

COSTS AND BENEFITS TO THE UNITED STATES
OF THE NATO INFRASTRUCTURE PROGRAM

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PREFACE

NATO builds facilities and systems essential to the common defense with the contributions its members make to the Infrastructure fund. Since 1951, the fund has been used to build 220 airfields, over 10,000 kilometers of fuel pipelines, 2 million cubic meters of fuel storage, and more than 200 air defense sites. In the future, the fund is certain to be an important part of NATO's long-term improvement program.

This report, prepared at the request of the Senate Budget Committee, examines the costs and benefits to the United States of the Infrastructure program. The report focuses on the equitability of the cost-sharing formula and the distribution of benefits among the allied countries. It also describes how NATO manages the Infrastructure program.

The paper was prepared by Pat Hillier of CBO's National Security and International Affairs Division, in collaboration with Nora R. Slatkin, under the general supervision of David S.C. Chu and Robert F. Hale. The authors gratefully acknowledge the helpful comments of Alan Shaw and Nancy Swope of the CBO staff. Nancy Brooks typed the various drafts and prepared the final manuscript.

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INTRODUCTION

This report examines the costs and benefits to the United States of the NATO Infrastructure program. The paper focuses on the equitability of the cost-sharing formula and the distribution of the program's benefits. The analysis suggests that in both areas the United States is doing well. Moreover, the opportunities appear to be limited for reducing the U.S. share of the burden or for increasing its share of the benefits.

The report begins with an overview of CBO's major findings. Subsequent sections describe the purpose and operation of the Infrastructure program, and analyze its costs and benefits to the United States.

SUMMARY OF MAJOR FINDINGS

The systems and facilities (for example, communications networks and fuel pipelines) that the NATO alliance as a whole needs for an effective defense are funded by annual contributions to the Infrastructure program by each member government. The projects financed by the fund are decided upon by the NATO Defense Planning Committee on the basis of recommendations from the allied military commanders. The host nation (that is, the nation in which an approved project is located) oversees the construction and provides land, access roads, and utilities for the project (accounting for approximately 13 percent of the total project cost).

Country-specific projects--such as housing, health facilities, maintenance workshops, and headquarters--do not usually qualify for financing by the Infrastructure fund. These projects are generally financed by the user nation unless it has concluded a bilateral agreement with the host nation to provide for host-nation construction. Such an agreement was reached between the United States and the Federal Republic of Germany with respect to housing for the U.S. brigade that was moved to northern Germany to bolster alliance defenses in that region.

The Infrastructure fund finances single-user projects that are judged to make a direct contribution to the alliance defense. Examples of U.S. projects in this category include construction of storage facilities for three additional division sets of prepositioned equipment and construction of ammunition storage facilities near initial U.S. battle positions.

Reflecting the economic recovery of Europe in the post-World War II period, and perhaps a greater willingness on the part of the European allies to offset the larger U.S. contribution to overall alliance defense, the long-term trend in the Infrastructure program has been toward a decline in the U.S. share of total contributions and an increase in financing for U.S. projects. During the period 1951-1956, for example, the United States contributed 43.6 percent of total Infrastructure funds, while project emphasis was directed on provision of facilities for military equipment furnished to the European allies under the U.S. military assistance program. For the 1980-1984 period, the U.S. share of total Infrastructure funding has dropped to 27.4 percent, while the percentage of single-user projects allocated to U.S. forces has risen to nearly 60 percent. Over the last 10 years, direct benefits to the United States have exceeded U.S. contributions by 5 percent. CBO estimates that if indirect benefits from the construction of common-user projects (such as fuel pipelines) are included, total U.S. benefits would exceed U.S. contributions by as much as 58 percent.

The most promising strategy for increasing the share of U.S. projects financed by the Infrastructure program would appear to require a general increase in the size of the fund and a continuation of the current cost-sharing formula. The U.S. contribution is now substantially lower than it would be if the shares were calculated on the basis of population size or GNP level. It therefore would seem impractical to seek a significant reduction in the U.S. share. Nor does it seem likely that the United States could significantly increase its share of single-user projects (even though it has numerous high-priority projects, such as facilities for modernization of tactical nuclear weapons), since approximately 60 percent of all single-user funds are now allocated to U.S. projects.

OPERATIONS OF THE INFRASTRUCTURE PROGRAM

The size of the Infrastructure fund and the cost-sharing formula are negotiated every five years by the 13 nations contributing to the program. For the period fiscal years 1980-1984, a total funding level of one billion Infrastructure Accounting Units (IAU) was agreed to, equivalent to about \$4.72 billion at the current IAU exchange rate. 1/ The U.S. share represents 27.4

1/ NATO negotiates an IAU exchange rate for every country's currency. The rates are reviewed semiannually and are adjusted accordingly if there has been a 2.25 percent or greater cumulative change in the international exchange rate.

percent of that amount. As Table 1 shows, the combined shares of the United States, the Federal Republic of Germany, and the United Kingdom account for nearly two-thirds of total Infrastructure funds. Cost shares are negotiated according to a nation's ability to pay and the potential benefits it will receive, among other factors.

TABLE 1. INFRASTRUCTURE PROGRAM COST SHARES FOR FISCAL YEARS 1980-1984

Country	Percent
United States	27.4
Germany	26.5
United Kingdom	12.1
Italy	8.0
Canada	6.4
Belgium	5.6
Netherlands	5.1
Denmark	3.7
Norway	3.1
Greece	0.8
Turkey	0.8
Luxembourg	0.2
Portugal	0.2

Negotiations on the fund's size and the cost-sharing formula for the 1985-1989 period are scheduled to begin in early 1983.

Project proposals for Infrastructure funding are developed annually by the NATO member nations and the allied subordinate commanders. These initial proposals are then consolidated by NATO's major commanders (SACEUR, SACLANT) and submitted to the defense ministries of the member governments for review and comment. The major commanders then revise the proposed program and submit it to the NATO Military and Infrastructure Committees. The recommendations of these two committees are reviewed by the Defense Planning Committee, which has final authority over funding decisions. 2/ The entire process takes about two years.

2/ Unanimous approval is required for any project to be funded. Every NATO nation except France and Iceland is a member of the Defense Planning Committee.

Once a project has been approved for Infrastructure funding, the host nation assumes responsibility for construction, although the NATO Payments and Progress Committee exercises oversight responsibilities. The host nation prepares the construction plans, develops cost estimates, and provides the necessary land, access roads, and utilities. The construction plans and cost estimates are reviewed by the Payments and Progress Committee before any funds are released for the project. Upon completion of the project, the committee conducts a final review and accepts the new facility on behalf of the alliance. A NATO board of auditors accomplishes the auditing function.

The project categories currently eligible for Infrastructure funding are shown in Table 2. These categories, and the category definitions, are subject to negotiation by the NATO members. Consequently, the regular negotiating process also provides for consideration of proposed changes in the eligibility criteria.

COSTS AND BENEFITS TO THE UNITED STATES

Costs

In the post-World War II period, the European allies have assumed an increasing share of the cost of the Infrastructure program. In the first program, which covered the period 1951-1956, the European allies contributed just over 56 percent of total funding, with the United States providing the remaining 44 percent. The Federal Republic of Germany made its first contribution in the 1957-1960 program period. This permitted a reduction in the shares of Belgium, France, Italy, the Netherlands, Norway, the United Kingdom, and the United States (see Table 3). The continued economic growth of West Germany led to a further reduction in the U.S. share in the next program period (1961-1964). The formula for the 1965-1969 program compensated for France's withdrawal from the NATO integrated military structure: the U.S. share of total funding declined from 30.85 to 29.67 percent (a 4 percent reduction), while the European allies' shares grew accordingly. The U.S. share remained unchanged for the 1970-1974 program and was reduced by 8 percent in the 1975-1979 program period. Economic difficulties in Turkey and Portugal have resulted in a slight increase in the U.S. share for the 1980-1984 program.

The U.S. share of total contributions is below what it would be under other possible allocation formulas. For instance, if shares were determined by population size, the United States would contribute almost 43 percent of the Infrastructure fund. An

TABLE 2. PROJECT CATEGORIES ELIGIBLE FOR NATO INFRASTRUCTURE FUNDING IN THE 1980-1984 PROGRAM PERIOD

Category	Definition
Airfields	Essential facilities and shelters for tactical aircraft
Communications	Military communications; communications links to governments; satellite communications
Petroleum	Pipelines and storage facilities for a 30-day supply
Naval Bases	Petroleum, ammunition, and other storage facilities; repair facilities; piers
Warning Installations	Common use, air and sea
Training	Firing ranges
War Headquarters	International headquarters
Air Defense	NIKE and HAWK sites
Forward Storage	Ammunition storage near initial defense positions
Special Weapons Storage	Nuclear warhead storage facilities
Surface-to-Surface Missile	Pershing missile sites
NATO Air Defense Early Warning	Integrated early warning; command and control
Reinforcement Support	Storage for prepositioned equipment
Other	Case-by-case agreements (for example, controlled-humidity warehouses for U.S. prepositioned equipment)

TABLE 3. NATO INFRASTRUCTURE COST-SHARING FORMULAS (By Program Group and Year, in percents)

Member Nation	I 1950	II-VII (1951-56)	VIII-XI (1957-60)	XII-XV (1961-64)	XVI-XX (1965-69)	XXI-XXV (1970-74)	XXVI-XXX (1975-79)	XXXI-XXXV (1980-84)
Belgium	13.18	5.46	4.39	4.24	5.30	5.30	5.55	5.59
Canada	--	6.02	6.15	5.15	6.31	6.31	6.31	6.36
Denmark	--	2.77	2.63	2.87	3.54	3.54	3.70	3.73
France	45.46	15.04	11.87	12.00	--	--	--	--
Germany	--	--	13.72	20.00	25.18	25.18	26.36	26.54
Greece	--	0.75	0.87	0.67	0.76	0.76	0.79	0.79
Italy	--	5.68	5.61	5.97	7.58	7.58	7.93	7.99
Luxembourg	0.45	0.16	0.17	0.17	0.20	0.20	0.21	0.21
Netherlands	13.64	3.89	3.51	3.83	4.87	4.87	5.10	5.14
Norway	--	2.28	2.19	2.37	2.98	2.98	3.12	3.14
Portugal	--	0.15	0.28	0.28	0.35	0.35	0.37	0.20
Turkey	--	1.37	1.75	1.10	1.26	1.26	1.33	0.81
United Kingdom	27.27	12.76	9.88	10.50	12.00	12.00	12.00	12.08
United States	--	<u>43.67</u>	<u>36.98</u>	<u>30.85</u>	<u>29.67</u>	<u>29.67</u>	<u>27.23</u>	<u>27.42</u>
NATO Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

SOURCE: NATO Information Service, NATO: Facts and Figures.

alternative formula based on GNP levels would require the United States to contribute 56 percent of total funds. One formula for a progressive taxing scheme would result in a 62 percent U.S. contribution. 3/

From the foregoing it is clear that the NATO allies have agreed unanimously that the Infrastructure program should be used to offset the overall defense burden borne by the United States. But it is not obvious that the European allies would agree to a further reduction in the U.S. contribution. An indication that the limit of U.S. reductions has been reached is the slight upward adjustment in the U.S. share of the 1980-1984 program to help compensate for the reductions in the Turkish and Portuguese contributions.

A reduction in the U.S. share might be possible under certain conditions that do not now appear likely. A decision by France to rejoin the NATO integrated military structure could reduce each nation's share, but such a step is not anticipated at this time. If economic conditions improved in one or more allied countries relative to improvements in the U.S. economy, then a reduction in the U.S. share might also be possible. The likelihood that such a circumstance would result in a significant reduction in the U.S. contribution is small, however.

Benefits

The NATO allies have been willing not only to reduce the U.S. share of total contributions but also to allocate a larger fraction of Infrastructure funds to U.S. projects. Although the portion of the fund allocated to single-user projects has declined since the early 1970s, a larger portion of single-user project funds has gone to the United States (see Table 4). Over the period 1971-1981, the value of U.S. single-user projects has exceeded U.S. contributions by 5 percent. Assuming that 41 percent of common-user projects is a fair share of U.S. benefits from those types of projects, 4/ then the total value of U.S. benefits exceeds U.S. contributions by 58 percent.

3/ U.S. Army Engineer Studies Center, U.S. Army Programming For Construction in Europe--Fund Source Considerations, Status, and Cost Sharing (April 1980), Appendix A.

4/ Within 30 days of NATO's mobilization, the United States would provide 41 percent of the available firepower. See Congressional Budget Office, Strengthening NATO: POMCUS and Other Approaches (February 1979), Table B-2, p. 55.

TABLE 4. NATO INFRASTRUCTURE PROGRAM (Millions of IAUs)

Year	Size of Fund <u>a/</u>	U.S. Contribution	Funds for Common-User Projects	Funds for Single-User Projects	Funds for U.S. Projects
1971	116.9	34.68	27.3	89.6	15.1
1972	84.2	24.98	17.0	67.2	35.1
1973	76.0	22.54	40.6	35.4	10.7
1974	61.3	18.19	19.7	41.6	13.3
1975	93.6	25.49	20.5	73.1	36.0
1976	100.2	27.28	58.8	41.4	18.2
1977	86.8	23.64	39.3	47.5	17.8
1978	155.9	42.45	57.0	98.9	49.7
1979	34.2	9.31	9.2	25.0	13.0
1980	268.3	73.57	76.0	192.3	89.5
1981	<u>321.1</u>	<u>88.05</u>	<u>135.3</u>	<u>185.8</u>	<u>112.4</u>
Total	1,398.5	390.18	500.7	897.8	410.8

a/ SACLANT portion not included.