Policy Analysis

Cato Institute Policy Analysis No. 286: The High Cost of NATO Expansion: Clearing the Administration's Smoke Screen

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Executive Summary

The Clinton administration's estimate of the costs of NATO expansion is fatally flawed. Even if the dubious major assumptions--that the current benign threat environment will continue and that no NATO forces will need to be permanently stationed in new member states--are accepted, the administration's estimate that the total cost of expansion will be only $27 billion to $35 billion is much too low. Its paltry estimate of $1.5 to $2 billion for U.S. costs is even more incredible.

The U.S. Department of Defense, which made the cost estimate for the administration, did not develop a detailed list of military enhancements needed for expansion, estimate the cost of each enhancement, and add those costs up for a total. Instead, in many cases DoD analysts used a "macro" approach to select a level of spending (what they termed "level of effort") for a particular category of military improvement, with little or no military rationale or analysis to back it up. In other cases, where DoD made microassumptions, they were very questionable and designed to hold costs down. In addition, DoD analysts felt constrained in how much military infrastructure they could assume would be built on the territories of new member nations. All of those dubious methods were needed because the DoD's estimate resulted from negotiations within the administration; it was not a valid estimate of costs based on military requirements.

In this study, a detailed critique is offered of the administration's assumptions and method of estimating the costs; and an alternative cost estimate, which uses the DoD's major assumptions but is based on more realistic microassumptions and better methodology, is presented. That estimate projects the total costs of expansion at about $70 billion (although they could reach $167 billion), of which at least $7 billion would accrue to the United States.

Introduction

On July 8, 1997, at U.S. initiative, the North Atlantic Treaty Organization decided to admit Poland, Hungary, and the Czech Republic as members. The U.S. Senate--as will the legislative bodies of the other 15 members of the alliance--will be required to approve an amendment to the North Atlantic Treaty ratifying the plans for expansion. To make that ratification decision, those bodies will need good estimates of what NATO expansion is likely to cost.

When admitting new members, the alliance--under article 5 of the treaty--agrees to assist them if they come under attack. Thus, enlarging the alliance will cost new members and existing members money because armed forces will need to be improved and military infrastructure in the substantially expanded territory will need to be augmented to receive and support them. Although some observers argue that collective defense is cheaper than unilateral defense, the

real question is, for whom? The new members are located near unstable areas of Eastern Europe and would benefit greatly from admission to the alliance. Even so, they expect that joining the alliance will lead to increases in their defense budgets. [1] Those nations, however, may not be able to afford even the expenses required for collective defense, because their economies are in transition from communism to capitalism and polls show that their populations do not support increases in the proportion of government spending devoted to defense. [2] Thus, upon entering the alliance, they may require subsidies from existing members to help them finance improvements to their dilapidated infrastructure and obsolescent armed forces. As a result, it is important to estimate not only the costs of expansion for the United States and its existing NATO allies but for new members as well. If the costs that new members will face are too large for them to afford, those costs could very easily become the responsibility of the alliance and its current members--most notably, the United States.

Despite the Senate's need for good cost information on which to make its ratification decision, the Clinton administration had to be dragged into a discussion of the expenses of expansion. Although expansion became an official goal of NATO in January 1994, it was only in February 1997 that the administration issued its woefully inadequate estimate of the costs of expansion. The administration did so then only because it was required to by Congress and because estimates by the Congressional Budget Office and RAND were putting pressure on it to develop an estimate of its own. The administration's attitude seemed to be that any discussion of costs would harm prospects for ratification.

Yet members of Congress and the public, when passing judgment on any public policy initiative, have a right to cost estimates that are methodologically rigorous and reasonably accurate. In the case of NATO expansion, the administration has failed on both counts. The administration's cost figure resulted from a negotiation between the White House and several offices in the Pentagon; it is not a valid estimate based on the military requirements of expansion. [3]

The Administration's Cost Estimate

The administration's estimate, developed by the U.S. Department of Defense, was that total costs of expansion during the period from 1997 to 2007 would be from $27 billion to $35 billion, with U.S. costs amounting to a scant $1.5 billion to $2 billion. The estimate was based on the following assumptions:

- A direct conventional military threat to new members is unlikely for the foreseeable future; such a threat, if it appeared at all, would take many years to develop.
- As long as the current benign threat environment continues, the alliance will provide an article 5 defense of the territories of new member states by reinforcing the militaries of those nations with the forces of existing members (four of the divisions and six of the air wings stationed in Western Europe) rather than permanently stationing existing members' forces in the new member states in peacetime.
- The forces of new members must be able to operate with those of existing members.
- The forces of current NATO members must be able to reinforce those of new members. [4]

As shown in Table 1, the administration's cost estimate was divided into three categories: military restructuring by new members, enhancements to regional reinforcement capabilities of current members, and direct enlargement.

Table 1
The Administration's Cost Estimate (billions of dollars)

Category of Costs	United States	NATO Allies	New Members	Total
Military restructuring by new members			10-13	10-13
Enhancements to regional reinforcement capabilities of current members		8-10		8-10

Direct enlargement	1.5-2.0	4.5-5.5	3.0-4.5	9-12
Total	1.5-2.0	12.5-15.5	13-17.5	27-35

Source: U.S. Department of Defense, "The Military Implications and Costs of NATO Enlargement," undated briefing, p. 9.

Curiously, the administration listed all three categories of costs in its estimate but then stated that the "measures in the first two categories would, for the most part, need to be pursued independent of enlargement." [5] Military restructuring by new members included the modernization of their air and ground forces and training. Enhancements to regional reinforcement capabilities of current members included giving ground and air units mobile logistics so they can project power east onto the territory of new members to reinforce them if they come under the threat of attack. Direct enlargement included "costs directly and exclusively tied to enlargement." [6] Those direct costs included the following general subcategories of improvements in the new member states: communication, exercises, and reception facilities for reinforcements.

A breakout of costs was provided only for those three main categories and subcategories. In the direct enlargement category, a few more details were provided on what the subcategories of communication, exercises, and reception facilities included, but no costs were attached to them. The listed improvements in the new member states under the subcategories included the following: educating officers, renovating command centers, improving the communications of military forces, enhancing air defense and air offense, increasing the amount of equipment that can operate with the equipment of existing NATO nations, and providing procedures and facilities to receive and fuel incoming NATO reinforcements.

Problems with the Administration's Major Assumptions

The lack of detailed cost projections in the administration's estimate is only the first indicator that something is awry. The first two of the major assumptions in the estimate--no current threat and no stationing of NATO forces in the new member nations--may prove problematic.

Although the threat environment is benign at the moment, three potential flashpoints exist that could drag a new member--and thus NATO--into a regional conflagration. The first is Hungary's tension with the belligerent Serbia over the Hungarian minority in the Serbian province of Vojvodina. Serbia actually bombed a town inside Hungary during the Yugoslav civil war. The second possible flash- point is Poland's border with Belarus, governed by the repressive and erratic regime of Alexander Lukashenko. If unstable Belarus erupts, Poland will expect NATO's help. [7] The third flashpoint is Poland's border with the isolated Russian enclave of Kaliningrad. Russian military and security officials, concerned about the strengthening of Polish forces near the enclave, have publicly announced that Russia intends to build up its forces. [8] The second and third flashpoints could involve a confrontation between NATO and Russia. Furthermore, although Hungary's disputes with Romania and Slovakia over the rights of the Hungarian minorities living in those countries have subsided for the moment, they could flair up again in the future.

Any one of those potential flashpoints could increase pressure for NATO to permanently station forces on the territories of new members. As Ted Galen Carpenter has written about that possibility,

> On the surface that might appear to be an extremely remote possibility. But it is worthwhile to recall that the prospect of a permanent U.S. military garrison in Western Europe seemed equally unlikely when NATO was created in 1949. In fact, Secretary of State Acheson, Chairman of the Joint Chiefs of Staff Gen. Omar Bradley, and other officials of the Truman administration explicitly assured Congress and the American people that the United States would not station troops on the Continent. Less than two years after the North Atlantic Treaty was safely ratified, however, some four U.S. divisions were on their way to Europe. [9]

As Carpenter notes, one of the reasons that increased commitment was deemed necessary was the slow pace of

Western Europe's rearmament after World War II. He also notes the gradually escalating nature of the rhetoric justifying the increased obligations.

> Administration leaders stressed that the assumption of additional responsibilities was not intended to be permanent, that the United States would bear them only until the West Europeans could complete their rearmament efforts. The allies had different ideas, however, and thus began the process by which the United States would come to have primary responsibility for Western Europe's defense instead of merely backstopping Western European efforts. [10]

Those U.S. troops remain in Europe today long after the disintegration of the Soviet Union.

NATO is an example of international commitments that mushroom out of control as circumstances change. Another example is the entangling alliances that led to World War I. Although a rough balance of power existed in Europe before the war, there had sprung up on the Continent a series of alliances--beginning in the 1870s and continuing through the first decade of the 20th century--that had become outdated by 1914 as the international situation changed. Those entanglements dragged the reluctant major powers--including Germany--into what turned into a global war. [11]

Similarly, during a time of uncertainty and change in post-Cold War Europe, admitting new members to an outdated NATO alliance may further inhibit the flexibility of U.S. foreign policy to respond to unexpected circumstances in the future. U.S. flexibility would be further compromised if pressure built to permanently station forces in the new member states. That scenario could easily happen--as it did in the NATO alliance after World War II--if new allies are unwilling or unable to bear the expenses of drastically transforming their marginal militaries into effective fighting forces. As the Congressional Budget Office notes, Central European nations, in transition from communist to capitalist economies, may be both unwilling and unable to afford such expenses. According to public opinion polls in all of those states, their populations do not support increases in government spending devoted to defense. [12] Jonathan Landay of the *Christian Science Monitor* concludes, "Even as talks on their admission gather speed, doubts persist over whether they can rebuild armies equipped with outdated Soviet technologies into assets that can contribute to NATO's strength." [13]

Thus, although the administration is currently selling the expansion of the alliance by promising to eschew permanently stationing NATO forces in new member states, the existence of potential regional flashpoints combined with insufficient defense efforts by new member states could require an abrupt change after ratification is secure. The U.S. military establishment is now minimizing military threats in Europe to ensure ratification of NATO expansion. It is curious that in every case except NATO expansion, the Pentagon routinely plans for and buys weapons for the worst-case war scenario. After all, when was the last time the United States fought two regional wars nearly simultaneously, as the military currently plans to do? After ratification is ensured, the Pentagon might have an incentive to return to business as usual, maximizing military threats in the region to support the argument that the forward stationing of troops is needed. The U.S. military presence in Europe might be perceived as less vulnerable to congres-

sional pressures for reduction or withdrawal if it were "closer to the action" instead of sitting awkwardly in Germany, a nation that is no longer threatened. The Congressional Budget Office also noted that permanently stationing military units in new member states could raise the cost of NATO expansion to as much as $167 billion. [14] But Congress might feel it had little choice but to fund such costs if the actual or perceived threat seemed great enough. Thus, the camel's nose under the tent could lead costs to increase dramatically.

Categories of Cost

Despite the problems with the administration's assumptions of a continuing benign threat environment and a defense based on reinforcement rather than the permanent stationing of forces, for the purposes of analysis let us assume that both assumptions are valid. Even with that generous concession, the administration's estimate of the costs of expansion is questionable. Let us start with the way the estimate is structured.

Three Categories and a Curious Assertion

The administration's inclusion of three major categories of costs with the disclaimer that two of the categories--military

restructuring by new members and enhancements to reinforcement capabilities of current members--were promised by those nations whether or not NATO expanded allows the administration to have it both ways. Had the administration omitted those two categories--which account for $18 billion to $23 billion of the $27 billion to $35 billion total estimate--the remaining $9 billion to $12 billion covering only direct enlargement costs would have been ridiculed in Congress as obviously too low. By using the $27 billion to $35 billion figure but including the caveat that most of the expenses would have been incurred anyway, the administration gives the appearance of being comprehensive in its methodology for costing while at the same time it touts lower costs.

Such accounting distinctions are helpful when selling the expansion of the alliance, but they are not very helpful in determining the total costs that NATO nations will probably incur or whether they can afford them. Richard Kugler, a coauthor of the RAND study on the costs of NATO enlargement and a proponent of expansion, termed the distinction between direct costs and the other two categories "gibberish." [15] The Congressional Budget Office's study included all three categories of costs, and a study by the Potomac Foundation implicitly endorsed that comprehensive analysis of costs. [16]

The argument that both new member nations and existing NATO members would need to transform and improve their militaries whether NATO expanded or not is suspect. There is a contradiction between the DoD's assumption of a continuing benign threat environment and its assumption that the new NATO nations would transform and improve their militaries even without expansion. Why would they do so unless they perceived a threat? Moreover, although all three new member nations may have promised to increase spending and modernize their militaries, actions speak louder than words. The post-Cold War track records of both existing allies and new members are not good. The defense spending of the Central European nations between the end of the Cold War and the period of serious talk about NATO expansion should give some indication of what their defense efforts would have been without expansion. From the end of the Cold War in 1989 until very recently, when they were being examined for admission to NATO, the prospective new members spent declining real amounts on defense. During the same period, most of the European allies also had declining defense budgets.

In fact, both the DoD and the new members argue that the new members will restructure and modernize their armed forces whether or not NATO expands, at the same time that the new members claim that joining the alliance will increase their defense budgets. Hungary claims that joining the alliance will require an increase in its defense budget of 35 percent, Poland expects a 20 percent rise, and the Czech Republic has pledged to double defense spending in the next two years. [17] An increase of nearly 60 percent in the collective defense budgets of all three new members is a better estimate.

The Scope of Needed Military Improvements

Despite the decline in resources for defense, providing a credible article 5 defense for an expanded NATO will require substantial enhancements to the militaries of new member states, as well as significant improvements in the forces of existing allies. In its response to a General Accounting Office report, even the DoD admits that the failure to make such improvements could "seriously impair an enlarged alliance's military effectiveness." [18]

> In our analysis, we set out some basic tasks connected with enlargement, that an enlarged NATO will need to be prepared to carry out if it is to be able to provide an effective Article V collective defense of the new members. First, current members must make additional progress in upgrading their regional reinforcement capabilities to be able to more effectively implement NATO's 1991 Strategic Concept. Second, new members must continue restructuring and selectively modernizing so that they can enhance their self-defense capabilities. Third, new members must increase their forces' interoperability with current members' forces and they, with the Alliance as a whole, must establish the levels of command and control, air surveillance, logistics, and the like necessary for collective defense. Only the last category is a direct result of enlargement, and in that sense only that category is an incremental cost of enlargement. However, without the other two types of enhancements, an enlarged Alliance would not be as militarily credible or effective as it should be, nor as equitable in its sharing of defense burdens. [19]

That passage indicates that new members--in addition to enhancing their forces so that they can better operate with

those of NATO--would need to restructure and modernize their forces to enhance their self-defense capabilities. Another passage in the GAO report indicates that the DoD assumed that NATO would continue relying on its post-Cold War strategy that requires that every member have a "basic self-defense capability." [20] Currently, the militaries of the new members are excessively large and in a sorry state. They have obsolescent equipment and an overly centralized command structure left over from their days in the Warsaw Pact. Those forces would need to be reduced in size and reorganized along Western lines. The equipment, particularly command, control, and communication devices, would need to be compatible with that of NATO. The officers and senior enlisted personnel would need to be trained in NATO procedures and English, the day-to-day working language of the alliance. The infrastructure of new member nations--both military and civilian--is dilapidated. Ports, rails, and roads are in poor shape because of heavy use and little maintenance during the years of the Warsaw Pact. Military bases are run down and in some cases unusable because of environmental contamination. Substantial improvements to the military infrastructure will be needed if it is to adequately receive NATO reinforcements.

One French military officer is quoted as saying, "There is a big gap between [Eastern European] militaries and the European allies in NATO." [21] That admission should give proponents of expansion pause because even some of the militaries of existing allies are of questionable quality--for example, those of Turkey, Spain, and Portugal. The Clinton administration acknowledges the severe problems with the armed forces of new members: "These states emerged from the Warsaw Pact with military forces that were poorly structured and inadequately equipped for modern warfare." [22]

Yet the administration keeps insisting that the new members were planning substantial military improvements even in the absence of expansion. The new members have an incentive to play along with that line of reasoning, exaggerating what was planned. The more improvements they say were already in their plans, the smaller the costs of expansion. Only a comprehensive accounting of all costs related to expansion will end that game.

Furthermore, to make their armed forces compatible with those of NATO, they will need to buy Western systems, which tend to be the most expensive. That gives rise to a worrisome potential for hidden costs to U.S. taxpayers. When new NATO members buy new equipment to replace their aging inventories, there will be political pressure from U.S. arms exporters on the U.S. government to provide financing for those sales. Other Western governments will be providing such assistance, and the argument will be made that U.S. sellers will lose out in the already fierce competition for arms sales to the new members. Expenses for U.S. government financing of such sales will accrue to the U.S. taxpayer. That is one important reason why new members' expenses for upgrading old equipment and purchasing new equipment should be included when the total costs of expansion are considered, and U.S. financing of those purchases should be included when U.S. costs are considered. Such U.S. assistance, which could be substantial, was excluded from the administration's estimate.

Also, U.S. allies would need to make significant improvements in their forces in order to reinforce new member states in time of crisis. Unlike U.S. forces, the armed forces of the West European allies still have only a very limited ability to project power, even within the European theater, according to U.S., European, and NATO officials. [23] During the Cold War, the alliance strategy was to use an "in-place linear defense" in Germany against any Soviet attack. That changed in 1991, when NATO adopted a post-Cold War Strategic Concept that emphasized that alliance forces should enhance their flexibility and mobility. [24] Yet, since then, the European allies have had little enthusiasm for making such enhancements. Declining real defense budgets since the end of the Cold War in most allied nations indicate those nations are reluctant to make such costly improvements to their forces in the absence of NATO expansion. In fact, two proponents of expansion even advocate using NATO expansion to prod the slumbering allies to enhance the mobility of their forces so that they also can be used in operations other than defending the treaty area. [25] Those operations, such as the NATO mission in Bosnia, are called "out-of-area" operations. The operation in Bosnia has highlighted the gap between U.S. forces and those of existing NATO allies, especially in logistics and communications. [26]

Contradictory Requirements

Implicit in that argument, and explicit in the arguments of other proponents of expansion, is the assumption that the military improvements needed to make allied forces more mobile to reinforce new members in any article 5 defense will also make them more mobile for out-of-area missions called for in the 1991 Strategic Concept. [27] To some extent, the two missions would benefit from the same improvements to forces. To improve the tactical mobility of

rapid reinforcements on the ground for article 5 defense, the allied ground forces would need additional combat support (reinforcing artillery, air defense, and helicopters) and combat service support (combat engineers, military police, communications, medical units, maintenance and mobile repair units, ammunition handling and storage, and trucks and heavy equipment transporters). Allied tactical air forces would need mobile engineers, maintenance units, medical units, and other support assets. Such enhanced tactical mobility would also help allied forces conduct out-of-area missions, especially those--such as the one in Bosnia--that require overland movements from bases in Central Europe.

For some out-of-area missions, however, the allies would need to buy expensive aircraft for airlift and ships for sealift to improve strategic mobility. In addition, one NATO general has said that such missions would require the alliance to lighten its maneuver units. [28] Lightening the units will make them easier to transport by strategic lift.

But buying assets for strategic mobility will cut into the resources needed to make the aforementioned improvements in tactical mobility. In addition, making units lighter for transport by strategic lift might reduce their capability to fight in certain tactical situations--for example, reinforcing Polish forces. Poland is the most important of the three new members, if insulating Germany's eastern border from attack is the primary goal of expansion (the primary goal thus far has been hard to discern). Poland is large and flat and is best defended by heavily armored forces. Lightening such heavy forces so that they are more easily transported to out-of-area operations by strategic lift will impair their ability to conduct an article 5 defense of Poland.

To a certain extent, the competing requirements for strategically mobile forces and tactically mobile forces may cause funding dilemmas in allied nations already unenthus-

iastic about spending money on defense. Because any threat to new members that would require an article 5 defense is perceived as low, any money spent by the allies will probably be directed to improvements in strategic lift for more immediate out-of-area peacekeeping missions. If that is the case, the allies may have inadequate tactical mobility to reinforce new NATO members in a crisis. Thus, the alliance might be stretched too thin if it attempted to expand its mission and its territory at the same time.

In sum, to avoid impairing the effectiveness of an enlarged NATO, existing allies must have an adequate capability to tactically reinforce new members in time of crisis or war, and new members must substantially improve their obsolescent forces and infrastructure so that they can provide themselves with a basic defense. Those are inherently costly requirements.

Reasons for Flaws in the Administration's Analysis

Despite the administration's perception of a mild threat to new members, its cost estimate is supposed to be based on achieving a "mature capability" for article 5 defense of NATO states. To achieve that capability, the administration states,

> New members will continue to improve interoperability and undertake other enlargement enhancements during this phase, using a combination of national and common NATO funding. During this phase, new members will replace aging equipment stocks and it is expected that they will continue to downsize, restructure, and modernize their forces, while increasing their capacity to operate with other NATO forces in their own countries and elsewhere. During the same period, current member states will continue to modernize their forces and make them more deployable and sustainable for both collective defense and non-Article 5 operations. [29]

"Mature capability" has been deliberately defined in a vague manner, but it is supposed to be made possible by the three categories of military improvements cited in Table 1 and the subcategories under them. In reality, when the details of the subcategories are examined, they fail to form a convincing case that sufficient improvements would be made to the forces and military infrastructures of new member states to enable them to provide an adequate article 5 defense capability against even regional (non-Russian) threats. (The administration's projected improvements are woefully inadequate if a resurgent Russian threat is posited.) Sometimes the details of the assumed military improvements on which the cost estimates are based are simply nonexistent, and other times the improvements are inadequate for the task.

The "Level-of-Effort" Evasion

In short, the administration's estimate is not a cost estimate at all but an "affordability" estimate. The administration did not determine a list of detailed military improvements required for NATO expansion, estimate the cost of each of the improvements individually, and add up the total. Instead, for many broad categories of military improvements, the DoD took what it called a "macro" approach by embracing the concept of "levels of effort." The levels of effort were based on DoD analysts' perceptions of how much new members could afford to spend on particular categories, not on what was needed. Moreover, no explanation was given of the genesis of those perceptions.

For example, DoD analysts simply chose a level of spending for logistics improvements--$777 million to $1.076 billion--and decided that logistics improvements would include a wide variety of items: NATO-compatible fuel nozzles, fuel standards, radios, computer systems, safety standards, host-nation support arrangements for equipment warehouses, and personnel to support NATO deploying forces. Yet when asked how many radios or how many fuel nozzles they assumed would be purchased, DoD analysts replied that they could not specify the number because the estimate was a "level of effort." They made no attempt to find out how many of those and other items new member nations would need or how many their projected level of effort would purchase. In other cases, such as improvements to road and rail systems of the new member states to allow them to transport military cargo, DoD analysts could not even specify how they arrived at their estimate or provide a detailed list of enhancements, let alone their costs. They simply decided, without any analysis, how much would be spent on that general category. In short, DoD analysts came up with seemingly precise numbers for each category, but they usually have little or no detailed cost analysis to back them up.

An evaluation of the DoD's cost estimate by the General Accounting Office confirms that point:

> Many of DOD's estimates for specific cost elements could not be verified. DOD officials did not consistently document their analyses. As a result, we were unable to audit or validate estimates for most specific cost elements. DOD developed other cost element estimates on a highly aggregated basis. [30]

Implicit Political Constraints

Another important general observation is that DoD analysts admitted that they felt constrained in the amount of military infrastructure they could assume would be placed in new member states. Therefore, they tried not to leave a "big footprint." They did not say why they felt constrained. Was it the DoD's sensitivity to Russian opposition to large amounts of new infrastructure in those nations? Or, more likely, was it the DoD's sensitivity to Congress's mounting concern about the cost of expansion? Does that caution make the new members suspicious about how effective a defense based on reinforcement can be? Perhaps it should.

Although skimping on military preparedness in new member nations might dodge some Russian and congressional sensitivities, it will probably not provide the new members with an adequate defense under article 5. Thus, NATO will have expanded into a volatile region, promising to defend new members, but be unable to do so effectively because of political and budgetary constraints. The United States should have learned its lesson in Vietnam about the perils of half-hearted security guarantees to regions of little strategic value.

A Category-by-Category Critique of the Administration's Cost Estimate

To expose the shaky foundations of the administration's estimate, it is necessary to explore certain very specific and meaningful categories of costs. At this point, it is best to throw out the DoD's three general categories of costs, because, as Kugler argued, they are gibberish. They obscure rather than illuminate the true cost of expansion. Instead of amorphous and undefined categories, such as "direct enlargement," more specific categories of improvements that have some military meaning should be used. In each specific category of military enhancements, the administration's faulty assumptions, or lack of specific assumptions, will be explored.

Training and Exercises

Total expenditures for this category were $2.5 billion to $4.2 billion. The administration estimates that the cost of "increased proficiency in individual and unit training" for the armed forces of new members would be $1 billion to $2 billion. Another $1.3 billion to $2 billion would be spent for those militaries to train with NATO units. About $200 million was added to expand International Military Education and Training, a program created to expose foreign military personnel to the methods of the U.S. military and help them to gain technical, nation-building, and English-language skills. Informally, the DoD analysts who made the estimate admitted that they did not base it on what those nations would require (that is, types and numbers of exercises); they based their estimate on what they believed new members could afford. [31] They estimated expenditures for training and exercises of new members' forces by using 80 percent of the per capita costs of training and exercises for existing members' forces. That equated to about 10 percent of the military operations and maintenance budgets of the new member states.

The GAO report accurately describes the DoD approach:

> DOD's estimated cost for training is notional and actual costs may vary substantially from estimates. DOD analysts did not project training tempos and specific exercise costs. Instead, they extrapolated U.S. and NATO training and exercise costs and evaluated the results from the point of view of affordability. [32]

Specifying the types, numbers, and resulting cost of exercises would have been preferable to choosing an arbitrary percentage of NATO per capita training costs. Furthermore, because the forces of new members were formerly part of the Warsaw Pact that was vastly different in command structure and culture from NATO, they would probably need more per capita training than NATO militaries. They also might need fairly frequent exercises to learn how to operate with NATO forces. In short, according to many military planners, before purchasing expensive weapon systems, new members should spend their scarce defense resources exercising with NATO forces and buying communications equipment to facilitate such training. The $2.5 billion to $4.2 billion estimate for training and exercises is based on artificially postulated considerations of affordability. An estimate based on requirements for specific exercises at a given frequency would yield a more realistic cost estimate at the top of the range ($4.2 billion).

Command, Control, Communications, and Intelligence

The DoD's estimated total costs for improving command, control, communications, and intelligence (C3I) were $2 billion to $3 billion. The DoD assumed that the military headquarters of new member states would be refurbished to take NATO equipment and estimated that cost at between $1.1 billion and $1.8 billion. For communications gear, the DoD added from $870 million to $1.2 billion, of which $390 million to $540 million was for a minimal number of tactical radios and $480 million to $690 million was for interface boxes. (Interface boxes connect otherwise incompatible national communication systems but only at the headquarters level.)

The DoD relied on interface boxes because they are much less expensive than providing more radios so that lower level military units of varying nationalities can talk directly to each other in the heat of battle. If interface boxes were used, two lower level units next to each other on the battlefield would need to communicate through a higher level headquarters. That could require too much time, especially if one friendly unit was in danger of being hit by another. According to the Hungarian defense attaché in Washington, interface boxes are inadequate for peacekeeping missions, let alone an article 5 defense. [33] He noted that Hungary is buying tactical radios so that lower level units can communicate with NATO militaries instead of relying only on communications among headquarters.

The DoD analysts acknowledged that some people in the department argued for a more ambitious effort to provide communications equipment but failed to prevail in the debate. Military planners believe that modern command centers and compatible communications equipment are vital to making an expanded alliance militarily effective. Thus, the DoD's $2 billion to $3 billion estimate for C3I is too low. More tactical radios would need to be purchased to give critical flexibility on the battlefield. Doing so, however, would double the cost to $6.2 billion.

Air Defense

Air defense enhancement is the last of the three most critical improvements for new members. The Central European nations are no longer part of the integrated air defense system of the Warsaw Pact and are vulnerable to attack from modern aircraft. The gap in air defense coverage is particularly pronounced at medium to high altitudes. Filling that

gap accounts for the bulk of the expenses for air defense improvements.

The DoD estimated that the cost of air defense improvements would total $2.1 billion to $2.9 billion. That sum includes $20 million to $23 million for identification-friend-or-foe systems (those systems identify friendly aircraft so air defenses do not kill friendly forces), $185 million to $293 million for air sovereignty centers (command centers for air defense operations) and air defense surveillance, and $1.9 billion to $2.6 billion for ground-based surface-to-air missiles (SAMs).

Because air defense is so critical, the DoD's estimate should have assumed that new members would buy Patriot PAC-2 systems to fill the requirement for medium- to high-altitude SAMs. Instead, the DoD, to reduce its estimate, assumed that the three nations would buy the much older Improved Hawk system, which was originally introduced in the 1960s. It is reasonable to assume that, because of financial constraints, new members would probably not buy such systems until late in the next decade. In 2020, when any system would still have to be viable, the I-Hawk will be more than 50 years old. The life expectancy of the I-Hawk system was 30 years. In air defense--where technology is leaping ahead quickly--the value of such an old system would be nil. Equally important, ground-based air defense systems are now being used to attack the threat being posed by tactical ballistic missiles. If a capability against that threat is desired, Patriot will provide some capability, but the I-Hawk will provide little.

Although the DoD analysts acknowledged that air defense is a critical area for improvement, they still assumed the purchase of I-Hawks. Obviously, assuming that an obsolescent system is purchased cuts the cost of NATO expansion. Although it is questionable whether the new members can afford all of the military improvements needed to give them a basic article 5 defense capability, air defense is so critical to modern warfare that they should not skimp on it. The Patriot PAC-2 system is more expensive than the I-Hawk, but not prohibitive for new members. Several nonindustrialized nations--Israel, Kuwait, Taiwan, and Saudi Arabia, which have gross domestic products similar to Poland's--have already purchased the system. In addition, South Korea and the United Arab Emirates are actively exploring the purchase of the system. If the assumption is changed from purchase of the I-Hawk to purchase of a Patriot-like system, the costs for air defense improvements rise to $8 billion. If the new members want a system that will be capable against modern air threats into the future, however, they--or someone else--have little choice but to spend the money.

Modernizing the Ground Forces of New Members and Making Them More Mobile

The armored forces of the new members consist mainly of T-55 and T-72 tanks. Although the T-72 could be effective if it were upgraded with Western fire control systems and other new electronics, the T-55 is obsolete and would need to be replaced. According to one press report, "More than half of Poland's 1,700 tanks are Soviet T-55 designs from 1955 and are unusable." [34]

In addition, as is the case for the forces of existing European allies, added combat support and combat service support may be needed to enhance mobility. That is particularly true in the case of Polish forces. Poland is large and flat, making it an excellent venue for mobile warfare. Yet about half of the Polish divisions (six) were stationed in the western part of the country during the Cold War and remain there today, away from the current threats to Poland's security on the other side of the country. It is prohibitively expensive to create new bases for six divisions in eastern Poland, so making them more mobile is a cheaper alternative. (Although half of all Polish divisions need to be made more mobile, Czech and Hungarian forces may not need added mobility. Those forces have much smaller territories to defend than do Poland's forces and can probably get by without too many modifications.)

The administration assumed that "deployable logistics sustainment" was to be added to 25 percent of the divisions (4.9 divisions) of all new member states. The military rationale for that assumption is unclear. It looks as if the administration was outfitting a limited number of units in each country for out-of-area peacekeeping operations. Yet the administration's cost estimate was based on giving new members a "mature" article 5 defense capability. The added cost to make each division mobile was $925 million to $1.1 billion plus costs for operations and maintenance.

In addition, DoD analysts assumed a level of effort for the modernization of the ground forces of new members. The analysts said that they assumed unspecified upgrades of armor but no new tank purchases, even though the period of the estimate stretches through 2009 and many of the obsolete T-55s are already unusable. Also, DoD analysts stated

that they assumed artillery would be upgraded and standardized. Otherwise, the analysts provided few specific details to support the level of effort chosen. The GAO report was concerned about the DoD estimate's lack of specifics. "DOD's estimate for modernization and restructuring of new members' ground forces was also notional and was based on improving 25 percent of the new members forces. However, it did not include specifics as to what would be done to upgrade the equipment and how much it would cost." [35]

According to U.S. military planners, standardizing new members' artillery to make it compatible with that of present NATO members is very expensive (it requires the new members to buy new tubes, new ammunition, and new logistics systems) and was not a high priority militarily. Although guns from various nations that fire standardized ammunition are a plus, guns that fire incompatible ammunition, using compatible communications devices, can coordinate their fires well, the analyst contended. The planners thought that it was more important for new members to spend limited funds to train with NATO and improve air defense and command, control, and communications. Yet, when asked how many tubes they could standardize with a subset of the small amount of money they allocated for the modernization of ground forces, DoD analysts again replied that they could not specify the number because their estimate merely assumed a level of effort.

When the level of effort for the modernization of ground forces was added to the funds needed to provide deployable logistics for about five divisions, the administration's total cost for this category was $5.4 billion to $6.4 billion. A more realistic and specific program for modernizing the ground forces of new member nations and making them more mobile would add combat support and combat service support to one more division (bringing the total to six divisions), rewire T-72 tanks with Western electronics, replace a small number of T-55 tanks with new tanks over the long term, and exclude artillery standardization because of its limited military usefulness. Such a program would cost $7 billion.

Upgrading the Weapons of New Members or Buying New Ones

The administration included this category in its estimate so that the analysis would appear comprehensive but then did not include all the items needed to equip the armed forces of new members for modern warfare. Recall that the administration admitted that "these states emerged from the Warsaw Pact with military forces that were poorly structured and inadequately equipped for modern warfare." [36] The administration's assumptions about weapons purchases by new members for the 1997-2009 period are paltry and do not coincide with the more ambitious defense plans of those nations.

Defense analysts project that by the end of 1998 one-third of military aircraft in Eastern Europe will be unable to fly. By 2005, if no new aircraft are purchased, no East European country will have an air force. [37] Yet the DoD did not assume that existing Soviet-built or new indigenously built aircraft would be wired with new electronics (including electronic warfare equipment) until new aircraft could be purchased. Even worse, the DoD assumed that each nation would buy only one squadron (18 aircraft) of worn-out U.S. F-16 aircraft from the boneyard. All of the boneyard aircraft combined were assumed to cost a measly $725 million to $823 million. To add insult to injury, the DoD underestimated the cost of even the boneyard aircraft. The GAO's analysis showed that "the cost of purchasing refurbished

F-16 aircraft would be at least 11 percent higher than the high end of DOD's estimate." [38] (That example casts doubt on the accuracy of the DoD's estimates in the other rare cases in which the costs of specific military improvements were provided.)

In any case, instead of a limited number of boneyard aircraft that do not provide much capability, the three new members say they are planning to buy up to about 300 new (Western and indigenously produced) aircraft. [39] Although some of the new members may delay the purchase of such aircraft, their obsolescent air forces will compel them to buy aircraft within the period of the estimate. [40] In fact, the DoD is encouraging the sale of new U.S. aircraft by offering the new members grants, discount loans, and free leases. [41] The least the DoD could do would be to reflect in its cost estimate the prospect of some new weapon sales and concomitant security assistance to finance them.

DoD analysts assumed that air-to-air and air-to-ground weapons would be purchased for 500 total aircraft in the three

nations combined but did not calculate the number of each kind of weapon needed per aircraft. Instead, the analysts chose a level of effort of from $700,000 to

$800,000 per aircraft, leading to a total cost of from $350 million to $400 million. Of course, they could not specify how many air-to-air and air-to-ground munitions they assumed would be purchased with the estimated amount of money. They also specified $525 million to $600 million as a level of effort for anti-tank weapons but again could not cite the number of weapons that could be purchased for that amount. In both cases, the amount to be spent was arbitrarily chosen, not based on military requirements.

During the 1997 to 2009 period, the DoD estimated the costs for only those meager weapons purchases. The total was an embarrassingly low $1.6 billion to $1.8 billion. In contrast, weapons purchases to give new members a "mature" article 5 defense capability against lesser regional threats (assuming the absence of a resurgent Russia) would cost about $11.5 billion over a 15-year period.

That figure does not "gold plate" the Central European militaries by replacing one-for-one their obsolescent equipment with new Western hardware. Instead, it often reflects the less expensive expedient of upgrading or modernizing weapons only in areas deemed critical by military planners. The figure includes improvements such as inserting Western electronics (including electronic warfare equipment) into existing Soviet-built and new indigenously produced aircraft until about 200 new Western aircraft have been purchased gradually, according the plans of the new member nations. The figure also assumes that standard combat loads of less expensive air-to-air (Sidewinder) and air-to-ground (Maverick) munitions would be purchased for those aircraft. Specific numbers of relatively inexpensive anti-tank weapons would be purchased to reduce the number of new tanks needed. The number of anti-tank missiles purchased was based on how many standard-sized divisions the new member armies would require. Adequate Soviet-built T-72 tanks would be rewired with Western fire control devices and other electronic devises. Gradually, one-third of the obsolete T-55 tanks would be replaced with either indigenously produced or Western-built tanks. [42]

Naval Improvements

The administration did not include any funds for improving the Polish navy, even though it might need to help clear mines from Polish ports to facilitate NATO reinforcement in a regional war--for example, one between Poland and Belarus. Belarus might profit greatly from sending aircraft to drop mines near Polish ports, thus preventing or slowing resupply by NATO. If Russia were helping its ally, the Polish navy might also need improved anti-submarine warfare sonars to help NATO watch or even destroy Russian subs trying to interdict supplies moving into Polish ports. In any reasonable cost estimate, Poland should be responsible for helping to keep its ports and sea-lanes open. Some new electronics for Polish ships and new coastal radars are also needed. Even such modest improvements would cost $1.1 billion.

Port, Road, and Rail Improvements

Improvements to ports and dilapidated road and rail systems would also be needed to facilitate NATO reinforcement and resupply during a crisis. DoD analysts assumed that most port, road, and rail improvements would be undertaken for commercial reasons. For militarily critical road and rail improvements that the commercial sector would fail to undertake, the analysts simply used an aggregate number ($258 million to $462 million). When asked from what data it was aggregated, they could not provide an answer. They provided no better answer for their cost estimate for port improvements ($172 million to $201 million). It is quite curious that they can provide no details because their numbers--including the total for the entire category of $430 million to $663 million--seem very precise.

DoD analysts were right to assume that most of the improvements to infrastructure would be undertaken by the commercial sector. But they appeared to have just picked a number for militarily critical improvements.

In reality, only modest militarily critical improvements need to be made to Poland's ports. However, Szczecin, the westernmost port that would be the farthest away from any potential front, is obsolete, has poor rail access, and has a shortage of facilities for unloading roll-on, roll-off ships that haul military vehicles. Like Poland's other two ports of Gdansk and Gydnia, Szczecin would need to be dredged to accommodate fully loaded military sealift ships.

The road and rail systems in the new member nations are another story. During the Warsaw Pact years, the road and rail systems were used heavily but received little maintenance. Detailed data from the U.S. Transportation Command, the World Bank, and the European Bank for Reconstruction and Development indicate specific improvements that are needed or planned. For a crude estimate of the militarily critical improvements, 10 percent of the total cost of this list of enhancements can be used. If this alternative assumption is used, a better estimate of port, road, and rail costs is $3 billion.

Exercise Facilities

DoD analysts assumed that five brigade-sized and one battalion-sized exercise facilities would be upgraded. Their estimate failed to specify, however, what upgrades would be made. Nevertheless, the specificity of the DoD's assumptions for this category of improvements was greater than for most other categories of costs, which contained levels of effort based on affordability. Yet the DoD's cost estimate--$325 million to $490 million--is still probably too low.

It is widely accepted that military bases and infrastructure in the former Warsaw Pact nations are in very poor condition and some installations may be unsafe because of environmental contamination. It would be prudent to assume that new large-scale exercise facilities would need to be built, or at least that the cost of needed extensive repairs and modifications to existing facilities would approach the cost of new ones. If those assumptions are used, the expenses in this category rise to $4.7 billion.

Stockpiling Fuel and Ammunition for the Forces of New Members

DoD analysts assumed that hardened bunkers would be refurbished to store ammunition for only 10 days at a cost of $100 million to $200 million. However, they assumed that no ammunition would be purchased to go in the bunkers. In addition, they did not assume that hardened fuel facilities would be built or that stocks of fuel would be purchased. They assumed that fuel would be available on the commercial market even during a crisis.

In wartime, it is questionable whether adequate fuel supplies would be available from commercial distribution systems, which might be damaged or in disarray. It seems possible that competition for limited supplies might arise between the forces of new members and incoming NATO forces. In addition, the DoD assumed that a war would last only 10 days. Some wars might last only that long, but many might not.

Furthermore, NATO, instead of permanently stationing troops in new member states, has opted for a cheaper reinforcement strategy. New member forces would have to hold out until NATO reinforcements arrived. Therefore, a better assumption to hedge against a delay in the arrival of reinforcements is that new members would need facilities for storing 30 days' worth of ammunition and fuel and the stocks of such supplies to go in those facilities. The total cost of the facilities and stocks would be $600 million.

Upgrading Airfields in New Member Nations

In time of crisis or war, the administration proposes a defense concept that flies six wings of NATO aircraft from bases in Western Europe to operate from airfields that are close to the front in new member states. To make that possible, the airfields would be improved at a cost of $2.9 billion to $3.3 billion. DoD analysts stated that those improvements include maintenance facilities, added ramp space, and base support. Runways were assumed to be adequate, and no upgrades were included; no hardened shelters for aircraft were provided. Despite listing specific upgrades, it appears that the DoD analysts did not add up the cost of each to get the total cost of airfield improvements. DoD analysts mentioned that the total cost was obtained by multiplying a standard $70 million to $80 million per aircraft squadron (plus operations and maintenance costs) times 19 or 20 squadrons (six wings) of aircraft. Thus, it seems that the cost estimate per squadron is a level of effort rather than the sum of the costs of individual improvements.

In addition, the administration assumed that the six air wings would be distributed among airfields in the three new member countries, with two air wings in each. Thus, only enough airfields to house two air wings were upgraded in each of the countries. A new member might be disappointed to learn that NATO was planning to send only two wings of aircraft--not six--to its defense if it were attacked. Of course, if one new member were attacked, NATO aircraft

might fly missions from airfields in the other two new members, provided neighboring countries (Slovakia and possibly Austria) allowed overflights of their territory. The main purpose, however, is to fly aircraft to operating bases close to the front so that they can drop more weapons in less time using less fuel.

Instead of using a level of effort per wing as a proxy to compute the improvements needed to airfields, the DoD should have obtained cost figures on a detailed list of enhancements for a standard NATO Colocated Operating Base (COB) already created in a country whose economic development, and thus cost of refurbishment, is similar to that of the new member nations. The list of enhancements to existing airfields includes adding air traffic control and communications equipment, building hardened shelters for aircraft, upgrading barracks and mess halls, and building maintenance shops. Given the very poor state of infrastructure on military bases in former Warsaw Pact nations, one should assume that runways would need to be repaired and reinforced. Hardened shelters are a must for any airfield near the front, otherwise aircraft might be destroyed by the enemy while they were still on the ground. In addition, the assumption should be made that sufficient COBs would be created in each of the three nations so that all six wings of reinforcing NATO air power could be housed in any of those nations in case of a threat. If those necessary measures were implemented, the cost would be $4.3 billion.

Creating Reception Facilities in the New Member States to Receive NATO Ground Forces

According to the administration's concept for defending new members under threat of attack, four NATO divisions would move east from their bases in Western Europe to "reception facilities" in new member states. Yet DoD analysts assumed that reception facilities would be created for only six brigades (two divisions), three of which would be in Poland. Each facility costs only $15 million to $20 million plus operations and maintenance costs. DoD analysts provided no description of what that money would buy. They did not include the purchase of short-range air defenses to protect the facilities, because they argued that those defenses would be brought with the incoming forces. In total, the reception facilities for two divisions were estimated to cost a paltry $115 million to $144 million. Although it is unclear what the DoD is buying for that small amount, it cannot be much.

Several problems exist with the DOD's assumptions. Creating reception facilities for only two divisions would require four divisions to go through them sequentially rather than simultaneously. The DoD seems to think such phased deployment is acceptable. But such a bottleneck could allow enemy forces to destroy the incoming divisions sequentially before they could mass for an attack. In addition, reception facilities are divided up among the new member countries, creating an even worse problem than exists with COBs because there are even fewer facilities per number of incoming units. For example, if Hungary is threatened and has a reception facility for only two brigades, four NATO divisions descending on it might allow the enemy to have a field day attacking that bottleneck. The problem is further exacerbated by the fact that ground forces, unlike aircraft, cannot simply deploy to facilities in Poland and the Czech Republic and then fly missions (albeit suboptimal ones) into Hungary. Ground forces must deploy to reception facilities in Hungary or they are out of position to defend against any attack on that nation.

Furthermore, reception facilities would need to consist of more than NATO-compatible fuel facilities and host-nation support for arranging logistics support. Money could be saved by building reception facilities at abandoned Soviet bases in new member nations, but the facilities would still need to include rail sidings and facilities for unloading train cars, vehicle parking lots to rearrange equipment from its configuration for transportation to its configuration for battle, hangars for helicopters, upgraded barracks and mess halls, and facilities for maintaining equipment. Reception facilities for ground forces at air bases would require extra hangars for aircraft and warehouses to store incoming airlifted equipment and supplies. Costs for short-range air defenses also need to be included in the price of a reception facility, because forces being unloaded from trains will be very vulnerable to attack until they get their air defenses set up. If reception facilities are provided for four divisions in each of the three countries, the cost will be $1.2 billion--nearly eight times the Pentagon's maximum estimate.

Improving the Air Wings and Ground Forces of European Allies to Project Power

Although NATO plans to move four ground divisions and six wings from bases in Western Europe to reception facilities and airfields, respectively, in new member nations, only three divisions and five air wings need extensive modifications. One U.S. ground division and one air wing already have most of the needed mobile support assets to

project power. In contrast, the forces of the European allies were designed for an in-place linear defense of Germany during the Cold War and, therefore, need significant enhancements to be able to move into the territories of new member states during a crisis or war.

The administration's estimate provides "deployable logistics sustainment" for three non-U.S. ground divisions and five non-U.S. air wings. [43] No specific definition of that term is provided. DoD analysts said that providing deployable logistics for each ground division would cost between $1.2 billion and $1.5 billion plus operations and maintenance costs. No per unit cost to outfit each air wing was cited. The estimate cites a total cost of $4 billion to $5 billion to outfit the ground divisions and the same amount to outfit the air wings. Thus, the DoD projected the total cost of augmenting allied ground and air forces at $8 billion to $10 billion.

The DoD's per unit and total cost figures to augment European ground forces for power projection seem accurate. Although the DoD did not list the specific items needed to make the ground forces of the European allies more mobile, this paper earlier provided a list of items for the ground forces of new members. The list is the same for the forces of the European allies, but the higher cost per division can be attributed to the larger size of allied divisions.

In contrast, the administration's estimate for augmenting the air wings is too low. The cost of providing an itemized list of enhancements--mobile engineers, maintenance units, medical units, and other support assets--for five air wings should be about $6.9 billion. Because the DoD provided no details on deployable logistics sustainment, it is difficult to discern why the DoD's costs were lower. With $4.5 billion needed to augment allied ground forces and $6.9 billion needed to augment allied air forces, a more realistic estimate of the total cost of improved allied power projection is $11.4 billion, not $8 billion to $10 billion.

Making U.S. Forces More Mobile

Although U.S. forces are able to project power much more effectively than are those of the European allies, a deficiency still exists in U.S. capabilities. During the Persian Gulf War, U.S. forces had a shortage of heavy equipment transporters for transporting tanks. While Germany's excellent rail system mitigated the effects of that shortage during the Cold War, the poor rail systems of the new members will not help much. The cost of adding heavy transporters for one U.S. division is $400 million. The administration's estimate did not seek to remedy the shortage and thus avoided accounting for those costs.

Systems for Storage and Transport of Fuel and Ammunition

The previous discussion of storage and transportation of fuel and ammunition pertained to new member nations. There is also the matter of fuel and ammunition for arriving NATO reinforcements.

DoD analysts admitted that they did not assume the stockpiling of fuel and ammunition for NATO forces in new member states because prepositioning is a sensitive issue. They felt constrained to minimize the infrastructure or "footprint" they assumed would be placed on the territory of new member states. In addition, they did not extend the NATO fuel pipeline to reception facilities and COBs in new member states. DoD analysts felt that incoming NATO forces could get fuel from the commercial market or from the new member governments. They did add $1.6 billion to $1.9 billion for NATO-compatible fuel systems. That sum included $900 million for enhancing the fuel storage and distribution system for air and ground forces, but the analysts never explained what improvements that sum would finance. The estimate also included $389 million to $538 million for NATO-compatible fuel nozzles and standards and $274 million to $438 million for NATO-compatible fuel facilities and other support equipment at reception facilities.

As noted earlier, it seems questionable to assume that the commercial market--which could be easily damaged or disrupted--could provide fuel needs during a war. During wartime, where will the new member governments get the fuel if it is not stockpiled (DoD added no money for either buying or storing fuel) or transported by the NATO pipeline? The forces of NATO and the new members might find themselves competing for dwindling supplies. Notably, the DoD does not assume that fuel will be readily available in its regional warfare scenarios in Korea or the Persian Gulf.

Therefore, a 30-day supply of both fuel and ammunition for NATO forces would need to be bought and stockpiled in

the new member states. Hardened bunkers and fuel facilities would be needed to store those supplies. In addition, as a backup, the NATO pipeline would need to be extended to supply bases on the territory of new members. If such improvements were made, the cost would be $5 billion rather than $1.6 billion to $1.9 billion.

Distribution of Costs

Important details of how the administration distributed its estimated costs among the United States, existing European NATO allies, and new members are also sketchy. In its estimate, the administration properly assigned to existing allies the entire costs of enhancing their forces to project power. (The severe constraints on their defense spending leave open to doubt whether they will actually make those enhancements.) The estimate also assigned to new members all of the costs of restructuring and modernizing their own forces. It failed to assume that at least some of the cost of those efforts would accrue to the United States. According to the Department of State study, "Some of the efforts have been modestly supported by U.S. assistance programs.

. . . Whether any such costs would be borne by the United States in the future would depend on decisions by the U.S. Congress and Executive Branch." [44]

Saying that the U.S. government has not yet decided what future assistance will be provided allows the DoD to avoid adding in what could be substantial costs. Western arms manufacturers--including those in the United States--will pressure their governments to provide security assistance for sales in a competitive arms market. The small amount of assistance already provided to the prospective new members has come under the auspices of the Partnership for Peace program, designed to make very modest improvements in the militaries of the prospective members to prepare them for international peacekeeping missions. The financial assistance provided for NATO expansion has the potential to be much larger. The GAO reports that a Polish official estimated that Poland would need $2 billion in credits just to buy multipurpose aircraft. [45] The total bill for security assistance for the entire list of weapons purchases by new members could be much higher. RAND estimated that arms purchases by new members could reach $30 billion to $40 billion, which would require $1 billion to $3 billion annually in security assistance. [46]

The details on distributing expenses for direct enlargement are murkier than they are on the administration's other cost categories. The administration assumed that new members would pay 35 percent of direct enlargement costs, the European allies would pay 50 percent, and the United States would pay 15 percent. (That assumption is based on another assumption: that 40 percent of direct enlargement costs would be funded by member nations and 60 percent would be funded by the NATO common budgets, to which nations usually contribute on the basis of their gross domestic products.) [47]

The president's report to Congress implies, and DoD analysts confirmed, that those percentages had been derived by separating out the detailed expenses of expansion into U.S. costs, allied costs, and costs to new members and then adding them up. Yet, in the DoD's macro approach to costing, levels of effort were assigned to broad areas of improvements, with no detailed costs to back them up. How did a nondetailed DoD estimate result in detailed costs to separate out and add up into the three percentages that measure the relative sharing of burden?

For example, the DoD estimated that $777 million to $1.076 billion would be spent on logistics. That category included, among many other items, NATO-compatible fueling systems and standards, as well as host-nation support arrangements for equipment warehouses. The number and cost of the individual items did not exist because it was a level of effort estimate. Yet, presumably, NATO-compatible fueling systems and standards would be financed with common NATO funds, while host-nation support arrangements are the responsibility of the new member nations that would host NATO reinforcements in time of crisis. Since there are not enough detailed costs provided to indicate how much of the $777 million to $1.076 billion for logistics was funded commonly and how much nationally, how could overall percentages be calculated? Other broad areas of improvements that would probably have components funded both commonly and nationally, which would be difficult or impossible to sort out, would be enhancements to infrastructure; air defense; and command, control, and communications. Those subcategories make up the bulk of the direct enlargement category.

In short, the DoD's nondetailed estimate does not lend itself to the segregation and addition of individual expenses so that such global percentages could be calculated. Did the DoD just arbitrarily assign percentages of direct enlargement

expenses to be borne by the United States (15 percent), existing allies (50 percent), and new members (35 percent)?

The Real Costs of NATO Expansion

In this study, for each category of expenses, a more realistic cost estimate was developed and compared with the administration's estimate. The alternative estimates were developed by accepting, only for the purposes of analysis, the administration's assumption of a continuing benign threat environment and the strategy of reinforcing new members during a crisis with four NATO ground divisions and six air wings. Adding the alternative figures gives a total cost for expansion of about $70 billion. That number is twice the upper end of the administration's $27 billion to $35 billion range (see Table 2).

Table 2
Comparison of DoD'S Estimate with an Estimate Based on More Realistic Assumptions
(billions of dollars)

Category of Improvement	**Alternative Estimate**	**DoD Estimate**
Training and exercises	4.2	2.5-4.2
Command, Control, Communications, and Intelligence	6.2	2-3
Air defense	8.0	2.1-2.9
Modernization of ground forces of new members to make them more mobile	7.0	5.4-6.4
Upgrading the weapons of new members or buying new ones	11.5	1.6-1.8
Naval improvements for Poland	1.1	0
Port, road, and rail improvements	3.0	.4-.7
Exercise facilities	4.7	.3-.5
Stockpiling fuel and ammunition for the forces of new members	.6	.1-.2
Upgrading airfields in new member states	4.3	2.9-3.3
Creating reception facilities for NATO ground forces	1.2	.1
Improving allied ground forces' and air wings' capability to project power	11.4	8-10
Making U.S. forces more mobile	.4	0
Systems for fuel and ammunition storage and transport	5.0	1.6-1.9
Total	69 (U.S. share = 7)[a]	27-35 (U.S. share = 1.5-2)[a]

[a] Both of these figures may increase. The $7 billion in U.S. costs will increase if the new members cannot pay--as is likely--the estimated $34 billion in projected costs that will accrue to them. The almost $70 billion in total costs could increase to between $125 billion and $167 billion if the administration's dubious assumptions fail to hold. Those assumptions are

that the current benign threat environment will continue and that no pressure will come from new members for the permanent stationing of NATO forces on their territories. The cost of relaxing those assumptions is discussed in Congressional Budget Office, *The Costs of Expanding the NATO Alliance* (Washington: CBO, March 1996), pp. xiv, 51-55.

U.S. costs are estimated to be at least $7 billion, compared with $1.5 billion to $2 billion in the administration's estimate. Even $7 billion could grow if, as is likely, the new member states were unwilling or unable to pay a more realistic estimate of the expenses that would accrue to them ($34 billion). In that case, the European allies would probably expect the United States to pay more of the new members' bill because expansion was a U.S. initiative and because European defense spending is under severe constraints induced by the fiscal austerity needed to join the European Monetary Union. [48]

The $34 billion in costs would require the three new members to increase their combined annual defense budgets--currently only $4.6 billion--by almost 60 percent. More important, such expenses would require the new members to increase their meager military investment (research, development, and procurement) by about 10 times that percentage. Such spending increases would be difficult, given the transition of their economies from communism to capitalism and polls showing that their populations do not support increases in government spending for defense. In addition, while the U.S. administration is encouraging the new members to pay the bulk of the costs for expansion, the International Monetary Fund--in which the United States is a driving force--has become alarmed by that prospect and is pressuring them to hold down such large defense spending increases to avoid damaging their fragile economies. [49]

According to the Congressional Budget Office, if the administration's assumption of a continued benign threat environment is abandoned and if permanent stationing of a limited number of NATO forces in new member states and larger reinforcing forces are required, the total costs of expansion would increase to $125 billion. About $19 billion of that cost would accrue to the United States. [50]

Again according to the Congressional Budget Office, if large numbers of NATO forces needed to be stationed in new member states, the total costs would escalate to about $167 billion. [51] A large permanent presence might be needed if NATO guaranteed the security of the new members and a militarily resurgent Russia emerged, either independently or as a response to a perceived threat from NATO expansion.

In sum, even if the DoD's dubious assumptions about a continuing benign threat environment and the ability to avoid pressure for the permanent forward stationing of troops hold, the total costs of NATO expansion are likely to be much greater than the administration's estimate would indicate. To guard Congress's constitutionally mandated powers of the purse and the Senate's informed advice and consent on treaties, Congress has a right to a reasonably accurate and methodologically rigorous analysis of how much expanding the alliance is likely to cost. The administration's cost estimate is woefully inadequate in both regards.

Notes

[1]. Jeff Gerth and Tim Weiner, "Arms Makers See a Bonanza in Selling NATO Expansion," *New York Times*, June 29, 1997,pp. 1, 8.

[2]. Congressional Budget Office, *The Costs of Expanding the NATO Alliance* (Washington: CBO, 1996), p. 40. Ivan Eland and Jeannette Deshong were the principal authors of the report.

[3]. Steven Erlanger, "A War of Numbers Emerges over Cost of Enlarging NATO," *New York Times*, October 13, 1997,pp. A1, A10.

[4]. U.S. Department of State, *Report to the Congress on the Enlargement of NATO: Rationale, Benefits, Costs, and Implications*, February 1997, pp. 10, 15.

[5]. Ibid., p. 16.

[6]. Ibid., p. 18.

[7]. Ted Galen Carpenter and Andrew Stone, "NATO Expansion Flashpoint No. 1: The Border between Poland and Belarus," Cato Institute Foreign Policy Briefing no. 44, September 16, 1997, p 1.

[8]. Ibid., pp. 11-12.

[9]. Ted Galen Carpenter, *Beyond NATO: Staying Out of Europe's Wars* (Washington: Cato Institute, 1994), p. 21.

[10]. Ibid., p. 32.

[11]. James Joll, The Origins of the First World War, 2d ed. (London: Longman, 1992), pp. 42, 45-46, 47, 50-52, 54-55, 60, 62, 200, 201.

[12]. Congressional Budget Office, p. 40; and Jonathan Landay "U.S.: No Free Lunch," *Christian Science Monitor*, October 7, 1997, p. 1.

[13]. Jonathan Landay, "U.S. Military Outpaces Its NATO Peers," *Christian Science Monitor*, September 29, 1997, p. 1.

[14]. Congressional Budget Office, p. 52.

[15]. Richard Kugler, now with the National Defense University, Comments at a forum on Capitol Hill entitled "NATO Enlargement--Matching Requirements and Costs: A Transatlantic Forum Roundtable Discussion," sponsored by the Potomac Foundation, September 8, 1997.

[16]. Congressional Budget Office, pp. 26-40, 44-45, 47-48; and Reiner Huber and Gernot Friedrich, *A Zero-Cost Option for NATO Enlargement: Arguments for a Comprehensive Approach* (McLean, Va.: Potomac Foundation, August 1997),pp. 10-11.

[17]. Gerth and Weiner, p. 8; and William Drozdiak, "NATO Nations Balk at Paying Large Share of Expansion," *Washington Post*, October 3, 1997.

[18]. DoD response, in General Accounting Office, *NATO Enlargement: Cost Estimates Developed to Date Are Notional* (Washington: General Accounting Office, August 1997), p. 11.

[19]. Ibid., pp. 23-24.

[20]. Ibid., p. 4.

[21]. Quoted in Landay, "U.S. Military Outpaces Its NATO Peers," p. 1.

[22]. Bill Clinton, response to questions on NATO enlargement from Sen. Kay Bailey Hutchison, September 10, 1997, response to question 8, p. 11 (copy in author's files).

[23]. Douglas Berenson, "Officials Say NATO Must Step Up Rapid Reinforcement, Lift Abilities," *Inside the Pentagon*, July 31, 1997, p. 3; and Landay, "U.S. Military Outpaces Its NATO Peers," p. 1.

[24]. North Atlantic Treaty Organization, NATO Handbook (Brussels: NATO Information and Press, 1995), pp. 244-45,246-47.

[25]. Huber and Friedrich, Foreword and pp. 1-2.

[26]. Landay, "U.S. Military Outpaces Its NATO Peers," p. 1.

[27]. Ronald Asmus, Richard Kugler, and Stephen Larrabee, "What Will NATO Enlargement Cost?" *Survival* 38, no. 3 (Autumn 1996): 9-10.

[28]. Quoted in Berenson, p. 4.

[29]. U.S. Department of State, p. 12.

[30]. General Accounting Office, p. 9.

[31]. The DoD's assumptions for specific categories of costs were discussed at a meeting with the author on April 2, 1997. DoD personnel present were Ron Moore, an analyst in the DoD's Office of Program Analysis and Evaluation, and Barry Pavel and Lt. Col. Reginald Gillis in the Office of the Assistant Secretary of Defense for Strategy and Resources. Subsequently, the Pentagon's assumptions were confirmed in writing.

[32]. General Accounting Office, p. 10.

[33]. Phone conversation with Col. Tamas Toth, Hungarian defense attaché in the United States.

[34]. Christine Spolar, "Applicants Offer Lots of Heart but Few Arms," *Washington Post*, June 17, 1997, p. A12.

[35]. General Accounting Office, p. 10.

[36]. Clinton, response to question 8, p. 11.

[37]. Christine Spolar, "Aging Armies Grapple with Costly Overhaul: E. European Nations Take Aggressive Steps to Amass Price of Admission to NATO," *Washington Post*, June 19, 1997, p. A23.

[38]. General Accounting Office, p. 10.

[39]. Jeff Erlich and Brooks Tigner, "Czechs, Poles Seek Fighter Bids by Year-End," Defense News, September 22-28, 1997, p. 26; and Spolar, "Aging Armies Grapple with Costly Overhaul," p. A23.

[40]. Jeff Erlich, "Central European Nations May Delay Fighter Purchases," *Defense News*, October 6-12, 1997, p. 10.

[41]. Gerth and Weiner, pp. 1, 8.

[42]. Unlike the DoD's estimate, the $11.5 billion figure does not include any funds for standardizing artillery tubes, ammunition, and ammunition-handling equipment. Military planners believe that doing so costs a great deal of money for only a modest gain in military capability. Standardizing only a few guns, as the DoD assumed, would have almost no military value. Nations facing severe constraints on the resources they can spend on defense would best spend those funds on higher priority items.

[43]. U.S. Department of Defense, "The Military Implications and Costs of NATO Enlargement," undated briefing, p. 8.

[44]. U.S. Department of State, p. 18.

[45]. General Accounting Office, p. 12.

[46]. Asmus, Kugler, and Larrabee, p. 10; and RAND, "The Costs of NATO Expansion: Preparing NATO and ECE Forces to Carry Out New Treaty Commitments," Santa Monica, May 1995, p. 10.

[47]. Ibid., p. 19.

[48]. Brooks Tigner, "NATO Rift Widens over Expansion Costs," *Defense News*, October 6-12, 1997, p. 6.

[49]. U.S. Department of Defense; Landay, "U.S.: No Free Lunch," p. 1; and William Drozdiak, "NATO Nations Balk at Paying Large Share of Expansion," *Washington Post*, October 3, 1997.

[50]. Congressional Budget Office, pp. xiv, 51-55. The CBO developed several options for implementing expansion that ranged from a defense that relied heavily on improved self-defense capabilities under a benign threat environment to the limited stationing of NATO troops in new member states under a resurgent Russian threat. The $125 billion represents the high-end cost.

[51]. Ibid.