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Academic Science and Industry

The United States has entered an era in which its economy is strongly affected by the rest of the world. Increasing populations and affluence have led to many shortages and, in turn, to comparatively rapid, worldwide inflation. During the past year, prices of many important commodities have doubled. The profound effects of increases in worldwide prices of energy have not yet been fully manifested. Consequences for the United States may include a drop in standards of living, with those dependent on salaries or pensions particularly hard hit. In meeting these circumstances, the performance of the Administration and the Congress has not been impressive. There appears to be little foresight at a moment that cries for vision. But with today's comparative exclusion of scientists and engineers from government decision-making, we cannot expect judgment or imagination in technological matters.

The situation requires more than having a spokesman in government. It requires building a broad base of understanding of the need for long-term remedies, as against short-term nostrums. The academic community, which is the source of crucial talent and many ideas, has little influence now, nor is it likely to obtain decisive weight alone. If the academic community is to be effective, it must act in combination with others. An interesting possibility is high technology industry. Companies engaged in such activities are already heavily dependent on scientists and engineers, and many of these have achieved influential positions in their organizations. These leaders understand the potentialities of science and technology. They also understand the necessity for long-range planning and commitments to reaching goals.

At one time, industry was a prime supporter and defender of academic institutions. During the last two decades, however, while universities fell into dependence on government, industry and universities have been estranged. But academia now understands that it cannot count on government for sustained rational behavior. At the same time, industry needs a healthy university system. Already there are shortages of some kinds of engineers, and shortages of physical scientists are likely soon. Thus the climate is more favorable for a closer working arrangement.

Accordingly, a meeting held in New York on 8 March may have special significance. It was a dinner hosted by Frank Cary, chairman of the board of International Business Machines Corp. Among those attending were the presidents or chairmen of the boards of many of America's largest high technology companies, 13 Nobel laureates (mainly in physics), and some leaders in academic life. The immediate purpose was to honor the three physics Nobel laureates for 1973, but Cary emphasized that a prime reason was to initiate a dialogue between academic science and industry.

The principal talk was given by Patrick E. Haggerty, chairman of the board of Texas Instruments Inc. He began by acknowledging the debt that his and other companies owed to fundamental advances in solid-state physics. He further stated that "Only through a vastly improved knowledge of ourselves, our environment, and our universe are we likely to be able to attain and sustain an improved quality of life." A substantial part of Haggerty's talk was devoted to a call for a new science and technology advisory apparatus in the Executive Office of the President.

One short speech and one splendid dinner, although agreeable, are, by themselves, quickly forgotten. However, if anything is clear, it is that we cannot depend solely on the wisdom of politicians in the solution of long-range problems. We must find better ways. A closer cooperation of academic scientists and dynamic elements of industry could lead to effective actions.—PHILIP H. ABELSON