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Pull-out section: Ideas Spring 1986

By Mary Condello, Special to the Idea Garage

The United States cannot hope to stay ahead of Japan and Western Europe in scientific research and product development, according to Lester Thurow, a prominent economist at MIT. That the United States can keep up, with the other industrial nations if it substantially improves its rate of productivity growth.

Thurun, Gordon Y. Billard professor of management and economics, stated that the United States' economic policies have led to part in the United States' inability to compete with Japan. He spoke at Friday's Institute Colloquium titled "Can We Keep Up with Japan? Building a competitive future in MIT's emerging technology arena.

Japan seen holding technology lead

By Ann Vedanathan

"Basically, I view the Japanese challenge as a management problem. Their way of handling complexity and large-scale programs is unique. Their large-scale enterprises are feasible," said Joel Moses PhD '67, head of the Department of Electrical Engineering and Computer Science.

Moses joined Janes Womack PhD '83, research associate at the Center for Technology, Policy and Industrial Development, and George B. Kenney '74, research associate at the Materials Processing Center, on Friday in a panel discussion at Ashdown House. "Are we losing the technology race?"

All three speakers agreed that the United States is losing the technology race to Japan. Moses told the audience of 50 that Japan controls fully 50 percent of the integrated circuit market, and "in consumer electronics, the Japanese have practically taken over the entire business." What the Japanese lack in creativity, even in software, they made up for by adequately and systematically handling large-scale projects, he explained.

Kenney agreed with Moses that management was the problem, but he also felt that managers need to be technically skilled in the industry they manage. In the materials field, it usually "takes a major investment and a combination of a certain clarity of thinking on the factor to make a commitment to new technology," Kenney said.

US firms need to capitalize on inventions

MIT researchers in 1969 invented a process for growing better silicon crystals, Kenney said. The application of US companies was slow, and the scientists informed US companies of the invention, but no agreement was reached.

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By Don Z. Stinger

Undergraduate Association (UA) President Bryan R. Moser '87 and Graduate Student Council (GSC) President James M. Nell G '88 discussed student views on MIT's South African investment policies.

Moser and Nell believe that this meeting was the first time students directly addressed the Executive Committee.

They presented the results of last month's referenda on divestment, in which over half of participating undergraduates, graduates, and faculty approved of full divestment from firms with operations in South Africa. The meeting was an attempt by the Corporation to "show that it is receptive to students," Nell said.

During the meeting, the Executive Committee decided to reconvene the Corporation Joint Advisory Committee on International Wide Affairs (CJAC). CJAC's

Professors analyze comparison between America and Japan

By Katie Schwartz

The economic success of Japan could provide useful lessons for the United States, according to Richard J. Samuels, professor of political science.

Samuels, who directs the MIT-Japan Science and Technology Program, joined Professor of Economics Paul Krugman PhD '73 and about 30 students in a post-colloquium workshop entitled "Do the US-Japan comparison make sense?" at East Campus.

Samuels outlined four important points of contrast between the United States and Japan:

- **Management practices:** Japan is known for corporate paternalism and a loyal, cooperative labor force, Samuels said, but this view is overemphasized. In fact, he said, the current good relationship between management and workers.

- **Financial structure:** Japan has a high savings rate, which transfers capital from households to industry, and labor is an "infant of high growth."

- **Industrial structure:** The oligopolistic nature of Japan's industry is dominated by its vertically integrated groups - to great efficiency, Samuels continued. However, Americans are learning to make use of integration of industries in different fields, he added. "There is nothing uniquely Japanese about oligopoly and vertical integration.

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Executive Committee meets students

April 30 meeting will be the committee's first in a year. CJAC may schedule a public forum later this spring on the Corporation's policy of selective divestment.

Moser and Nell presented a proposal for the CJAC to become more active as a "vehicle to promoting understanding among students, faculty, and corporations members." See text of proposal, on page 11

Their proposal listed four objectives:

- a greater emphasis on communications between students, faculty, and the Corporation;
- a public review of progress made by MIT's South Africa-related holdings;
- a public review of the policy measures taken by South Africa-related corporations; and
- a consideration of other actions MIT can take to end apartheid and improve the South African condition.

Because the CJAC is not a decision-making body (Please turn to page 10)

MIT unhurt by federal overhead cuts

By Sally S. Verman

The federal government's Office of Management and Budget (OMB) is planning to cut re- search funds allocated for faculty and staff salaries and other administrative expenditures.

These reductions will affect MIT in 1986, but they may in 1987, according to Kenneth A. Smith '58, associate provost and vice-president for research. The cuts will take effect on July 1 and are not subject to Congressional approval.

Federal research funds pay for both direct research costs - which include equipment and materials - and indirect costs, Smith explained. Indirect costs, also known as "overhead," support services, such as libraries, physical plant and administration, which are used for both education and research.

Universities recoup their indirect costs by charging the government a fixed percentage, which is negotiated on the basis of the indirect cost rate. This percentage, the "indirect cost rate," is added to the direct costs in computing the total price tag for a research grant.

(To be continued on page 12)