

Science and the News

The Budget Process: It Changes, Slowly, To Meet New Needs

The controversy over long-term financing of foreign aid has been dominating Congressional debates this week, but the general problem of how to plan and finance programs running over a period of years has also been getting attention, including the question of planning for research and development. The central problem is how the executive branch should plan effectively for long-term programs, a complicated business in itself, further complicated by the budget process, under which the executive departments normally get appropriations from Congress only for a year at a time. The budget process raises two kinds of difficulties: it tends to concentrate the attention of the budget makers on preparing the next 1-year budget for submission to Congress when sound decisions on including an item in the 1-year budget can only be made upon consideration of the long-term implications of the item, for which there is no place in the present budget; secondly, in theory at least, the difficulty is further complicated because, even if the departments have done long-term planning, there is no guarantee that in the future years Congress will supply the money needed to fulfill the plan, even though the decision to spend the first year's money often makes sense only on the assumption that the future money will be appropriated year by year. A third kind of problem also comes up, one which applies especially to scientific programs, which is the problem of fitting a program which draws on the resources of more than one department into the neatly compartmentalized federal budget.

The Defense Department, in response to the first need, has now installed a new system of budget preparation, which will be used in preparing next year's budget, and the system is intriguing, since in addition to requiring the preparation of a 5-year budget, the new system amounts to a back-door ap-

proach to the long-talked-about reorganization of the Defense Department. The 5-year projections will be for the internal use of the Defense Department; the budget presented to Congress will appear in its usual form, which cannot be changed without special legislation, although the 5-year projections will presumably be made available to the Congressional appropriations committees. In addition to making a determined effort to take into account the long-range implications of programs, the new budget system cuts across both the service divisions and the conventional budget categories (research and development, procurement, manpower, etc.). The budget will be developed out of estimates that group together all expenses by function: all costs, for instance, related to the nuclear deterrent force will be grouped together: the Navy's Polaris system, then, would be considered in the same package with the Air Force Strategic Air Command, as would the costs of new weapons systems, for any service, so long as it was part of the nuclear deterrent. Proponents of new weapons systems would have to supply estimates not only of the money needed over the years for research and development on the weapon, but of what it will cost to buy the weapon once it is developed, and what it will cost to maintain the weapon once it is bought. All of this can then be compared with the costs of alternative proposals for strengthening the deterrent force and with the cost of already existing weapons in the deterrent force. In a general way such over-all planning has always had to be done, but the hope is that the new system, by making the planning process more explicit, will lead to wiser decision making: for if all the figures are not brought together in a way that makes clear the choices that have to be made, the whole process becomes fuzzy and it is hard to put responsibility on anyone for making, and being prepared to defend, precise recommendations in terms of the over-all spending.

The problem has a special relation to planning new weapons systems, where the costs are small in the research phase, grow far greater in the development phase, and still greater in the procurement and maintenance phases. Because the costs are comparatively very cheap in the first phase, it pays to start work on many more weapons than can possibly ever be fully developed and bought, and then to weed out those that prove less promising before they get into the billions of dollars phases. But this can only be done if there is a really firm will to weed out the less promising weapons as soon as it becomes apparent that they cannot compete with alternative developments that can do a given job more cheaply. This is not an easy thing to do. Once a development program is begun a lobby inevitably develops inside the Pentagon, among the industrial contractors working on the project, and in Congress, to keep the thing going. The pressure is always to keep going on whatever has been begun, which leads to the tendency not to begin things whose promise is unclear, and this in turn leads to excessive conservatism in starting research programs unless, of course, the top officials have confidence that they can kill projects almost as easily as they can start them.

Advantages

The new budget system, as noted earlier, attempts to bring together clearly all the costs of a program, not only through development, but through procurement and operation, and brings these estimates into clear contrast with alternative developments. This will, it is hoped, not only give a clearer basis for making tough decisions, including decisions to kill programs, but by making the contrast explicit tend to force decisions which in the past it has been easier to shuffle out of sight.

The second difficulty, that there is no guarantee that Congress will appropriate the money needed in future years to make the first year's investment make sense, is far less of a problem than it sounds. As a practical matter Congress puts up the money. Everyone in Congress, for example, understands that the big increase in the space program for this year makes sense only on the assumption that money will be available to continue the accelerated program in future years, and that in voting the \$1.7 billion for this year Congress has in effect fully committed itself to putting up, year by year, the rest of the \$20 billion or more that will be needed for

the rest of the decade. Government officials are not always happy with this sort of assumed, but not formally assured, continuation of support. But they are familiar with what is going on and have learned to live with it. Where the theoretical uncertainty becomes important is when the government has to gain the confidence of people outside the government. With foreign aid, for example, it is hard to explain to foreign governments, not familiar with the peculiarities of the American political system, how the foreign government can with confidence undertake a long-term project dependent on American assistance, when the American negotiators have no legal authority to assure them that the money for future years will be available. In the sciences, a similar problem arises in, for example, the effort of the government to sponsor long-term programs in materials research in a number of universities. The university officials and the scientists who are asked to work on the projects tend, not too surprisingly, to be uneasy at the thought that their money could be cut off the year after next when they are in the middle of a long-range program. To meet this problem of providing assurance the device of "no-year" appropriations has been gradually spreading, under which Congress appropriates money with a clause permitting a department to keep the money until it is all spent. Without the special clause the money would revert to the Treasury at the end of the fiscal year, and a new appropriation would have to be gotten. Using no-year appropriations the Defense Department has set up 5-year funds for the materials research programs, which give the universities involved assurance of a minimum amount of support that will be available. Each year a new appropriation is gotten, so perpetuating the 5-year fund and the assurance of a minimum level of support for 5 years in the future.

The trend is for such devices to circumvent the year-by-year appropriation procedure to grow a bit commoner each year. But the process is more of erosion of the year-by-year Congressional control than of a formal effort to reform the whole budget process. There is a wide body of opinion that is convinced that a general reform of the budget procedure is overdue, but the Congressional appropriations committees are not anxious to give up the extra measure of power that comes with the ability to cut off a program in mid-stream. Although the power is hardly

ever used, the threat of its use, indeed the mere possibility of the threat of its use, gives the appropriations committees, and especially the chairmen of appropriations subcommittees handling the various departments, a little extra leverage in winning Administration support for projects they particularly support. On more general grounds, Congress is never anxious to relax whatever power it has over the executive branch, any more than the executive branch is ever anxious to restrict whatever freedom it has from Congressional control, and to this is added the feeling among a good many conservative members of Congress that the government is always spending too much money anyway, and the spending will only be higher if the budget process were made less awkward. The result is that the frequent proposals for a formal over-all reform of the budget process never seem to get anywhere, but in the face of necessity, now in one area, now in another, the erosion of the year-by-year control goes on.

Overlapping Programs

A different kind of budget problem comes up in dealing with programs that overlap several departments, and which are therefore difficult to fit into the neatly departmentalized budget. The oceanography program, for example, is scattered among nine major independent agencies and cabinet departments, and within them among 25 or so smaller agencies and offices. There is no single appropriations subcommittee to whom the program as a whole can be submitted. But neither the Eisenhower Administration nor the Kennedy Administration have taken kindly to suggestions that the whole program be put under the jurisdiction of the National Science Foundation, which would present the unified program to a single appropriations subcommittee in the Senate and in the House, and then distribute the funds among the various agencies that are taking part in the program. This opposition is partly on the grounds that the oceanography budget, now about \$100 million a year, is nearly 40 percent as large as the total NSF budget, and that the role of NSF would be unbalanced if it tried to digest this sum and devote so much of its energies to the single area of oceanography.

The executive branch has shown even less enthusiasm for the proposal of Senator Magnuson, to write into the law an authorization of a 10-year pro-

gram in oceanography. Magnuson's proposal also includes giving the central responsibility to NSF. The opposition to the 10-year part of Magnuson's proposal comes because it would write a specific program of research into the law—so much for ships, so much for training grants, and so on—and while everyone is for long-range planning, the Administration does not want to be tied down to a given course of action as rigidly as by writing the long-range plan into law. The Magnuson bill passed the Senate last week, as a similar bill did last year, but with the knowledge that, as last year, it will almost certainly die in the House. The passage of the bill was more of a reflection to Magnuson's prestige among his fellow Senators and his power as chairman of the Commerce committee and of the appropriations subcommittee that handles the space program and the NSF, than of a real determination in the Senate to write the 10-year program into law whether the Administration likes it or not.

The tendency of the executive branch, under Eisenhower, and so far under Kennedy, has been to avoid asking for major reforms, but to try to work out more or less informal arrangements to meet a given problem. In oceanography, this has involved such things as including references to the importance of oceanography in several of the President's major addresses and messages to Congress; the preparation of the booklet bringing together all the elements of the program and distributing it to the members of the appropriations subcommittees that must consider various parts of the program; and the organization of an interdepartmental committee on oceanography, chaired by the assistant secretary of the Navy for research and development (the Navy puts up the largest share of the programmed money), whose responsibility is to work out a recommendation to the President for an over-all program and to see that the agencies involved include their share of the program in their budgets. The responsible officials seem satisfied that these modest steps are winning the desired support for the interagency program, and so long as such small steps seem adequate to do the job, they are not much tempted to get into the sticky jurisdictional haggling among the executive agencies and among the Congressional committees that would have to be faced if a general reform of the procedure were proposed.—H.M.