dictatorship is Britain. He writes that Britain harbors "precisely the powerful network of special interest organizations that the argument developed here would lead us to expect in a country with its record of military security and democratic stability." Today Britain has one of the lowest economic growth rates among all the democracies, despite the fact that from the middle of the 18th to the middle of the 19th centuries it had one of the fastest rates of growth. This is due, Olson believes, to the gradual accumulation of special interest organizations that inhibit growth. The "British disease," he says, will afflict any democracy that remains stable for a long period.

Looking at the rest of Europe, Olson finds positive evidence that social disruption and reorganization may encourage growth. He reports a colleague's finding that 51 percent of the associations existing in the United Kingdom in 1971 had been founded before 1939. Only 37 percent of the French, 24 percent of the West German, and 19 percent of the Japanese organizations existed before the war. Postwar economic growth in the latter three nations has been described as a "miracle," Olson notes. He argues that it is due to the elimination of longestablished privileges held before the war by unions and business groups.

A student of Olson's also made an analysis of growth patterns in the United States. He found that those settled later, primarily western states, had a higher average growth rate than those settled early in U.S. history. In addition, states belonging to the Confederacy, which experienced a social cataclysm during the Civil War, have had a higher growth rate since the war than those on the winning side. Olson attributes this to the destruction of special interest groups in the South.

In a third analysis, Olson looked at towns in England and Europe to see how they fared over two centuries. He found that, except in the case of national capitals, the towns that were the largest and wealthiest in 1600 ceded rank to new towns that rose rapidly to the top by 1800. In England, the third-ranked town, York, fell to 17th place in this period, while Manchester, Liverpool, and Birmingham rose from obscurity to second, third, and fourth rank. Olson believes their success was chiefly due to the relative freedom from the oppressive business codes of the guilds. For the most part, he argues, the guilds retarded the growth of the prosperous towns where they had the greatest influence.

If Olson's theory of economic sclerosis is correct, what does it imply for

government policy-makers? Olson says that some readers thought he might be advocating revolution or dictatorship as a means to higher national productivity. This is not the case. Olson's policy recommendations are mild and, by his own description, unoriginal. The most important is that the government should maintain an "open and competitive environment." He writes that "If the government is always intervening on behalf of special interests, there is no macroeconomic policy that can put things right." It would be an accomplishment simply to refrain from adopting new tariffs and subsidies. In an ideal world, existing special interest legislation might be repealed.

Second, Olson makes the commonsense recommendation that countries fighting inflation should apply controls, such as constraints on money supply, in a steady and gradual fashion rather than in sharp bursts. Olson mentions the case of a Danish cartel that waited 10 years to change its prices, even though it was losing profits throughout the period. Government policy must demonstrate resolve if it is to budge slow-moving interest groups.

Third, during times of "unnaturally high" unemployment, Olson suggests the government should offer temporary rewards to companies that raise wages slowly. This might encourage employers to spend available cash on hiring new workers, he says, rather than on raising the pay of those already employed.

Perhaps the most frequent criticism of Olson's work is that there are many other plausible explanations of the trends he cites. Consider the example of the recent boom in the nations defeated in the second world war. A former colleague of Olson's at Maryland, Robin Marris, argued that this spurt of growth actually reflected something he called "catch-up": the rapid rebuilding of industry with the most advanced technology. The absence of interest groups was less important, in Marris' view.

Olson agrees that many factors other than the degree of interest group sclerosis affect economic performance. He concedes that more empirical research is needed if his ideas are to gain acceptance. But he also believes that his thesis has an advantage over most others. "The strongest argument in its favor," he says, "is that it is a simple theory that explains so very much. It is supported not so much by one piece of evidence as by the variety of evidence." Few economists dare to generalize as broadly as Olson, and this boldness is what makes his work intriguing.—ELIOT MARSHALL

Legislation Would Take Program Away from NCI

The House Appropriations Committee has passed a proposal to transfer funding responsibility for an important international program on toxic chemicals from the National Cancer Institute to the office of the director of the National Institutes of Health. Representative David Obev (D-Wisc.) sponsored the measure, citing, in his opinion, inappropriate behavior by the NCI. Institute officials allegedly pressured the international program not to publish controversial data on benzene after they met with industry representatives (Science, 3 September, p. 914). Institute and program officials deny any improper actions.

The program is conducted by the World Health Organization's International Agency for Research on Cancer (IARC) and evaluates the carcinogenicity of chemicals. Many governments regulate chemicals based on conclusions reported in IARC monographs. The controversy over benzene arose when IARC for the first time ventured into the area of quantitative risk assessment, estimating how much risk is associated with certain levels of exposure.

The NCI now contributes about \$500,000 annually to the monograph program's budget of \$700,000. The legislation to shift the program's funding is part of a House appropriations bill that is expected to be voted on when Congress returns from recess.

---Marjorie Sun

Genex Raises \$19 Million from Stock Offering

The Genex Corporation took a gamble on the Stock Exchange on 29 September and it came out reasonably well. At a time when new issues in general and biotechnology stocks in particular are supposed to be out of favor, the Rockville, Maryland, company raised \$19 million from its first public stock offering. Its offering sold out on the first day, but its share prices have since declined.

One of the largest biotechnology companies to start up in the past few

358 SCIENCE, VOL. 218