

Understanding Military Expenditure: The SIPRI Experience

Elisabeth Sköns

Military Expenditure and Arms Production Project

The Stockholm International Peace Research Institute (SIPRI)

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Elisabeth Sköns, SIPRI

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Military expenditure is a measure of the total amount of money spent for military purposes. Expressed in another way, it is a measure of the total annual cost of maintaining a defence establishment. At least this is what it should be, under ideal circumstances. In reality, the official data provided by governments, cover only part of those costs. This is true for almost all countries in the world, although to a smaller or greater extent. Therefore, official data on defence budgets and expenditures are rather poor indicator of what the actual costs of military activities are. Still, it is the only measure available. What we can do is to try to understand the limitations of these data.

The purpose of this paper is to convey some of the experience gained at SIPRI from working with military expenditure data. It describes the types of official data provided by governments in broad terms (section I), provides information on the definition of military expenditure used by SIPRI (section II), discusses some particularly problematic complications in identifying items of military expenditure in government public expenditure (section III), and describes process of data collection at SIPRI (section IV).

I will also say something about the complications involved in identifying items of military expenditure in the budgets and budgetary processes in many countries, and finish by giving short accounts of the data collection procedures at SIPRI and at the United Nations and their results.

I. Official data on military expenditure

Official data on military expenditure are normally provided in two major types of government documents, first in the defence budget as proposed by the government and subsequently adopted by the legislature (parliament), and after the end of the year, when the money has been spent, in the public expenditure accounts of the government.

The coverage of official data on military expenditures varies greatly between countries. Some countries include only allocations for the salaries and ordinary operations of their armed forces, while other countries include a broad spectrum of expenditure for military purposes, including also purchases of weapons systems, military construction, and military research and development. However, in almost all countries, some military-related items are excluded from the official figures for military expenditure, whether

provided in the government budget, as adopted by the legislature, or, after having been spent, in the government public expenditure accounts.

Government budgets are organized in different ways. Some budgets are grouping expenditures by functional lines (e.g. education, health and defence), other by organizational lines (i.e. by ministry). In some countries, the official defence budget is the budget of the Ministry of Defence, in other it is a number of items from several ministry budgets lumped together in a functional category of 'National Defence' and in many countries both of these exist in parallel. Budgets which are organized by ministry exclude those military-related items that are financed by other ministries. Examples of military-related items that can be financed by other ministries include military construction, arms procurement, military pensions, received military aid and paramilitary forces, which all may come under other budget headings than defence.

For these reasons, an examination of official defence expenditure most often does not provide the entire picture of the amount of public expenditure devoted to military purposes. Neither do they provide an optimal basis for comparisons between countries of their military efforts.

In addition, the defence budget can also cover more than expenditures for strictly military purposes. In many countries it covers not only military defence but also civil defence. In other countries, like Sweden, the defence budget covers also allocations to what we call economic defence and psychological defence, where economic defence includes measures to protect oil reserves, food supplies and other important economic functions and psychological defence deals with the defence of people from hostile enemy propaganda.

Therefore, it is useful to adopt the concept of 'military expenditure' for the aggregate of expenditure for military purposes, regardless of under which ministry they are financed or under which heading in the government budget.

Even so, it is not self evident what items in the government budget should be categorized as items of military expenditure. Therefore, some kind of definition is needed, specifying what is meant by military expenditure. Since the ASDR/SIPRI Project on Military Budgeting will use the SIPRI definition of military expenditure as a point of departure for the case studies examining official defence budgets and other budgets

which may contain military expenditure items, I have been asked to describe the coverage of this definition.

II. The SIPRI definition of military expenditure

(Transparency 1: The SIPRI definition)

The SIPRI definition of military expenditure consists of a list of the items which are included in the concept of military expenditure. It is used as a guideline in the work done at SIPRI to collect, process and publish data on military expenditure on a global scale. It can be no more than a guideline because it is not possible for the three persons working on this at SIPRI to obtain primary sources of national budget documents for the 160 countries that are included in the SIPRI database and to search for the items included in the SIPRI definition. That would require an entire statistical office. However, the definition can be used as a guideline for choosing between alternative series of military expenditure for a country, and to help us make consistent choices in the cases when we have sufficiently detailed official data.

I will run through the SIPRI definition item per item. I will do this under four broad headings:

1. The daily operations vs. long term investments;
2. the kind of activities falling under the concept of military activities;
3. the components of military expenditure; and
4. the items that are **not** included in this definition of military expenditure.

1. The daily operations vs. long term investments

The first point to make is that the definition includes both current and capital expenditure. While the terminology differs, most countries have one budget for current, recurrent, or ordinary expenditure and another budget for more long term expenditure, sometimes called capital expenditure, sometimes called developments expenditure. Recurrent expenditure are for the daily operations of the armed forces while capital expenditure is for the more long term investments in weapons systems and construction.

2. The kind of activities falling under the concept of military activities

The second point is about what kind of activities are included in the concept of military expenditure. The armed forces is self evident. So are military space activities in the few countries where these exist. The civil administrations of the defence ministry and government defence agencies are also included, as they are also in official defence budgets. The problematic type here is paramilitary forces, which we try to include as far

as is possible. However, it is often difficult to determine which forces should be classified as paramilitary. Paramilitary means half military, that is, although they are not part of the official armed forces, they have military functions. This may be formalized in the constitution of a country, but this is not always the case. Examples of paramilitary forces are border guards, national guards and other special security forces.

3. The components of military expenditure

The third point is about the components of military expenditure. The major components are: personnel, operations and maintenance, procurement of weapons, military R&D and military construction (I will come to military aid later).

Personnel expenditure includes not only salaries and social services for military and civil personnel working for the military, but also retirement pensions for military personnel. In some countries pensions are financed by pensions funds generated from pension payments during the working life of the personnel. For a country with a system like this, pensions are automatically included in the personnel cost for the military. However, in other countries there are no such systems. The central government budget does not have any pension revenues, only expenditure for pensions. For these countries, the pension expenditure should be added to military expenditure.

When it comes to military aid, the Africa study will diverge from the SIPRI definition. According to the SIPRI definition, military aid received from other countries in the form of grants or loans are **not** included in the military expenditure of the receiving country. This may seem strange, since the money is spent by the country receiving aid and it results in military activities in that country. It is exactly for this reason, that the Africa study will differ from SIPRI in this respect. The reason for SIPRI to exclude military aid from the receiving country and instead include it in the military expenditure of the donor country, is that the purpose of the SIPRI statistics is to measure the economic burden of military activities. And military activities or arms purchases financed by military aid do not constitute a burden for the receiving country.

*4. The items that are **not** included in military expenditure.*

The fourth point, finally is about items that are not included in the SIPRI definition, although they often are included in defence budgets or are in some way defence-related. Apart from civil defence, the main items of this kind are: expenditure for demobilization of armed forces and for conversion of defence industries and destruction of weapons. The logic behind excluding these items is that they are expenditures for military

activities that took place in the past and not for current military activities. On the contrary, they are activities to support a change from military to non-military activities.

Another point to make under this heading is that the SIPRI definition covers only public expenditure, whether by central, regional or local governments. Thus, it does not include military expenditure by armed opposition groups and other non-states actors conducting military activities. It covers only the expenditure for military activities by the state.

III. Complications in identifying items of military expenditure

There are some practices which make it very difficult to identify all items of military expenditure in the official budget and public expenditure accounts. I will talk about two important examples here, which will constitute major challenges for the country researchers in this project. The first problematic area is the so-called off-budget expenditures and the second problematic area is debt incurred by loans for military purchases. Another type of complication is that actual expenditure often differs significantly from the sums that have been allocated in the adopted budget. These are sometimes considered as off-budget expenditure.

Off-budget expenditure

In almost all countries some or many of the military expenditure items included in the SIPRI definition are not included in the official defence budget. They are off-budget expenditure. Thus, the term 'off-budget expenditure' covers all military expenditure outside the official defence budget, whether within the overall government budget and expenditure, or entirely outside the state budget. There are two main types of off-budget expenditure.

The first type of off-budget expenditure refers to military-related items in the budgets of non-defence ministries, for example expenditures for paramilitary forces in the budget of the interior ministry or expenditures for military construction in the budget of development budget. These can be difficult to identify, sometimes because they are lumped together with non-military expenditure and impossible to separate from these. But often also because there has been a deliberate attempt to conceal these items, to hide them in non-defence budget accounts.

The other type of off-budget expenditure is those which are financed entirely outside the government budget, that is, **extra-budgetary expenditure**. In many countries, the government is rather innovative in raising funds outside the public government for

military purposes. This is the case in particular for the funding of arms imports. The most well-known example is the case of Chile, where a certain percentage of the revenues of the state-owned copper company is used for arms imports, but never passes through the regular government accounts. Thus, what this really is about is extra-budgetary income, or revenues, for the financing of military activities.

Another example of extra-budgetary revenues is the various types of business activities by armed forces. In many countries the military runs factories, shops and other commercial activities from which they gain an income, which are used either to increase the personal income of the soldiers, or in a more organized form, for arms purchases and other collective expenditures.

Many types of off-budget expenditure can be traced by thorough search of government budgets and public expenditure accounts, but many can also be very difficult to trace. Estimates have to be made based on the information that is available. The estimates of military expenditure for China can be used as an illustration of off-budget military expenditure components. In 1998 SIPRI commissioned a study for estimating the military expenditure of China. The results were presented in the SIPRI Yearbook 1999, and these are summarised in table 2.

(Transparency 2: An example: The military expenditure of China)

Debts incurred by military purchases

Imports of military equipment that are financed via foreign loans constitute a particularly difficult problem for the measurement of the economic burden of military activities. By taking a loan a debt is incurred, for which interest payment has to be made and amortization paid. During the 1950s and 1960s arms imports were financed primarily by grants. During the 1970s, credits became a more important form of financing. It is impossible to make an assessment of the size of the military-related debt. The available debt statistics do not provide any indication as to how much of the total debt is incurred for the purpose of arms imports. According to one estimate based on rough assumptions, the more than half of all arms imports in the Third World during the 1970s were financed by credits. According to this estimate, the economic burden of the accumulated debt from these credits constituted around 20 per cent of the total debt burden in the aggregate of developing countries in 1979.¹

¹ Brzoska, B., 'The military related debt in Third World Countries', *Journal of Peace Research*, vol. 20 (1983), pp. 271-277.

Thus, this was an important item of military expenditure, at least in the 1970s and 1980s. Thus, it would be very interesting to try to obtain some information about military credits, debts and amortization and interest payments on these debts.

Actual expenditure versus budgeted allocations

Actual expenditure can differ significantly from budgeted allocations. The extent to which this happens is related to the degree of budgetary control in the country concerned. Sometimes actual expenditure can exceed the budgeted amounts by a wide margin. But it also happens that the budget has been too optimistic in its revenue forecasts. Then actual expenditure can be much smaller than budgeted. This has for example been the case in Russia. Economic difficulties have led to severe shortages of revenues. For several years in the 1990s this resulted in actual military expenditures which were only 60-70 per cent of budgeted.

Another complication is supplementary budgets, contingency/ emergency funds, and special appropriations. These are budgeted, not in the main annual budget but in separate allocations during the course of the budget year. For all these reasons, it is much better to use public expenditure accounts for actual expenditure than the annual budget.

IV. The data collection process at SIPRI

SIPRI has collected data on military expenditure on a global scale since 1969. Requests for data are sent out annually to the governments of most countries in the world. They are asked to provide official data on their military expenditure for the preceding five years according to a standardized format, the SIPRI Questionnaire. The questionnaire is addressed to embassies in Stockholm, as well as to relevant ministries, central banks and national statistical offices.

We are also trying to build up a network of experts who are active in the respective countries and regions and familiar with the conditions there and therefore better able to obtain and interpret the relevant documents and other sources of information.

The SIPRI Questionnaire is a short version of a questionnaire used by the UN. The 189 member states of the United Nations are requested to report annually, by 30 April, to the Secretary-General their military expenditures for the latest fiscal year for which data are available. They are asked to report in a standardized questionnaire, the so-called 'Instrument for standardized international reporting of military expenditure', as adopted by the UN General Assembly in December 1980.

(Transparency 3: The UN Questionnaire)

This is a very detailed questionnaire in the form of a matrix. It is divided vertically by 'Force Groups' (land forces, air forces, naval forces, etc.) and horizontally by 'Resource costs' (operating costs, procurement and construction, R&D, etc.). However, there is no obligation to fill in all the boxes in the matrix. Each country can decide to which extent they complete the matrix. The request by the UN is only that they use the reporting instrument 'preferably and to the extent possible'. Thus, as a minimalist option countries can choose to fill in only a lump sum for total military expenditure down in the right hand corner of the matrix.

The SIPRI Questionnaire is much simpler.

(Transparency 4: The SIPRI Questionnaire)

The response rates to this kind of requests for information are not overly impressive. SIPRI has begun to evaluate the response rates to our requests and to that of the UN. The next table (4C.1) presents the response rates for the year 2000 to SIPRI and the United Nations. NATO is also included in the table for the simple reason that SIPRI uses the NATO data and thus does not send request data from the individual NATO countries

(Transparency 5: Statistics on response rates to SIPRI and the UN for 2000)

The aggregate number of countries which provided data to at least one of these three organizations during year 2000 was 60 (table, col. 7). This means that about one-third of the countries covered in the SIPRI military expenditure database reported.

A geographical analysis of the response rates shows that the regions with the highest response rates are Europe and South America. Excluding the NATO countries, which are obliged to report to NATO, the rest of Western Europe had a response rate of 6 out of 7. The response rate for countries in Central and Eastern Europe was almost identical (11 out of 15) after exclusion of the Commonwealth of Independent States (CIS) countries. In South America 7 out of 11 countries reported their military expenditure. In most other regions response rates were very low. Except for Mexico, none of the Central American countries has reported their military expenditure to SIPRI. Among the member states of the CIS none reported to SIPRI in 2000 and only two to the UN—Moldova and Uzbekistan. Of 16 East Asian countries only 3 reported—South Korea, Taiwan and Thailand. Two South Asian countries

reported—Nepal and Pakistan—and 3 in the Middle East—Jordan, Lebanon and Turkey.

Among **African** countries the response rate is extremely low: 7 out of 50 African states reported to either SIPRI or the UN in 2000—Botswana, Burundi, Madagascar, Mauritius, Senegal, the Seychelles and South Africa. The reasons for the low availability of primary data on military expenditure in many African countries have been explored in a recent SIPRI study, which showed that it is not always due to a desire to hide the data, but more often to a combination of a lack of demand for the data and a proper channel for publishing such documents. Bureaucratic bottlenecks and an absence of a proper channel of communication between the relevant government ministries (of finance, defence and information) make it more difficult for the ministries to complete standardized questionnaires on military expenditure. In many instances, none of them expressly accepts responsibility for making such information available, preferring instead to ask for permission from a higher authority. In the absence of a policy on such issues, the higher authority does not respond to the request for permission and the questionnaire is filed away or ‘kept in view’.

TRANSPARENCIES (Appendix tables):

TABLE 1: The SIPRI definition

TABLE 2: The military expenditure of China, 1996

TABLE 3: The SIPRI Questionnaire

TABLE 4: The UN Questionnaire

TABLE 5: Statistics on response rates to SIPRI and the UN for 2000

Table 1. The SIPRI definition of military expenditure

The SIPRI definition of military expenditure includes all current and capital expenditure on the following activities:

- * **the armed forces** — including peace-keeping forces
- * **the civil administrations of the military sector:** defence ministries and other government agencies engaged in defence activities
- * **paramilitary forces**—non-regular armed forces which are judged to be trained, equipped and available for military operations
- * **military space activities**

Such expenditures should **include** the following **components**:

- * **personnel**
 - all expenditures on current personnel, military and civil
 - retirement pensions of military
 - social services for personnel and their families
- * **operations and maintenance**
- * **arms procurement**
- * **military research and development (R&D)**
- * **military construction**
- * **military aid** (in the military expenditures of the donor country)

Military-related components that are **excluded**:

- * **civil defence**
- * **current expenditure for past military activities**
 - veterans benefits
 - demobilization
 - conversion of arms production facilities
 - destruction of weapons

Table 2. The military expenditure of China, 1996

Figures are in billion yuan.

Item	Expenditure b. yuan
<i>Official expenditures for defence:</i>	
Central government exp. on the armed forces (PLA)	71.508
Local government expenditure on the militia	0.498
<i>The official defence budget</i>	72.006
 <i>Official expenditure on paramilitary forces:</i>	
Central government exp. on the People's Armed Police (PAP)	0.220
Local government exp. on PAP	0.229
<i>Sub-total</i>	<i>0.449</i>
 <i>Military expenditure in other budget chapters</i>	
Military R&D	4.9
Test and evaluation	5.2
Military construction	4.5
Arms imports (from special unknown appropriations)	12.5
Subsidies to military production	3.5
(Subsidies to demobilized personnel by Ministry of Civil Affairs)	3.3
<i>Sub-total</i>	<i>42.5</i>
 <i>Military expenditure derived from extra-budgetary sources of revenue:</i>	
Commercial earnings (activities) by the PLA	8.6
The PLA share of arms export revenues	0.5
<i>Sub-total</i>	<i>9.1</i>
 Total military expenditure	 124.0

Source: Shaoguang Wang, 'The military expenditure of China, 1989-98', *SIPRI Yearbook 1999: Armaments, Disarmament and International Security* (OUP, 1999), appendix 7D.

Table 5. Response rates to military expenditure questionnaires, 2000Figures are numbers of countries.^a

Region	SIPRI coverage 1	SIPRI request 2	SIPRI replies 3 ^b	NATO replies 4	UN coverage 5	UN replies 6 ^c	Total replies ^d 7
Africa	50	50	6	–	52	1	7
America, North	2	0	0	2	2	2	2
America, Central ^e	8	13	2	–	13	1	2
America, South	11	11	5	–	12	3	7
Asia, Central	5	5	0	–	5	1	1
Asia, East	16	16	2	–	16	1	3
Asia, South	6	6	1	–	6	1	2
Oceania	4	3	1	–	6	1	1
Europe, West	20	7	5	13 ^f	20	11	20
Europe, Central/East ^g	15	15	10	3	15	8	11
Europe, CIS	7	7	0	–	7	1	1
Middle East	15	13	2	1	15	1	3
Small states ^h	–	–	–	–	20	–	–
Total	159	146	34	19	189	32	60

^a The number of replies is higher than the number of countries because for some countries several replies have been received.

^b Austria, Bolivia, Botswana, Brazil, Bulgaria, Burundi, Chile, Colombia, Czech Republic, Estonia, Finland, Hungary, Ireland, Jamaica, Jordan, South Korea, Latvia, Lebanon, Lithuania, Macedonia, Malta, Mauritius, Mexico, New Zealand, Pakistan, Paraguay, Poland, Senegal, Seychelles, Slovakia, Slovenia, South Africa, Switzerland and Taiwan.

^c Argentina, Belgium, Brazil, Canada, Czech Republic, Denmark, Ecuador, Estonia, Finland, Germany, Greece, Hungary, Italy, Jordan, Lithuania, Luxembourg, Madagascar, Mexico, Moldova, Monaco, Netherlands, Nepal, New Zealand, Poland, Romania, Slovakia, Slovenia, Sweden, Switzerland, Thailand, USA and Uzbekistan.

^d Totals are often smaller than the sum of columns 3, 4 and 5 because the same country can appear in two or three columns.

^e Includes the Caribbean states.

^f Iceland, a NATO member without defence forces, is counted as a nil report.

^g Excludes the Commonwealth of Independent States (CIS) member countries.

^h At least 20 UN member states are too small to have a defence force but are included here for the sake of completeness.

Sources: SIPRI questionnaires during 2000; NATO, 'Financial and economic data relating to NATO defence: defence expenditures of NATO countries 1980–2000', Press release M-DPC-2 (1999)107, 5 Dec. 2000, URL <<http://www.nato.int/docu/pr/2000/p00-107e.htm>>; and United Nations, Report of the Secretary-General on objective information on military matters, including transparency on military expenditure, UN document A/55/272, 28 July 2000.

Source: SIPRI Yearbook 2001, Table 4C.1., p. 301.