STAFF WORKING PAPERS

BUDGETARY EFFECTS OF THE PRESIDENT'S CONVENTIONAL ARMS PROPOSAL

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Recently, President Bush proposed a major arms control agreement that would affect conventional military forces in Europe. The proposal would limit the European forces of both the United States and its NATO allies and the Soviet Union and its Warsaw Pact allies. This Congressional Budget Office (CBO) Staff Working Paper assesses the possible effects of the President's proposal on future U.S. defense budgets. In accordance with the CBO mandate to provide objective and nonpartisan analysis, this paper contains no recommendations.

The analysis was performed in response to a request by the Chairman and Ranking Minority Member of the Senate Budget Committee. The paper reflects the work of a number of staff members in CBO's National Security and Budget Analysis Divisions, including Robert Hale, Raymond Hall, Frances Lussier, John Mayer, Michael Miller, William Myers, Lane Pierrot, and Amy Plapp.

This Congressional Budget Office (CBO) Staff Working Paper estimates possible budget savings that might accrue from President Bush's recent arms control proposal. The President's proposal calls for reducing military forces in Europe both for the United States and its NATO allies and for the Soviet Union and its Warsaw Pact allies. Reductions in U.S. forces could include demobilizing 30,000 troops now stationed in Europe as well as destroying some U.S. tanks, armored personnel carriers, artillery, helicopters, and land-based combat aircraft.

If not offset by other policy changes, the President's proposal would reduce future U.S. defense budgets. Under one of many plausible assumptions about how the President's proposal would be carried out, the reduction in personnel and operating costs would amount to about \$2 billion a year. (All costs cited in this paper are in 1990 dollars of budget authority.) The President called for negotiation of a treaty embodying his proposals within six months to a year, with reductions to be accomplished by 1992 or 1993. Under that schedule, savings would not begin until 1991 at the earliest, and full savings would probably not be realized until at least 1993.

Over a period of years, the President's proposals might also avoid the need to purchase about \$6 billion in new weapons. Policies other than those specified in the President's proposal would determine the timing of these savings. But savings would probably be realized by reducing the rate of procurement for new weapons and so would most likely occur over many years. Thus, the President's proposal would probably result in procurement savings of, at most, several hundred million dollars a year.

The remainder of this paper discusses the assumptions CBO used in arriving at these estimates. It also discuss how alternative assumptions could affect the estimates.

THE PRESIDENT'S PROPOSAL

The President called for a "ceiling on U.S. and Soviet ground and air force personnel stationed outside of national territory in the Atlantic-to-the-Urals zone at approximately 275,000." This level would require the United States to remove about 30,000 troops from Europe and the Soviets about 325,000 troops from the portion of Europe outside their borders. These forces are to be demobilized. Furthermore, the President stated that the U.S. withdrawal would be designed to reduce U.S. combat manpower in Europe by 20 percent.

The President also proposed limits on various categories of weapons. These limits would apply to the NATO and Warsaw Pact allies as a group and would govern all weapons located in Europe (that is, in the area between the Atlantic Ocean and the Ural Mountains). For NATO, the limits would require that helicopters used for attack or assault or transport, and land-based combat aircraft, each be reduced by 15 percent below current levels. If the tank limit were to be accepted, NATO would have to cut the current number of its tanks in Europe by approximately 10 percent. NATO would also have to reduce the number of armored personnel carriers by about 5 percent.

For the Warsaw Pact, the President proposed that the Soviet Union and its allies reduce their European weapons to match the reduced numbers of NATO weapons. The size of the Pact reductions would be much larger than those required of NATO. The Pact would have to eliminate almost 32,000 tanks (roughly 60 percent of its tank forces in Europe) and about 18,000 armored personnel carriers (roughly 22 percent of its European forces). Based on the NATO definitions of combat aircraft, the Pact would have to reduce its inventory of land-based combat aircraft by about two-thirds.

ASSUMPTIONS UNDERLYING CBO'S COST ESTIMATES

The President did not specify which U.S. forces would be removed from Europe in order to accomplish these reductions, a decision that will influence the amount of savings. Nevertheless, CBO has created an illustrative reduction that suggests the likely magnitude of potential savings.

Balanced Reduction of Combat and Support Forces

The United States might, for example, withdraw most of one armored or mechanized division-including all its helicopters and artillery--but leave one of the division's three brigades in Europe. An armored or mechanized division consists of three brigades, with about 17,000 personnel directly assigned and a substantial number of personnel providing support. This support includes combat activities such as artillery as well as maintenance and logistics support. If the withdrawal were to involve all personnel directly assigned to two-thirds of a division, plus all personnel providing support, it would require removing about 26,000 Army personnel from Europe. In addition, the United States might withdraw one and one-third wings of F-16 fighter aircraft (a fighter wing consists of 72 combat aircraft plus support planes). About 4,000 personnel are either directly assigned to these air units or provide support.

A reduction of roughly two-thirds of an armored or mechanized division would provide the United States at least a proportional share of total proposed NATO reductions in armored personnel carriers and helicopters. But withdrawal of two-thirds of a division would leave the United States with less than a proportional share of the tank reduction. For the United States to receive a proportional share, approximately another 300 U.S. tanks could be removed from stocks of weapons that are stored in Europe for wartime use. Reductions taken from these stored stocks would not, however, bring about substantial savings in operating costs.

This illustrative withdrawal of ground and air units would result in a total reduction of 30,000 U.S. personnel from Europe--consistent with the President's proposal. Moreover, it would constitute a balanced reduction, removing from Europe not only combat personnel but all of the personnel who provide them with combat and other support services.

By some measures, however, this withdrawal might eliminate less combat manpower than the President proposed. The United States has four and two-thirds

armored or mechanized divisions in Europe. Withdrawing roughly two-thirds of a division (two of its three brigades) would reduce that number by about 15 percent, compared with the 20 percent reduction in combat manpower called for in the President's proposal. But there is no precise definition of the term "combat manpower." Thus, some of the troops providing support could reasonably be considered as combat manpower in order to comply with the details of the President's proposal.

Similarly, withdrawing one and one-third wings of fighter aircraft would constitute less than a 20 percent reduction in the roughly eight wings that the United States currently has in Europe. This withdrawal would, however, give the United States a roughly proportional share of the proposed reduction of 15 percent in NATO aircraft.

Other Types of Withdrawals

Other types of withdrawals could also satisfy the requirements of the President's proposal. For example, the United States could withdraw a larger number of combat units--perhaps a full armored or mechanized division and one and two-thirds fighter wings. This larger reduction would leave little doubt that the United States was withdrawing 20 percent of its combat manpower as the President proposed. But withdrawing a larger number of combat units, along with all their support personnel, could leave the United States at least 10,000 short of the ceiling of 275,000 air and ground personnel proposed by the President. To maintain U.S. troops levels at the ceiling, a substantial fraction of the support personnel would have to be left in Europe. These support personnel could maintain military facilities that would speed the return of U.S. forces to Europe in the event of a crisis, but the personnel would not be fully employed in peacetime.

The United States could also elect to withdraw parts of many units but not withdraw any one unit in its entirety. For example, the Army could withdraw several battalions or a brigade from each of several divisions, while the Air Force could reduce the number of aircraft in each of its wings.

Yet another approach would involve troops manning the Intermediate Nuclear Forces (INF). To date, the United States has not withdrawn from Europe all of the troops who are manning the weapons that will gradually be eliminated under the INF treaty already in force. Withdrawing these INF troops offers another approach to meeting a portion of the personnel limits called for in the President's proposal.

ESTIMATES OF SAVINGS

Although there are many ways to carry out the President's proposal, the illustration described above is sufficient to suggest the potential for cost savings. This withdrawal could reduce operating and personnel expenses as well as procurement expenses. It could also result in some one-time costs and savings.

Personnel and Operating Savings

Under the plan discussed above, removing forces from Europe, and eliminating them from the U.S. military as the President proposed, would reduce personnel and operating costs by about \$2.1 billion a year. About \$1 billion of these savings would result from reductions in pay and allowances, since the military would have fewer personnel (these savings would appear in the military personnel appropriations). The remaining savings would result from lower day-to-day operating costs, since fewer units would be operating (roughly half these savings are recurring procurement expenses while the other half are operation and maintenance funds).

Some added operating costs would occur from verifying compliance with the President's proposal and from destroying equipment. CBO has no basis for estimating these costs precisely, but the costs could be substantial. For purposes of illustration, CBO assumes that verification and destruction would cost \$150 million a year-roughly the amount now being spent to verify the INF treaty--though actual costs could be higher. Under this assumption, the net reduction in operating costs would total about \$2 billion a year when the proposal was fully carried out. About half the savings would occur in the military personnel appropriations; most of the rest would reduce appropriations for procurement or operation and maintenance. But even under the President's proposal for speedy implementation--which Administration officials have characterized as a goal and not a deadline--these savings would not be fully reflected in the budget until at least 1993.

Personnel and operating savings would probably be similar under other approaches to the withdrawal. The President proposes a ceiling of 275,000 on U.S. air and ground troops stationed in Europe. If the United States wishes to remain at this ceiling, then 30,000 U.S. troops must be withdrawn under all approaches. Thus, savings under alternative approaches to the withdrawal would differ only to the extent of variations in operating costs other than those for military pay and allowances.

Procurement Savings

In addition to realizing savings in operating costs, the President's proposal could reduce the costs of procurement. Under the illustrative reduction assumed in this paper, and assuming that the United States receives a proportional share of the reductions in aircraft and tanks, the President's proposal would eliminate the need for about 110 F-16 aircraft and 520 M1 tanks. The plan described above would also eliminate requirements for other types of equipment located in the two-thirds of the armored or mechanized division to be eliminated. This equipment would include items such as helicopters, artillery pieces, trucks, and radios.

The President called for destruction of these weapons and equipment. However, since many of the weapons and equipment located in Europe are modern, Administration officials have indicated that they would be brought back to the United States where they would replace older weapons, which would instead be destroyed. Such a plan should eliminate the need to buy new weapons for units receiving the relocated European gear. Under this approach, over the course of a

number of years, procurement spending could be reduced by about \$6 billion, which represents the total value of the weapons and equipment brought back from Europe.

These savings would probably be realized by reducing the procurement rate for new weapons and so would occur over many years. If a weapon was currently in production, and that same weapon was withdrawn from Europe, then production could be slowed as soon as the withdrawal took place. On the other hand, if a weapon to be withdrawn from Europe was not in production, then savings might not be realized until a production line was opened. This possibility suggests that the full amount of savings might not be realized for many years. Moreover, savings in any one year would probably amount to several hundred million dollars at most.

One-Time Costs and Savings

Carrying out the President's proposal would result in some one-time costs and, possibly, some one-time savings. Equipment for ground and air units would probably have to be moved from Europe to the United States, which would involve some costs. CBO does not have specific data on these costs, but they should not be large as a fraction of total annual operating savings. Added costs of transporting personnel back to the United States should also be modest since most personnel could be moved at the end of their normal tour of duty.

As for possible one-time savings, the United States currently plans to contribute to the costs of constructing a new base in Italy to house the 401st Tactical Fighter Wing, a wing of U.S. F-16 aircraft that must be removed from Spain. If this wing were the one chosen for withdrawal, this country would avoid costs of between \$400 million and \$500 million over a number of years.

EFFECTS OF ALTERNATIVE ASSUMPTIONS

A number of policy decisions could be made in connection with the President's proposal that would reduce the savings estimated in the CBO illustration. Most notably, the United States could decide that--despite the large reductions in Warsaw Pact forces that would be occurring simultaneously--the reduction in U.S. forces stationed in Europe would require larger stateside forces, perhaps an increase in the number of part-time reserves. The United States could also decide that it needs to increase the size of its fleets of ships and aircraft designed to carry military weapons and other cargo back to Europe in time of war. Since the President's proposal only limits forces stationed from the Atlantic Ocean to the Ural Mountains, either or both of these decisions would be allowed and could eliminate part or all the savings discussed above. These decisions could even result in net additions to the budget.

Costs of verification might also be higher than those assumed by CBO. Verifying this complex treaty could involve many on-site inspections and, possibly, increases in U.S. capabilities for surveillance using satellites and aircraft. If so, costs to procure and operate equipment required for verification could easily exceed those assumed in CBO's estimates.

Procurement savings might also be delayed if the United States decided to withdraw older weapons from Europe. For example, the United States might withdraw the older M60 tank and A-10 aircraft, neither of which is currently in production, rather than the newer M1 tank and the F-16 aircraft that are in production. Eventually, withdrawal of units containing older weapons would still offset the need to purchase new equipment because there would be fewer units to modernize. But procurement savings would not be realized until the unit containing the older weapons is modernized with a new weapon. In some cases, such planned modernization might not occur for many years, perhaps for several decades.

Alternative policies could, however, achieve savings larger than those estimated by CBO. The procurement estimates noted above assume that, when a combat unit is eliminated, the only weapons that no longer need to be procured for that unit are operating weapons and, in some cases, a limited number of spare weapons that provide replacements when operating weapons are down for maintenance. Typically, however, the services buy a substantial number of spare weapons for training and to replace losses that occur during peacetime training. Including all of these extra spares would increase the size of procurement savings. Moreover, estimates of procurement savings do not reflect reductions in purchases of missiles and ammunition. These purchases might be reduced in keeping with the decreased enemy threat that would result from the withdrawals under the President's proposal.

A factor that could increase savings even more significantly is the proportion of NATO weapons reductions that the United States receives. The United States devotes a greater share of its gross national product to defense than almost any of its NATO allies. Thus, the NATO allies might agree that--in order to narrow differences in the defense spending burden--the United States should receive a disproportionately large share of the reductions made in NATO forces. It might be difficult, however, to increase significantly the number of U.S. units withdrawn from Europe, while still complying with the President's proposal and U.S. policy objectives. Because ground units contain large numbers of personnel, a significant increase in the number of units withdrawn would leave the United States below the President's proposed ceiling of 275,000 U.S. air and ground personnel in Europe. Aircraft units have fewer personnel, but the United States--which until recently resisted any reductions in aircraft--might be reluctant to make significantly larger withdrawals of its highly capable air units.

The NATO allies might, however, decide that the United States should receive a disproportionately large share of the reductions in weapons, in which case the extra weapons could come out of stored weapons rather than from units. This approach could add to procurement savings, but reducing stored equipment would increase the time required for U.S. units to return to Europe in the event of war or would reduce the level of war reserves designed to replace equipment destroyed in combat. Eventually, the United States might also consider withdrawals that left fewer than 275,000 air and ground personnel in Europe. Such withdrawals would permit larger savings in personnel and operating costs, but would reduce troops below the ceiling proposed by the President.

Much larger cost savings might follow indirectly from the President's proposal. Under the proposal, the Warsaw Pact allies would have to withdraw large numbers

of troops and destroy many weapons--far more than NATO would have to withdraw or destroy. For example, the Pact would have to destroy almost 32,000 tanks compared with 2,000 for NATO; the Soviet Union would have to demobilize about 325,000 troops compared with 30,000 for the United States. In the face of these asymmetric reductions, the United States might conclude that it faces less military risk and therefore elect to maintain a smaller or less modern military within the United States. Such a decision could result in reductions in the defense budget much larger than those estimated in this paper.