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September 10, 1991

To: Members of the Executive Board

From: The Secretary

Subject: Military Expenditures and the Role of the Fund

Attached for consideration by the Executive Directors is a paper on military expenditures and the role of the Fund, which is tentatively scheduled for discussion on Friday, September 27, 1991. Issues for discussion appear on pages 10 and 11.

Mr. Chu (ext. 8349) or Mr. Kincaid (ext. 7356) is available to answer technical or factual questions relating to this paper prior to the Board discussion.

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INTERNATIONAL MONETARY FUND

Military Expenditures and the Role of the Fund

Prepared by the Exchange and Trade Relations
and Fiscal Affairs Departments

(In consultation with other departments)

Approved by J. T. Boorman and Vito Tanzi

September 10, 1991

I. Introduction

In recent years the Fund and the World Bank have placed increased emphasis on the implications for growth and external prospects of the composition of government expenditure. These implications have been discussed both for industrial and developing countries in the context of both Article IV consultations and the World Economic Outlook (WEO). They have also been highlighted in the Policy Framework Papers prepared in the context of arrangements under the SAF and ESAF. The World Bank has been closely involved with the assessment of the size and composition of overall public expenditure as well as with specific sectoral programs, and the Fund has focussed mainly, but not exclusively, on the macroeconomic implications of expenditure. ^{1/} One element of public expenditure that has received little attention is military spending. Recent developments around the world have led to increased attention to military spending and questions regarding its appropriate level under the new circumstances that are emerging. It is important for the Fund's ability to fulfill its role in surveillance, and in

^{1/} But see footnote 1 to page 8. Under the guidelines for Fund-Bank collaboration (SM/89/54, 3/9/89), the Bank has "primary responsibility for the composition and appropriateness of development programs and project evaluation, including development priorities." Thus the Bank has primary responsibility, inter alia, on policies which deal with the efficient allocation of resources in both public and private sectors, priorities in government expenditures, and restructuring of state enterprises and sector policies. The same guidelines also stipulate that Fund missions should inform themselves of the established views and positions of the Bank and adopt those views as a basis for their own work. The enhanced collaboration procedures seek to avoid differing policy advice, and were not intended to keep one institution from engaging in analyses in the areas of primary responsibility of the other institution; in the interest of efficient staff resource use, each institution should rely, however, as much as possible on analyses and monitoring by the institution with primary responsibility.

advising members on macroeconomic policies that economic analysis be conducted on the basis of budgetary and external sector accounts, in particular, that take full account of military spending.

The economic implications of military spending have also been emphasized by national and international organizations. The Development Committee, in its Communiqué of April 30, 1991, emphasized the need to re-examine the possible reallocation of public expenditures, including excessive military expenditures, to increase their impact on poverty reduction. In a similar vein, the German and Japanese Governments have recently indicated that their development agencies will take account of military spending in allocating ODA. During the Executive Board discussion of "International Implications of the Crisis in the Middle East--Role of the Fund in the Region," Directors broadly endorsed the Managing Director's view that in many cases, the public sector's direct involvement in economic activities will have to be reduced in order to permit a productive private sector to flourish. This would require not only that fiscal deficits be lowered but that expenditures be re-oriented, including, where possible, away from military spending. ^{1/} The importance of military spending has been stressed in other fora. For example, the World Development Report of 1991, argued that governments need to take every possible step to reduce military expenditure. More recently, Communiqué of the London Economic Summit of the G-7 noted that while all countries are struggling with competing claims on scarce resources, excessive spending on arms diverts resources from the overriding need to tackle economic development.

Military expenditures, where significant relative to other government expenditures, can have important bearing on a member's fiscal policy stance and on its balance of payments. Over the medium term, debt financing of military imports can have important implications for external viability. The stance and shape of fiscal policy is at the core of any successful effort to achieve internal and external balance. The authorities' and the staff's ability to design appropriate policy packages hinges on comprehensive economic data and analysis. However, deficiencies in fiscal, trade, and debt data concerning military transactions have been encountered frequently. Such incomplete reporting by some members has resulted in an underestimation of the fiscal deficit or imports and their associated financing, size of debt service obligations falling due, and has produced reconciliation difficulties between the fiscal, monetary, and external accounts. These difficulties have surfaced especially among some countries that have requested use of Fund resources. In this context, and for purposes of monitoring developments, discussions have taken place on the appropriate definitions of the public sector, including the consolidation of off-budget spending, and of the coverage of external borrowing ceilings; moreover, official multilateral rescheduling of debt service payments at times reveals a higher level of payments falling due owing to previously unaccounted for military debt.

^{1/} Executive Board Meeting 91/58, April 19, 1991.

It is also important for the staff to improve their understanding of the economic burden of military spending in order to help strengthen the ability of member countries to make well-informed public policy choices. (The more general issues raised by the analysis of the productivity of public expenditure will be presented for discussion by the Executive Board at a later date.) Moreover, as an increasing number of Eastern European, Central American, and industrial countries embark on programs of reducing the size of their military establishments, it is important for the staff to be able to understand and analyze the macroeconomic consequences of this form of structural adjustment, and the implications and need for supporting macroeconomic policies.

The rest of this paper is organized as follows. Section II discusses some of the economic issues related to military spending and the availability of data on military spending. Section III provides tentative suggestions of the role the Fund could play in this area. The paper concludes with possible topics for discussion. The Appendix provides a brief review of the available sources of data on military spending.

II. Economic and Data Issues

From the perspective of an individual country, national security is a public good. However, considerable gains for both individual countries and the world community at large could emerge from a balanced multilateral reduction in resources devoted to the military. No loss of national or international security need occur, provided, of course, that the uniformity of implementation could be defined and verified. ^{1/} This is in sharp contrast to the global impact of almost all other types of public sector expenditures, for example, health care and education.

The importance of these issues is highlighted by the scale of global resources devoted to military spending. Estimates of world military spending in 1988, for example, range from \$850 billion to \$1,000 billion, some 4.5-5 percent of world GDP (Table). ^{2/} Of the total, industrial countries account for about 60 percent, equivalent to almost 4 percent of their GDP; and Eastern Europe (including the Soviet Union) accounted for almost 25 percent, equivalent to some 10 percent of their GDP. There are considerable regional variations among developing countries; Middle Eastern and North African countries are estimated to have devoted some \$66 billion

^{1/} Uniformity need not imply equal spending rates or spending reductions.

^{2/} Based upon data compiled by the Stockholm International Peace Research Institute (SIPRI) and the U.S. Arms Control and Disarmament Agency; comprehensive data from official sources are not available. The data for Eastern Europe (including the U.S.S.R.) should be interpreted with particular caution, as the structure of relative prices differed markedly from that prevailing in western countries. See "Military Expenditure: International Comparison of Trends" WP/91/54, May 1991.

to military spending in 1988 (8.1 percent of GDP), whereas Western Hemisphere countries spent \$17 billion (2.1 percent of GDP). On average, the proportion of national income devoted to the military by sub-Saharan Africa and Asia was broadly comparable to that of industrial countries, though here, too, there was considerable variation among individual countries.

Some indications of the potential benefits from multilateral arms reductions are given by the following simple calculations (Table). A uniform 20 percent reduction in military spending by all countries would release resources equivalent to about \$170 billion. The savings to industrial countries, amounting to about \$100 billion, would be more than double their ODA extended to developing countries, while the savings to developing countries would be \$29 billion, only slightly smaller than their recorded net receipts of ODA. ^{1/} An alternative illustration is provided by assuming that regions with high levels of expenditure reduce their military spending to the world average of about 4.5 percent of GDP. In 1988 dollars, this would release about \$110 billion in the Soviet Union and Eastern Europe, and a further \$30 billion in the Middle East and North Africa--savings that could make a substantial contribution to the costs of reconstruction and development. By allocating savings from reduced military spending to productive investment, a country might be able to raise its sustainable rate of growth.

As with other forms of structural adjustment, scaling back the resources devoted to the military will likely raise distributional issues, and in some countries may have significant effects on specific sectors or regions. The temporary dislocation to the smooth operation of the economy may well make the adjustment process difficult. The short-term impact on overall economic growth will depend upon the composition of spending and production. The benefits would be more immediate for countries that import most of their military hardware; military expenditure could be reallocated to other activities and military personnel gradually absorbed into the civilian labor force. For countries that produce a significant share of their own military hardware, however, the conversion process will likely be more difficult. During the adjustment, the decrease in military production would not be offset immediately by an increase in the production of civilian goods, reflecting the need for capital investment to convert production capacity and job retraining. However, although economic growth might dip initially, the conversion will not reduce the capacity to produce goods for private consumption, therefore a decrease in military expenditure need not diminish the supply of such goods, provided macroeconomic balance is maintained.

^{1/} ODA recorded by industrial countries exceeds the net receipts of ODA recorded by developing countries.

Table: Military Expenditures and Foreign Economic Assistance, 1988

	<u>Military Expenditures 1/</u>		<u>Expenditure Savings</u>		<u>Foreign</u>	<u>Foreign Aid</u>
	<u>(In percent</u>	<u>(In billions</u>	<u>Scenario</u>		<u>Assist. 4/</u>	<u>Receipts</u>
	<u>of GDP)</u>	<u>of U.S.</u>	<u>I 2/</u>	<u>II 3/</u>		
		<u>dollars)</u>	<u>(In billions of U.S. dollars)</u>			
Total	<u>4.4</u>	<u>845</u>	<u>169</u>	<u>139</u>	<u>...</u>	<u>...</u>
Industrial nations	3.8	500	100	--	48	--
Eastern Europe	9.8	200	40	109	..	.
Developing Nations	4.7	145	29	30	--	35
Asia	4.2	52	10	--	--	14
Middle East and North Africa	8.1	66	13	30	--	4
Sub-Saharan Africa	3.7	10	2	--	--	13
Western Hemisphere	2.1	17	3	--	--	4

Sources: ^{1/} "Military Expenditure: International Comparison of Trends" WP/91/54, May 1991; and World Development Report, World Bank (1990).

1/ Adjusted SIPRI military expenditures of 125 countries.

2/ Each country is assumed to decrease military expenditures by 20 percent.

3/ Each country group is assumed to decrease military expenditures to the world average if relevant.

4/ Although developing countries provide foreign economic assistance, in this exercise it has been treated as an offset to assistance receipts.

In contrast, a reduction in the demand for weapons would generate a loss of foreign exchange earnings for arms exporters, although the immediate impact on the overall balance of payments may be more modest for countries that provide extensive military export credits. Nevertheless, as the reduction in weapons production could benefit the world community at large, any short-term adverse effect on the balance of payments of developing country exporters may justify financial support from bilateral creditors and international financial institutions to assist the country in undertaking such structural reform.

Although it is difficult to measure the benefits of military spending and compare them with the benefits derived from other public programs, governments are faced with the need to make choices between competing claims for resources. These choices must be based in part on value judgments, but should also reflect assessments of the opportunity costs of competing uses of public funds. Clearly, such assessments need to be based upon comprehensive and reliable data.

The economic analysis of military spending is severely hampered by the lack of reliable and comprehensive data on military expenditures, trade flows, and financing. Many organizations collect and disseminate relevant information, and their efforts need to be encouraged if there is to be significant improvement in the quality, comprehensiveness, comparability, and timeliness of such data. The complexity of this task needs to be recognized; its effectiveness will depend critically on cooperation on a broad base.

Improvements in the comprehensiveness, transparency, and timeliness of data would enhance the ability of governments to make well-informed public policy choices, and for the public in democratic societies to debate their preferences better. For example, ensuring that the data for the fiscal and external accounts fully encompass military items would strengthen the basis for formulating macroeconomic policies consistent with governments' economic objectives. Similarly, transparent information on the resources devoted to the military would facilitate the analysis needed for governments to assess not only the direct budgetary costs, but also the impact on the structure of the economy and the implications for the sustainable rate of growth.

A general improvement in the transparency of the data could also provide benefits to the world community at large and could make a modest contribution to lessening regional tensions, and thereby ease pressures for military spending in other economies. In practice, however, any such benefits may be limited by concerns about the reliability of data compiled by neighboring countries. In any event, enabling countries that have decided to reduce the size of their military establishments to learn from the experiences of others could help ameliorate the transitional costs of such structural reforms. More generally, the information could be of value to national and international organizations. For example, it would complement the proposed efforts to establish a register of the international

transfer of arms under the auspices of the United Nations. It could also provide background information for bilateral donors who wish to take account of the resources devoted to military spending in recipient countries in the allocation of ODA flows.

The quality of fiscal data reported by Fund member countries varies widely (and is discussed in more detail in the Appendix). Of the 155 member countries, fiscal data for 1988 are available in the latest versions of Recent Economic Developments (REDs) for 151 countries, while 132 provide data for 1989 (issued at end-July 1991). All REDs included data on fiscal balances and detailed information on revenues, and for 131 countries they regularly provide information on the economic mix of expenditure (i.e., the distribution of expenditures between wages, goods and services, interest, subsidies, and capital expenditure). In contrast, REDs for only 64 members provided details of the functional mix of expenditure (i.e., the distribution of expenditure between defense, health, education, etc.). Thus, for the majority of members, the documents prepared for Article IV consultations do not include estimates of military spending. For countries in which functional details of government expenditure are not available, the analysis of government expenditure in consultation reports has tended to focus on expenditure aggregates and only a few individual components, such as subsidies.

Even data on aggregate government expenditure often suffers from deficiencies in coverage, which may reflect, in part, military spending. ^{1/} The data reported by some members show an unexplained mismatch between recorded government expenditures net of revenues and the identified financing items. In other cases, off-budget spending is reflected in neither the fiscal nor monetary accounts, but is known to occur.

III. The Role of the Fund

In recent years the Fund has focused on helping to strengthen the capacity of governments to make well-informed public policy choices. To provide a firmer basis for analysis, regular Article IV and technical assistance missions have helped improve the comprehensiveness and transparency of data on government expenditure. Public expenditure policies have been discussed by missions and the Executive Board in the course of Article IV consultations, drawing upon analyses prepared by the staff of the

^{1/} The Fund also receives reports on the composition of government spending for publication in Government Financial Statistics (GFS). In the 1990 edition, 95 members provided estimates of military spending with the functional classification of expenditure. The available data are not as timely, however, as they are typically not reported until two or more years after the close of the budget year. Again in the 1990 edition, only 47 countries provided data on 1989 expenditures.

World Bank, regional development banks, and other relevant sources. In addition, the Fund has provided technical assistance relating to specific expenditure items, and training of government officials. 1/ 2/

The issues raised by military spending affect virtually all countries, not just those countries experiencing balance of payments difficulties. This suggests that Fund involvement should cover all members, program and non-program countries alike where military expenditure have a material impact on overall economic developments. However, efficient use of staff resources would suggest that these efforts focus initially on countries with relatively high levels of military expenditure. As military spending is an area where the Fund has limited experience, it will be important to proceed cautiously, and developments in this area should be kept under review. Efforts would focus on improving data transparency and economic analysis. It would be important for the Fund staff to cooperate closely with the staffs of the World Bank and United Nations to draw upon their expertise and avoid duplication of efforts. The staff would also draw upon the work of organizations already producing data in this area. 3/

Regular Article IV, statistical, and related technical assistance missions provide suitable opportunities for the staff to gather information and to discuss both technical statistical issues and the economic implications of military spending with country authorities. 4/ An important first step would be for the staff to enhance their work with members to improve the comprehensiveness of macroeconomic data reported to the Fund. For example, data for the consolidated fiscal accounts should encompass all military and related items; trade in military goods should be fully reflected in statistics on international trade; and data on external assets and liabilities (and their associated debt service obligations) should include all military items.

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1/ Recent technical assistance missions or staff visits provided advice on subsidy reform, the design of social safety nets, and social security reform in a number of countries (e.g., Algeria, Hungary, Jordan, Poland, Tunisia, Iran, and South Africa).

2/ Public finance courses covered a comprehensive set of public expenditure policy issues, focusing on their macroeconomic and structural aspects; courses are also provided on government finance statistics.

3/ A description of the independent published sources of data on military spending is provided in the Appendix.

4/ The staff consider that initial efforts in this area would require modest additional resources for missions and perhaps work at headquarters. It will clearly be important to review resource implications in the context of formulating the Fund's administrative budget proposal for subsequent years.

Fund missions could request members to provide data which would identify broad military aggregates separately. 1/ The staff recognizes that there is a balance to be struck between the need to furnish information to the Fund and the need to protect national security. Initial data requests would focus on aggregate military spending, trade in armaments, external assets and liabilities (and the associated debt service obligations), expenditure on wages, and military employment. 2/ This would not preclude analysis at a more disaggregated level for countries where such data are readily available and at the request of authorities that have initiated efforts to reduce the size of their military establishments.

The staff would rely primarily upon national sources for their work, and would seek clarification of apparent inconsistencies with data compiled from other sources, as is already the practice with information relating to trade flows and external debt. In cases where member countries do not publish comprehensive data on the functional classification of expenditure, and, in particular, do not identify military spending, the Fund would urge members to provide the data. 3/ To this end, and subject to the availability of staff resources and other priorities, the Fund would be prepared to provide technical assistance with compilation. Discussions with the authorities and the staff's analysis could also be supported by independent published estimates. Consistent with the provisions of Article X, and with the agreement of individual members, data and analysis of military spending could be shared with the United Nations and other interested international organizations.

While confining its analysis to areas of traditional expertise, the staff could strengthen the Fund's and members' understanding of the macroeconomic impact of military spending, although it would be up to others than the staff to assess the benefits, and associated externalities, stemming from such expenditures. For example, in cases where military spending results in the rapid accumulation of external debt, the staff could analyze the implications for the balance of payments and medium-term viability; or where it jeopardizes sound fiscal policies, the staff could

1/ The Fund may require members to furnish it with such information as it deems necessary for its activities, including, as the minimum necessary for the effective discharge of the Fund's duties, national data on a specified list of items (Article VIII, Section 5 (a)). Moreover, members undertake to furnish the desired information in as detailed and accurate manner as is practicable and, so far as possible, to avoid mere estimates (Article VIII, Section 5 (b)). These obligations are not linked to Article IV, but rather are separate obligations of membership.

2/ The staff would seek to ensure that data conform to internationally comparable definitions including separation of expenditures on military and police.

3/ In some cases the information may not be available within Ministries of Finance and other Ministries with which Fund missions maintain regular contacts.

analyze the implications for domestic financial markets and the design of supporting financial policies. In countries where a significant portion of the work force is employed by the military, analysis could focus on the implications for the operation of the labor market. Such analysis would be partial, as it would not be the purpose to assess the effect on national security.

The Fund staff will continue to work with Bank staff to develop a collaborative approach to these issues, and would also be able to develop a better understanding of the economic issues associated with a shift in domestic resources away from the military. These would include the need for investment to convert manufacturing capacity to civilian uses, the problems associated with absorbing into the private sector labor released from the military, and their implications for macroeconomic policies. Already, these issues are being faced by both industrial and Eastern European countries that have initiated efforts to reduce their military establishments, and will likely be important in discussions with a wide range of others.

Some of the broad implications of the analysis of the economic impact of military spending could be reported to the Executive Board as a part of the regular documentation for Article IV consultations, though the treatment would need to reflect the preferences of individual members. To permit developments to be viewed from a regional economic perspective, they could perhaps be presented against the background of developments in neighboring countries, where appropriate, although this would obviously need to be done with great care. The economic effects of expenditure policies could also be analyzed from a regional and global perspective in the WEO. In a similar vein, the WEO could analyze the likely economic impact of a multilateral reduction in military spending, and the effects of shifting resources away from the production of arms and a reduction in international trade involving military hardware. The data could also provide the basis for research into the macroeconomic and structural implications of military spending. Initial efforts by Fund staff in this area have been based upon published data, and have examined in an econometric framework international trends and factors influencing military spending. 1/

IV. Issues for Discussion

The following are several basic propositions that appear to derive from the consideration of the macroeconomic and structural implications of military spending. Executive Directors may wish to comment on the appropriateness of these propositions and provide guidance on the Fund's future role in this area.

1/ Recent staff Working Papers include "Military Expenditure: Econometric Testing of Economic and Political Influence" WP/91/53, May 1991 and "Military Expenditure: International Comparison of Trends" WP/91/54, May 1991.

The Fund should continue to assist its members in strengthening their institutional capacity to make sound choices in the areas of macroeconomic and structural policies. Any such effort would be incomplete and subject to possible errors of analysis without a discussion of military spending, owing to the magnitude of such spending and its possible negative international externalities. Moreover, recent developments around the world have resulted in several countries embarking on a major reduction in their military establishments, and have provided others with a similar opportunity. There is, however, a relative paucity of data and economic analysis in this area to help guide policy makers. Do Directors agree with the analysis?

Economic analysis of military spending is presently severely hampered by the lack of reliable, comprehensive, and timely data. Improvement in the transparency of data (e.g., fiscal, trade and debt) is crucial for progress in this area. Greater data transparency could also benefit the global community directly. Fund staff, through for example, the Article IV process, could request members to provide necessary data on military spending--generally at a relatively aggregated level. The staff could also draw upon the work of organizations (e.g., the United Nations) already producing data in this area and would cooperate with their staffs. The effectiveness of the Fund's efforts to gather this information depends fundamentally on the cooperation of the membership; do Directors agree that the Fund should insist on obtaining from all countries reasonably standardized and aggregate data on military spending needed for a full understanding of the budgetary burden and macroeconomic implications?

The implications of changes in military spending for the balance of payments, medium-term external prospects, and sustainable growth are amenable to objective economic analysis, provided there is adequate data. While confining analysis to areas of its primary responsibility, Fund staff could seek to enhance the understanding of the economic costs of military spending, leaving to member countries the evaluation of the broad benefits and associated externalities which involve difficult value judgments. The sensitive nature of data and economic analysis is fully recognized, and the Fund would need to proceed carefully and cautiously. Also, the staffing implications of this work would need to be assessed as the work progresses.

The Availability of Data on Military Spending 1/

The fiscal data in Staff Reports are typically aggregated, though Recent Economic Developments (REDs) generally provide much more detail. In a review of fiscal tables in the most recent REDs, 1988 accounts were available for 151 of the 155 member countries and 1989 accounts were available for 132 countries. 2/ Although the functional mix of expenditures (i.e., allocations to defense, health, education, etc.) was available for only 64 countries for 1988. Therefore, in more than half the REDs no estimate of military expenditure is available.

The Government Financial Statistics (GFS) is the other formal means through which the Fund collects data. The GFS facilitates cross-country comparisons by using a uniform format and applying uniform definitions. In contrast, data provided in REDs are not always comparable between different countries because no uniform methodology is used, particularly in the functional classification. The GFS also provides more detailed fiscal accounts than those available in the REDs. Of the 106 countries for which comprehensive 1985 expenditure figures exist, all have data on the fiscal balance and the structure of revenue, and 97 reported the functional mix of expenditures. 3/ However, there is an overall timeliness and completeness problem with the GFS data. In the 1990 edition, all 22 industrial nations had reported their 1985 expenditures, of which 20 provided the functional mix. Comprehensive data on 1988 expenditures are reported for 18 countries while 1989 expenditures are reported for only 12 countries. For developing nations 84 of the 134 member countries reported their 1985 expenditures, while comprehensive data for 1988 expenditure was reported for 65 countries and only 35 for 1989. Thus, by the nature of its information collection method, the GFS data are not as timely as the data collected by mission teams. Furthermore, in many cases the reporting is incomplete. For certain countries the data for an entire year or set of years are missing and missing observations for scattered categories are common within the tables. These missing elements greatly diminished the usability of the data. For instance, only 45 countries out of the 155 member countries have complete data for 1972-87 on functional and economic categories of expenditure. The reasons for the incompleteness are due to the reporting practices of the member countries.

1/ This Appendix has benefitted from a contribution from the Department of Statistics.

2/ The sample includes REDs published as of July 1991. The data at times are preliminary estimates.

3/ For certain countries, the GFS prints estimated data and provisional actuals provided by the authorities for the most recent years. As a result, this has led to a noticeable improvement in the currentness of GFS data in recent years.

Other data limitations exist with both the RED and GFS. For instance, off-budget expenditures financed outside the budget are normally not included in the central government accounts, particularly in developing nations. Other than budgeted grants and subsidies, the means of financing off-budget expenditure include earmarked taxes collected directly by decentralized agencies, government-guaranteed bank lending that eventually becomes the financial obligation of the central government, foreign grants and loans not recorded in the budget, direct access to operating profits of public enterprises, or ownership of mineral rights. These off-budget items greatly diminish expenditure transparency and are a hindrance to expenditure overview by both the government and the Fund. As military expenditure is frequently hidden in this manner, they represent a formidable obstacle to an effective monitoring of military expenditure.

In many countries, more detailed data are available to the government but are not requested by Fund missions. There is little question that scope exists to expand the detail of fiscal data that Area Departments collect in the normal course of their operations. Provided the scope of additional requests is limited, the additional work load implied by expanded data collection will also be limited.

There are a number of available alternative sources of information on military expenditures. In the first instance, insight can be gained by examining national budgetary accounts. A first approximation of military expenditure can often be derived from the distribution of expenditure between ministries. A number of international agencies provide estimates of country-level military expenditure based largely on published data. Among these are the Stockholm International Peace Research Institute (SIPRI), and the International Institute of Strategic Studies (IISI). SIPRI provides a ten-year horizon of estimates of military expenditure in local currency, in U.S. dollars, and as a proportion of GDP. The IISI provides estimates in U.S. dollars for two years. The United Nations also provides detailed estimates on a limited number of countries based upon government provided records. The U.S. government sources include the CIA World Factbook which provides annual estimates of military expenditures for almost all nations of the world in U.S. dollars, and the U.S. Arms Control and Disarmament Agency (ACDA), which provides estimates in U.S. dollars over a period of eleven years. Alternative estimates are provided in World Military and Social Expenditures (1991).

These sources also provide other military-related information. SIPRI lists annual arms transfers agreements. ACDA provides figures on the levels of military personnel, arms exports, and arms imports. The IISI provides detailed information on the stock of weapons and the level of forces.

