

What from Toronto next week?

This year's economic summit, arranged for next week, is unlikely to break with the bland self-reassurance that has become its tradition. But the seven governments need more imagination than usual.

The heads of the governments of the seven major industrialized economies, with their economic ministers, will be meeting in Toronto next week further to coordinate their economic policies. They will also pay some attention, in what amounts to a sideshow, to a handful of scientific issues. The genteel convention that they should include these topics on their agenda goes back to the meeting at Versailles in 1981, when the then newly elected President François Mitterrand urged his fellow heads of state to put their faith in research and the new technology it would spawn — and mostly earned the reputation of being a dreamer. Things have changed a lot since then. Several proposals for the better coordination of research have been proposed at economic summits, and have been prosecuted with varying degrees of vigour. This year, the sideshow agenda will include a discussion of Japan's Human Frontiers Science Program (see *Nature* 33, 488; 1988). It will not, so far as is known, include the more radical proposal for shifting the basis of the modern industrial economy put forward by E.G. Nisbet on page 617 of this issue.

One obvious impediment is psychological. The industrialized economies of the West are this year still puzzled, but much relieved, to know how and why they have escaped the recession that seemed to threaten them in the wake of the great stock-market crash on 19 October last. Then it seemed inevitable that economic growth, especially quick last year would be brought to a halt and (horror!) even made negative. So people will be travelling to Toronto suffused with a warm glow of contentment. The worst (a quick slump) has not happened; and the greater the distance in time between now and 19 October, the smaller the chance there will be a recession or, at least, that it will be attributable to the stock-market crash.

Lesson

Over-contentment, even on this narrow issue, will be misplaced, even if one lesson of the economic history of the past nine months is that national banks have learned a great deal from the earlier history of the origins of the great depression of the 1930s. Briefly, they understood, in 1987, that economies suddenly faced with the suspicion of impoverishment by the collapse of equity prices must be supplied with money if they are not to teeter into slump; in 1931, the central banks took the opposite course, with disastrous results. But next week's Toronto meeting had better rack its brains on the outstanding question of whether and when the inflation that is one of the expected consequences of last year's monetary laxity will make its appearance, and the subsidiary question of what the consequences might be. For the time being, finance ministers almost everywhere are in a cleft stick; fending off inflation requires higher interest rates, but higher interest rates are said to inhibit economic activity and so risk precipitating recession. The prospect is in any case further complicated by the two outstanding imbalances in the international system — the huge indebtedness of the developing world and the growing indebtedness of the United States. The communique that emerges from Toronto must deal with these issues squarely if it is to carry conviction.

The link between science and economics is relevant even on

this narrow front. There may be more to say about the puzzle of the recession that has not (so far) materialized than to congratulate the central bankers on their sagacity. The stock-market crash, after all, coincided with three dramatic but continuing trends in the pattern of national economies — the increased proportions of personal incomes being spent on services rather than on manufactured goods, the remarkable growth of the telecommunications business, especially internationally, and the equally remarkable insinuation of computer technology throughout modern industry. There is at least a possibility that the new machines, as distinct from the smokestack industries of the 1930s, make it possible for people threatened with impoverishment to create wealth from nothing more tangible than their own ingenuity. And if that influence was effective in 1987, what other technical trends may head off similar troubles in the future? Again before they congratulate each other too enthusiastically, the finance ministers might commission a study of these important but also interesting questions.

Japan

They should also pay more attention to Japan's Human Frontiers Science Program than will be their natural inclination. The received wisdom, that the programme is too vague a prospectus of research that might be done, almost deliberately misses the point. Originally conceived by the Ministry of International Trade and Industry, but latterly more directly influenced by the research agencies in Tokyo, the programme sprang from the conviction that imaginative research and development projects at the interface between biology and the rest of science might be of great benefit all round, in fields as different as robotics and the treatment of disease, for example. Much of the confusion of the past two years arises because Japan has been trying to kill several birds with the same stone — declarations that the programme would make some restitution for Japan's early dependence on borrowed science and technology led many to think of the programme as a kind of pork-barrel, advocacy of particular schemes such as the sequencing of the human genome has been mistaken for a subtle attempt to avoid an international competition to get "there" first (wherever that may be). And so on. Japan deserves a better hearing at Toronto.

Nisbet's demand on attention at Toronto is a different case. Not that there can be much dispute about the logic of his argument. If, indeed, there are developing features of the global environment that threaten to put a crimp in plans for economic growth, they deserve consideration by the world's economic planners. But the trouble, for the time being, is that the question Nisbet asks is hypothetical, of the type "What should we do if . . . ?" The question is merely whether an economic summit like that arranged for next week is the place at which to start the ball rolling. Over the years, too many serious and strictly economic problems have been papered over with platitudes at meetings like this. But what the world needs is a substantial study of the ways in which the industrialized countries might economically adapt to a changing climate, or fend off change. The sooner that is done, the sooner is climatic change likely to appear on the economists' agenda. □