

craft and weaponry. For example, if Britain depends on the United States for combat aircraft, there is a feeling that there are political strings attached. On the other hand, if Britain decides to undertake the task itself or in concert with its European partners, there are heavy national costs implied.

The British are wont to point out how the U.S. Department of Defense and NASA have underwritten the American aerospace industry and, for that matter, IBM; and the British are looking for ways to compete without crippling their economy. For the British, the ordeal of Rolls Royce and the bailout operation by the government was an even more sobering experience than the sorrows of Lockheed were for the United States. The British are acutely aware, as one knowledgeable civil servant put it last week, of "the limit of the size of the risk one can take."

For the high-technology companies in the EEC, the crucial question may be

whether the members will agree to open public contracts—for power plants, aircraft, telecommunications facilities—to companies throughout the community. This has been recommended in the so-called Colonna memorandum on industrial policy, but there is as yet no real indication that such a change will occur. Such action would do perhaps more than anything else to encourage mergers and less informal associations that would make it possible for the EEC to operate effectively across old political and psychological frontiers.

Despite the dominance of economic arguments in the public discussion of British entry into the EEC, a reporter talking to British government officials gains the strong impression that Prime Minister Edward Heath's government has made an essentially political decision. Since World War II, Britain has profoundly altered its ties with the Commonwealth and is now modifying its "special relationship" with the United States. The rationale was clearly put in

this excerpt from Heath's speech at the recent Conservative Party Conference.

"I must tell you today that the change which I and others foresaw is now upon us. The United States, faced with deep-seated problems at home and abroad, is working towards direct arrangements with the Soviet Union and Communist China. Even more important, the United States is acting drastically to protect its own balance of payments and its own trading position against the erosions which they suffered. Everyone concerned with trade and finance knows that rough winds are beginning to blow across the world. . . .

"Fortunately this change in the world has come upon us at exactly the time when we have the opportunity to associate ourselves with other countries of the European Community. And by associating ourselves now, at this time, we can work together to protect effectively our own interests and theirs in a way which would not be possible were we to remain alone."—JOHN WALSH

Human Environment Conference: Citizen Advisers Muddle Through

In an unusual gesture last January, Secretary of State William Rogers promised that his department would solicit advice from the public on what the United States ought to contribute to next year's United Nations Conference on the Human Environment, in Stockholm (*Science*, 22 October and 4 June). For all its public-spirited intentions, however, the State Department is having a hard time getting the advice its presumably wants. An advisory committee of distinguished citizens—designated by Rogers in January as the main channel through which the interested public could pass its "views and support" for the Stockholm meeting—has conveyed little of either to the State Department in its 6 months of somnolent existence. What it has provided instead is a stunning illustration of the pitfalls of blue-ribbon advisory committees, whatever their purpose.

Some of the committee's 27 mem-

bers, notably the environmentalists among them, say the group has worked poorly and accomplished next to nothing since it first met last May. Even the committee's staunchest supporters are hard put to say how it has influenced U.S. preparations for the Stockholm conference next June, if at all. One member, a conservationist, sourly denounces the group as a "piece of window dressing, a wheel-spinning operation that's supposed to produce endorsements for U.S. positions."

This judgment may be excessively harsh, however, for more than anything else, the State Department's advisory committee seems to be the innocent victim of paralytic circumstances—the chief circumstances being the lethargy of government, some extremely tight deadlines for preparatory work set by the U.N. secretariat, and the hypersensitivity of conservationists.

For one thing, the committee was

handicapped by an extremely tardy start. State Department officials had talked about forming it months before Rogers announced it in January; two more weeks then passed before the appointment of a chairman, Senator Howard Baker, an earnest Tennessean who is interested in environmental affairs and who aspires to be identified as the Republican answer to the leadership of Edmund Muskie (D-Maine) in that field. Not until late April did the White House finally complete a lengthy screening process for the remaining 26 members.

As finally constituted, the committee was about evenly divided between the top executives of such major corporations as ALCOA and Atlantic-Richfield, and environmentalists like Joseph Fisher, who is president of Resources for the Future, and Sidney Howe, president of the Conservation Foundation. In addition, there is Laurance S. Rockefeller, who serves on at least two other presidential committees, plus a few academics and newsmen and a sprinkling of political appointees. Among the political appointees is Mrs. Bruce B. Benson, whom another committee member describes as a "nice garden club lady" who has trouble grappling with global environmental issues couched in terms of parts per million and the oblique language of

international diplomacy. She is president of the League of Women Voters.

The committee held its first meeting, a briefing and cocktail party, on 19 May. By that time it had missed crucial chances to take a direct hand in, or even comment on, the drafting of documents that comprise the U.S. contribution to the U.N. conference. The Stockholm agenda was already set, a "national report" describing environmental concerns and issues in the United States (and skirting several, like strip mining and the development of Alaskan oil) was completed, and so were documents outlining ten suggested areas for action at Stockholm.

State Department officials insist that these suggestions, which include a draft agreement to curb ocean dumping of pollutants, are merely preliminary papers which the U.N. secretariat will digest, combine with those from other nations, and issue in final and perhaps very different form for consideration in June. The main duty of the citizens' committee, the officials say, will be to advise on U.S. policy toward these final documents. (In any event, the United Nations had to have the suggestions in hand no later than 1 July.)

Conservationists are nevertheless unhappy about this arrangement. They point out that the U.N. conference is

meant to be the ceremonial conclusion of a long process of diplomatic negotiation, and that, as June approaches, proposed agreements become increasingly hard to alter.

The sorest point of contention is the ocean-dumping agreement drafted by the United States. It is the only proposal dealing with marine pollution currently under consideration by nations preparing for the conference. Members of the advisory committee had their first look at this document about 10 June, only 72 hours before it was due in London for presentation to a 33-nation "working group." The draft arrived in the mail, one member relates, as part of a package of papers that weighed five and three-quarter pounds. "We had a four-day deadline for comment," he said. The committee's only impact on the document before it reached London apparently was a minor change in wording suggested by one member, a conservationist, who buttonholed Gordon J. F. MacDonald, of the President's Council on Environmental Quality, just before MacDonald left for the London meeting. For his effort, the conservationist later caught "polite hell" from the State Department for "going out of channels."

Late in July, the committee held a public hearing on the ocean-dumping proposal. Although it did elicit a wide range of views and some sharp criticism of the draft agreement, the hearing also heightened the ire of conservationists. In a stiffly worded protest to the State Department, an attorney for eight national environmental groups complained that Miami, Florida, was an inconvenient location for the hearing, that inadequate notice was given (only eight invited witnesses testified), and that the hearing came only after the government's position was "solidified" by presentation of the draft to 33 other nations. State Department sources explain that part of the problem was that 14 federal agencies were involved in drafting the agreement and that the State Department itself received the draft only shortly before passing it on to the advisory committee.

The committee has had only one full meeting since the first one in May, although it will hold hearings in Washington on 22 and 23 November, and another meeting is scheduled for the early part of next year. But despite its new activity the advisory committee has other problems that militate against its usefulness.

One China or Two at Stockholm

Even though Taiwan has lost its membership in the United Nations, its participation in specialized U.N. activities—such as the upcoming Conference on the Human Environment at Stockholm—remains an unsettled and potentially divisive issue. While conference officials at U.N. headquarters in New York seem convinced that Taiwan would be barred, assuming it were still interested in attending, State Department authorities appear confident that it would not. For the moment the only certainty is that Peking, which is said to have kept abreast of conference preparations in anticipation of an invitation, will indeed be summoned to Stockholm.

Adolfo Korn, an assistant to Maurice Strong, secretary-general of the conference, said that admittance to the proceedings at Stockholm is open to "member states only" and that therefore Taiwan would, in all probability, be barred.

State Department officials, who asked to remain anonymous, disagreed sharply. "The question," one of them said, "is whether Taiwan has been expelled from all specialized agencies, such as the Food and Agriculture Organization (FAO). My guess is that it has not." If, in fact, Taiwan has not been expelled from the U.N.'s satellite agencies, then U.S. officials believe that an internal U.N. agreement, called the Vienna formula, will allow Taiwan to take part in the Stockholm meeting. Under this formula, nations that belong to the FAO and other technical and trade agencies of the U.N., but not to the general assembly, are still allowed to take part in U.N. conferences. This formula, for instance, is the basis for participation in U.N. conferences by Switzerland, which is not seated in the general assembly. In any event, State Department officials say that Taiwan will still be allowed to sign any international agreements that may emerge from the Stockholm meeting, if it so desires.

The question of Taiwan's participation next year illuminates an even more sensitive issue facing the U.N. secretariat, namely the status to be accorded East Germany at the Stockholm conference. State Department officials contend that West Germany, though not a member of the general assembly, should be allowed full privileges on the basis of its membership in the International Marine Consultative Organization, a specialized U.N. agency. East Germany, on the contrary, is considered not likely to be eligible under the Vienna formula because it participates in U.N. activities only as an observer, not as a member. Soviet bloc nations, which are pressing for East German membership in one of several U.N. agencies, are of a different mind.

"This is really going to be a more difficult problem than Taiwan," one State Department official said.—R.G.

For one, its prestigious members are busy with other matters. Although two or three have invested considerable personal effort in the committee, others, including some of its sharpest critics, confess that they haven't had time to read all the papers that the State Department has been sending them. The burden of reading material may taper off for awhile, however, since the committee's lone staff man at the State

Department has temporarily run out of money for transportation, postage, and printing.

The State Department's advisory committee may yet have a significant impact on the proceeding at Stockholm, but the odds are against it. Apart from all its other difficulties, one of its more judicious members is convinced that members of the advisory committee do not form a terribly compatible

working group. "It's such a mixed bag of people . . . it's not the kind of atmosphere that lends itself to a consensus, to buckling down to hard work." If nothing else, however, the committee serves at least to illustrate the inherent drawbacks of blue-ribbon panels, and it may give the State Department some reason to pause before trying again to solicit public advice on diplomatic matters.—ROBERT GILLETTE

Nobel Prize for Economics: Kuznets and Economic Growth

Simon Kuznets, who won the 1971 Nobel Prize in Economic Science, was born in Kharkov in 1901. He came to this country at the age of 20, together with his brother Solomon. The two young men taught themselves English in the course of a summer, and Simon, having been admitted to advanced standing in Columbia College, gained the B.S. degree from Columbia in 1923 and a Ph.D. in 1926. Kuznets then taught successively at the University of Pennsylvania, at Johns Hopkins, and at Harvard. During much of that time, however, he carried on his remarkably far-ranging studies at the National Bureau of Economic Research, and, in the minds of economists, his name and research, like those of Wesley Clair Mitchell and Arthur F. Burns, remain linked with the Bureau and its great half-century of contribution to empirical economics.

When Kuznets began his work some 45 years ago in the mid-1920's, the character of economics had barely begun to change from the form in which it had been fixed by Ricardo a full century before. It was, for the most part, a speculative discipline. It preceded from uncertain premises by logical deduction to imperfectly verified conclusions. This method yielded moderately useful and reliable insights into the behavior of relative prices and the allocation of resources among different uses. In this sphere, a model of rational behavior subject to the constraints of limited budgets and a specific form of the relation between output

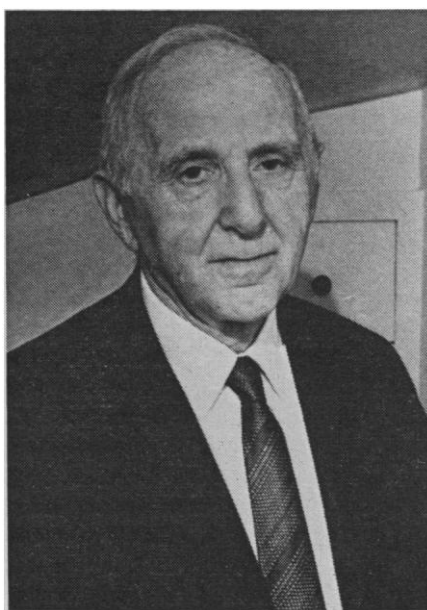
and resource input generated results that were, at least qualitatively, consistent with common knowledge about the operation of markets.

Knowledge about great branches of economic life, however, was in a primitive state, and none more so than that concerned with the aggregative behavior of the economy. No amount of casual observation and intense thought alone could return useful and reliable intelligence about an economy's aggregate growth and its sources. Neither could they give well-founded knowledge about general economic fluctuations and their pathological concomit-

ants, unemployment and inflation. How these phenomena occurred and why they differed from time to time and country to country, required systematic observation and measurements. To deal with them, economics had to change from being a branch of applied logic into a positive, quantitative science.

Such a transformation, still incomplete today, but certainly well advanced, has occurred within the span of Kuznets' working life. It has been accomplished by the confluence of three streams of efforts. One is the econometric movement, the pioneers of which, Ragnar Frisch and Jan Tinbergen, received the first Nobel prize to be awarded in economics. The second stream is theoretical economics and especially its further development by mathematical methods, the contribution of which was marked by the award of the second prize to Paul Samuelson. The third stream of effort is the systematic statistical measurement of economic behavior and its results, and in this Kuznets was the leading figure. If economic science is the theoretical modeling of the economy and the testing and estimation of models against statistical observations by econometric methods, the very foundation of the science may be said to have been celebrated by the award of these first three Nobel prizes.

A large portion of the massive organization of economic statistics on which the modern science rests is provided by the national income and product accounts. Because there appears to be some mild confusion about the matter, one should say at once that Kuznets did not invent the concept of national income. Estimates of the "national revenue" or "national dividend" of greater or lesser degrees of crudity have been made for some hundreds of years. A famous early estimate by Gregory King for 1696 is still a useful adjunct of studies of the growth and



Simon Kuznets