

CBO PAPERS

**ASSESSING FUTURE TRENDS
IN THE DEFENSE BURDENS
OF WESTERN NATIONS**

April 1993



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PREFACE

Throughout the Cold War, the United States shouldered a larger share of the western defense burden than its allies, both in absolute terms and as a percentage of gross domestic product (GDP) and the size of armed forces. The Congress has expressed concern about this disproportionate burden.

With the demise of the Soviet threat, nations have cut their defense budgets and reduced the size of their armed forces. This Congressional Budget Office (CBO) paper examines the future defense plans of the United States and its allies to determine whether the U.S. share of the allied defense burden will increase or decrease and to what extent. CBO compared the Bush Administration's last plan, the Clinton Administration's plan, and two proposed alternative U.S. plans with those of allied nations. The paper also explores other, less traditional ways of measuring shares of the defense burden.

In addition, CBO examined the future defense plans of the United States and those of its allies that made information publicly available. Some nations whose plans had been made public, however, did not project all variables--defense budgets and active force levels. For example, of those allies that spend the most on defense, Italy did not project future defense budgets and Japan did not project future active force levels.

In most cases, the analyses in this paper are based on data from official government projections that were current as of the beginning of calendar year 1993. In the United States, for example, the information comes from projections for 1995 spending made by the Clinton Administration in February 1993. Projections for allied nations come from white papers, other official sources, U.S. government agencies--such as the Departments of State and Defense, the Defense Intelligence Agency, or the General Accounting Office--or an occasional press article. Such national projections for defense budgets and active force levels were adjusted to create estimates of future values based on standard NATO definitions of these measures. Projections of GDP for allied nations, which are used in calculating defense spending as a percentage of GDP, were taken from forecasts made by the Wharton Econometrics Forecasting Group in July 1992. CBO used its own forecasts of GDP to calculate U.S. defense spending as a percentage of GDP. Estimates of exchange rates used in converting various nations' defense

budgets into U.S. dollars were current as of July 1992. Appendix A provides more detail about the sources of data.

Allied defense plans may also change, although historically allied defense spending has shown less variance than that of the United States. Most of the allies also have parliamentary systems that may result in fewer changes in spending plans.

The paper was requested by the Chairman of the House Committee on the Budget. In keeping with CBO's mandate to provide objective and nonpartisan analyses, it makes no recommendations.

The paper was prepared by Ivan Eland under the supervision of Robert Hale and R. William Thomas. Michael Miller and Rachel Schmidt provided valuable assistance. Milton Tulkoff and other members of the staff of the Office of the Secretary of Defense, Programs Analysis and Evaluation, provided useful comments on a draft copy. Such help does not necessarily imply agreement with the final results.

Paul L. Houts edited the paper, and Judith Cromwell prepared it for distribution.

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SUMMARY

Throughout the Cold War, the United States bore--by several measures--a larger share of the costs of western defenses than did its allies. This country spent considerably more on defense as measured by absolute dollars, as a percentage of its gross domestic product (GDP), and by the size of its armed forces. The Congress has frequently expressed concern about the portion of the burden shouldered by the United States. Indeed, on several occasions the Congress has been willing to use the threat of penalties, such as the withdrawal of U.S. forces from Europe, to prod its allies to contribute more.

With the end of the Cold War, U.S. and allied defense planning has changed fundamentally. Budgets and troop levels are being reduced sharply, which could affect the burden various nations now bear. At the same time, the debate over burdensharing is likely to continue. In the most recent defense authorization act, the Congress expressed strong concern about the portion of the defense burden still being assumed by the United States and imposed several measures to reduce it.

As background for the continued debate, this paper projects the likely effects on defense burdensharing of the budget cutbacks now under way. Will they close the burdensharing gap, widen it, or leave it unchanged? The projections are based on those defense plans from the United States and allied nations that were publicly available and current as of the beginning of 1993. An important caveat to this analysis is that U.S. and allied plans could change significantly, especially given the volatile international environment in the post-Cold War period. The forecasts of GDP used in calculating defense-spending-to-GDP ratios could also shift.

Information about defense burdensharing is relevant to the defense debate, and it should be useful to U.S. policymakers in their dealings with allied nations. Burdensharing, however, is only one of many factors that should be considered when making decisions about U.S. defense spending; others include likely threats to U.S. security and the country's fiscal limitations. Nor is it clear how the burden should be shared. To maintain its leadership role and superpower status in the world, for example, the United States could decide to continue spending more on defense than its allies do.

TRENDS BASED ON DEFENSE SPENDING AS A PERCENTAGE OF GDP

Defense spending expressed as a percentage of GDP is the most comprehensive and widely used measure of defense burdensharing. By this measure, the difference in burdensharing between the United States and its major allies will narrow from 1990 to 1995 under current plans. But a substantial gap will remain.

Under the Clinton Administration's plan, U.S. defense spending as a percentage of GDP would decline by 27 percent between 1990, the last year of the Cold War, and 1995, the latest year for which allied data are widely available (see Summary Table 1). A weighted average for the four allies that spend most heavily on defense--Japan, France, Germany, and the United Kingdom--is projected to decline by only 22 percent over the same period, suggesting a closing of the burdensharing gap. Nevertheless, by 1995 the United States would still be devoting 4.1 percent of its GDP to defense, almost twice the projected average level of 2.2 percent for the largest allies.

Trends for the United States and particular countries vary widely. At one extreme, Germany's ratio of defense spending to GDP is projected to decrease more than that of the United States (46 percent compared with 27 percent), suggesting a widening gap. This large decline results from real decreases in German defense spending; it also takes into account the incorporation of East Germany's GDP upon reunification at the same time most of the East German military was dismantled. Among the largest allies, Japan represents the other extreme. Japanese defense spending as a percentage of GDP is projected to fall by only 8 percent, suggesting a narrowing of the burdensharing gap.

The same conclusion--the burdensharing gap narrows but does not close--would have been reached under the Bush Administration's last plan for defense spending, which would have cut the defense budget by less than the Clinton plan. The basic conclusion would also be unchanged under other plans for the U.S. defense budget that would reduce defense spending by more than the Clinton Administration proposes. CBO included projections consistent with a plan proposed but not recommended by Secretary of Defense Les Aspin when he was Chairman of the House Armed Services Committee (Option A in his 1992 report). CBO also examined a plan recommended by an analyst outside of the Congress, John Steinbruner of the Brookings Institution.

SUMMARY TABLE 1. CHANGES IN DEFENSE SPENDING AS A PERCENTAGE OF GDP FOR THE UNITED STATES AND ITS LARGEST ALLIES

	1990 (Actual)	1995 (Estimated)	Percentage Change 1990-1995 ^a
United States			
Steinbruner Plan	5.6	3.6	-36
Aspin Option A	5.6	3.8	-32
Clinton Administration's Plan ^b	5.6	4.1	-27
Bush Administration's Plan ^c	5.6	4.2	-24
Average of Largest Allies	2.8	2.2	-22 ^d
Germany	2.8 ^e	1.5	-46 ^f
United Kingdom	4.0	3.4	-14
France	3.6	3.1	-14
Japan	1.0	0.9	-8

SOURCES: Congressional Budget Office based primarily on data from foreign government officials and documents, the U.S. Departments of State and Defense, and *The Military Balance*, published by the International Institute for Strategic Studies. Data adjusted to reflect standard NATO definition of defense spending.

- a. Because the 1990 and 1995 figures were rounded, the percentage change may not compute exactly.
- b. Based on budget estimates submitted in February 1993.
- c. Slight adjustments were made to reflect the changes proposed by then Secretary of Defense Cheney in January 1993.
- d. Weighted average for Japan, France, Germany, and the United Kingdom—countries that spend the greatest amounts on defense.
- e. The 1990 figure is for West Germany only because East Germany's defense budget never contributed to western defense.
- f. During the period, the percentage decline of Germany's defense spending as a proportion of gross domestic product (GDP) is so large because \$127 billion (1992 dollars) was added to its GDP as a result of the incorporation of East Germany, and real German defense spending is projected to decline. If the growth of GDP as a result of unification is factored out, Germany's defense spending would decline 30 percent during the period. If the 30 percent figure is used for Germany instead of 46 percent, the recomputed average for the largest countries is about 18 percent.

The most far-reaching of these alternative plans, the Steinbruner plan, would reduce the ratio of U.S. defense spending to GDP by 36 percent over the 1990-1995 period compared with an average of 22 percent for the four major U.S. allies. The burdensharing gap would therefore narrow. Even under Steinbruner's plan, however, the United States would spend 3.6 percent of its GDP on defense by 1995, compared with the 2.2 percent average of its major allies. The difference would therefore remain substantial.

The burdensharing gap also narrows but remains substantial when one uses percentage changes in real defense spending as a measure (see Summary Table 2). The 22 percent drop in real U.S. defense spending under the Clinton Administration's plan would exceed the 10 percent decline in the defense budgets of the allies that spend the most on defense. Yet, U.S. defense spending in 1995 would still dwarf that of its allies. It would exceed that of France, the second largest spender, by almost a factor of six. The Steinbruner and Aspin A plans would further narrow the gap but would still leave U.S. spending much higher than that of its allies.

TRENDS BASED ON ACTIVE PERSONNEL LEVELS

Like the budget-based measures, trends in active force levels indicate a narrowing of the burdensharing gap between the United States and its allies, but of a smaller magnitude. From 1990 to the mid-1990s, the Clinton Administration might pare U.S. active personnel levels by 23 percent, a larger decline than the sum of the allies that spend the most on defense and report future projections of active forces. Italy, France, Germany, and the United Kingdom intend to cut the sum of their personnel by 20 percent. Yet, despite larger cuts in active forces than its allies, in 1995 the United States would still have larger force levels than the four large allies combined.

When the active force level as a percentage of a nation's population is used as the measure, the results are similar. The 27 percent reduction from 1990 to the mid-1990s under the Clinton plan would be greater than the 26 percent combined decline of France, Italy, Germany, and the United Kingdom. Individually, the U.S. cut is greater than those of three of the four larger allies (Italy, 18 percent; France and the United Kingdom, 22 percent each), with only Germany's reduction (38 percent) higher. Of all the nations CBO analyzed, only Belgium, Germany, the Netherlands, and Turkey reduced active forces as a percentage of population at a greater rate than the United States.

**SUMMARY TABLE 2. CHANGES IN REAL DEFENSE SPENDING
FOR THE UNITED STATES AND ITS
LARGEST ALLIES**
(In billions of constant 1992 U.S. dollars)

	1990 (Actual)	1995 (Estimated)	Percentage Change 1990-1995 ^a
United States			
Steinbruner Plan	330.5	226.8	-31
Aspin Option A	330.5	242.2	-27
Clinton Administration's Plan ^b	330.5	258.6	-22
Bush Administration's Plan ^c	330.5	269.7	-18
Largest Allies	168.9	151.5	-10
Germany	46.1 ^d	31.2	-32
United Kingdom	43.8	39.7	-9
France	45.6	43.6	-4
Japan	33.4	37.0	11

SOURCES: Congressional Budget Office based primarily on data from foreign government officials and documents, the U.S. Departments of State and Defense, and *The Military Balance*, published by the International Institute for Strategic Studies. All data adjusted to reflect standard NATO definition of defense spending.

- a. Because the 1990 and 1995 figures were rounded, the percentage change may not compute exactly.
- b. These figures are the outlays proposed by the Clinton Administration in February 1993 for the national defense function (function 050), adjusted to constant dollars.
- c. Slight adjustments were made to reflect the changes proposed by then Secretary of Defense Cheney in January 1993.
- d. The 1990 figure is for West Germany only because East Germany's defense budget never contributed to western defense.

Although personnel measures are of interest, defense spending as a percentage of GDP is probably the best indicator of burdensharing trends in the 1990-1995 period because it is more comprehensive.

TRENDS IN OTHER MEASURES OF BURDENSARING

In addition to the aforementioned measures, some less comprehensive measures suggest a narrowing of the burdensharing gap between the United States and its allies. For example, some allies have signed agreements providing increased support for U.S. troops based on their soil. By the end of the current five-year agreement in 1995, Japan--which is the most generous nation in providing "host nation support"--will pay about 75 percent of the total cost of stationing U.S. troops on its soil (excluding the pay of U.S. military and civilian personnel). Contributions to Operation Desert Storm are another indicator of increased allied support. During the Persian Gulf War, several allies joined the United States in supplying forces; the allies also contributed about \$54 billion to offset U.S. costs. Such contributions may be an indicator of allied willingness to shoulder the burden of western security in a future crisis.

Another measure suggests a relatively low level of U.S. burdensharing in absolute terms. Assistance for development provided to less affluent nations arguably contributes to collective security. Yet, as a percentage of GDP, U.S. assistance for development given to these nations is currently third to last among 15 of the most developed nations.

These other measures are interesting and some of them, particularly support by the host nation, are highly visible in the debate over burdensharing. But the measures generally relate to only a small part of total defense costs. These trends should not, therefore, overshadow the tale told by more comprehensive budgetary measures. Under allied plans that are current as of the beginning of 1993, these comprehensive measures suggest a burdensharing gap between the United States and its allies that will narrow by 1995 but not close.

CHAPTER I

SOME BACKGROUND ON BURDENSARING

Who should pay for the common defense is a question that has often provoked confrontation between the United States and its allies. In the wake of the destruction that accompanied World War II and the need to rebuild the Western European and Japanese economies as a bulwark against Soviet communism, the United States provided the bulk of the resources for western security. This policy allowed allied nations to devote more of their resources to domestic investment while gradually rebuilding their militaries.

Concerns about this policy soon arose, however. In 1951, in the aftermath of the North Korean invasion of South Korea and reflecting concern about the spread of communism, a Senate resolution supported President Truman's decision to send four additional U.S. Army divisions to Europe. Before the divisions were sent, however, the resolution stated that the Joint Chiefs of Staff should certify that Western European nations were making a realistic contribution to the common defense. From that time onward, and particularly as the economies of Western Europe and Japan have become more prosperous, the Congress has continued to urge that the allies shoulder a greater share of the western defense burden.

Indeed, the Congress has been willing to entertain the threat of penalties to prod the allies to increase their contributions. For example, the Jackson-Nunn amendment in 1974 required the European allies to offset the U.S. balance of payments deficit incurred by stationing U.S. forces in Europe or face automatic cuts in those forces. President Ford certified that the deficit had been more than fully offset and that the troop reduction provisions would not have to be carried out. In 1984, the Chairman of the Senate Armed Services Committee took the lead in calling for mandated reductions in U.S. troop strength in Europe, unless the NATO allies increased real defense spending by 3 percent over the level in the previous year or met specifically defined goals for improving NATO's combat capabilities. Ultimately, the Congress rejected the Chairman's proposal for mandatory troop cuts.

By at least one measure, the Congress had reason for its concern about the share of western defense costs being assumed by the United States. The portion of gross domestic product (GDP) devoted to defense is often used as a comprehensive measure of defense burdensharing. In 1990, the last year of the Cold War, the United States devoted 5.6 percent of its GDP to defense.

Four major U.S. allies (Germany, France, the United Kingdom, and Japan) devoted an average of about 2.8 percent, or 50 percent as much.

Unlike the Congress, which has preferred threats of U.S. force reductions and funding cuts for American contributions to western collective security, U.S. Presidents have generally preferred negotiations to encourage allies to assume more of the defense burden. For example, President Carter negotiated a pledge from NATO allies to increase their defense spending by 3 percent a year in real terms.

In response to U.S. prodding, U.S. allies have in fact increased their defense spending over the years. In addition, increased allied spending has been directed specifically at reducing U.S. defense costs or otherwise aiding U.S. interests. For example, the allies have increased the amount they pay toward supporting U.S. forces stationed in their countries (referred to as "host nation support"), at times negotiated defense trade agreements that were to the advantage of the United States, and initiated programs for economic assistance to the developing countries that favored allied interests. Many of these contributions to the common defense do not show up in their defense budgets. Germany, for example, provides much of the land used by allied troops stationed in Europe. Certain allied nations also conscript new recruits for their militaries, which incurs social costs but holds down the expenses actually reported in their defense budgets. In contrast, the U.S. defense budget incorporates the higher costs for compensation needed to pay military personnel whose service is voluntary.

In recent years, the demise of the Soviet Union has fundamentally altered allied defense planning and the burdensharing debate. The end of the Cold War has caused the United States and its allies to reduce their defense budgets sharply. Many governments are also planning to reduce the portion of their forces stationed outside their national borders, particularly in Germany. In the United States, the reduction in threats to allied security occurred at the same time that the American economy slowed and budget and trade deficits remained large. Prompted by these factors, the Congress has stepped up pressure to bring home U.S. troops stationed overseas and to prod our allies to shoulder more of the burden for their own defense. For example, in the National Defense Authorization Act for Fiscal Year 1993, the Congress:

- o Limited the number of U.S. troops in Europe to 100,000 by 1997, compared with the level of 150,000 planned by the Bush Administration.

- o Reduced total U.S. forces stationed abroad, by the end of fiscal year 1996, to 60 percent of the total at the end of fiscal year 1992.
- o Cut funds allocated for overseas basing activities by \$500 million. The United States would need to either withdraw forces or convince its allies to increase the level of funding by this amount for host nation support.
- o Stipulated that the President should enter into negotiations to achieve a new agreement on host nation support with any country not contributing 75 percent of the costs incurred to station U.S. forces within its borders, excluding U.S. personnel costs.

Consistent with these actions, the defense appropriations legislation for fiscal year 1993 cut \$250 million for operation and maintenance of foreign bases and salaries of foreign nationals employed by bases in Europe. It also prevented the obligation of \$175 million more until the Secretary of Defense certifies to the Congress that he has successfully negotiated with the European allies to increase their contribution for host nation support.

The debate over defense burdensharing will undoubtedly continue in coming years, and it could intensify. As background for that debate, it is useful to assess how the changes now planned in U.S. and allied defense efforts are likely to alter defense burdensharing between now and the mid-1990s. Will the burdensharing gap be closed, perhaps ending the debate? Or will it stay the same or even widen? This Congressional Budget Office paper examines those questions based on allied plans that are current as of the beginning of calendar year 1993.

CHAPTER II

TRADITIONAL MEASURES OF

BURDENSARING

Unfortunately, no single, all-encompassing measure of burdensaring exists. Instead, several major indicators are often used, each of which measures some aspects of the relative burden carried by each nation. Several of these measures are used in this paper.

DEFENSE SPENDING AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT

Defense spending as a percentage of gross domestic product is the most widely used measure of defense burdensaring. This indicator compares the cost of all resources devoted to defense with the total output of a nation's economy. It thereby measures how much of a burden defense spending places on a particular nation's economy. Because it is a comprehensive measure, defense spending as a percentage of GDP provides more accurate comparisons among nations that choose different approaches to allocating their security resources. For example, some nations such as the United States spend heavily for research and development on high-technology weapon systems that contribute to future security. A comprehensive measure captures this spending, whereas other measures that focus on current contributions to security--such as numbers of aircraft and naval tonnage--do not.

Defense spending as a percentage of GDP, however, measures input to defense, not output. If a nation spends its resources less wisely than its allies, it could have a higher ratio of defense spending to GDP than those nations, but still achieve less security. This ratio is also only as comprehensive as the measure of defense spending used in its calculation. If some costs are excluded from defense budgets--perhaps because a nation conscripts its military recruits or provides its land to foreign forces free of charge--then defense spending as a percentage of GDP could be an incomplete measure.

REAL DEFENSE SPENDING

Real defense spending is another measure commonly used to gauge a nation's contribution to allied security. It is easily understood. It also indicates the absolute level of a nation's defense efforts, as well as highlighting real increases or decreases in those efforts.

Real defense spending does not, however, take into account a nation's ability to pay. Even though two nations--one rich and one poor--have the same defense budget in a particular year, the burden imposed on their citizens in terms of forgone goods and services may differ sharply. For this reason, the real level of defense spending may be a less helpful barometer of burdensharing than defense spending as a percentage of GDP.

ACTIVE AND RESERVE PERSONNEL AS A PROPORTION OF A NATION'S POPULATION

Numbers of active and reserve military personnel are useful measures because, unlike budgetary measures such as defense spending, they suggest the amount of military output. When expressed as a proportion of population, these measures also take into account a nation's ability to contribute. Counts of active and reserve personnel are, however, highly imperfect measures of military output. A nation's active and reserve forces can be larger than those of another country but less effective because of obsolete weapons or poor training.

WEAPON COUNTS AND MEASURES OF WEAPON EFFECTIVENESS

Indicators such as number of aircraft, naval force tonnage, and number of ground combat divisions are better measures of military output than counts of personnel. Better still are measures of effectiveness such as division-equivalent firepower. Division-equivalent firepower, and similar measures for ships and aircraft, use scoring systems designed to reflect not only the quantity but also the quality of weapons in each nation's forces.

Even these measures of effectiveness, however, are imperfect indicators of military capability. They do not reflect factors that can be vitally important to the outcome of a war, such as morale, training, and leadership of personnel, as well as communications, logistics, strategy, and tactics.

CHAPTER III

PROJECTING FUTURE TRENDS IN

BURDENSARING USING TRADITIONAL MEASURES

The Congressional Budget Office used a number of these traditional measures to evaluate the prospective changes in the relative defense burden of the United States and its allies. Because official projections for future inventories of aircraft, ships, and land forces were generally not publicly available from the allies, CBO did not attempt to evaluate burdensharing trends using measures of military forces. In addition, CBO used projections of active personnel levels in its analysis of burdensharing because projections of future reserve personnel were not available for most nations.

DEFENSE SPENDING AS A PERCENTAGE OF GDP

Based on the most comprehensive measure of defense burdensharing, defense spending as a percentage of GDP, the gap in burdensharing between the United States and its largest allies would be reduced by the mid-1990s under current plans. Under the budget plan proposed by the Clinton Administration in February 1993, the U.S. ratio of defense spending to GDP would decline from 5.6 percent in 1990--the year of the last Cold War defense budget--to 4.1 percent in 1995, the last year when plans are available for many of the major allies (see Table 1). This decline represents a reduction of 27 percent. For the largest allies, current plans call for an average decline of only 22 percent, from 2.8 percent of GDP in 1990 to 2.2 percent in 1995. Thus, measured in terms of defense spending as a percentage of GDP, the burdensharing gap between the United States and these largest allies would become smaller. (The estimate of the decline for the largest allies is the average of the results for the four allied nations that spend the most on defense--Japan, France, Germany, and the United Kingdom--weighted by defense spending as a percentage of GDP in 1990.)

Although it would narrow under current plans, the burdensharing gap would remain substantial. By 1995, the United States would still be devoting almost twice as much of its GDP to defense (4.1 percent) as would its largest allies (2.2 percent). The U.S. ratio would also remain higher than the ratios among any of the four largest allies. The ratios in the United Kingdom (3.4 percent) and France (3.1 percent) would come closest to the U.S. level. German defense spending is projected to drop to only 1.5 percent of GDP in 1995, and Japan's defense budget is expected to shrink to 0.9 percent of GDP.

TABLE 1. TRENDS IN DEFENSE SPENDING AS A PERCENTAGE OF GDP FOR THE UNITED STATES AND ITS ALLIES

	<u>Actual</u>		<u>Estimated</u>		Percentage Change, 1990-1995 ^a
	1987	1990	1992	1995	
United States (Clinton Administration's Plan) ^b	6.5	5.6	5.2	4.1	-27
Germany	3.1	2.8	2.1	1.5	-46 ^c
New Zealand	1.8	1.9	1.8	1.4	-26
Belgium	3.0	2.4	2.1	1.8	-26
Denmark	2.1	2.0	1.9	1.5	-26
Netherlands	3.1	2.7	2.4	2.0	-25
United Kingdom	4.6	4.0	4.0	3.4	-14
France	3.9	3.6	3.3	3.1	-14
Japan	1.0	1.0	1.0	0.9	-8
Canada	2.1	2.0	2.1	1.9	-5
Australia	2.6	2.2	2.4	2.2	-2
Spain	2.4	1.8	1.8	2.0	6
Turkey	4.2	4.9	5.3	5.3	8
Average of Largest Nations	3.1	2.8	2.6	2.2	-22 ^d

SOURCES: Congressional Budget Office based primarily on data from foreign government officials and publications, the U.S. Departments of State and Defense, and *The Military Balance*, published by the International Institute for Strategic Studies. All data adjusted to reflect standard NATO definition of defense spending.

NOTE: GDP = gross domestic product.

- a. Because the 1990 and 1995 figures were rounded, the percentage change may not compute exactly.
- b. Based on budget estimates submitted in February 1993.
- c. During the period, the percentage decline of Germany's defense spending as a proportion of its GDP is so large because (1) \$127 billion (1992 dollars) was added to its GDP as a result of the incorporation of East Germany, and (2) real German defense spending is projected to decline. If the growth of GDP as a result of unification is factored out, Germany's defense spending would decline only 30 percent during the period. If the 30 percent figure is used for Germany instead of 46 percent, the recomputed average for the largest countries is about 18 percent. Data for 1987 and 1990 are for West Germany only because East Germany's defense budget never contributed to western defense.
- d. Weighted average for Japan, France, Germany, and the United Kingdom—countries that spend the greatest amounts on defense.

Trends in Specific Countries

The overall trend is toward closing the burdensharing gap, but the trends between the United States and particular countries vary widely. Under current plans, Germany's ratio of defense spending to GDP will decline by a greater percentage than that of the United States--46 percent compared with 27 percent--between 1990 and 1995. Thus, the gap between the United States and Germany would increase rather than narrow.

The projected 46 percent fall in Germany's ratio reflects substantial cuts in real defense spending and also the growth of German GDP that occurred on unification with East Germany. If the growth of GDP as a result of unification is factored out, Germany's defense spending would decline only 30 percent during the period, a reduction closer to that of the United States. At unification, however, Germany made the policy decision to dismantle most of East Germany's military as it was incorporating the additional GDP. Overall, Germany is significantly reducing its active personnel and previously planned levels of heavy armor, while enhancing the mobility of its forces to implement NATO's new strategy that emphasizes mobility and rapid reaction. The army will endure more cuts than the navy or air force.

Belgium, Denmark, and New Zealand would each reduce their defense budgets by 26 percent during this period. Trends in the Dutch defense budget would lead to only a slight narrowing of the burdensharing gap with the United States. Defense spending as a percentage of GDP would decline by 25 percent in the Netherlands between 1990 and 1995 compared with 27 percent in the United States. The Dutch defense budget would shrink because the nation is no longer attempting to field air, naval, and ground forces that are self-sufficient. The Dutch government foresees the Netherlands supporting only multilateral military actions rather than taking unilateral measures. To adapt to NATO's new strategy that emphasizes small, mobile forces, the Dutch army is reducing its inventory of tanks, armored fighting vehicles, and artillery and creating air mobile forces--that is, light forces that can be transported by helicopter.

Budgetary trends in France and the United Kingdom would result in a more substantial narrowing of the burdensharing gap. Compared with the U.S. decline of 27 percent, France and the United Kingdom each will experience a 14 percent decline in the percentage of GDP devoted to defense. Their defense spending will not fall as fast as that of some other nations because they intend to keep their strategic nuclear forces operational. These nations are also modernizing their conventional (nonnuclear) forces to be consistent with NATO's new strategic concept.

The burdensharing gap would close most noticeably in Japan, Canada, Australia, Spain, and Turkey. In these countries, during the period from 1990 to 1995, there would be either only slight decreases or actual increases in defense spending as a percentage of GDP. Japan, which has kept defense spending at a constant 1 percent share of GDP in recent years, will experience a decrease of only 8 percent by 1995. Also small is Canada's projected 5 percent decline in defense spending as a percentage of GDP from 1990 to 1995. Australia's proportion of GDP devoted to defense will decrease only 2 percent from 2.24 in 1990 to 2.19 in 1995. For Spain, defense spending as a proportion of GDP should increase because Spanish law has established a goal of raising defense spending to 2 percent of its GDP, a goal that country hopes to achieve by the late 1990s. Spain still hopes to achieve this goal despite recent declines in defense spending. While reducing the size of its force, Spain intends to devote more of its defense budget to procuring weapons.

Turkey will keep its defense spending relatively high to counter the continued perceived threats from Greece, Iraq, Iran, the nations of the former Soviet Union, and the Kurdish insurgency within its borders and also to provide funds to modernize its antiquated military. Like many other allied nations, Turkey's modernization program is attempting to tailor its forces more closely to NATO's new, more mobile strategic concept. Turkey's effort to modernize will benefit from equipment donated from wealthier NATO nations. Under the Treaty on Conventional Armed Forces in Europe (CFE), there would have to be a net reduction in the numbers of battle tanks, armored combat vehicles, and artillery pieces among NATO countries as a whole. Equipment can, however, be transferred from nations with better equipped forces to those that need improved equipment so long as the receiving nations destroy equivalent numbers of their less modern weapons.

Effects of Alternative U.S. Defense Budget Plans

CBO examined proposed alternatives that would reduce U.S. defense spending by more or less than the cuts proposed in the Clinton Administration's budget plan submitted in February 1993. Would larger U.S. cuts eliminate the burdensharing gap? An analysis of these plans suggests that, by 1995, they would not.

CBO examined the effects on burdensharing of three alternatives to the Clinton Administration's plan. The first is the Bush Administration's plan, as modified by then Secretary of Defense Dick Cheney in January 1993. The second is a plan proposed but not recommended by Secretary of Defense Les

Aspin when he was Chairman of the House Armed Services Committee (Option A from a report issued by Mr. Aspin in the spring of 1992). As an example of a far-reaching reduction proposed by an analyst outside the Congress, CBO included projections consistent with a proposal by John Steinbruner of the Brookings Institution.^{1,2} (Table 2 presents estimates made by their proponents of the military forces these plans would support.)

Between 1990 and 1995, Option A from the Aspin report and the Steinbruner option would reduce defense spending as a percentage of GDP by 32 percent and 36 percent, respectively, compared with a reduction of 27 percent under the Clinton Administration's plan (see Table 3). The Bush Administration's plan would have reduced defense spending as a proportion of GDP less than the Clinton Administration's plan.

Despite this further narrowing of the burdensharing gap under the Aspin Option A and Steinbruner plans, the gap remains substantial under all of the alternatives. By 1995, even the relatively austere Steinbruner plan spends 3.6 percent of GDP on defense compared with the average of 2.2 percent for the largest allies. Under the Steinbruner plan, in 1995 U.S. defense spending as a percentage of GDP would be reduced almost to that of the United Kingdom, the nation of the large allies with the highest ratio of defense spending to GDP. Aspin's Option A would leave the United States devoting 3.8 percent of its GDP to defense. The gap under all of the alternative plans could remain even wider if the allies impose larger cuts in their own defense budgets than they planned as of the beginning of calendar year 1993.

It is possible--but not certain--that all plans for U.S. budget cuts would close more of the burdensharing gap beyond 1995, the last year examined in this paper. Under the Clinton and Bush Administration plans and the two other alternatives, reductions in defense spending, and hence in spending as a percentage of GDP, would continue beyond 1995. These continued reductions could further reduce the gap in burdensharing. Alternatively, if world conditions permit continued reductions in U.S. defense budgets beyond 1995, they may also permit the allies to impose further cuts in their budgets, which could maintain the gap.

1. See William Kaufmann and John Steinbruner, *Decisions for Defense: Prospects for a New Order* (Washington, D.C.: The Brookings Institution, 1991). The authors suggested alternative options that reduced defense spending below the Bush Administration's plan. In a search for a lower boundary for its analysis, however, CBO chose to use the even more austere plan proposed by John Steinbruner in testimony before the House Budget Committee on February 13, 1992.

2. CBO adjusted estimated outlays based on the trends in budget authority proposed in the Aspin A plan to make them consistent with NATO's definition of defense spending. Such an adjustment was also made for projected outlays under the Steinbruner, Clinton Administration, and Bush Administration plans.

TABLE 2. ALTERNATIVE PLANS FOR THE U.S. DEFENSE BUDGET

	Bush Admin- istration's Base Force	Steinbruner Plan	Aspin Option A
Army Divisions			
Active	12	8	8
Reserve	6	4.7	2
Air Force Tactical Fighter Wings			
Active	15	11.7	6
Reserve	11	7.7	4
Navy Ships			
Total ships	450	a	220
Carriers	13	7	6
Attack submarines	80	a	20
Amphibious ships	50	48	50
Marine Corps Division			
Active	2.3	2.3	2
Reserve	1	1	1

SOURCES: Congressional Budget Office adaption of data in a February 25, 1992, news release from Les Aspin, Chairman of the House Committee on Armed Services, and data from the February 13, 1992, testimony of John Steinbruner, Brookings Institution, before the House Budget Committee.

NOTE: At the time this paper was issued, the Clinton Administration had not yet made its planned force levels publicly available.

a. The Brookings plan did not have entries for total ships or total attack submarines.

TABLE 3. EFFECTS OF ALTERNATIVE BUDGET PLANS ON RELATIVE BURDENSARING

	Defense Spending as Percentage of GDP, 1990 (Actual)	Defense Spending as Percentage of GDP, 1995 (Estimate)	Percentage Change in Ratio of Defense Spending to GDP, 1990-1995 ^a
United States			
Steinbruner Plan	5.6	3.6	-36
Aspin Option A	5.6	3.8	-32
Clinton Administration's Plan ^b	5.6	4.1	-27
Bush Administration's Plan ^c	5.6	4.2	-24
Average of Largest Allies	2.8	2.2	-22 ^d

SOURCES: Congressional Budget Office based on a press release by Les Aspin, Chairman of the House Committee on Armed Services; an adjusted Bush Administration defense plan; testimony by John Steinbruner before the House Budget Committee; and the February 1993 Clinton Administration defense plan.

NOTE: GDP = gross domestic product.

- a. Because the 1990 and 1995 figures were rounded, the percentage change may not compute exactly.
- b. Based on budget estimates submitted in February 1993.
- c. Slight adjustments were made to reflect changes proposed by then Secretary of Defense Cheney in January 1993.
- d. Weighted average for Japan, France, Germany, and the United Kingdom—countries that spend the greatest amounts on defense.

REAL DEFENSE SPENDING

Another measure of burdensharing--changes in real defense spending--also suggests that the burdensharing gap would be reduced but not closed under current plans. From 1990 to 1995, U.S. plans call for a reduction of real defense spending by 22 percent, a greater percentage cut than the 10 percent reduction by its largest allies (see Table 4). Only Germany would slash its defense spending by a greater percentage, reducing it by 32 percent during the period.

The United Kingdom and France would impose smaller real cuts (9 percent and 4 percent, respectively). Canada, Australia, Japan, Spain, and Turkey would actually increase their defense spending from 1990 levels. Japan, for example, would hike its real defense spending by 11 percent from 1990 to 1995.³ This 11 percent spending hike would not be used to enlarge Japan's force; rather, it would be spent primarily to modernize that nation's air, sea, and ground forces.

Although planned percentage reductions are generally larger in the United States than in allied nations during the 1990-1995 period, the U.S. defense budget would remain much larger than allied budgets. Under the Clinton Administration's plan, outlays for national defense in 1995 are projected to be \$258.6 billion (in constant 1992 dollars and adjusted for the NATO definition), by far the largest level among the allies. Despite planned cuts, the 1995 U.S. budget would remain almost six times the defense expenditures of France (\$43.6 billion), the ally with the next largest defense budget.

The gap in real defense spending would remain significant even under the Steinbruner and Aspin Option A alternative plans. Those alternatives would reduce real spending more than would the Clinton Administration's plan. Between 1990 and 1995, declines in real defense spending under the Steinbruner plan and Option A are 31 percent and 27 percent, respectively. However, even under the most stringent of these alternatives (the Steinbruner plan), the U.S. budget in 1995 still would be over five times that of France.

3. Because this increase would be outstripped by its projected growth rate in GDP, the percentage of Japanese GDP spent on defense would still decrease.

TABLE 4. TRENDS IN REAL DEFENSE SPENDING FOR THE UNITED STATES AND ITS ALLIES
(In billions of constant 1992 U.S. dollars)

	1990 (Actual)	1992 (Estimate)	1995 (Estimate)	Percentage Change, 1990-1995 ^a
United States (Clinton Administration's Plan) ^b	330.5	305.2	258.6	-22
Germany	46.1 ^c	38.2	31.2	-32
New Zealand	0.8	0.7	0.6	-19
Belgium	4.9	4.5	4.1	-18
Netherlands	7.9	7.2	6.6	-17
Denmark	2.6	2.6	2.3	-13
United Kingdom	43.8	42.9	39.7	-9
France	45.6	44.0	43.6	-4
Canada	11.7	12.0	12.2	4
Australia	6.6	7.1	7.2	10
Japan	33.4	35.2	37.0	11
Spain	10.4	10.5	12.8	22
Turkey	5.4	5.7	7.2	34
Sum of the Largest Nations ^d	168.9	160.3	151.5	-10
Other U.S. Options				
Steinbruner plan	330.5	305.2	226.8	-31
Aspin Option A	330.5	305.2	242.2	-27
Bush Adminis- tration's plan ^e	330.5	305.2	269.7	-18

SOURCES: Congressional Budget Office based primarily on data from foreign government officials and documents, the U.S. Departments of State and Defense, and *The Military Balance*, published by the International Institute for Strategic Studies. All data adjusted to reflect the standard NATO definition of defense spending.

NOTE: Past, present, and future foreign defense budgets in nominal terms were converted to 1992 constant terms using Wharton's estimates of each nation's local GDP deflator. The foreign defense budgets in constant 1992 local currencies were then converted into 1992 constant dollars by using Wharton's forecast of the average exchange rate between the local currency and the dollar for 1992.

- a. Because the 1990 and 1995 figures were rounded, the percentage change may not compute exactly.
- b. These figures are the outlays proposed by the Clinton Administration in February 1993 for the national defense function (function 050), adjusted to constant dollars.
- c. Total for West Germany only because East Germany's defense budget never contributed to western defense.
- d. Sum for Japan, France, Germany, and the United Kingdom—countries that spend the most on defense.
- e. Slight adjustments were made to reflect changes proposed by then Secretary of Defense Cheney in January 1993.

NUMBERS OF ACTIVE MILITARY PERSONNEL

The number of military personnel serving on active duty is another traditional measure of defense burdensharing. This measure is of interest because, rather than measuring budget input, counts of active personnel represent a measure of military output, albeit a crude one.

If the Clinton Administration follows the policy enunciated in the campaign, the United States, like its NATO allies, might also strive to create a smaller, more mobile military. The Clinton campaign advocated cutting force structure, while preserving the U.S. technological edge in weapons. Funds saved from the personnel cuts that this would imply might be used to procure more modern weapons.

Like the budgetary measures, which show a narrowing of the burdensharing gap between the United States and its allies, trends in active personnel suggest a similar pattern, though of less magnitude. Despite the Clinton Administration's desire to have 1.4 million personnel on active duty by the late 1990s, it has not yet submitted a detailed plan indicating how the level of military personnel would change each year. If personnel are reduced in even increments, however, U.S. active personnel levels would drop by 23 percent by the mid-1990s (see Table 5). The total number of active personnel in the four large allied nations--France, the United Kingdom, Germany, and Italy--would fall by only 20 percent.⁴ Individually, from 1990 to the mid-1990s, Italy would cut its active forces 18 percent; France, 20 percent; and Germany and the United Kingdom, 21 percent each.

In fact, of all the nations CBO analyzed, only three countries plan to reduce their active personnel levels more than the United States--Belgium, the Netherlands, and Turkey. Belgium, for example, is projected to reduce its active personnel 57 percent by 1994; it will also significantly reduce its defense budget in real terms and end conscription. NATO authorities have expressed concern about Belgium's ability to meet its commitments to the alliance after those reductions. Because of such policies, the Belgian military recently relinquished command of a NATO multinational corps.

The Netherlands, like many NATO nations, is cutting its army more heavily than its navy or air force. Turkey will reduce its active forces 28 per-

4. Because the availability of data varied from country to country, CBO used Italy, France, Germany, and the United Kingdom to analyze trends in major countries in active forces and Japan, France, Germany, and the United Kingdom to analyze trends in defense spending by major countries. Italy had no publicly available projections for future defense budgets, and Japan had no such projections for future active force levels.

TABLE 5. CHANGES IN STRENGTH OF ACTIVE PERSONNEL BY THE UNITED STATES AND ITS ALLIES

	Active Forces 1990 (Actual) ^a	Planned Active Forces Mid-1990s (Estimated) ^a	Percentage Decline in Number of Active Personnel from 1990 to Mid-1990s ^b	Percentage Decline in Active Personnel by Population from 1990 to Mid-1990s
United States				
Steinbruner	2,181,000	1,444,400	-34	-37
Aspin Option A	2,181,000	1,596,900	-27	-30
Clinton Administration	2,181,000	1,678,500	-23	-27
Bush Administration	2,181,000	1,714,800	-21	-25
Belgium				
Belgium	106,300	46,200	-57	-57
Netherlands				
Netherlands	103,700	71,900	-31	-34
Turkey				
Turkey	768,900	554,600	-28	-33
Germany				
Germany	503,200 ^c	397,000 ^d	-21	-38 ^e
United Kingdom				
United Kingdom	308,300	242,100	-21	-22
France				
France	549,600	440,900	-20	-22
Italy				
Italy	493,100	406,300 ^f	-18	-18
Spain				
Spain	262,700	218,800 ^g	-17	-18
Canada				
Canada	87,100	74,400	-15	-19
Norway				
Norway	50,600	44,300 ^h	-13	-15
Australia				
Australia	68,100	63,100	-7	-13
South Korea				
South Korea	750,000	750,000	0	-4
Sum of Largest Nationsⁱ	1,854,200	1,486,200^b	-20	-26

SOURCES: Congressional Budget Office based primarily on data from foreign government officials and documents, the U.S. State and Defense Departments, and *The Military Balance*, published by the International Institute for Strategic Studies.

- a. All totals were adjusted to make them compatible with NATO's standard definition of active forces. The figure for the mid-1990s for the Clinton Administration's plan was estimated based on incremental reductions from 1.7 million in 1993 to a goal of 1.4 million in 1997. This estimate was then adjusted to conform to the NATO definition.
- b. Because the mid-1990s figure was rounded, this figure may not compute exactly.
- c. The 1990 figure only includes the West German military because the East German military was never supporting western defense and was largely dismantled after unification. The East German military consisted of 137,700 active troops in 1990.
- d. The figure for the mid-1990s includes the military for a united Germany.
- e. In this calculation, the 1990 active force total for West Germany was divided by the 1990 population of West Germany and compared with the 1995 active force total for united Germany divided by the 1995 population of a united Germany.
- f. This estimate is based on a goal of 230,000 for the year 2002 and has been adjusted for the NATO definition.
- g. This estimate is based on achieving the official goal of reducing forces to 180,000 by 1997 and has been adjusted for the NATO definition.
- h. The unofficial goal is 18,250, but an official from the Norwegian embassy said that this goal was unlikely to be fulfilled because of constitutional and legal obstacles. In reality, the Ministry of Defense's policy is to draw down gradually though normal turnover. This estimate was based on a total of 32,300 by 1996. The estimate was then adjusted to make it compatible with NATO's standard definition of active forces.
- i. Sum for allied countries who spend the most on defense and also have projections for future active personnel levels--that is, Italy, France, Germany, and the United Kingdom.

cent by 1994 but, as noted before, will hold defense spending high as a percentage of GDP to modernize its obsolete equipment. Turkey, however, will keep absolute active force levels relatively high into the mid-1990s because of perceived threats in Asia.

If the most austere U.S. alternative plan were substituted for the Clinton Administration's plan, the United States would make deeper cuts in personnel than would most if its allies. The Steinbruner plan, which takes U.S. active forces from 2.2 million in 1990 to 1.4 million in 1995 (a 34 percent cut), exceeds the reductions of all but Belgium. Aspin's Option A would decrease U.S. active forces by 27 percent, slightly lower than the possible levels under the Clinton Administration's plan.

Similar conclusions are reached when each nation's numbers of active personnel are expressed as a percentage of the country's population. This measure is commonly used in debates on burdensharing because it allows military personnel levels to be seen in the context of the size of the country. Measured by active personnel expressed as a percentage of population, the 27 percent U.S. reduction between 1990 and the mid-1990s under the Clinton Administration's plan would be greater than the 26 percent combined reduction of France, the United Kingdom, Germany, and Italy. Of the large allies, only Germany, with a decline of 38 percent, would reduce its active forces as a percentage of population at a greater rate than the United States. The other large allies would reduce at a lesser rate--22 percent each for France and the United Kingdom and 18 percent for Italy. Of all the nations CBO analyzed, only Belgium, Germany, the Netherlands, and Turkey would reduce at a greater rate than the United States.

Adopting the most stringent option (the Steinbruner plan) would again make U.S. cuts deeper than those of its allies. As a proportion of the population, U.S. active forces would decrease by 37 percent from 1990 to 1995, exceeding the reductions of all countries except Belgium and Germany. Under the Aspin A plan, U.S. active forces as a percentage of the population would decline 30 percent.

Although changes in active personnel are useful, defense budget indicators (defense spending as a proportion of GDP and changes in real defense spending) are more comprehensive measures than levels of active personnel and levels of active personnel as a percentage of the population. They capture planned changes in investment as well as in forces and personnel. On that basis, they are probably the best indicators of trends in burdensharing.

CHAPTER IV

TRENDS IN OTHER

MEASURES OF BURDENSARING

Other measures of burdensharing exist that are not as fundamental or as comprehensive as the more traditional indicators explored in the previous chapters. These measures are, however, used in the debate over burdensharing. Some of them also provide information that is relevant to other aspects of the debate over the U.S. defense budget.

TRENDS IN SUPPORT BY ALLIED HOST NATIONS

All of the nations that have large numbers of U.S. troops stationed on their soil--Japan, South Korea, Germany, Italy, and the United Kingdom--provide some form of support to the United States. The value of the funds involved is small compared with the size of national defense budgets. Because it is small, support by host nations does not provide a comprehensive measure of burdensharing.

In fact, according to the Department of Defense (DoD), when the United States negotiates improvements in burdensharing with its allies, the preferred course is to encourage them to provide additional forces. According to DoD, allied contributions within NATO, to the integrated military command and the commonly financed fund to build NATO infrastructure, are more effective mechanisms to share the burden than support by allied host nations. Finally, DoD argues that focusing the burdensharing debate on support by the host nations pressures allies that host U.S. forces to contribute more while putting no pressure on nations that do not.

Nevertheless, such allied contributions by host nations help to reduce the costs of deploying U.S. forces abroad. They are also a very visible aspect of burdensharing. As noted above, in response to the U.S. economic slowdown and substantial trade and budget deficits, sentiment in the Congress has increased to pressure many of these nations to provide greater support as host nations.

Support by some host nations has grown and may continue to grow. Japan has provided the United States with the most generous support of the host nations. By the end of the current five-year agreement, Japan will pay nearly all yen-denominated costs of stationing U.S. troops in Japan. At that

time, the Japanese contribution will be 75 percent of the total costs of U.S. deployment, excluding salaries for U.S. military personnel and U.S. civilians.

Under the agreement, the Japanese government has agreed to pay for the utilities used by the U.S. military; the compensation of Japanese workers employed by the U.S. armed forces; the purchase or rental of commercial land for U.S. military use; and the construction costs associated with building, improving, and relocating U.S. facilities and bases. These payments, which appear in the Japanese government budget, were valued at \$2.5 billion in 1991. Japan also provides government land used for U.S. military activities and waives taxes, such as import duties, road tolls, landing and port charges and claims, and taxes on petroleum products and items purchased locally. Including these nonbudgetary items, Japanese contributions totaled over \$3.3 billion (in 1991 dollars). As noted above, the Congress has held up the U.S. agreement with Japan as a standard for the State Department's negotiation of such agreements with other allies.

In their support agreements as host nations, other allies tend to assume some but not all of the types of costs paid for by the Japanese. Most of the agreements with other allies provide rent-free land or facilities and waive certain local taxes for the U.S. military. South Korea and Germany share some portion of local labor costs, and South Korea finances the construction of some facilities.

Although their agreements are less generous than the arrangement with Japan, the other countries do provide some unique contributions:

- o Sharing costs incurred from war games (Germany);
- o Financing U.S. operations and maintenance costs (South Korea); and
- o Providing manpower (South Korea).

A more detailed summary of each nation's current contribution can be found in Appendix B, except for the United Kingdom, which does not make public its support efforts as a host nation.

OFFICIAL ASSISTANCE FOR DEVELOPMENT TO LESS AFFLUENT NATIONS

Western nations give assistance for development to less affluent nations to contribute to their economic and political stability, compensate them for the use of military bases in their country, enhance the political influence of the

donor, or achieve humanitarian ends. In most cases, the donor nation perceives that such assistance enhances its national security. This assistance may therefore be another measure of defense burdensharing.

By this measure, U.S. contributions to burdensharing are low when expressed as a percentage of this country's GDP (see Table 6 for the amount of such assistance given by western nations, both in absolute terms and as a percentage of GDP).

In 1990, the United States ranked first in the dollar amount of assistance given for development (\$11.4 billion), but nearly last when such aid is expressed as a percentage of GDP (0.21 percent). Relative to the size of their economies, all of the major allies significantly outspent the United States, with France spending 0.79 percent of GDP; Germany, 0.42 percent; Japan, 0.32 percent; and Italy, 0.31 percent. If Japan continues to increase its foreign aid expenditures and the U.S. Congress continues to constrain U.S. spending, Japan will surpass the United States as the largest aid donor in dollar amounts.

Recently, western assistance to the nations of the former Soviet Union and Eastern Europe has been regarded as particularly important to preserving their economic and political reforms. Western nations perceive that safeguarding these reforms strengthens their own national security.

Of all western donors, Germany by far commits the largest amount of assistance to the nations of the former Soviet Union. By the end of 1991, according to unofficial estimates by the European Commission, Germany was responsible for about one-half of the \$70 billion in economic assistance that had been pledged to the former Soviet republics. German assistance included sizable amounts for German reunification, a substantial part of which was for assisting the withdrawal and relocation of Soviet forces in Germany. Through 1992, Germany had pledged \$380 million in grants, \$32.7 billion in credits, and \$9.9 billion in technical and strategic assistance to nations of the former Soviet Union.

The value for Germany's loans and credits, like those of the other western nations listed, is given in terms of face value rather than subsidy value (the expense to the government if the borrower defaults). The subsidy value might be substantially smaller. For example, the U.S. government calculates a subsidy value of between 6 percent and 19 percent of the face value of short-term agricultural credits to countries of Eastern Europe and the former Soviet Union, depending on the risk of default by a particular country.

TABLE 6. OFFICIAL ASSISTANCE BY WESTERN NATIONS FOR DEVELOPMENT, 1990

	In Millions of Dollars	As a Percentage of GDP
Norway	1,205	1.14
Netherlands	2,592	0.93
Denmark	1,171	0.89
France	9,380	0.79
Belgium	889	0.46
Canada	2,470	0.43
Germany	6,320	0.42
Japan	9,069	0.32
Italy	3,395	0.31
Luxembourg	25	0.29
United Kingdom	2,647	0.27
Portugal	140	0.23
United States	11,366	0.21
Spain	800	0.16
South Korea	77	0.03

SOURCE: Organization for Economic Cooperation and Development data as reported in Department of Defense, *Report on Allied Contributions to the Common Defense* (May 1992).

Other major donors included the United States (pledging about \$5 billion), the European Commission (about \$4 billion), and Japan (under \$3 billion). Japan has been slower to provide assistance to Russia because of a territorial dispute that the two nations have had since World War II. Since then, Russia has held the Kurile Islands off the north coast of Japan, which the Japanese also claim. In 1991, South Korea pledged \$3 billion in credits to the nations of the former Soviet Union.

In 1992, western nations pledged \$24 billion in economic assistance to the nations of the former Soviet Union. This assistance included \$18 billion for loans, debt deferral, and other financial assistance from international institutions to relieve shortfalls in the balance of payments and \$6 billion to stabilize currency. To date, of the western assistance pledged, only about \$10 billion, much of which is short-term loans, has actually been given. Of this \$24 billion, the United States will contribute an estimated \$6 billion to \$7 billion.

From January 1990 to June 1991, NATO nations and Japan committed nearly \$7 billion in grant aid and over \$17 billion in loans and credits to Eastern Europe. Non-U.S. NATO nations committed almost 80 percent of this assistance. The European Commission committed \$1.7 billion in grant aid and \$2.6 billion in loans and credits. Of western nations, Germany once again committed the largest amounts to Eastern Europe. From January 1990 to June 1991, Germany committed \$2.2 billion in grants, about 0.1 percent of its GDP, and \$7.4 billion in loans and credits to Eastern Europe.⁵ The United States committed \$1.3 billion in grant aid, or just under 0.02 percent of GDP, and \$1.1 billion in loans and credits.

FORCES IN EUROPE

During the Cold War, many European allies argued that the number of troops that a nation had stationed in Europe should be an important measure of burdensharing. These troops, they argued, would be the first ones involved in a major war.

If that is still a useful measure, it suggests sharp cuts in the U.S. share of the burden. The Bush Administration planned to cut U.S. forces in Europe from 307,000 in 1990 to 150,000 in 1995, a decline of 51 percent. The recent

5. Because the figures for loans and credits vary widely in the type of commitment, the period of duration, and the likelihood of disbursement, comparisons among donor countries should not be made. However, the figures indicate the general level of financial support by NATO nations and Japan for reform in the former Soviet Union and Eastern Europe.

mandate of the Congress in the National Defense Authorization Act for Fiscal Year 1993 requires a reduction in U.S. forces in Europe to 100,000 (60,000 Army, 30,000 Air Force, and 10,000 Navy) by the end of fiscal year 1996, a 67 percent decline (see Table 7). The Clinton Administration has endorsed this ceiling of 100,000 troops. In contrast, the major European allies analyzed in this study (Italy, Germany, United Kingdom, and France) will reduce their total forces--almost all of which are stationed in Europe--by 20 percent. Furthermore, U.S. troop strengths in Europe will decline much faster than total U.S. active force levels.

The number of troops in Europe, however, may now be a less useful measure of burdensharing. With the collapse of the communist governments in the Soviet Union and Eastern Europe, threats to western security emanating from Europe may be less likely than many threats originating in the developing nations.

Moreover, allied troops stationed in Europe may not be available during regional contingencies outside the NATO area. Other NATO governments may decide not to contribute these troops to such contingencies because they fail to perceive the threat to their security that the United States does. In addition, though many allies are trying to make their forces more mobile, most have little of the airlift capacity required to get troops and their initial loads of equipment to an area of crisis quickly.

CONTRIBUTIONS TO OPERATION DESERT STORM

Various U.S. friends and allies contributed both armed forces and financial resources to assist the United States in the war against Iraq in the Persian Gulf. Although Operation Desert Storm was an extraordinary event, such contributions may suggest the willingness of allies to shoulder the burden of western security in a crisis. Therefore, these contributions may be an indicator of burdensharing.

Some of the support came in the form of troops and equipment. France and the United Kingdom each contributed large land forces to help prosecute the ground war. France, the United Kingdom, Italy, Canada, Belgium, and Germany sent combat aircraft and support. All NATO nations with naval units sent ships to the Persian Gulf. Italy, Spain, Norway, Germany, and the United Kingdom provided strategic airlift and sealift.

TABLE 7. CHANGES IN NUMBER OF ALLIED TROOPS IN EUROPE

	Active Forces in Europe		Percentage Decline from 1990 to Mid-1990s ^b
	1990 Level (Actual) ^a	Planned for Mid-1990s (Estimated) ^a	
Canada	7,100	0	-100
United States	307,000	100,000	-67
Belgium	106,300	46,200	-57
Netherlands	103,700	71,900	-31
Turkey	768,900	554,600	-28
Germany	503,200 ^c	397,000 ^d	-21
United Kingdom	308,300	242,100	-21
France	549,600	440,900	-20
Italy	493,100	406,300 ^e	-18
Spain	262,700	218,800 ^f	-17
Norway	50,600	44,300 ^g	-13
Total for Largest Allies ^h	1,854,200	1,486,200	-20

SOURCES: Congressional Budget Office based primarily on data from foreign government officials and documents, the U.S. State and Defense Departments, and *The Military Balance*, published by the International Institute for Strategic Studies.

- a. All totals were adjusted to make them compatible with the North Atlantic Treaty Organization's standard definition of active forces.
- b. Because the numbers for the mid-1990s were rounded, the percentage decline may not compute exactly.
- c. The 1990 figure only includes the West German military because the East German military was never supporting western defense and was largely dismantled after unification. The East German military consisted of 137,700 active troops in 1990.
- d. The mid-1990s figure includes the military for a united Germany.
- e. Estimate based on a goal of 230,000 in the year 2002, adjusted to make it compatible with the NATO standard definition.
- f. Estimate based on achieving the official goal of reducing forces to 180,000 by 1997.
- g. The unofficial goal is 18,250, but a Norwegian official said that the figure was unlikely to be met because of constitutional and legal obstacles. In reality, the Ministry of Defense's target policy is to draw down gradually through normal turnover. This estimate was based on a total of 32,300 by 1996. The estimate was then adjusted to make it compatible with NATO's standard definition of active forces.
- h. Sum for allied countries that spend the most on defense and also have projections for future active personnel levels—that is, Italy, France, Germany, and the United Kingdom.

The United States also received direct financial support of about \$54 billion from friends and allies to help offset its expenses (see Table 8 for a list of nations contributing financially to the Gulf war effort).

TABLE 8. FOREIGN CONTRIBUTIONS PLEDGED TO OFFSET U.S. EXPENSES IN THE PERSIAN GULF WAR (In billions of dollars)

Country	Amount Pledged
Saudi Arabia	16.84
Kuwait	16.06
Japan	10.01
Germany	6.57
United Arab Emirates	4.09
South Korea	0.36
Other	<u>0.03</u>
Total	53.96

SOURCE: Congressional Budget Office based on 1992 data from the Office of Management and Budget.

APPENDIXES

APPENDIX A

INFORMATION ABOUT DATA SOURCES

Projections of future defense budgets and active personnel levels for nations analyzed in this report are based on data from their government officials, their government publications, agencies of the U.S. government--specifically, the Department of State, the Department of Defense, the Defense Intelligence Agency, and the General Accounting Office--or an occasional press article. Such national projections for defense budgets and active force levels were adjusted to create estimates of future values based on standard NATO definitions of these measures.

The projections of defense budgets and personnel levels for allied nations, like those for the United States, could change. Historically, however, the defense spending of the allies has exhibited less change than that of the United States, with its drawdown in forces after the Vietnam War and the Reagan buildup of the 1980s.

When available, historical data on defense budgets as well as active and reserve force levels for each nation came from official sources, either the foreign nations or the U.S. agencies cited above. When these data were unavailable, CBO used *The Military Balance*--a publication of the International Institute for Strategic Studies in London--to provide such data.

To calculate defense spending as a percentage of gross domestic product for each nation, CBO used historical data on the country's GDP and projections of future levels from the Wharton Economic Forecasting Associates (WEFA) group. The one exception to this was the United States, where CBO used its own estimates of GDP. To calculate the strength of active forces as a percentage of the population for each nation, CBO used historical data on the country's population and projections of future levels from WEFA. All of the projections and historical values were drawn from a study done in July 1992. In calculating real levels of defense spending, CBO converted foreign spending to dollars based on exchange rates that were current as of this date and also used WEFA estimates of future inflation (except in the case of the United States, where CBO estimates were used).

Data on contributions for host nation support and official development assistance from various nations came from the *Report on Allied Contributions to the Common Defense* (May 1992) by the U.S. Department of Defense.

Data on financial contributions from other nations to the U.S. war effort in the Persian Gulf came from the Office of Management and Budget.

APPENDIX B

ARRANGEMENTS FOR HOST NATION SUPPORT

This appendix briefly describes arrangements for host nation support provided by countries hosting the largest quantities of U.S. troops overseas. The United Kingdom's arrangements are not described because they are classified.

JAPAN

Under the Special Measures Agreement signed with the United States in 1991, Japan provides the most generous peacetime host nation support of any ally. This degree of support contrasts with Japan's small portion of GDP devoted to defense spending--about 1 percent.

By the end of the five-year agreement, Japan will pay nearly all yen-denominated costs of stationing U.S. troops in Japan. At that time, the Japanese contribution will be 73 percent of the total costs of U.S. deployment, excluding salaries for U.S. armed forces and civilians. In 1991, Japan paid 55 percent of these total costs.

Under the agreement, Japan provided over \$3.3 billion in direct (budgeted) and indirect (nonbudgeted) contributions during Japanese fiscal year 1991 (1991 dollars). The agreement covers the following budgeted items (estimated values are for 1991, using average 1991 exchange rates):

1. Local labor costs, whose estimated value is \$614.4 million.
2. Construction associated with the building, improvement, and relocation of U.S. bases (all construction is to improve the quality of life for U.S. service personnel and an increasing number of operational support facilities--for example, aircraft shelters). In addition, expenses for noise abatement and disaster prevention and damage claims are covered. The estimated value of all categories of such facility-related expenses is \$1.4 billion.
3. Purchases or rentals of land by the Japanese government for the U.S. military without reimbursement. The estimated value is \$477.1 million.

4. Utilities used by the U.S. military. The value is estimated at \$20.2 million.

The agreement also covers nonbudgeted items. Those categories include Japanese government land, with an estimated value of \$715.7 million, provided to the U.S. forces. Also included are waived taxes, such as import duties, road tolls, landing and port charges and claims, and taxes on petroleum products and items purchased locally. The estimated forgone revenue is \$119.4 million.

In contrast to these peacetime measures for host nation support, the United States currently has no agreement for wartime host nation support with Japan.

SOUTH KOREA

Until the mid-1980s, South Korea, like less developed allies such as Turkey and the Philippines, received military assistance from the United States. Given its phenomenal economic growth, South Korea began to share the cost of deploying U.S. forces on its soil in 1988.

By 1995, South Korea has committed itself to pay one-third of the \$900 million in won-denominated annual costs incurred to station U.S. forces in South Korea. Those won-based costs include U.S. operations and support costs (except for the wages of U.S. Defense Department civilians), the costs of locally hired labor, and military construction.

South Korea's agreement for host nation support is not as generous as the one the United States signed with Japan. But among U.S. allies, South Korea has always had one of the highest percentages of GDP devoted to defense, while Japan has had the lowest. In 1991, South Korea spent 3.8 percent of its GDP on defense, while Japan spent about 1 percent.

South Korea's direct cost-sharing contribution (budgeted items) totals \$180 million in 1992 dollars. This sum includes the following items:

1. Joint U.S.-South Korean funding and labor for facilities both nations would use during a war.
2. South Korean funding for warfighting activities operated solely by the United States.

3. War reserves that include ammunition, fuel, facilities, and transportation costs.
4. Maintenance of equipment for air and ground forces.
5. Sharing by South Korea of U.S. costs from employing South Korean workers.

South Korea also shares costs by providing these nonbudgetary items that total about \$2.2 billion in 1989 dollars:

1. Rent-free real estate and facilities with an estimated value of \$1.5 billion;
2. Manpower in the form of security personnel valued at \$203 million;
3. Logistics support--for example, magazines and storage areas--valued at \$286 million;
4. Military facilities--such as training camps, shooting ranges, and air traffic control facilities--with an estimated value of \$33 million; and
5. Tax exemptions for tariffs, utilities, and postage and communications fees.

The United States and South Korea also signed a wartime host nation support agreement in 1991.

GERMANY

Germany provides the following nonbudgetary contributions for peacetime host nation support (valued in 1991 dollars):

1. Rent-free use of German government facilities by U.S. forces, including housing units. The rental value of these facilities is \$1.4 billion.
2. Labor costs for foreign nationals valued at \$195 million.
3. Tax-free fire, police, and public health protection valued at \$100 million.

4. Exemptions for individual soldiers from some taxes, such as road taxes, customs fees, radio and television fees, and value-added taxes on items purchased locally. The estimated value of these waived taxes is at least \$20 million.
5. Payment by the German government of 25 percent of the damage claims caused by military exercises when the United States is solely responsible for damages. The estimated value is \$5.3 billion.

Both the United States and Germany incur costs under the agreement governing wartime host nation support for U.S. forces in Germany. The total cost of this agreement in the first five years of operation was \$1.6 billion, of which Germany paid \$618.5 million. NATO paid \$102 million. The rest of the cost--just under \$1 billion--was paid for by the United States.

ITALY

Italy provides the following contributions for peacetime host nation support not reflected in its defense budget:

1. Free land for U.S. bases and facilities valued at \$400 million.
2. Training ranges that can be used without charge.
3. Exemptions from the value-added tax that save the United States \$40 million to \$50 million per year.
4. Exemptions from landing taxes for aircraft and port fees for ships. But ships entering or transiting Italian ports with military goods must get a permit. The U.S. Department of Defense must ultimately pay the costs of these permits.