

editorial

Zero-base budget for defense

Of the decisions made every day in Washington, none are more momentous—have more immediate impact on our economy or more far-reaching implications about the future of our nation—than the decisions made about our military defense posture. But at the same time in no other area do experts continually disagree more sharply and more passionately over the facts on which the decisions are based.

Take, for example, the current debate over missile-destroying ray weapons (using ultra-high-energy laser or particle beams). The private citizen attempting to reach his own judgment reads in the *New York Times* on 4 December that certain intelligence officials and scientists are asserting that "the Soviet Union may have a dangerously significant lead" in the development of these weapons and that Congress is being pressured to triple the R&D effort on these systems. On December 5 the *Times* carries a report that two well-known physicists (Richard Garwin and Wolfgang Panofsky) question whether it would be possible to use particle-beam weapons to destroy enemy rockets and advise against increased spending in this area. Although each news report contains additional details, the reader does not receive enough information to reach a thorough understanding of the issues involved.

In the past when faced with such divergence among authorities, Washington has usually opted to "play it safe" and up the budget to include the extra defense capability. But this option is becoming more and more unacceptable for two reasons. First there is greater danger that improved or additional armaments can upset the delicate strategic balance between the two countries—more weapons capability can make us less safe. However, this a subtle concept that tends to be difficult to explain.

The second consideration is much more tangible—the military budget has grown so large that it is straining our economy to the point where we can no longer afford new military hardware just to be on the safe side. The economist Seymour Melman in his *New York Times* magazine article of 19 November argues convincingly that our enormous military budget (now some \$120 billion or 40% of the federal budget) is the primary cause of the intractable combination of inflation and unemployment that is plaguing our economy. His article raises the real concern that our defense effort has grown to such a size (the Defense Department is now by far the largest single user of capital and technology in the country) and consumes such a large fraction of our resources that this effort threatens to destroy us economically in the process of defending us physically.

This concern is clearly the issue in the debate reported within the administration itself, in which the

director of the Office of Management and Budget is opposing the President's plans for an additional \$2 billion for the Defense Department on the grounds that this mere 3% increase in the military budget would devastate civilian programs already cut back, such as urban jobs programs, aid to education, student loans and foreign aid.

From now on our decision makers will have to get much more deeply into the business of cost-benefit analyses of alternative defense options, and this information needs to be communicated to the public in a form it can grasp. A remarkable and timely book just now coming off the press represents a significant step forward in providing this kind of cost-benefit information about our military establishment. "An Independent View of U.S. Defense Needs" by the Boston Study Group (New York Times Book Company) summarizes the results of a four-year comprehensive analysis of the present-day US military forces. Using essentially the method of zero-base budgeting, the Study Group set itself to answer the question that if you start from scratch what parts of our present forces in what amounts are really needed by the DOD to fulfill its mission of protecting the national security both strategically and tactically. Surprisingly, no such analysis has ever before appeared in the open literature. Even more surprising is the main conclusion arrived at by the Study Group—all of the legitimate missions of the DOD could be accomplished by a mix of strategic and tactical forces operating on a budget of roughly half the current budget (a saving of \$50 billion per year) and—in the view of the Study Group—providing a significantly higher level of safety. We might expect these conclusions to be challenged by spokesmen for DOD—and certainly they *should* be challenged in an extensive public debate which educates and informs policymakers and the public alike.

We can take pride in the fact that the senior member of the Boston Study Group, which has performed this public service, is Philip Morrison, a well-known theoretical physicist at MIT. Modern military systems, of course, involve physics-based technologies which are quite sophisticated, and we are certain that many physicists could make valuable contributions to public debate on this question of military cost-benefit analysis. We trust that Morrison's work will inspire them to join him in encouraging public interest and understanding in this highly important and timely area of national concern.

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