

together. Consequently, the requirements for goods and services for the production of tanks by the ordnance industry appear as direct requirements by the military on the remainder of the processing sectors. Similarly the requirements by the investment industries to produce final goods are distributed among the remainder of the processing system. The inclusion of investment demand in the bill of goods is based on the assumption that decisions with respect to the level of investment are essentially autonomous in nature and often tend to be unrelated to current production. Furthermore, the lack of interaction of military suppliers with the other processing sectors indicates that their inclusion in the system of equations connecting the endogenous sectors would be in most instances trivial. For example, very few industries require purchases of tanks to meet their requirements for final demand.

III. THE MODEL AND RESULTS OF COMPUTATIONS

The model consists of (1) a 66 order square structural matrix; (2) two 15 by 66 direct requirements matrices; and (3) one 16 by 66 direct requirements matrix. The first 15 by 66 requirements matrix was stipulated consistent with the composition of final demand for the economy supporting the military establishment at the level witnessed between 1955 and 1958. The second and third matrices were stipulated after computing reductions for demands by major military weapons systems and hypothesizing alternative offset policies. Each column vector in the requirements matrices was derived to support the level and composition of a specific component of final demand.

Multiplication of the direct requirements matrices by the structural matrix determined the total requirements of the processing sectors necessary to support the level and composition of demand based on variations in policy toward the level and composition of defense expenditures. The first product matrix specified total requirements by industry comparable to those derived by Leontief and Hoffenberg for 1958. The second product matrix specified total requirements by industry based on a 50-percent reduction in military procurement offset by a compensating reduction in personal income taxes and corporate income taxes.

Although total military procurement expenditures were cut by 50 percent, the reduction was distributed disproportionately to the composite military demand vectors reflecting the assumption of a policy of nuclear disarmament.⁵ Holding all other government non-defense purchases constant, the reduction in defense spending creates a potential government surplus. Therefore, once the new level of defense has been stated, the problem of redistributing the government surplus must be handled. The second matrix assumed that government revenue would be reduced to the new lower level of expenditures, that redistribution occurred instantaneously, and that the increased income generated would be readily absorbed into the private sector.⁶

⁵ The reductions were as follows: aircraft and missile procurement, 63 percent; other major procurement, 43 percent; procurement for maintenance and operations, 40 percent; and procurement for research and development, 37 percent.

⁶ In essence, the economy was viewed as if the transition had taken place and the former level of gross national product maintained. Granted, this reasoning assumes away an important temporal problem of maintaining demand during the period of transition. This problem has been considered by Benoit and Suits using the READ model, see Emile Benoit, "The Disarmament Model," and Daniel B. Suits, "Econometric Analysis of Disarmament Impacts," in *Disarmament and the Economy*, Emile Benoit and Kenneth E. Boulding, Eds. (New York, Harper & Row, 1963), pp. 28-49, 99-111.