current draft of a proposed international treaty, on the other not wishing to provoke a split with other industrialized nations which, although expressing reservations, are less inclined to reject the treaty as it now stands.

Last Thursday, the US delegation presented the conference with a list of changes that it says must be made before it will sign the treaty. These include the abandonment of efforts to place limits on the amounts of different minerals that can be retrieved from the sea bed, a revised voting procedure that would give the United States greater influence over the actions of an international authority established to regulate deep-sea mining, and dropping the requirement that US mining companies should provide Third World consortia with the latest mining equipment.

At the beginning of what is expected to be the final round of negotiations started in the early 1970s, several non-aligned countries indicated that it was too late to re-open discussion on topics which, they claimed, had been settled at earlier negotiating sessions. These countries said they would proceed with drawing up a treaty, leaving the United States to decide whether or not it wants to sign.

Behind the rhetoric, however, the real question is how far each side is prepared to compromise. A treaty without a US signature, or US financial support for the regulatory institutions which would be set up, would be of limited impact. From the American point of view, some prospective mining companies are concerned that they might be unable to raise credit from multinational banks if the treaty went ahead without a US signature, while several industrialized countries — including France, Britain and West Germany — are reluctant to jeopardize their trading relationships with Third World nations by providing too much support for the United States.

David Dickson

Polish higher education

Reform reversed

Research projects in Poland are now to be "rechecked" to assess their usefulness to the national economy, according to Dr Benon Miskiewicz, the new Minister of Science, Higher Education and Technology. Furthermore, the system for appointing assistant lecturers will be modified, and new principles worked out for the employment of graduates.

Dr Miskiewicz was addressing a meeting of lecturers from higher educational institutes subordinate to his ministry. The gathering did not include medical schools or specialist bodies such as the Mining and Metallurgy Institute of Krakow which, last September, had been a principal focus of resistance to attempts by the then minister, Mr Jerzy Nawrocki, to renege on the academic autonomy which, it had been

promised, would be incorporated into the new higher education bill. This bill, much delayed by the imposition of martial law, is now apparently undergoing redrafting and modification before going forward to the Sejm (parliament).

Dr Miskiewicz's emphasis on the "usefulness" of research suggests a reemphasis of the "problem-orientated" research structure introduced in 1973 by which all research had to be associated with a specific problem of the national economy. This led to an unseemly scramble by researchers to find a "problem" rated as highly as possible by the planners. During the open press debates last summer on the future of Polish science, it was generally admitted that the "problem" structure had failed and should be replaced by some type of direct contact with industry.

By tacitly repudiating such proposals, Dr Miskiewicz was apparently trying to dissociate his ministry from such proposed reforms. During the past three months, there has been some high-level disagreement as to who was primarily responsible for the outspokenness of the academic community — the Academy of Sciences or the universities. Talking to the editorial board of the weekly magazine *Polityka* last January, Deputy Premier Mieczyslaw Rakowski said that the breaking point had come when the Conference of University Rectors had demanded a voice in the appointment of the Minister of Science, Higher Education and Technology. The conference, established in September 1980, was always regarded with suspicion by the government, and shortly after the declaration of martial law it was dissolved — unlike the majority of organizations which were simply suspended.

Officials of the Ministry of Science, Higher Education and Technology, however, blame the Academy of Sciences, whose institutes, they say, harboured dissidents who had been banned from university teaching. The proposed new law on the academy, which would have made the academic secretary responsible only to his fellow members and not, as at present, to the prime minister, has been abandoned. The limited autonomy which the academy has until exercised over its research budget, is likely to be reduced even further.

The authorities, however, seem unwilling to risk any further direct confrontation with the academy. A recent meeting of the presidium of the academy was addressed by Dr Hieronim Kubiak, the Communist Party spokesman on higher education, who is reputed to be the most liberal member of the Politburo. Dr Kubiak warned the academicians against pointless confrontation, stressing that the intelligentsia should "advocate a Poland which is possible". Nevertheless, he said, if there are reforms which are actually possible at present, one should support them openly and actively. **Vera Rich**

Industrial lure

New York

As five university presidents prepare to discuss the growing connection between universities and commercial interests in recombinant DNA research (*Nature* 4 March, p.1), private biotechnology firms continue to have an increasing impact. This week, two top academics decided to give up basic research posts to join private companies.

Dr Walter Gilbert, 1980 Nobel prize winner in chemistry, is to leave his American Cancer Society professorship at Harvard University as of June to retain his position as executive officer of Biogen, the Geneva- and now Cambridge-based biotechnology firm.

Dr Gilbert has had a two-year leave of absence from Harvard to fulfil his position as chairman of the board of directors of Biogen. His hopes of permanently maintaining both his laboratory at Harvard and his position at Biogen ran into unresolvable problems with the Harvard administration. He will, however, remain a senior associate of the university for two more years. His Harvard laboratory will continue to operate during this time.

His full-time commitment to Biogen comes at a time when the company's new American laboratory in Cambridge, Massachusetts has recently adopted another academic, Dr Richard Flavell from the National Institute of Medical Research at Mill Hill, as research director. Dr Flavell is officially on two-year leave of absence from Mill Hill.

Another top American academic to move into the private sector, Dr Edward Scolnick, chief of the laboratory of tumour virus genetics at the National Cancer Institute, has decided to become Merck, Sharpe and Dohme's executive director of virus and cell biology.

Michael Stein

UK budget

A gentle push

The British government's enthusiasm for new technologies, and its lack of enthusiasms for the universities, was confirmed in last week's budget. While the universities can expect little respite from the austerity promised a year ago, the development of new technologies in industry is to receive a modest boost. British Telecom, which is to be allowed to increase its annual capital expenditure by a half over the next three years, is the chief beneficiary. But the Chancellor of the Exchequer has also promised the Department of Industry an extra £130 million for new technology in the next financial year, 1982-83.