

others these are excluded. Such forces, especially in African and Middle Eastern states, can be easily be as large as the regular armed forces. For example, in sub-Saharan Africa, paramilitary forces are at least half as large as regular forces in the majority of states - in some cases (such as the Ivory Coast or Guinea) they are actually larger!³² Other states, such as Costa Rica, do not have an "armed forces" at all, but a "civil guard," which cannot be meaningfully compared to the forces of its neighbours.

A fourth problem, which bedevils all international economic statistics is the *comparability of national economies*. Here two issues are especially relevant: *exchange rates*, and *Gross National Products*. At the simplest level, large or rapid shifts in exchange rates could distort year-to-year changes. The decline in the Mexican peso will, for example, translate into a large drop in military spending when a simple conversion to American dollars is made. On the other hand, over- or under-valued currencies (especially for currencies that are not freely traded) would over- or understate levels of spending. At a more complex level, exchange rates capture very poorly actual purchasing power parities, and they thus tend to artificially understate the actual "value" of military expenditure in many parts of the world. For example, an equally-sized and equipped army will "cost" much less in a country in which labour (and hence soldiers) is cheap, for the equivalent military power. Obviously, this is only an issue if one is attempting to determine the military potential derived from a given amount of security expenditure, but it creates problems for all comparisons, especially between the developing and less-developed world. In addition, the way in which GNP is measured excludes the informal or non-monetary sector of an economy, which in many parts of the developing world is extremely large. This tends to overstate the military burden on the economy, by "undercounting" the overall level of economic activity.

Finally, the aggregate sources that are usually used often rely on *non-comparable data*. With respect to military spending, figures are published by the United States Arms Control and Disarmament Agency, the Stockholm International Peace Research Institute, and the International Institute for Strategic Studies. One could construct reasonable comprehensive data series from these sources. Yet they differ widely on their estimates of military spending, their definitions, and even their sources. Furthermore, they often derive their data from the International Monetary Fund *Government Finance Statistics Yearbook*, which itself contains internal reliability problems.³³ Even for figures on which one would expect some greater agreement, such as on the total external debt of a country, different sources (such as the Central Intelligence Agency and the World Bank) do not agree. With respect to other categories of social spending, such as public expenditure on education and health (two indices used in this report), the

³² See International Institute for Strategic Studies, *The Military Balance, 1995/96* (London: IISS, 1996).

³³ For an excellent discussion of this problem see Ball, *Security and Economy*, 84-122.