatives; by improving information on military expenditure and monitoring the production and sale of armaments; and by concerted application of economic sanctions such as the reduction or suppression of aid to countries which threaten their own or their neighbours' development process as a result of excessive military expenditure.