

The background of the cover is a photograph of a steel mill. A bright, glowing stream of molten metal is being poured from a large opening in a dark structure. In the foreground, a person is silhouetted against the bright light, standing on a walkway with a railing and looking towards the source of the molten metal. The overall color palette is dominated by warm, orange and yellow tones from the heat of the steel.

the
OECD
OBSERVER

STEEL IN THE 80s

the OECD OBSERVER

No. 103

March 1980

PUBLISHED bi-monthly in English and French by THE ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Contents

STEEL IN THE 1980s: AN OECD SYMPOSIUM	3
JOB CREATION BY THE BRITISH STEEL CORPORATION IN MAJOR STEEL CLOSURE AREAS <i>by Charles Villiers, Chairman, British Steel Corporation</i>	10
THE WORLD ECONOMY IN THE 1970s AND 1980s <i>by Sylvia Ostry, Head of OECD's Economics & Statistics Department</i>	13
MONETARY TARGETS AND INFLATION CONTROL <i>by Jean-Claude Chouraqui and David King</i>	16
OECD MEMBER COUNTRIES: 1980 Edition — 16th Year	19
TOWARDS A POLICY FOR PRE-SCHOOL CHILDREN	27
HIGHER EDUCATION AND THE COMMUNITY	32
NOISE REDUCTION: AN URGENT NEED <i>by Jim MacNeill, OECD Director of the Environment</i>	38
NEW OECD PUBLICATIONS	42

EDITORIAL OFFICES

OECD Information Service, Château de la Muette, 2, rue André-Pascal, F 75775 PARIS, CEDEX 16.

Individual articles not copyrighted may be reprinted providing the credit line reads "Reprinted from the OECD Observer" plus date of issue, and two voucher copies are sent to the Editor. Signed articles reprinted must bear author's name.

The Organisation cannot be responsible for returning unsolicited manuscripts.

Signed articles express the opinions of the authors and do not necessarily represent the opinion of OECD

Annual Subscription Rates: £4.00, US\$9.00, F36.00.

Single copies: £0.80, US\$1.75, F7.00.

EDITOR: Jane Bussière

ASSOCIATE EDITOR:
Ulla Ranhall-Jeanneney

ART, PRODUCTION AND LAYOUT:
Marc Delemme

ASSISTANT:
Gérald Tingaud

PHOTO RESEARCH:
Silvia Lépot
Rina Maiden

All correspondence should be addressed to the Editor.

PHOTOS: Cover: Usinor; pages 6-7: L. Jouan — OECD; page 9 (left to right): Jean Guichard — Sygma; Daido Special Steel Corporation; Sygma; Almasy; page 12: British Steel Corporation (Industry) Ltd.; page 28: Marc Delemme — OECD; page 31 (top) INBEL; (bottom): Marc Delemme — OECD; page 34: Suzanne Fournier-Rapho; page 36 (left to right) Dave H., Ottignies; Luleå University; University of Waterloo, Canada; page 39 (top): Gérald Tingaud — OECD; (bottom): Japanese Ministry of Foreign Affairs; pages 40-41 (left to right) J. Pavlovsky — Rapho; François Ducasse — Rapho; Tony Frank — Sygma; Guichard — Sygma; page 42: ministère de l'Environnement et du Cadre de vie (Laboratoire régional des Ponts-et-Chaussées de Blois), France.

STEEL IN THE 1980s

An OECD Symposium

Some 200 people representing a broad spectrum of interests met at OECD on 27-28 February to discuss the problems facing the steel industry and possible solutions. Among those participating were the chief executive officers of ten steel producing companies (1), the heads of major steel trade unions, high level government policy-makers and representatives of large steel users, importers and distributors, consumer organisations, legislative bodies and universities. In addition to the 24 OECD Member countries and the European Communities, six newly industrialising countries – Argentina, Brazil, Korea, Nigeria, Mexico and Venezuela – participated. The meeting was chaired on the first day by Luther Hodges, Jr., Deputy Secretary of Commerce of the United States and on the second day by Etienne Davignon, member of the Commission of the European Communities and author of the Davignon Plan for stabilisation and restructuring of the steel industry in the Common Market

The problem was highlighted in terms of employment by Etienne Davignon, speaking on behalf of the Common Market which, he contended, has been the area hardest hit: 16 per cent of all steelworkers in the Community left the industry between 1974 and 1979, which means 120 to 125 thousand individuals. United Kingdom union leader William Sirs, speaking as President of the Metals Division of the International Metalworkers' Federation, noted that employment in steel fell by 9.5 per cent between 1974 and 1978 in Japan and by 11.5 per cent in the United States, while for the OECD as a whole the number of jobs lost in steel came to some 156,000. Lloyd McBride, President of the United Steelworkers of America noted a loss of 100,000 steel jobs since 1969 in his country.

OECD steel economists Tudor Miles and Kimiro Suzuki described the difficulties in terms of excess capacity which they estimate at 80 million metric tons or 16 per cent of what they call "effective capacity" (2). As shown in Chart A, capacity in the OECD area continued to increase after 1974 despite a sharp drop in demand and consequently in actual production; although capital expenditure has been falling rapidly since 1977 in both nominal and real terms (see Chart B), capacity has only recently begun to decrease. For producers, the difficulties include a cost-price squeeze which inhibits needed modernisation.

The problems of the steel industry are complex and differ from zone to zone. (See

Chart A). Excess capacity for example is highest in the EEC and lowest in the United States. Japan and the EEC are huge net exporters, the US is the world's largest net importer even though its imports are not large compared to domestic production. Emmanuel Tesch, President of the European producers' association and of the steel company ARBED in Luxembourg, asserted that *Europe* has the most intractable problem, with stagnant demand, excess capacity, escalating production costs and inadequate prices. Next, in order of difficulties faced by the industry, Tesch cited the *United States* where demand is stagnant but utilisation of capacity is relatively satisfactory and production costs are lower. Its main need is for adequate prices to fund plant modernisation. *Japan's* problem is less serious, according to Tesch's analysis, since production costs are low and demand is increasing reasonably. Although there is still excess capacity, it is associated with profitable operation. Best off, in his view, are the *newly industrialising countries* like Brazil, Korea and Taiwan where demand is growing rapidly – more rapidly than production – and where production costs are also low.

These differences contribute to trade tension and to a growing threat of protectionism which is compounded by the sombre economic outlook for the industry as a whole.

Outlook for the Eighties

One of the purposes of the seminar was to get as clear as possible an idea of just

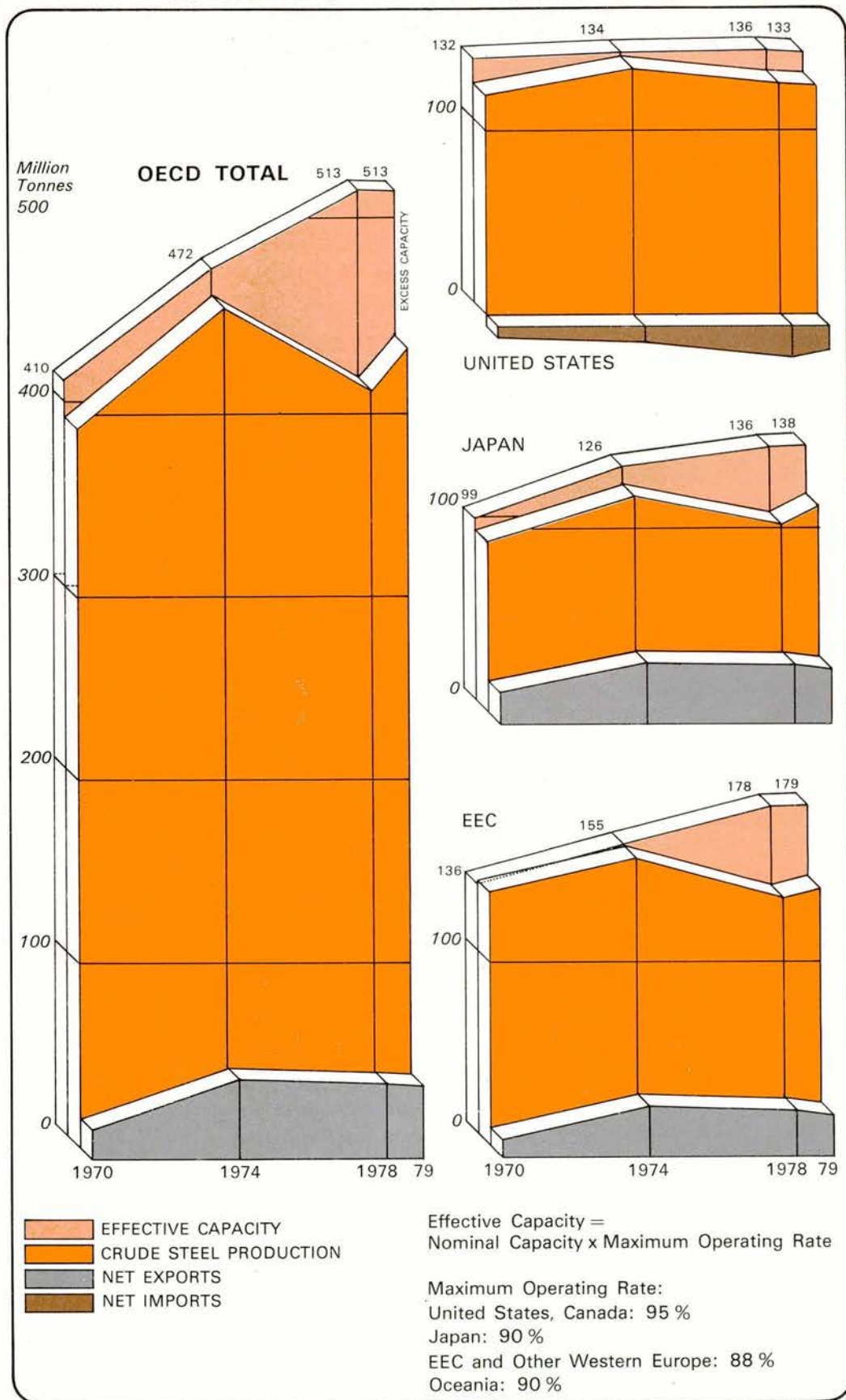
what these prospects are. Sylvia Ostry, Head of OECD's Economics and Statistics Department, sketched out some possible scenarios for the Eighties (page 13), but also stated her reservations – shared by the other forecasters – about the difficulties of forecasting in a highly uncertain world. ("If you're going to look into the crystal ball, you have to be willing to eat ground glass.")

As to steel itself, projections of demand varied widely, but the consensus as summarized by Luther Hodges, Jr., was that in the industrialised countries it may grow by about 2 ½ per cent a year, less than half the 5 ½ per cent rate that prevailed before the oil crisis but a considerably better prospect than the 2.9 per cent *decline* between 1973 and 1978. Demand from the developing countries

(1) *France's Sacilor and Usinor, Germany's Korf Steel, Japan's Nippon Steel, Luxembourg's ARBED, the Netherlands' Estel, Sweden's SSAB and, from the United States, U.S. Steel, Bethlehem and Allegheny Ludlum. (The full proceedings of the symposium will be published shortly.)*

(2) *Lack of a standard definition of steel capacity was revealed as a major problem in assessing the economic situation in the steel industry. Effective capacity – what steel production is likely to be when demand is strong – was urged upon the symposium as a standard in preference to the often exaggerated nominal or rated capacity. That the problem is more than a semantic one emerged from a discussion between Lewis Foy, Chairman of Bethlehem Steel and the American Iron & Steel Institute, and Etienne Davignon on whether capacity in the US is declining or increasing.*

A. THE RECORD ON STEEL, 1970-1979



may grow more rapidly, pushing up world demand by some 3 per cent a year. This would mean 900 million metric tons by 1985 as against 729 million in 1978, according to Tsutomu Kono of Nippon Steel.

There was greater unanimity about capacity which is thought likely to remain stagnant or rise only slightly in the in-

dustrialised world. In the developing world, on the other hand, there is what Luther Hodges characterised as "wide disagreement." Some think that the developing countries will increase their net imports of steel, others think their steel trade balance will remain stable and, of course, others think they will become net exporters, he noted.

On balance "even after taking into account the restructuring plans already underway, there will be a continuing and formidable excess supply problem in at least some of the industrialised countries in relation to demand estimates for some time" Hodges concluded.

Trade and Protectionism

The deep-seated problems that now are creating difficulties on the trade front cannot be expected simply to go away as a result of improved supply/demand conditions. Airing these difficulties was one of the main objectives of the symposium. Given the timing of the meeting - US Steel was reported to be preparing anti-dumping suits against Common Market and possibly Japanese imports - some of the discussion in the meeting itself and much of the corridor talk focused on the trade problem.

Etienne Davignon, warning of the dangers of a wave of protectionism, observed that no market, however large, can deal with the problem unilaterally in a basic industry like steel or its action will be contagious: similar measures would follow in other sectors - automobiles, shipbuilding and high technology industries. And this idea was echoed by Thomas Atkinson of General Motors, one of the largest steel users in the world. "Industry-specific measures against market disruption will be self-defeating. The steel will come into the country in finished form if it does not come in semi-finished form; second, protection will spread downstream to user industries."

But Robert Hormats, US Deputy Trade Representative and Chairman of OECD's Steel Committee (3) reminded the symposium that any such measures would take place in accordance with the new US anti-dumping laws passed to conform with the new GATT provisions negotiated in the Tokyo Round. Cases must go through certain prescribed procedures: two prior investigations are required, the first by the US Commerce Department to find out whether or not there has in fact been dumping and, if dumping is found, a second by the US International Trade Commission to determine whether or not material injury has been sustained. (Representatives of both Commerce and ITC were present at the Symposium).

Japan's Vice Minister for International

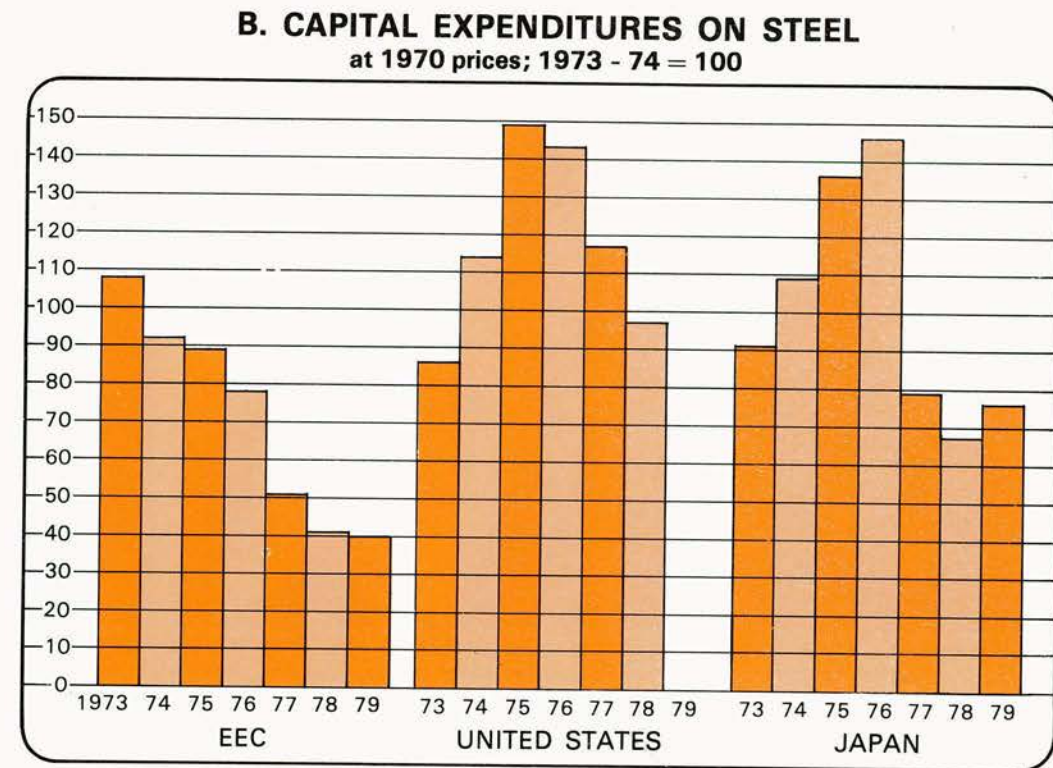
3) Formed in 1978, this 21 Member Committee (all OECD countries except Iceland, New Zealand and Turkey) plus the European Communities is a forum for the discussion of steel by government officials of Member countries.

Affairs of the Ministry of International Trade and Industry, Naohiro Amaya, expressed concern that the US anti-dumping actions would replace the trigger price mechanism (TPM) instituted in 1977 (it sets a price based on Japanese costs as the standard for judging whether or not steel is being dumped on the American market) about which he had reservations but which, he said, served a useful purpose. "To have it succeeded by a series of complex, litigious proceedings creating great uncertainty in the trade could be little less than tragic." Congressman Charles Vanik responded that the two approaches were not legally incompatible, that smaller companies which could not afford anti-dumping suits needed the protection of the TPM, and that he was urging the US Administration to continue it.⁽⁴⁾ Kurt Orban, President of the US Institute for Imported Steel, noted that US imports actually dropped in 1979 in terms of tonnage and percentage of market and that this was largely the result of the trigger price system which, though it has drawbacks, makes for predictability and is therefore preferable to dumping actions.

US trade actions were not the only ones to come in for criticism. Congressman Vanik noted that "as the United States looks out at the world, it sees that others are very carefully controlling access to their markets as part of their effort to assist in domestic steel modernisation." And there was some discussion of the Common Market basis price which serves a similar function but, Manfred Caspari of the European Communities maintained, is lower than the US trigger price.

"For the past fifteen years", Congressman Vanik noted, "world steel trade has been marked by a patchwork of *ad hoc* schemes designed to prevent excessive and undue trade disruption. As we move through the difficult period of adjustment and modernisation, we should work away from these gimmicks, which sprout up primarily when there is an economic downturn and are slow to wither away, towards an article 19-type action (5) — a clearly understood form of temporary escape clause in which import relief could be triggered on and off by predetermined international agreement.

OECD Consultant Edward Florkoski, Jr. also favoured "new rules on the international scene and in particular a market-disruption or safeguard standard for steel". But two speakers opposed this suggestion. Geoff Elliot (Canada's Department of Industry, Trade and Commerce) spoke from the perspective of "a relatively small economic power that instinctively starts to get nervous when the big traders



get together on any issue in which we have an interest". He cautioned that "when the discussion turns to possible changes in the rules of the game or mutual agreements that the rules not be observed, we start to get even more nervous as our market can become exposed to the disruptive diversion of exports seeking a new destination when the others are closed". The call for new rules, he said, seems to ignore the fact that there are existing rules which already permit defensive action under certain, and controlled, conditions. The GATT for example provides for measures to deal with problems of injurious foreign dumping. It provides for escape clause action from disruptive imports, and it permits countervailing action against injurious subsidisation. "The best safeguard for the system is not, in my opinion, any agreement that would permit a departure from these rules. Rather we would prefer affirmation from all countries that they will stick to the rules and accept the obligations they have already undertaken".

Alan Wolff former chairman of OECD's Committee also expressed doubts about the use of a multilateral safeguard approach to a structural problem, adding that in any case there is no time to negotiate such a multilateral arrangement unless there is an understanding on interim domestic policies. "We have missed the opportunity for future planning of what the international institutions should look like" he said. "Governments must deal with the present, and they must deal with it now". "Trade policy alone provides an

inadequate response" he added. "Even though there are unilateral trade actions which have the full sanction of international agreements, this is not a route to be preferred. What is needed is restructuring of the industry. Without restructuring, without renewal of our capital stock, we are condemned to trade-action after trade-action for the next decade".

Policies for Adjustment

This need for restructuring was emphasized by virtually all participants in the symposium, whatever their position or point of view. "The steel industry cannot be healthy, or competitive, or give security and decent conditions for its workers unless the industrial adjustment process is carried out" Etienne Davignon noted in his summing up. The responsibility for adjustment is shared, he added, by all countries with a steel industry. It is also a responsibility for those which build up a *new* steel industry in their country.

The need for restructuring within the OECD area was recognized in 1977 with the Solomon Report in the United States,

(Continued on page 8)

(4) The Administration has since announced it will not do so if anti-dumping suits are filed, and the suits have been filed.

(5) Article 19 of the GATT is the safeguard clause which provides for import restraint on a non-discriminatory basis where increased imports are proven to be a cause of serious injury to a domestic industry. In practice, GATT Article 19 is not frequently invoked since member countries often prefer to adopt voluntary restraints or other measures considered to be outside Article 19.



Chairman of Bethlehem Steel Corporation and head of the American Iron and Steel Institute. Eishiro Saito, President of the Nippon Steel Corporation. Chair for steel and chairman of the symposium on the second day. In background, Charles G. Wootton, Deputy Secretary General of OECD. Luther D. White and chairman of OECD's Steel Committee. William Sirs, General Secretary of the U.K. Iron and Steel Trades Confederation and Alfredo Acle, Coordinating Commission, Mexico.

approach is needed to promote adjustment to new conditions, relying as much as possible on market forces to encourage mobility of labour and capital to their most productive uses.

VIEW OF THE NICs

*Alfredo Acle, Director General,
Coordinating Commission of the Steel Industry,
Mexico*

It has been recognized that the steel industry is strategic for economic and political reasons. In general terms, steel demand tends to reflect the economic situation and the stage of development of each country. As steel is demanded in the form of durable and capital goods, the situation of the steel industry in those countries engaged in an active process of import substitution of capital goods differs radically from the situation prevailing in the developed economies.

Steel production in developing countries is domestic-market oriented, in order to provide steel for the emerging capital goods industries. Exports are not its main purpose. In Mexico's case, its steel exports to the U.S. market have been sporadic surpluses. However, considering Mexico's trade deficit and the size of the American steel market, our exports are negligible.

Therefore, the fears of industrialized countries with respect to the steel export capacity of some developing countries are exaggerated. However, these fears are catching, and we are also afraid about the attitude of OECD countries, which put too much emphasis on the emerging steel industry in LDC's as an explanation of their internal problems.

Mexico has refrained from accepting the invitation to participate in the OECD Steel Committee, because we earnestly believe that fear is not a very good adviser in economic matters. We saw that joining the committee was like entering a bullring with the awkward task of being the bull.

In addition, we appreciated some problems concerning our formal participation in an OECD committee without being an active member of this organization. Such a situation will mean our absence from the discussions of general economic policy,

which determine in great measure the evolution of the steel industry.

Nevertheless, Mexico is well aware of its responsibility as an emerging industrial country. Therefore, it is willing to discuss and to cooperate at international level in the solution of the problems of the steel industry.

THE CASE FOR FREE TRADE

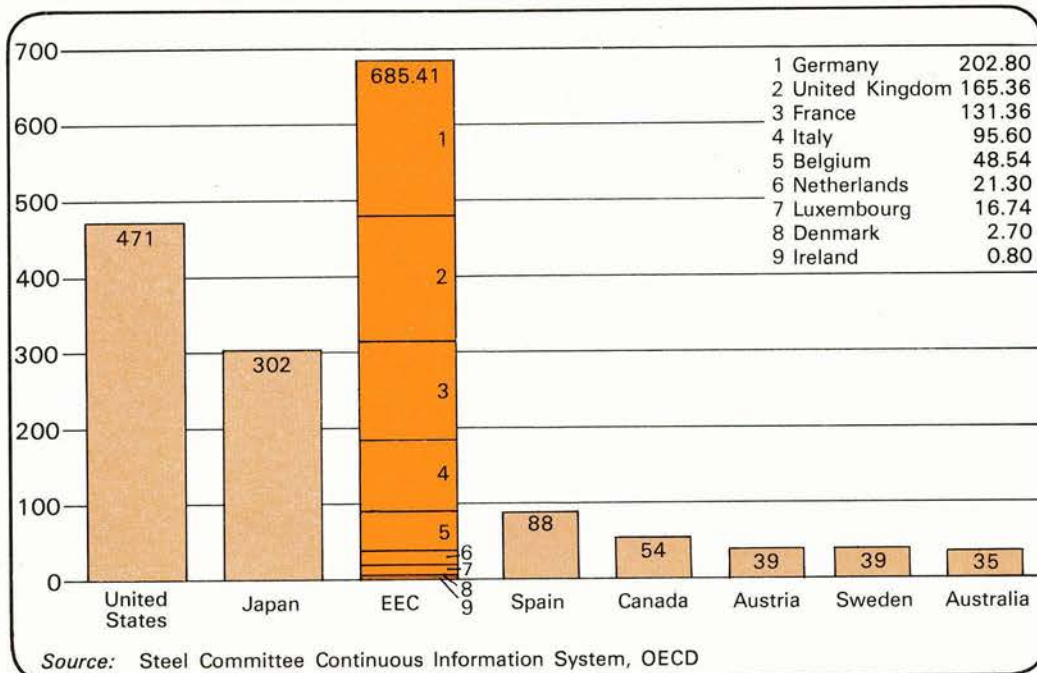
*Staffan Sohlman, Deputy Director General,
Board of Commerce, Sweden*

All here seem to agree that we are facing a prolonged period of over-supply. Several have stated that this calls for concertation, co-ordination between our nations in order to reduce capacity or at least avoid the build-up of further new capacity. At the aggregate level this seems to be difficult.

Looking at each country and each company you find a more diversified and frequently more hopeful picture. Investments are being made in more productive capacity. Technological development is taking place. New products are being developed and this I think should be taken into account. It is of course correct in a shorter time perspective that, if we all try to become more competitive, then none of us will be relatively more competitive. But in a somewhat longer perspective this is perhaps valid, but not very relevant. The more competitive we become the better off we all will be. After all, this is the history of the development of our nations — that in more or less free competition we have been able to become more and more productive. If any of our countries or companies finds a new and more efficient process or a new product, then this should logically lead to increased exports and inversely increased imports into other countries in this group. It is of course quite possible to shield one's own market from such influences, but this I suggest would not be to the benefit of either the potential importing country or the world economy as a whole. The net effect of such actions would in fact be to decrease the potential GNP for the whole of our group of countries and for the world as a whole.

C. EMPLOYMENT IN THE STEEL INDUSTRY – 1978

thousands



the Davignon Plan in the Common Market and the formation of a formal Steel Committee within the OECD. As Alan Wolff noted: "The principles are there, OECD Ministers have artfully drafted them. They are called positive adjustment policies" (6).

Many of the participants described their progress on restructuring. Etienne Davignon noted that, for the EEC, the political and legal mechanism for restructuring steel was provided by the Treaty of Paris which governs the European Coal and Steel Community. The Community he noted, has a tripartite body—a Consultative Committee (its chairman, Rudolf Judith, was also present at the meeting) grouping producers and users of steel and trade union members which gives an opinion on the general steel objectives of the Commission.

Restructuring in France, Belgium, Luxembourg and certain regions of Germany, and in Great Britain represents concrete steps reflected among other things in the closure of steelworks, he noted. The effort is visible in capacity figures, employment figures and investments in rationalisation.

The Common Market measures have been accompanied by social policies, he stressed. These provide for readaptation of workers, early pensions, provision to continue the incomes of workers who lose their jobs, the creation of alternative jobs (see page 10) and the training of workers to fill them. At the end of 1979, the Community adopted a mechanism to monitor government aid to steelmakers to make sure that it is temporary in nature and will in fact lead to adjustment.

Restructuring has also been accompanied by arrangements with third countries to ensure that commercial transactions are carried out at reasonable prices instead of anarchic ones.

Etienne Davignon cited Sweden as another country which had an effective restructuring process and Olöf Rydh, Secretary of the Swedish Metalworkers' Union, recounted the lessons learned from the Swedish experience.

Paul W. Marshall, a US economic consultant, pointed out that "workers at a local level, when confronted with the reality of steel-making economics, find many creative ways to get actively involved in solving their own problems" and cited an example in Youngstown, Ohio where steel closures have idled some ten to twenty thousand people.

As to Japan, also cited by the Common Market representative as a good example of restructuring, Naohiro Amaya noted that the Japanese steel industry is embarking on a study of its own operations and establishing long-term plans to install new equipment even though it considers that its present stock is more modern than that of other countries. The plans include opting for more continuous casting and reduction of oil usage particularly in blast furnaces.

Lewis W. Foy, Chairman of Bethlehem Steel, described the American Iron & Steel Institute's publication *Steel at the Crossroads: The American Steel Industry in the 1980s*, a blue-print for government policy to revitalise the US industry. Foy summarised the three main points of the report:

- Reducing the average age of facilities and improving the overall efficiency of American producers means a doubling of capital investment to about \$7 billion a year and this will require faster capital recovery and improved profit margins. This in turn requires that "existing antiquated capital recovery laws be scrapped in favour of more realistic schedules designed for these inflationary times and more in line with prevailing world standards".

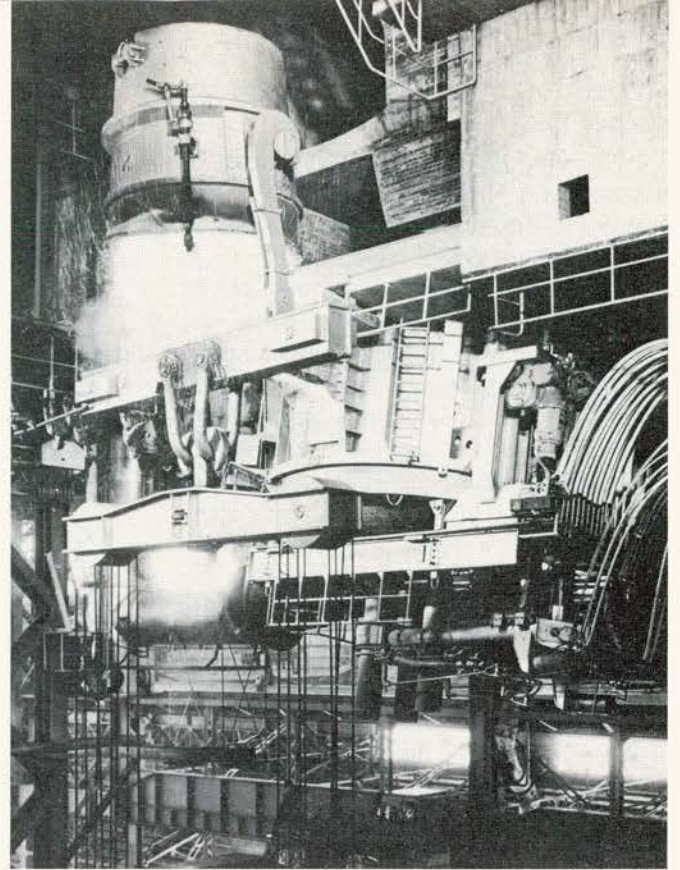
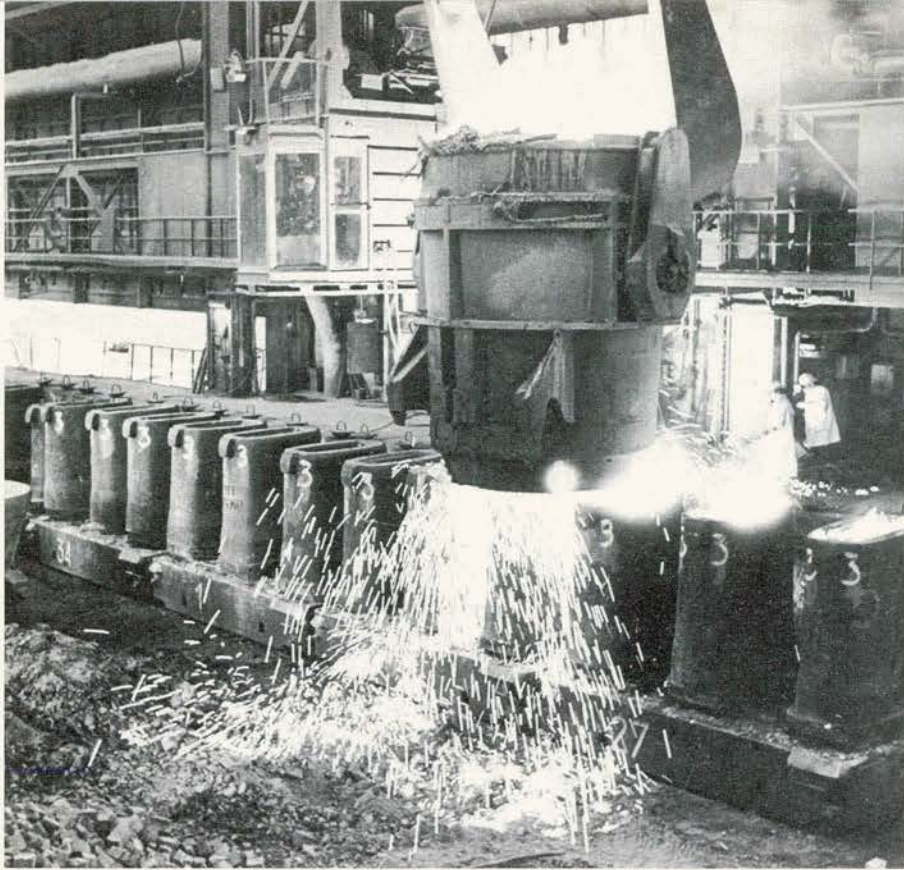
- Environmental laws are more demanding than can be justified by the protection of public health. "If these laws and regulations are modified in order to reduce the mandated capital outlays, that will help American steel companies to modernize and revitalize". (Kathleen O'Reilly, the consumers' advocate, took issue with this point, see page 6).

- The capital commitments required for such a revitalisation programme will require firm assurances from the government that dumped and subsidized imports will not be permitted to disrupt the domestic market, particularly during the period of modernisation.

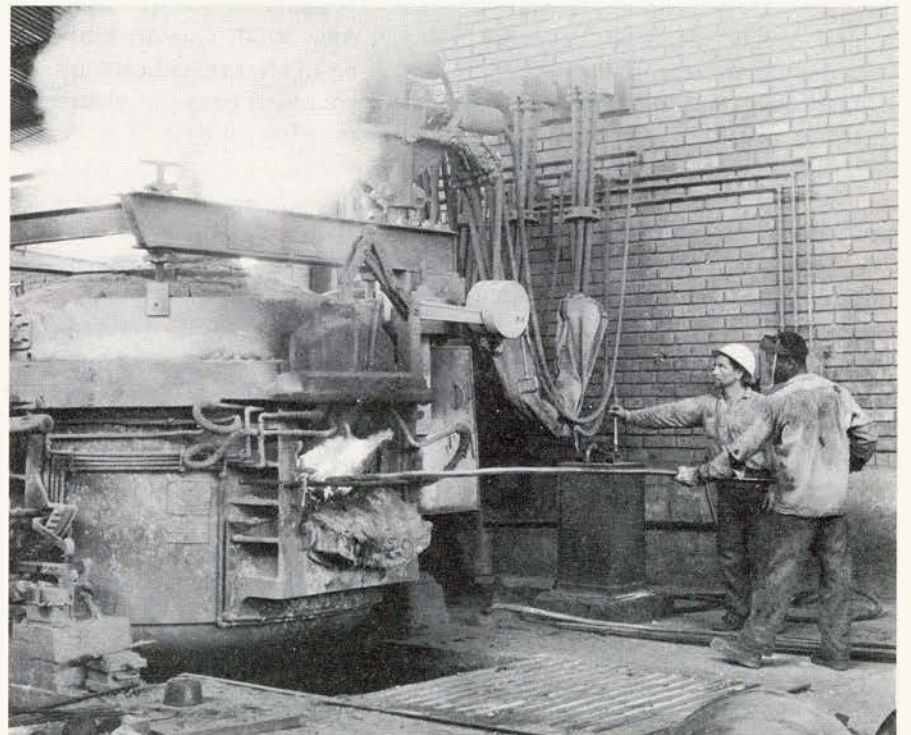
Congressman Vanik explained that the issue of modernisation is perhaps more difficult and complex in the US than elsewhere. "Our industry probably has the largest proportion of over-age and inefficient steel capacity in the world, and yet its need to be understood and assisted must overcome a basic cultural bias in our country against big business, an adversarial position that goes back for decades and must be changed." It is difficult, he added, to contemplate modernisation with interest rates at 17 and 18 per cent and higher and with profits below average.

How adequate are these restructuring measures in the OECD area? Naohiro Amaya criticized the lack of change in "the fundamental situation surrounding the steel industries of most countries" and pointed to the fact that both the Solomon Report and the Davignon Plan stressed the importance of adopting domestic policies as well as fair trade. He stressed that these reports were "the reasons why Japan made up its mind to be cooperative on trade with the steel industries of the US and Europe to cope with the difficulties in 1977". "Yet" he added "particularly in the United States, I have seen few significant changes in domestic policies on revitalisation such as capital formation in order to bring plant and equipment up to date and keep them

(6) See OECD OBSERVER no. 95, November 1978 and no. 99, July 1979.



Modernisation is considered essential not only in Europe and the United States but in Japan as well. Left: the old-fashioned ingot producing plant is being replaced by continuous casting in a new Common Market installation. Right: A modern electric-furnace steel installation in Nagoya City, Japan.



The burdensome human consequences involved in restructuring mean that social measures must be part of the steel policy package. Left: a group of workers in front of a shut-down foundry in Longwy, France. The "steel-on-steel" phenomenon means that the newly industrialising countries are importing more steel even as they produce more. Right: steelmaking in Mexico.

there". He was unsure whether this reflected lack of industrial planning or lack of government policy. The essential question whether there is a commitment by enterprises and government to maintain an efficient industry is perhaps being left unanswered. "We are concerned that if this essential question is not faced, then there is temptation and political pressure to try to deal through trade restrictions with what in reality are problems of

domestic policy." He urged participants to recall their initial commitments to the decision of the OECD Council when it established a steel committee and the principles of positive adjustment policies adopted at OECD's Ministerial Level Council Meeting in June 1978. "We should establish long-term restructuring plans" he noted "and find an optimum mix, technically and economically, of building new plants and equipment and

applying modern technology to old plants".

Alan Wolff added that it is perhaps the United States which will have to move furthest of all to change its approach to industrial policy if the steel problem is to be solved. "We badly need a revision of our macro-economic approach and our sectoral policy and analysis". But he added others will have very difficult adjustments to make as well since the major

exporters of steel will have to accept changed patterns of trade.

In summing up the discussions about restructuring, the Chairman, Etienne Davignon, noted two main points on which there was general agreement:

- Since the social consequences of restructuring are burdensome, trade unions should be involved at an early stage in the discussions both of the adjustment process itself and of the time-frame within which it should be carried out; and the process should be accompanied by social policies.

- The steel industry is a strategic industry, but this does not mean it is exempt from being internationally competitive.

The Role of Governments

Another issue discussed was the problem of government intervention in the steel industry or, as Richard P. Simmons, President of US steel producer Allegheny Ludlum, put it: "how private companies can co-exist with state-owned companies over the long term". "The specialty steel industry is profitable, efficient and technologically advanced, yet even under these conditions competition with state-owned companies who do not have to meet our disciplines of capital formation and profit make investment most uncertain in the private sector. Failure to resolve this issue will lead in my opinion to even greater protectionist pressures in those nations where private companies do flourish."

"In my view", Edward Florkoski added, "there will be a decided bias towards according managers of state enterprises greater autonomy and freedom from political interference than in the past, but

on the international front government involvement promises to become a heated issue."

The Developing Countries

Fears were expressed about possible over-emphasis on the export sector in newly industrialising countries. The analysis carried out by B.R. Nijhawan of UNIDO for the symposium, however, showed that, while developing countries have increased their steelmaking capacity and production rapidly over the last ten years, now accounting for almost 13 per cent of world production, the "steel-calls-for-steel" phenomenon means that they are also importing more — 35 million metric tons in 1977 as against 15 million in 1967. The developing countries, as a group, will continue to be a net importer, Nijhawan's analysis suggests, even if the figure of 30 per cent for world steel production (consistent with the overall Lima target for industry of 25 per cent) is reached by the year 2000 and the level of self-sufficiency increases from the present 66 per cent to 80 per cent.

Other speakers were less sanguine. Alan Wolff warned that "we cannot rely on high net imports by the developing countries because of their enormous and growing debt".

Even with a net import position, the developing countries have been exporting steel, including sophisticated products like specialty steels, to OECD countries. Some participants saw this as a threat to OECD steel industries. But Consultant Florkoski, rejected this possibility. "Developing countries as a group pose little immediate threat to the steel industries of developing nations" he said. "Fear of developing countries has been exaggerated and has

had the unfortunate consequence of generating mistrust and deep suspicion on the part of developing countries."

He outlined a programme to prevent conflict. Consideration should be given by both developed and developing countries to the responsibilities of fair trade practices and adherence to international codes of trade behaviour.

- Developing countries, particularly those which have graduated in terms of economic development and which have sophisticated steel industries, cannot escape the responsibilities that attach to interaction in the international community.

- Industrialised nations must in turn give serious consideration to removal of tariff and non-tariff obstacles to developing country steel exports.

- Finally, policy consideration must be given to coordinating investment planning and financing with the legitimate development aspirations of developing countries in view so that justifiable expansion programmes are not retarded.

The representative of Mexico (see page 7), the only newly industrialising country representative who spoke in the symposium, indicated that his country was prepared to cooperate at international level in solving the steel industry's problems.

* * *

Ending the meeting Etienne Davignon concluded: "In spite of the difficulties — the low rate of growth, the immensely complicated nature of the adaptation process and all its implications — if no one forces the issue, it will be possible to solve the problems facing us in such a way that our different legitimate interests do not clash."

JOB CREATION BY THE BRITISH STEEL CORPORATION IN MAJOR STEEL CLOSURE AREAS

*by Charles Villiers,
Chairman, British Steel Corporation*

The major changes that have affected the world economy in the 1970s have forced major adjustment on the steel industries of the advanced nations. Adjustment would have been required in any case to bring about the benefits of technological progress and the concentration of production which this involved. But the collapse of the economic expectations of the

early 1970s has meant that this adjustment has to be harsher and deeper if the mature steel industries are to stay in the business in the 1980s. In Britain the need to change direction radically was fully realised in 1977/78.

Once the fundamental changes which have taken place in the market were recognised, the Corporation then began to bring

capacity more closely into line with the lower demand. A none too easy task in a mature industrial society such as that of Britain. It has meant a radical restructuring programme with far reaching consequences, one of which is the shedding of many thousand of jobs. Under the programme the intention is to de-man to a level of 100,000 by August 1980. This is to be compared with a current figure of 152,000 and a 1975 level of 190,000. Clearly, the Corporation has by any standards embarked on a dramatic course of action which has far reaching social implications. Most of these job losses are in the less prosperous parts of the country where the harmful effects, in the absence of remedial action, would be considerable and lasting. Often they affect communities where for decades there has been almost total dependence on just one or two industries such as steel and coal. This means they are extremely vulnerable areas in the current crisis.

As a Corporation the BSC is extremely concerned over the social consequences and hardships which will result from its restructuring plan, as is the Government; one can no longer decimate a community such as the steel town of Corby and walk away. Indeed, special consideration has been given by successive Administrations to steel closure areas in respect of improvements to infrastructure, factory building programmes and the rigorous use of legislative powers to assist new job creation. Even considering these initiatives by Government, the Board of BSC felt that more had to be done to put back the job opportunities being lost as a direct result of the steel closure programme. So in 1975 the BSC took the unprecedented step of setting up its own job creation agency, BSC (Industry) Limited.

The Job Creators

BSC (Industry) is a wholly owned subsidiary of the British Steel Corporation and its goal is not just simply to bring new job opportunities to steel closure areas but to create a climate conducive to job creation. The company is controlled by its own Board of Directors which includes six leading trade unionists, certain members of the Main Board of the Corporation and myself as Chairman.

It was made clear from the outset that the new company would cease to operate in an area once its job target there had been reached. Initially the company's role was essentially to advise on the assistance available to businessmen from the various sources including the British Government and the European Coal and Steel Community. However, over the past two years the company has been given more executive muscle, considerably more power and access to substantial resources. This has led to a growth in company size to a point where today there are 36 people employed. Of those employed by the company, approximately one third are based in its London Headquarters, and the remainder are located in its nine operational regions. In the main, the central staff provide services and specialist aid to their colleagues in the regions. By design, the management structure is a flat one with each executive enjoying considerable freedom of action and decision making power. Such a system means that the group are able to respond quickly and effectively to the needs of the businessman who has a promising project.

It should be said that job creation is a far cry from producing steel and it needs a special breed of executive if it is to be done successfully. Therefore, one must not leave the activity to redundant company managers but rather consider the best people you currently have and also be prepared to go outside. In particular, it is important that those chosen can bring marketing flair, dynamism, and the ability to deal with and understand the problems of management at all levels of business. The team is effectively there to create an executive bridge between the

sterility of Government incentives and the real needs and problems of the entrepreneur. It is a fact that substantial British Government and European aid had been available for several years prior to the creation of BSC (Industry). But they were still a mystery to many businessmen, and often the businessman was totally unaware of the beneficial effects such aid could have on his operations. So a considerable amount of time and effort is put into promoting the package of incentives available. The current package may include the following major benefits:

● **Cash Grants**

The British Government, under its regional aid policy, gives cash grants of up to 22 per cent of the cost of new buildings, plant and equipment. In addition, certain projects would qualify for further discretionary Government cash grants.

● **Medium Term Loans**

A major advantage offered to projects locating in a BSC steel closure area are low cost medium term loans of up to 50 per cent of the cost of the projects' fixed assets. These key loans are provided by the European Coal and Steel Community and the European Investment Bank.

● **Land and Buildings**

The British Government has pursued a very enlightened factory construction programme. Under this programme factories are built on a speculative basis in advance of there being a suitable tenant. The team's ability to offer an industrialist a ready-made factory is often a deciding factor and cannot be stressed too strongly.

● **Recruitment Benefits**

Ex-steelworkers, and their new employers, can benefit from a comprehensive retraining scheme. Under this scheme there is financial assistance for steelworkers undergoing retraining and BSC (Industry) is pioneering ways of helping employers offset the cost of in-house on-the-job training through various avenues including the EEC Social Fund.

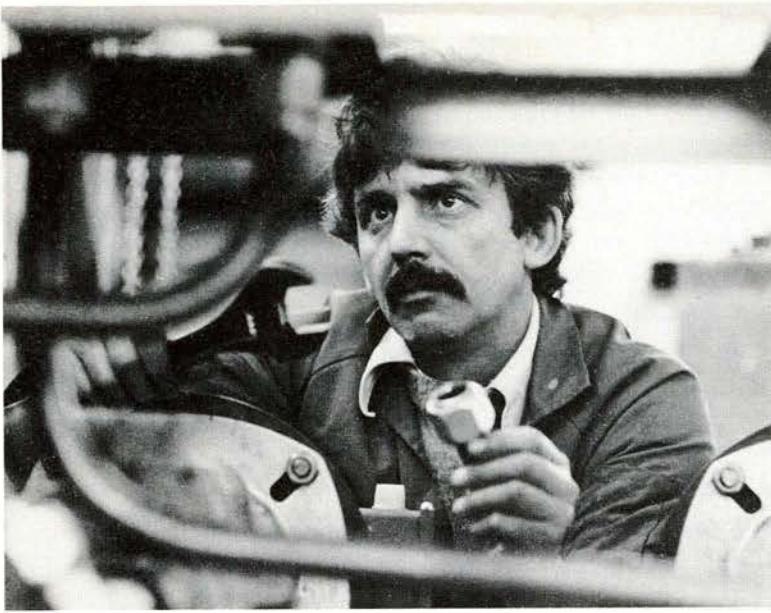
● **BSC (Industry) Help**

BSC (Industry) does not itself provide direct financial assistance to its clients but it does enjoy close-working relationships with all the relevant British and European organisations and so is in a good position to advise on the financing of a project. In addition, it can and often does provide specialist aid and services covering such things as market research, technical studies, general and strategic consultancy advice and detailed location studies, all at no cost to the client. It can also provide critical help with the provision of land, buildings, plant and machinery.

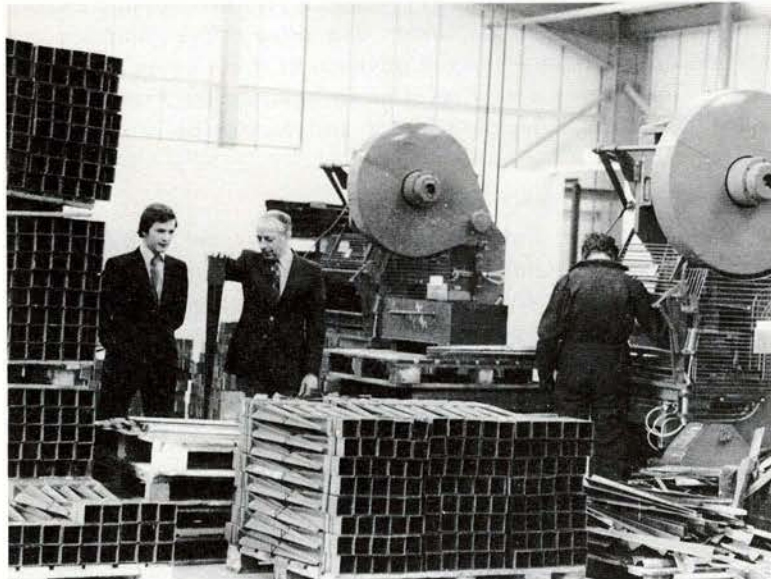
The company's promotional strategy has been crucial in its success to date and is interesting in that it goes against most of the advice given by regional economists and consultants. The usual argument is that one should set out to attract projects from those industrial sectors enjoying high growth rates and from those companies which are particularly compatible with the geographic areas of concern. The BSC approach is simply to attract all the projects which are currently active regardless of their type, that is to say regardless of whether they are in the service or productive sectors of industry. The major advantages of this approach are:

- The wide spectrum of companies attracted allows one to create a diversified economy and so avoid the single industry dependence of the past.
- There are many more projects to choose from with a consequent increase in number of jobs created.
- There is potentially a much wider choice of job opportunity so one has the ability to cater for the special needs of groups such as school leavers.

→



Norson Power, near Glasgow, which was established with the help of BSC (Industry), makes hydraulic machinery for the off-shore oil industry. Bill Millar was previously employed at BSC Clydebridge and Ravenscraig Steelworks.



Derek Mills, Managing Director of Metpost (steel fence post supports) had a project for expansion which BSC (Industry) helped him set up in Cardiff.



BSC (Industry) helped Arthur Thomas, Managing Director of Gowerpoint Ltd. which makes exotic fruit machines, to set up in Cardiff.

● The promotional message can appeal to all, be simple and direct: "Convince us you have a viable project and we will do our best to make it happen" rather than: "If you are in micro-electronics and have a project we will help you go to town Y".

The business propositions being dealt with fall into four broad categories; the mobile international project which could be located in a number of countries; the mobile national project with several domestic sites to choose from; the indigenous company with an expansion project for its current location, and the start-up situation. As might be expected, each of these four types demand a different kind of action from the team if they are to be won for a steel closure area. Of particular interest is the approach we are taking towards the encouragement of new small businesses. There is a growing consensus of opinion among politicians and informed observers that it is the small business which offers the best opportunity for job and national wealth creation over the next decade or so.

In an effort to encourage the formation of small businesses in the steel closure areas, BSC (Industry) introduced an exciting new concept in industrial regeneration — the neighbourhood workshop. The first of these was on a six hectare site at Tollcross, a closed iron foundry, where we saved certain buildings from demolition. These buildings attracted over 54 small companies employing close to 400 people within 4 months of the doors being opened for business: an interesting and very encouraging fact is that 43 of these companies were in their first business premises. The critical issue here was to create the physical and psychological environment which would be conducive to the birth of new businesses. The workshop concept can provide new jobs and businesses quickly and cost-effectively on old steelworks sites.

Clearly this idea is not applicable only to steel closure areas but offers hope to many depressed regions throughout the industrialised world. As with any properly run company, BSC (Industry) operates within an agreed budget, but unlike the conventional business its concern is not with the generation of profits but rather with the creation of jobs as cost-effectively as possible. So the team are pre-occupied with an unusual parameter — the cost per job. Historically, the cost of BSC (Industry) has averaged less than £1,000 per new job commitment, a small amount in relation to the overall national cost of job creation. Currently, the staff costs, establishment charges, advertising and other revenue expenses are running at nearly £1m per annum. Additionally, in the current year, we have voted "funds for job creation" totalling £10m.

Recent Results

Since stepping up the level of operation of BSC (Industry) in March 1978 over 3,500 organisations or individuals have been attracted by the package on offer. At any one time the team are dealing with 300 or 400 potential projects and since March 1978 they have secured in excess of 250 job creating ventures. It is interesting to note that despite the onset of recession, it is still possible to attract good, viable projects. Indeed, it would seem from recent evidence that the flow is increasing rather than diminishing. For the year beginning March 1978 the target of 3,000 new jobs was set and was just achieved by March 1979. In the current year which ends March 1980 our target is 5,000 new jobs and we are presently on course to exceed this. Unfortunately, in the light of the recent worsening of our commercial situation, and the financial consequences of this, we are having to accelerate our closures, so that while these figures are impressive we must do significantly better in the future. Our target for next year is 10,000 new jobs.

THE WORLD ECONOMY IN THE 1970s AND 1980s

by Sylvia Ostry
Head of OECD's Economics
and Statistics Department

The past ten to fifteen years have been characterised by increasing instability in the world economy. Signs of social and political tension became evident in the late 1960s associated with the Vietnam conflict, the emergence of the post-war student generation and the ratcheting up of inflationary pressure. The earlier 1970s were dominated by such events as the collapse of the fixed exchange rate system, the unparalleled peacetime commodity and food price boom and the outbreak of the oil crisis. The deflationary demand and policy response to these events culminated in the unprecedented experience of "slumpflation" in 1974-75 from which the recovery has been hesitant and rather uneven as between countries. When the upswing finally began to show some self-sustainable features, a second "oil shock" hit the oil-importing countries in 1979, probably submitting the world economy to a renewed period of stagflation.

The 1970s in Retrospect

Initial Expectations and Outcome

The dramatic change in the pattern of development since the early 1970s is clearly revealed by the behaviour of traditional macro-economic performance indicators. Over the ten years to 1979 real output in the OECD area rose 1.4 percentage points more slowly per annum than during the preceding decade (see Table 1). The average annual rate of inflation more than tripled as compared to the 1960s: it had, indeed, quadrupled by the end of 1979 (1). At the same time, the area's traditional and rising current

surplus with the rest of the world was replaced by a deficit.

It is interesting to compare the actual outcome of the past decade with the projections of the growth of output, employment and productivity (Table 2) made at the beginning of the decade. Except for a few countries, growth was expected to be at least the same as during the 1960s — or even higher. Between 1969 and 1979 the combined gross domestic product of the OECD area as a whole was expected to increase more than 60 per cent, or at an average annual rate of about 5 per cent, after a rise of 4.9 per cent per annum during the preceding decade. In the event, the area's total output probably rose by no more than 40 per cent — or 3.5 per cent per annum — and even more slowly (2.7 per cent) after 1973.

The biggest discrepancies between actual and predicted growth among the major OECD countries occurred for Japan, Italy and France, and among the smaller Member countries for Greece, Portugal and Switzerland. Growth in Norway came closest to initial expectations.

Before considering the major factors which seem to have been responsible for the unexpected weakening of growth, it may be useful to recall some of the important assumptions — explicit or implicit — on which the long-term projections were based:

- On available historical evidence, the traditional presumption that productivity increase would slow down as levels of output

(1) In November, consumer prices (weighted average) exceeded their corresponding year's level by 11.4 per cent.

1. MACRO-ECONOMIC PERFORMANCE INDICATORS OF THE OECD AREA

	1959-1969	1969-1979	1963-1973	1973-1979
Gross Domestic Product (annual average rate of growth)	4.9	3.5	4.7	2.7
Consumer Prices (weighted annual average increase)	2.9	8.5	5.9	10.2
Current External Balance (cumulative, \$bill.)	30.1	-56.8	34.7	-91.5

Source: Economic Outlook, OECD.

2. GROWTH PROJECTIONS AND OUTCOME, 1969-1979

Average annual rate of change

A. SEVEN MAJOR COUNTRIES

	Projected			Outcome		
	GDP	Employment	Productivity	GDP	Employment	Productivity
Canada	5.1	2.5	2.5	4.2	2.9	1.3
United States	4.2	1.6	2.6	2.8	2.2	0.7
Japan	10.1	1.0	9.1	6.1	0.9	5.2
France	6.0	0.7	5.3	4.0	0.5	3.5
Germany	4.8	0.3	4.5	3.2	-0.4	3.6
Italy	5.5	0.7	4.7	3.1	0.5	2.6
United Kingdom ¹	3.0	0.1	2.9	1.6	0.1	1.5
Total seven major countries	4.9			3.5		

B. OTHER COUNTRIES

	Projected GDP	Outcome GDP
Austria	5.2	4.3
Belgium	4.9	3.8
Denmark	3.7	2.7
Finland	4.9	3.9
Ireland	4.6	3.9
Netherlands	4.8	3.6
Norway	4.2	4.1
Sweden	3.8	2.1
Switzerland	3.6	1.2
Greece	7.7	5.3
Portugal	7.3	5.0
Spain	5.6	4.3
Turkey	6.6	6.1
Total OCDE	5.1	3.5

(1) Excluding North Sea oil contribution.

Source: The Growth of Output, 1960-1980, OECD, 1970; Economic Outlook, No. 26, December 1979, OECD.

per head rise, and existing technological gaps close, was rejected (2).

- Inflation was recognised to be a problem, and a growing one in some countries, but it was felt that it was manageable and that it would not negatively affect potential growth. Likewise, it was thought that actual demand growth in line with potential supply could be assured through appropriate fiscal and monetary policies.

- There were no signs of demand saturation and there would be no supply constraints to growth resulting from shortage of raw materials (including fossil energy sources).

- The world economic order would continue to be dominated by the industrialised market economies and the U.S. dollar as reserve currency. Changes in the international monetary system were expected to improve the efficiency of markets and policies and hence help growth and stability.

Main Reasons for Slower Growth

The sequence of "shocks" which struck the world economy has not only dampened the rate of economic activity and added to inflation, but for a time nourished an excessive growth pessimism ("Club-of-Rome mentality"). It has also heightened scepticism, or even hostility, to demand management and traditional tools of stabilisation policy. There were also fears that liberal democracies had lost their remarkable capacity to adapt to change and that increasing stress and tension placed impossible strains on political leadership in a world economy which had become economically integrated but politically polycentric to an intolerably inconsistent extent (3).

The new energy situation, with its disruptive effects on prices, real national income and the balance-of-payments, has probably been the most important single cause of increased instability, but neither the oil shock nor a number of other events (e.g. the agricultural price explosion in 1972/74, the speculative commodity price boom in 1973/74 and the collapse of the fixed parity system) should be seen as exogenous to the system, even though their sequence and timing were partly accidental. In fact, most of these incidences may be seen as manifestations of an intensified struggle over income distribution at a national and international level. This struggle reflected changes in power balances. It also reflected serious inadequacies in the timing and design of macro-economic and structural policies, which became increasingly inappropriate to the changed economic, social and political circumstances.

Consequently, the initial shocks have not been smoothly absorbed and neutralised but have entailed a series of secondary (i.e. domestically generated) shocks which

cumulatively often exceeded the first shock by considerable margins. The resulting unusually large imbalances, emerging mainly around the middle of the decade, constituted serious impediments to buoyant and sustained growth during the recovery from the post-oil recession. While varying in relative importance over time and between countries, the imbalances have become manifest in four different areas: inflation, current external account, the private investment-saving gap, and the financial position of the public sector.

While the greater part of the actual slowdown of growth between the two past decades may be explicable in terms of constraints operating on the demand side of the economies, there is little doubt that there have also been longer-run negative effects on the course of potential output. Endogenous technical progress may have slowed down as research and development activities suffered, with the result that the quality and quantity of investment was impaired. Changes in relative energy prices have very likely affected actual and potential labour productivity via a number of channels, both on the supply and the demand side of industrialised economies. They may have caused an acceleration in technical obsolescence, factor substitution in the production process, shifts in the pattern of demand, and changes in the level of demand affecting capital accumulation. Furthermore, gains in overall productivity resulting from structural shifts have tended to decline, mainly because of reduced labour outflows from agriculture.

Growth Prospects for the 1980s

The huge errors recorded in Table 2 show how hazardous it is to predict world economic trends ten years ahead. This is particularly true when major economies are out of balance and when fundamental changes in behavioural patterns and attitudes are required to remove these imbalances and to create the necessary conditions for returning to a more stable and steeper growth path. It is more advisable to consider the scope for progress rather than to present detailed projections based on necessarily uncertain assumptions and hypotheses.

(2) ".... there is little doubt that rates of growth in productivity are positively associated with the rate of productive investment, technical progress, and labour skills and training. There are no reasons to suppose that any of these factors will become weaker, or have less influence, in the 1970s than in the 1960s. On the contrary..." The Growth of Output 1960-1980, OECD, December 1970, p. 84.

(3) See Otto Eckstein, "The Great Recession", The Data Resources Series 3, 1978.

3. GLOBAL ECONOMIC TRENDS

	1960-65	1965-70	1970-75	1975-80	1980-85
GDP:					
World	5.0	5.5	3.8	3.9	4.5
Developed countries ¹	5.1	5.5	3.3	3.3	(4)
<i>of which:</i>					
Canada	5.7	4.8	5.0	3.9	7.0
USA	4.6	3.1	2.4	2.7	4.1
Japan	10.1	11.6	5.5	5.0	5.9
France	5.8	5.4	4.0	2.8	4.4
Germany	5.0	4.5	2.0	3.4	3.7
Italy	5.1	6.0	2.5	3.4	4.8
United Kingdom	3.1	2.5	2.1	1.4	3.4
TRADE:					
World ²	6.8	9.2	5.7	5.6	5.8
INFLATION:					
World ²	4.0	5.0	10.0	11.4	7.5
CURRENT ACCOUNT:					
OECD (End of period - \$Bill.)	3.8	6.7	-0.3	-24.4	-90.0

(1) 13 major industrialised OECD countries.

(2) Excluding centrally planned economies.

Source: Direct communication to OECD by Laurence Klein, Wharton School, University of Pennsylvania.

The starting position for the 1980s does not look particularly encouraging. Despite generally sluggish demand conditions and rising unemployment, inflation seems likely to continue to exceed tolerable rates in most countries in 1980, and the current balance of payments deficit may, at least in some countries, be perceived as an additional constraint on growth. In the likely event of continued pressure from OPEC, there will also be a continued shift of world income shares away from oil-importing countries. Within these countries greater emphasis on investment than on consumption plus slower growth implies pressure on real income growth of workers. Both factors suggest the possibility (or probability) of increasing social tension.

Moreover, most governments are likely to experience a cyclically-induced weakening of their budgetary positions making them even more reluctant than otherwise to take expansionary fiscal measures.

The economies of the developing world will probably also be set back in a cyclical sense in 1980, because many of their best export markets will be sluggish. However, they now trade more than formerly among themselves and thus have rather more stability than if they were obliged to adjust passively to every setback in the industrial areas. The Far Eastern nations, in particular, exemplify this and can sustain their growth far above the developing country average, even though the industrial nations sag.

1981 will probably be another year of below capacity growth. But with some prospect for an easing of inflation and a "technical rebound" of aggregate demand, the chances for faster growth may begin to improve. Recent projections by the Wharton School (Table 3) suggest average annual rates of growth of more than 4 per cent for the OECD area as a whole between 1981 and 1985. But this is based on a number of assumptions which may prove optimistic:

- absence of major world-wide disrupting factors like bad harvests, cut-backs in oil production and shortages of other raw materials
- annual real crude oil price increases (OPEC price) of no more than 4 per cent
- a successful winding down of average OECD inflation rates to 5 per cent by 1985 and,
- a relatively strong growth performance of non-OECD countries (4).

But the underlying proposition — that the world economy is not "condemned" to continue to grow slowly for ever — is not unreasonable. Growth rates not far short of those recorded up to the oil crisis could indeed become physically possible before the end of this decade *provided that* effective energy policies are put in place without further delay (5). And rates significantly above those likely to be recorded in the first half-decade would certainly be sustainable *provided that* real wages and other income claims can be brought into line with the present relatively

low trend productivity increases and adverse movements in the terms of trade. But the income moderation and easing of domestic cost pressure thus envisaged will have to be followed by a strong pick-up of productive investment and a consequent rise in the investment/GDP ratio.

While the prospective energy situation and insufficient capital formation rule out, from the supply side, a quick return to past growth rates, there seem at present no constraints on future growth on the side of demand. Some countries have seen a rise in private savings propensities, but this probably reflects job insecurity, inflationary expectations and income uncertainty rather than a general saturation of consumer demand. Indeed, current claims for higher incomes are clearly based on excessive expectations about the availability of both private and public goods and may be seen as an important cause of present problems. Moreover, an increased preference for leisure rather than material goods could be expected to show up in a less buoyant supply of manpower, which would hardly be consistent with present rising trends in labour-force participation rates.

Thus it will probably be the success or failure of current stabilisation and "positive" adjustment policies which, largely, determine the growth prospects for the 1980s and beyond. Given the backlog of unrealised technical progress, the unused potential for improved international division of labour and the present depressed rates of investment to increase productive capacity, the scope for accelerating potential output growth (and productivity) is certainly quite considerable. A successful stepping-up of capacity growth would also help to remove potential supply bottlenecks, and hence assist in the fight against inflation. But whether this faster expansion of world output actually occurs will depend on whether policy- and decision-makers, both private and public, face up to the structural problems inherited from the 1970s, and the wisdom with which they seek solutions.

(4) Following rather modest growth predicted for the near term, developing countries are expected (according to the projections of the Wharton School LINK model) to advance at a 6 per cent rate, with OPEC and the countries of South and South-East Asia above average and Africa (except for the net oil exporters) and Latin America (except for Mexico, Venezuela and Brazil) below average. The centrally planned economies of Eastern Europe and Asia are not foreseen to grow much faster than developed market economies with China (assumed growth of 8 per cent) being the only major exception.

(5) If the OECD area is to grow at anything like past rates in the medium term, huge investments will have to be made to push up indigenous energy production and to permit substantial economies in energy use.

MONETARY TARGETS AND INFLATION CONTROL

The rapid acceleration of inflation during the Seventies demonstrated the need for improved monetary management : the response has been a growing emphasis on the control of monetary aggregates and widespread adoption of official quantitative guidelines for these aggregates. The following article by Jean-Claude Chouraqui and David King (1) discusses the main concepts underlying monetary targets, why targets have been adopted and what recent experience with them has shown. The question has been discussed, at greater length, in a report recently published by the OECD Secretariat. (2)

Conceptual Aspects of Monetary Targeting

Since recovery from the recession of 1974-75, the monetary authorities of many industrial economies have adopted the practice of announcing objectives or projections for the growth of various money or credit aggregates. These aggregates are calculated by central banks mainly from deposit and loan data reported by commercial banks. The basic concept behind monitoring such aggregates is that there is some broad relationship between the total amount of "money" (or credit) in the economy, and the level of economic activity or aggregate demand. The OECD report presents evidence that this relationship can be expected to hold broadly over the long run. But in practice, over the shorter run, important problems arise. Three major issues are identified :

- The aggregate selected as the intermediate monetary policy objective (3) must be appropriately defined. What is needed is some measure of domestic liquidity that represents immediately available potential spending power. In this respect, the report shows that "money" is probably more than just cash and demand deposits, and that, because new ways of holding purchasing power are always appearing, consistent measurement of the "correct" monetary aggregate is difficult. In the United States, for example, the Federal Reserve System sets tolerance limits for the growth of, among other aggregates, narrowly defined money ("M1") consisting of currency and demand deposits. But in 1978 new banking practices were legalized allowing customers, in effect, to draw cheques on savings accounts and on their holdings of "money market funds", the latter not being included in any monitored aggregate. The result was that money growth as measured by M1 slowed down sharply, even though "true" money growth remained rapid : narrowly-defined money balances were simply being held in new forms. The Federal Reserve reduced its attention to M1 as traditionally measured and introduced new definitions of the money supply to take account of the changing ways the public holds its funds. (4)

- The relationship between money and aggregate demand may, over the short term, depart significantly from its trend, even for as long as six months to a year. Thus, even if money is correctly measured, conditions may temporarily be such that the economy as a whole wishes to hold more money in relation to its rate of spending than is normal. If, then, the monetary authorities attempt to restrict the growth of money, they may cut into demand too severely and unnecessarily constrain economic growth and employment. One of the factors that has led in recent years to marked variation in the ratio of aggregate demand to money (the so-called "velocity" of money) has been exchange market conditions. In Germany, for example, monetary growth in 1978 was well above target, yet demand growth and inflation were moderate. German companies expecting the Deutschmark to appreciate were inclined to delay purchases of foreign exchange needed to pay for imported goods and services, because their costs in

terms of marks would fall after an expected rise in the mark's foreign currency value. The German corporate sector's sales receipts consequently built up in commercial bank accounts. A rise in bank deposits and higher monetary growth were then recorded which did not really represent potential immediate demand for goods and did not therefore call for monetary restraint.

- Another criterion that an aggregate must meet if it is to serve as an efficient policy guide is that it be controllable by the monetary authorities through available instruments. Practices in this field vary among major countries, mainly for institutional reasons. In the United States, Canada and Germany — where banking systems are decentralised and administrative intervention in financial markets has traditionally been limited — central banks rely on indirect methods to regulate the quantity and cost of short-term funds needed by banks. If these funds become harder to get and more expensive, banks must curtail their lending or charge higher interest rates. A decline in bank-credit expansion will then contribute to a slower growth of the money supply and of aggregate demand. But such linkages are not tight : the extent to which credit demand reacts to monetary restraint depends, among other things, on economic conditions and inflationary expectations.

In countries with rather centralised banking systems — such as Japan, France, Italy and the United Kingdom — the monetary authorities have made extensive use of credit ceilings and related controls. These techniques of direct rationing of bank credit operate on monetary creation at the "retail" level. However, they may tend to encourage banks to create new loan and deposit instruments that are not subject to regulation, so that monetary control may be undermined.

The Motives for Monetary Targeting

The announcement of quantified monetary objectives in a number of OECD countries appears to have been motivated by dissatisfaction with the results achieved through conventional policy approaches. Previously, monetary policy concentrated on influencing interest rate levels, with little attention to the behaviour of the quantity of money in circulation. When aggregate demand appeared to be expanding ex-

(1) *Head of Division, and Administrator, Monetary and Fiscal Policy.*

(2) *Monetary Targets and Inflation Control, Monetary Studies Series, OECD 1979.*

(3) *In the usual presentation of the transmission process of monetary policy, intermediate objectives refer to variables — such as long-term interest rates, the money stock, or bank credit — on which monetary management operates through available instruments to achieve ultimate policy goals concerning output growth, prices, employment and the balance of payments.*

(4) *In February 1980, in announcing its monetary growth objectives for the year, the Federal Reserve broadened the composition of M1 and split it into two sub-aggregates.*

cessively, the authorities raised interest rates under their control, in an effort to dampen the growth of loans, and moved conversely when economic activity became sluggish.

The problem with this approach was that the information generally

used to evaluate the state of economic activity tended to become available "too late", so that interest rate changes were too slow in coming. Since policymakers gave only secondary attention to the behaviour of monetary and credit aggregates, inflation often had to

PROJECTED AND ACTUAL GROWTH RATES OF MONETARY AGGREGATES

Country	Aggregate	Period	Target		Outcome	
			M1	M2	M1	M2
United States	M1/M2 ¹ % increase	March 1975 - March 1976	5-7½	8½-10½	5.0	9.6
		1975 Q.2 - 1976 Q.2	5-7½	8½-10½	5.2	9.5
		1975 Q.3 - 1976 Q.3	5-7½	7½-10½	4.6	9.3
		1975 Q.4 - 1976 Q.4	4½-7½	7½-10½	5.7	10.9
		1976 Q.1 - 1977 Q.1	4½-7	7½-10	6.3	10.9
		1976 Q.2 - 1977 Q.2	4½-7	7½-9½	6.6	10.7
		1976 Q.3 - 1977 Q.3	4½-6½	7½-10	7.8	11.0
		1976 Q.4 - 1977 Q.4	4½-6½	7-10	7.8	9.8
		1977 Q.1 - 1978 Q.1	4½-6½	7-9½	7.7	8.7
		1977 Q.2 - 1978 Q.2	4½-6½	7-9½	8.2	8.4
		1977 Q.3 - 1978 Q.3	4-6½	6½-9	8.0	8.2
		1977 Q.4 - 1978 Q.4	4-6½	6½-9	7.2	8.6
		1978 Q.1 - 1979 Q.1	4-6½	6½-9	5.1	7.6
		1978 Q.2 - 1979 Q.2	4-6½	6½-9	4.8	7.7
		1978 Q.3 - 1979 Q.3	2-6	6½-9	5.3	8.2
1978 Q.4 - 1979 Q.4	1½-4½	5-8	5.5	8.3		
Japan	M2 ² % increase	1977 Q.3 - 1978 Q.3	11-12		12.0	
		1977 Q.4 - 1978 Q.4	12		12.6	
		1978 Q.1 - 1979 Q.1	12		12.3	
		1978 Q.2 - 1979 Q.2	12		11.9	
		1978 Q.3 - 1979 Q.3	12		11.0	
		1978 Q.4 - 1979 Q.4	11		9.5	
Germany	Central bank money % increase	End-1974 - End-1975	8		10.0	
		Average 1975 - 1976	8		9.2	
		Average 1976 - 1977	8		9.0	
		Average 1977 - 1978	8		11.4	
		1978 Q.4 - 1979 Q.4	6-9		6.3	
France	M2 % increase	Dec. 1976 - Dec. 1977	12½		13.9	
		Dec. 1977 - Dec. 1978	12		12.3	
		Dec. 1978 - Dec. 1979	11		..	
United Kingdom	Sterling M3 % increase Domestic credit expansion (DCE) absolute increase	Fiscal year ending April 1977	M3 £	DCE	M3 £	DCE
		Fiscal year ending April 1978	9-13 ³	£9.0bn	7.8	4.6bn
		Fiscal year ending April 1979	9-13	£7.7bn	14.9	3.9bn
		Oct. 1978 - Oct. 1979	8-12	£6.0bn	10.9	6.7bn
		June 1979 - Oct. 1980	8-12	..	13.4	..
Italy	Total domestic credit absolute increase	March 1974 - March 1975	Lit. 21,800bn		19,600bn	
		March 1975 - March 1976	Lit. 24,700bn		35,280bn	
		Dec. 1975 - Dec. 1976	Lit. 29,500bn		33,280bn	
		Dec. 1976 - Dec. 1977	Lit. 32,000bn ⁴		35,652bn	
		March 1977 - March 1978	Lit. 30,000bn		39,265bn	
		Dec. 1977 - Dec. 1978	Lit. 46,000bn		49,013bn	
		Dec. 1978 - Dec. 1979	Lit. 53,000bn		..	
Canada	M1 % increase	1975 Q.2 - 1976 Q.2	10-15		12.0 ⁵	
		Feb./April. 1976 - 1977 Q.2	8-12		7.0 ¹	
		1977 Q.2 - 1978 Q.2	7-11		9.5 ¹	
		1978 Q.2 - 1979 Q.2	6-10		8.1 ¹	
		1979 Q.2 - 1980 Q.2	5-9		..	

(1) M3 targets, which have little operational meaning, are not shown.

(2) Forecast.

(3) Revised from 12 per cent to be consistent with DCE target.

(4) Revised from Lit. 36,600bn.

(5) 1975 Q.2 - Feb./April. 1976 (excluding effects of postal strike).

Source: OECD Secretariat and national publications.

Belgium Lifts Bank Rate 2 Points to Record 14%

BRUSSELS, March 19 (AP-DJ) — The Belgian central bank raised its discount rate two percentage points to a record high 14 percent today in a new effort to bolster the franc and stop the outflow of funds from Belgium.

The move was seen as a part of an all-out assault to defend the franc and squash rumors of a devaluation. Finance Minister Guy Verwilt said the move was "not a sign of weakness."

En Belgique

La Banque nationale
porte son taux d'escompte de 12% à 14%.

CONJONCTURE

Le taux de base des banques françaises est porté de 12,50 à 13,25 %...

ACCÉLÉRATION DES HAUSSES

• États-Unis : T

L'indice des prix à la consommation a augmenté de 1,4 % en janvier aux États-Unis. C'est la hausse la plus importante depuis août 1973, où elle avait atteint 1,8 %, après la déclaration du président Nixon de lever le contrôle des prix alimentaires. Les prix de gros avaient, de leur côté,

L'accélération de l'inflation
provoque une nouvelle hausse
des taux d'intérêt

Prime Rate
In U.S. Hits
Record 19%
NEW YORK
Chase Man
led a handfu
raising their
Chase all
ing in a
ng the

Japan Lifts
Bank Rate
1 3/4% to 9%
Henry Scott-Stokes

Bankers See
Hitting 2%

Interest rates up
in West Germany
and Switzerland

get significantly worse before the authorities moved aggressively towards restraint. Furthermore, there were usually political pressures that made governments reluctant to raise interest rates. When interest rates did tend to rise, due to an increased demand for funds, central banks resisting interest rate increases found themselves financing inflationary spending.

Thus more direct attention to the behaviour of monetary aggregates has given central banks a kind of "early warning system", improving the likelihood that monetary policy will act on the economy in the desired counter-cyclical way. However, continued preoccupation with interest rate stabilization, even after countries had begun to announce monetary objectives, led in a number of cases to a tendency for monetary or credit growth to overshoot target limits. Very recently, central banks in some countries have moved to address this weakness. For example, the U.S. monetary authorities, as an important part of a package of anti-inflation measures announced in October 1979, reoriented their technique of achieving monetary targets away from manipulation of short-term interest rates and towards control of the quantity of funds available in short-term money markets through influencing bank reserve positions. This may mean more volatility in U.S. short-term interest rates, but is expected to improve monetary control.

Monetary growth objectives also help the coordination of a government's economic policies. In Germany, France and the United Kingdom, monetary targets have been formally associated with government budgetary programmes and economic projections. This is especially useful in the context of fiscal policy since limits on monetary expansion can help keep a given budget deficit consistent with non-inflationary growth by avoiding excessive monetary financing of the deficit.

Monetary growth objectives can have valuable expectational effects. In the face of the inflationary shocks so familiar in today's uncertain economic environment, publicized commitment on the part of the authorities to achieve monetary targets and not to accommodate a worsening of inflation can help to moderate aggressive wage and price behaviour. And, inasmuch as exchange rates are in large part determined by relative inflation rates, the announcement of restrictive monetary objectives has at times helped convince exchange market participants that a country's inflation rate would probably improve in the future. Monetary targetry can thus help weaker currency countries to weather exchange crises.

Experience with Monetary Targeting

Monetary growth in most countries considered in the OECD report has been comparatively moderate since 1974-1975. Growth of "nominal" money stocks (M1 and M2/M3) has been distinctly lower

than during the period of excessive monetary expansion in the early 1970s, notwithstanding expansionary monetary developments in Germany and Switzerland in 1978 related to exchange market conditions. Weak demand growth helps to account for this moderation, but it is also attributable to cautious control of monetary aggregates growth.

Although substantial deviations occurred inside individual projection periods, actual rates of monetary growth were rather close to target over twelve-month periods in most countries at least until 1977 (see table). In Germany, official targets have remained steady; but continuous "overshooting" from 1975 through 1978 has led to a cumulative statistical "overhang" in monetary growth, which helps to account for the Bundesbank's monetary firmness over 1979. In the United States, M1 growth moved clearly out of target ranges from the second half of 1977 until late 1978 as the economy grew more buoyantly than expected and inflation accelerated. For a time thereafter, a sharp rise in money velocity reduced the growth rate of the aggregates; but by mid-1979 monetary expansion was again above targets, leading to subsequent restrictive policy action.

Year-on-year growth of broadly defined money in Japan, for which projections are now communicated to the public, has been virtually stabilised in a narrow 10-12 per cent range since early 1976. Quarterly "window guidance" for bank lending, and unusually weak corporate demand for bank credit, seem to have helped the authorities to keep monetary growth rather smoothly along the desired medium-term path. France and Canada have both aimed at bringing down projected monetary growth rates or tolerance ranges gradually. The same has been true in the United Kingdom, though the actual out-turn has shown fluctuations. In Italy, apart from the twelve-month period April 1974-March 1975 when actual growth remained below target, total domestic credit expansion has been significantly faster than stipulated under official credit ceilings. Heavy borrowing by the Treasury, especially from domestic commercial banks and other financial institutions, to finance unexpectedly large budget deficits, has made financial control difficult.

The deceleration of inflation in most major countries between 1975 and 1978 can to some extent be associated with the cautious monetary strategies pursued during that period, and more recently aggregates-oriented policies have "leaned against" resurgency of inflationary pressures originating abroad. The effectiveness of target-constrained monetary management for controlling inflation cannot, however, be read unambiguously from a simple examination of money and price movements over time, even when systematic allowance is made for lagged policy effects. Indeed, a balanced judgement on the contribution of monetary policies in themselves must allow for other factors such as price and incomes policies, budgetary policies, exchange rate appreciation, and commodity cost shocks.

The widespread adoption of explicit objectives for money or credit aggregates over recent years should not be seen as a radical change in monetary policy-making. It represents a logical evolution of monetary management, building on what went before, expanding the range of policy information rather than replacing it. Experience since 1974 has shown that the monitoring of aggregates can give valuable help in implementing a counter-inflationary monetary policy and, at a minimum, improve the way that policy is formulated. In the face of external price shocks, publicised monetary targets may reduce the risk of sharp acceleration of domestic inflation and help contain inflationary expectations. Given the fact that money velocity is rather erratic in the short run, however, the behaviour of money aggregates may not always be a reliable indicator for policy action. The orientation of policy towards control over the aggregates may be considered as one step forward, but by no means the final one, in monetary management.

TOWARDS A POLICY FOR PRE-SCHOOL CHILDREN

What is the value of pre-school education? Should it be made available only to children from disadvantaged backgrounds or be open to anyone? Should OECD Member governments enact formal policies on the subject, and if so what should be the priorities? What are the costs involved, public and private?

These are some of the questions addressed at the OECD Conference on Policies for Children, 10-12 March. Sponsored by the Centre for Educational Research and Innovation (CERI), the intergovernmental meeting represented OECD's follow-up to the International Year of the Child and consolidated results of CERI's research over the last decade on early childhood. The conference was intended to stimulate a dialogue between politicians — the architects of early childhood policies — and scientists performing research on children.

The current interest among OECD Member countries in discussing policy for pre-school children has multiple roots. First is the observation that the number of children enrolled in pre-school has been rising dramatically over the last few years (see Chart A) while waiting lists indicate that the demand is often far from met. Accordingly, sums invested in providing these services, both public and private, have continued to grow despite the economic crisis. Added to these facts is the concern, reflected in political deliberations and scientific research, over the current drop in the birth rate in industrialised societies. Young children are coming to be viewed as a valuable social resource which is becoming rarer and whose well-being is the responsibility of the whole society. And finally, deliberations about services to young children reflect the current concern for accountability that is influencing the whole public sector.

The sums invested, the number of people involved — teachers, doctors, psychologists, other specialists, administrators and politicians as well as parents and children — and the increasing multiplication and fragmentation of services engender frequent calls for the development of coherent, socially-minded, cost-effective policies for services to pre-schoolers. (See Table 1)

The Child's Environment

If a policy for children is to be defined and implemented, a first step would seem to be to study, to the extent possible, children in the environment and how that environment is changing. Such an "ecological" approach could begin by considering the family.

That is easier said than done. The family, its history and current "crisis" has been the subject of an outpouring of literature and theory in recent years. The nuclear family is alternately considered to be on the decline or on the rise; it is thought of as a refuge from the world or as a private encounter group for exploring the individual's potential (1); it is considered to have overextended its role as a result of the decline in the social functions of the city (2), to mention just a few viewpoints.

As to statistical evidence which could help define the current situation or to make forecasts, a recent OECD study devotes a chapter to "The Impossibility of Describing the Family and its Cycle through Demographic Models" (3). Even trying to know

with whom children live is a difficult task. Although the great majority of children in OECD Member countries live with two parents, the household may include more than one nuclear family and one or more people who live with the family, whether related or not. Censuses in OECD Member countries use between ten and several hundred categories to describe household types.

Despite the formidable technical problems, certain general trends observable in OECD Member countries must be taken into account in any consideration of policies for children (4).

The continuing expansion of the number of women who work outside the home is one of these, as is the high divorce rate. People are living longer, and women are younger at the birth of their last child than previously, giving children a better chance to know their grandparents. There is evidence that, while extended families may not live together, there is a good deal of contact between them, especially in poorer areas.

Along with increasing longevity and falling birth rates has come a decline in infant mortality. In Western Europe between the world wars, fifty children out of 1,000 died in the first year of life. But now the risk of infant mortality is minimal (see page 26) in OECD countries except — an important reservation — among certain social classes, poorer communities, and minority groups. Similarly, advances in hygiene, nutrition and immunology have minimized the risks of losing children to disease.

Another trend of importance for children is the change in the structure of working life. Shorter or more flexible hours and weeks and growing acceptance of alternating periods of activity and non-activity in the labour force suggest that people will have more time to devote to personal life. Not, of course, that the family will necessarily be the beneficiary of this change, but in a recent sur-

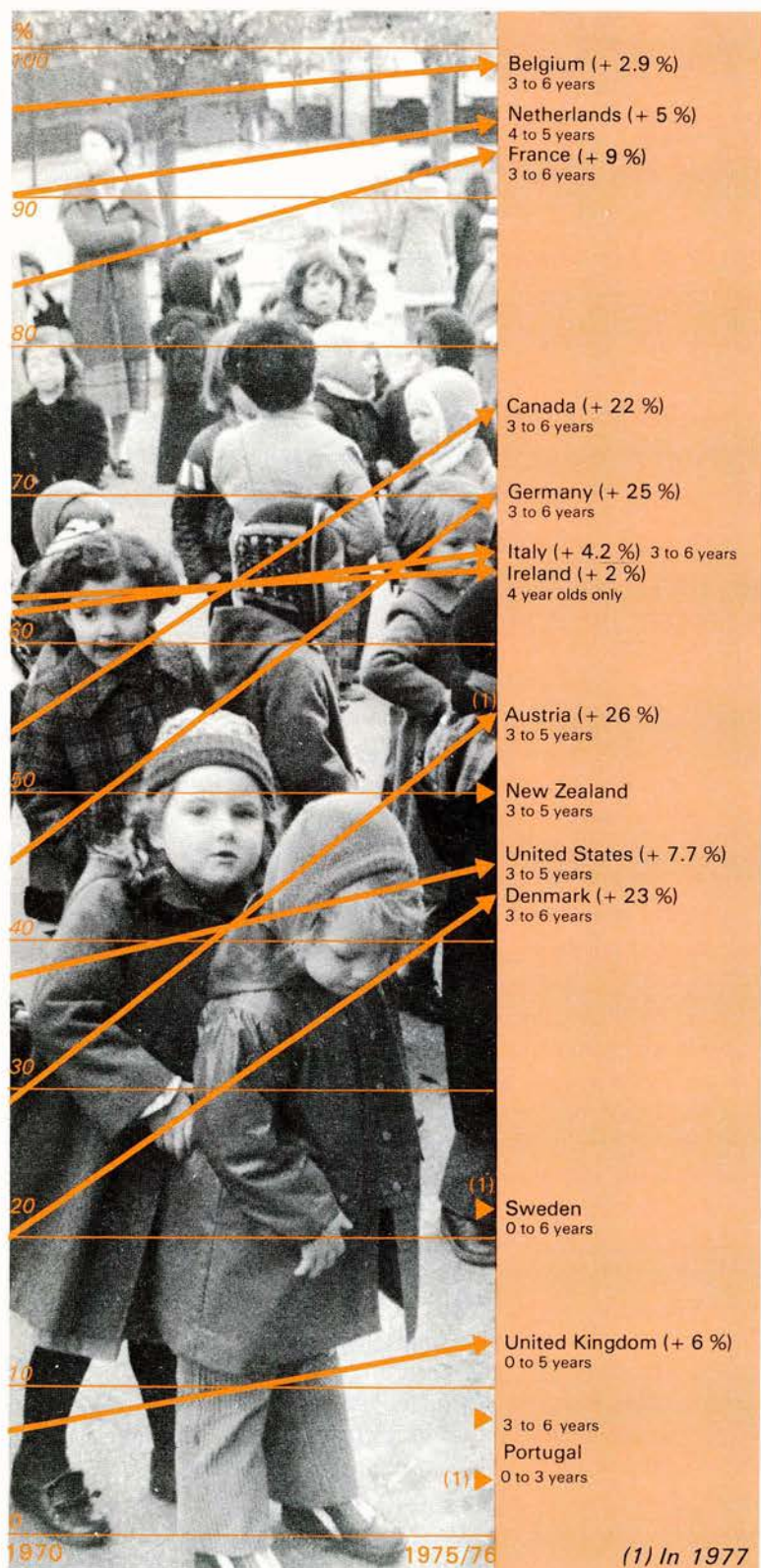
(1) See for example Christopher Lasch, *Haven in a Heartless World: The Family Beseiged*. New York, Basic Books, Inc. 1977, and Philippe Meyer, *L'Enfant et la raison d'État*, Paris, Éditions du Seuil, 1977.

(2) Philippe Ariès, "The Family and the City in the Old World and the New", in Virginia Tufté and Barbara Myerhoff Editors, *Changing Images of the Family*, New Haven, Yale University Press, 1979.

(3) Hervé Le Bras, *Child and Family: Demographic Developments in the OECD countries*, Paris, OECD, CERI, 1979.

(4) *Policies for Children: Analytical Report*, Paris, OECD, CERI, in press.

A. PRE-SCHOOL ATTENDANCE % of age group



The figures indicate attendance at public or private schools, without distinguishing between full- or part-time attendance.

vey in France, 53 per cent of those interviewed indicated they would devote more time to family life if the work week were reduced to less than 30 hours. For people in the 25-34 age bracket, mostly couples with young children, the rate was 61 per cent.

One could postulate that, since there continue to be fewer children in proportion to the rest of the population and they can be planned and expected to live, the practical concerns connected with child raising are different than they were even a generation

ago, especially among the middle-class and more prosperous segments of industrialised societies. The main change that has been perceived by OECD studies is an increasing emphasis on the psychological, as opposed to purely physical, well-being of the child and especially on his education. While day-care services originally focused on physical care and nourishment, parents now demand increased attention to intellectual stimulation and educational enrichment.

A Mini-History of Social Services

The discipline of child care was born at the end of the 19th century when the first social workers became active, the medical specialities for women and children were created and primary schooling became compulsory. The social workers — private citizens who mounted campaigns to combat the evils of child labour, poverty and parental drunkenness — strove to put working women back in the home and teach them to create a hygienic environment for children and husband. More crèches existed in London and Paris at the turn of the century than do now; they were largely closed as the social workers succeeded in keeping women at home.

Permeating these developments was the spirit of positivism: progress in statistics and social theory as well as in the biological and physical sciences led to a dominant belief that society obeyed inevitable laws which were discoverable and that evils could be eliminated if adequately studied and rationally attacked. On the home front, being a good mother came to mean accurately following the prescriptions — and proscriptions — of the scientist/doctor, for he “knew” the child on a scientific level. The collected folk-wisdom based on women’s experience was now supposed to be ignored in favour of the schedules and formulas that characterized this “hygiene and survival” movement.

In the early Twentieth Century, the pioneering efforts in social work were organised into social service professions requiring university training, and private charities were gradually supplemented by local, state and federal funding. Child care came to be dominated by the presence and theories of a complex new labour structure including teachers and teachers of teachers, educational psychologists, educational researchers, psychoanalysts, social workers, pediatricians. Services to children were likewise fragmented among schools, social work agencies, children’s services, child guidance centres, clinics, etc. which were funded and presumably coordinated by various levels of government.

The dominant *modus operandi* of these specialists and agencies was to identify possible “deficiencies” in individual children by testing, screening, diagnosing, and labelling them before separating them from the majority of their peers for special health surveillance or special education. These procedures are currently criticized for having created a misleading distinction between abnormal and normal, handicapped and non-handicapped children. It was observed that, if a child is excluded from ordinary family life and education, he usually remains separated from ordinary life after completing the treatment offered by the specialised service.

After World War II, in accordance with the rise of the new psychological specialities, a new model of home child-care grew up parallel to the first “hygiene and survival” movement. This model, particularly influential in the United States, can be exemplified by the teachings of Dr. Spock. Now the ideal mother would act on the advice of psychological experts as well as medical ones to ensure her child’s optimal psychological and emotional development. Still, the primary responsibility for “successfully” raising a child — and guilt if something went wrong — fell on the mother.

1. SERVICES TO YOUNG CHILDREN

	<i>Direct Services to Children</i>		<i>Child Supportive Services to Parents</i>	
	<i>"Well" Child</i>	<i>"Ill" Child</i>	<i>"Well" Child</i>	<i>"Ill" Child</i>
Health	<ul style="list-style-type: none"> • Pre/post-natal care • Preventive: physical exam, nutrition, psychological exam 	<ul style="list-style-type: none"> • Care of physical/mental illness, disability 	<ul style="list-style-type: none"> • Training in simple early prevention/diagnosis, treatment and/or referral; diet improvements; parental skills • Pre/post-natal parental leave 	<ul style="list-style-type: none"> • Training in home-nursing skills • Work release for parents of ill children
Welfare	<ul style="list-style-type: none"> • Child centered community recreation • Day care • Special summer camps 	<ul style="list-style-type: none"> • Adoption • Foster care • Direct short term response to neglect, abuse, exploitation 	<ul style="list-style-type: none"> • Training and referral to community support systems • Income support • Housing improvement • Employment services • Personal counselling 	
Education	<ul style="list-style-type: none"> • Pre-school educational programmes 	<ul style="list-style-type: none"> • Special education for handicapped/retarded children 	<ul style="list-style-type: none"> • Parent-as-pre-school teacher 	<ul style="list-style-type: none"> • Special training for parents of handicapped/retarded children



Although until recently public pre-school has been mainly compensatory in nature, a growing number of parents and professionals have come to believe that all small children deserve access to public health and educational services. Above: Health Visitor listens to a patient's problems at a clinic in Haringay, England.

Beginning in the 1960s, it was admitted that, while neo-natal and infant mortality seemed to be disappearing, psychiatric problems and learning disabilities were thriving despite the vigilance of a multitude of specialists. With this disappointment there arose a new sensitivity to social class as a factor in infant psycho-physical health as well as in the success of children at school. The theories of Piaget and other developmental psychologists assumed increasingly widespread influence, providing a new rationale for pre-school services: the learning model of man. In this view, children *learn* to be bright or slow, intellectually and emotionally open or blocked. They learn pro-social behaviour or to act out behaviour that is labelled disturbed.

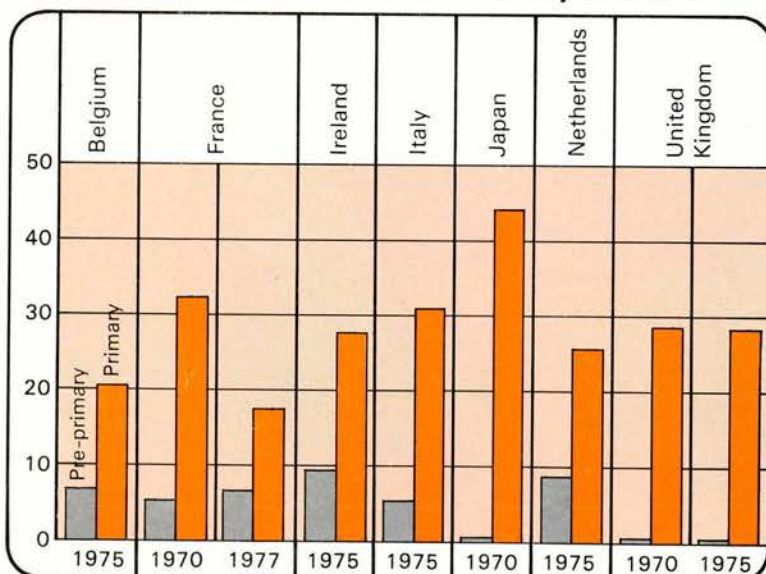
These developments helped spark a new phase of services for and research on young children. Pre-school educational services took on an urgent and compensatory character, targeted chiefly to disadvantaged population groups in the hopes of providing enrichment not found in the home and helping pre-schoolers prepare for school. The scope of research became more global than before, focusing on environmental influence beginning with foetus life and stressing the social environment. Finally, intensive efforts were made to enhance pre-school projects' chances of success by involving the community in the running of services.

The first large-scale experiment to combine the above three ideas — compensatory education, broad research and community involvement — was the Head Start programme begun in 1964 in the United States. Later programmes, especially in Belgium, France and the United Kingdom, have also become classics of research on compensatory education and nursery schooling in general.

Only a cursory review of results can be made here. But several complementary conclusions are:

- Pre-school pupils demonstrate a rapid gain in IQ which, however, disappears in a few years (5).
- It is possible, though, that without nursery school their IQ would regress even further (6).
- Once in school, children who have experienced the programmes do not have to repeat classes as often as children who have not attended nursery school (7).

B. EXPENDITURE FOR PRE-PRIMARY, PRIMARY EDUCATION: Percent of Total Educational Expenditure



Source: France 1977) from the *State Budget*. Italy, Netherlands, Belgium, Ireland and the United Kingdom (1975) from *Eurostat*, 1978, pp. 190-1. France (1970), Japan and the United Kingdom (1970) from OECD, *Educational Expenditure in France, Japan and the United Kingdom*, 1977, p. 47.

- Children who have been to pre-school also run less risk of being placed in special classes later on (8).

Finally, one of the studies indicated that initial failures and difficulties at school are determined primarily by the attitudes of parents, and their social class, towards the educational institution (9). Best results seem to be obtained when parents are involved in pre-school projects.

In sum, it seems that, even if gains in IQ or academic achievement are not clear-cut, a major effect of nursery school education is the metamorphosis of the pre-schooler into a pupil.

The Economics of Pre-School Care

The economics of pre-school services is, so to speak, in its infancy. We do not know much about what is spent on young children, let alone what the expenditure brings back to society as a whole; national procedures for collecting statistics have not been geared to these questions. Although the last fifteen years have seen a proliferation of publications on the costs and benefits of education, almost none of it deals with pre-primary education (10).

Nevertheless, the total level of expenditure on pre-school education and day care in certain countries has been computed and found to be a relatively small proportion of the educational budget. (See Chart B.) Granted, there is not as high an enrolment as for other educational levels nor is the schooling period as long. But it does seem that, except for crèches, the cost is also much lower per child.

Although comprehensive official information on pre-primary unit costs is virtually non-existent, whatever information is available has been assembled. Any conclusions should be treated with caution, but it would seem that crèches are expensive, while nursery education is apparently much cheaper than primary education. (See Table 2.)

Besides total cost, several other parameters should be taken into account if any credible assessment of the economics of pre-school services is to be made: the unit cost of a parent's time vs. that of a day-care centre (not to mention the relative benefits of the two); the marginal cost of providing services (how much does one extra child-place really cost?); the recurrent vs. the capital cost.

As on the cost side, crucial figures are missing from the data on benefits, but an outline can be sketched in. Benefits can be divided into three basic categories: satisfaction of social demand; child development; parental labour force participation. To focus on the social demand element would be to view pre-school education as a service to be "consumed" like any other. In this view, the

(5) Federal Programs for Young Children: Review and Recommendations, Vol. 4, Washington D.C., HEW, 1973. See also Uri Bronfenbrenner, Is Early Intervention Effective? A report on longitudinal evaluations of pre-school programs. Washington D.C., HEW, 1973.

(6) Th. Kellaghan, The Evaluation of an Intervention Programme for Disadvantaged Children, London, NFER Publishing Co., 1977.

(7) I. Lazar The Persistence of Pre-school Effect: A long-term Follow-up of Fourteen Infant and Pre-school Experiments. Washington D.C., ACYF, 1977.

(8) D.P. Weikart, J.T. Bond, J.T. McNeil: The Ypsilanti Perry Pre-school Project. Pre-school Years and Longitudinal Results Through Fourth Grade. Ypsilanti. Monograph Series of the High Scope Foundation, 1978.

(9) Recherches pédagogiques, No. 68: Pourquoi les échecs scolaires dans les premières années de la scolarité? Paris, INRP, 1974.

(10) See George Psacharopoulos, The Economics of Early Childhood Services: A conceptual framework and some empirical dimensions, Paris, OECD, CERI, 1980.

2. AVERAGE ANNUAL COST PER PLACE IN PRE-SCHOOL INSTITUTIONS \$US



CRECHE

Belgium (1976)	8,400
France (1979)	7,000
Denmark (1978)	
<i>social</i>	5,317
<i>private</i>	1,284
Portugal (1977)	396



KINDERGARTEN

Denmark (1978)	
<i>social</i>	2,683
<i>private</i>	782
Netherlands (1976)	851
France (1979)	415
(1974)	196
Japan (1974)	391
(1970)	160
Switzerland (1977)	316
New Zealand (1976)	156

value of pre-school services would be the sum parents are willing to pay in order to enjoy the service.

In addition, however, there are the benefits to the child. If it is a function of outside education plus family influence, early ability can conceivably be boosted by structured pre-school education, though it is not known by exactly how much, especially in the case of children coming from homes with well-educated mothers.

In any case, early ability can influence the educational level eventually attained, which in turn can be linked to a better-paying career and hence higher earnings over a life-span. Although one would expect the impact of boosting early ability to diminish as years go by, it is possible that pre-school education has a lifetime effect.

But benefits do not necessarily end there. By being freed to work, parents supplement their income to the extent that their market wages are higher than the implicit home production wage. And by not interrupting their careers they continue to accumulate work experience, a special form of human capital which can again pay off over a lifetime.

Policy Debates

Discussion of future policy for pre-school services tends to highlight basic philosophic and political disagreements. A number of points tend to provoke particularly lively debate, due in part to the paucity of information available. Aside from costs, and the concern over possible quantity/quality trade-offs, there are the sensitive questions of control and the role of the state.

The CERI has analysed three general classes of opinion on the appropriate role of the public sector in pre-school education.

- Those who advocate the first, the expansion of public services, cite the large demand for such services and the possible contribution free access would make to equality of opportunity. Poorer communities are obviously penalised if most day-care or nursery school arrangements are private, while restricting public facilities to disadvantaged children is itself an inequity, they assert, and unhealthy for the morale of the poorer community.
- Opponents of expanding public services often emphasize the primacy of the family and the value of the parents' right to private child-care and education. They also argue that funds should be concentrated on the most extreme cases, citing the cumbersome, costly bureaucracy that seems inherent in large-scale provision of services. Existing resources, they argue, can be used more efficiently.
- Lastly, many propound the idea that *all* children have special needs and therefore an inherent right to public services. Extensive experimentation in service provision should be encouraged and decision-making concentrated as far as possible at the grass-roots level rather than centralised by the state.

The rationale for continuing an experimental approach is two-fold: first, there is the present lack of knowledge on the subject; second, although coordination of services is often called for by management, professionals and users, efforts to streamline delivery and improve services by centrally coordinating them have consistently ended in failure (11).

Finally, proponents of community experimentation propose that what we do know about child development, health and education should be diffused as widely as possible throughout the population instead of remaining the province of "experts". Thus parents and staff, by educating themselves, can better decide the type of experience they want pre-school children to have.

(11) See Janet Weiss, Martin Rein and Sheldon White, "The Plea for Coordination of Services to Young Children", in *Children and Society: Issues for Pre-School Reform*, Paris, CERI, OECD, in press.



HIGHER EDUCATION AND THE COMMUNITY

New Partnerships and Interactions

"The university is questioning its role in society. This does not mean that it will give up its traditional functions, but that these must be reviewed in the light of changes taking place in society and performed more adequately. The university is neither outside nor above nor marginal to the society, but part and parcel of it."

In these words, Paule Leduc, President of the Council of Universities of Quebec, summed up the *Conference on Higher Education and the Community: New Partnerships and Interaction* organised by OECD's Centre of Educational Research and Innovation (CERI) — three days of discussion among more than a hundred university teachers, administrators and experts in higher education as well as trade union and management representatives.

The way in which the university relates to the society may differ from one country to another and from one institution to another ("experience cannot be exported but can provide inspiration"), but it was unanimously agreed that the university must come down from and out of its ivory tower.

The need is felt the more strongly in that, after a period of expansion during the 1960s, higher education is experiencing new types of problems linked to the economic crisis. These can be seen from a number of viewpoints:

- that of *the student* who is acutely concerned with employment opportunities, a fact which tends to deepen the cleavages between various faculties and types of institution
- that of *the public authorities* who are subject to budgetary constraints, sometimes forced to make drastic cuts in resources and to exert greater control over how the university uses its funds
- for *the community* and its inhabitants who want higher education to contribute more directly to economic, social and cultural development, particularly at local and regional levels.

Although the economic situation has made these pressures more acute, they also represent a fundamental change in thinking of the various concerned parties about the role of higher education in industrialised societies. This was reflected in the OECD discussions and is confirmed by the many new policies introduced and innovations made in Member countries in the universities. From a CERI survey of 150 institutions of higher education and other information gathered, it is evident that new and closer interactions between higher education and the community are nee-

ded to meet these pressures, to restore the balance between the three functions of the university (teaching, research and service/action) and to resolve what in certain countries looks very much like a crisis of confidence in the ability of higher education to fulfil its functions in contemporary society.

If one accepts the hypothesis that closer relations between higher education and the community are desirable and necessary, how are they to be achieved? To help answer this question, the Conference examined how the community perceives and what it expects of the university, especially locally and within the region. In many cases, the community's image of the university is so negative that the possibility of ever having closer links between the two seems to be an academic pipe dream. But, the image varies from observer to observer, the most important determinant apparently being how much contact with the university the person concerned has had and how familiar he is with the way it really functions. The university enjoys higher esteem among members of the community who are directly associated with its projects, a survey from the University of Maine shows. At Hiroshima, the university was found to be most favourably seen by older persons and by those who live nearby.

The image can also change. For example, the University of Rouen, recently created, seems to have gone through several stages: enthusiasm prior to the university's foundation, because close integration with the community was anticipated. But the university resisted local pressures for integration: the teachers came from anywhere and everywhere and were not necessarily interested in the region; so the university became isolated. Some

time later, when the community discovered that a university means the presence of students and teachers who may create problems, criticise the community or change the balance among local pressure groups, it was the community which resisted closer links, opposing any kind of university participation in its decision-making bodies.

The solution to the double problem of improving the university's image and fulfilling the community's expectations can be summed up in two words: contact and information. The universities must not be passive but, as Folke Haldén, the representative of the BIAC (OECD Business and Industry Advisory Committee) remarked, "should go out into the region and reach people where they live and work, and not only open their doors to those who venture to pay them a visit."

CERI's analysis has also shown what form the response of the university to the community's expectations may take and what precise mechanisms are appropriate in various national and local contexts (see box). Whatever its form, the new relationship between higher education and the community has an impact on the functioning of the university itself. In analysing this impact, Guy Berger, Professor at the University of Paris VIII, points out that, for the university, its treasured autonomy should mean openness; that openness means strength and that an autonomous, open and strong university will not only maintain its traditional functions, but enrich them through its relations with the community. The fact that these relations can involve conflict must not be hidden or feared but should on the contrary be regarded as a force propelling the university to improve both teaching and research.

THE CONSEQUENCES FOR HIGHER EDUCATION

by Guy BERGER,
Professor of Educational Science
University of Paris VIII and Consultant to CERI (1)

Increasing interaction between the university and the community has evident repercussions on the functioning of higher education. These are of three kinds: institutional, pedagogic and social.

Institutional Repercussions

● Contact Mechanisms

Mechanisms have been set up within the universities to facilitate their interaction with the community (see box). There are several possible models: informal and unofficial contacts between individuals and groups; organisms specifically designed to deal, in relatively independent fashion, with actions relating to the community; participation of the university as a whole in these relationships.

The three mechanisms correspond to two basic kinds of situation. In the first, the university tries to confine its contacts with the community to individual sectors or departments so that the university as a whole is "uncontaminated" by criticism coming from the community or by the problems that may arise as a result of the interaction. The second situation is one in which the university makes no such attempt to isolate itself.

Some observers believe that sectorial contacts can be made in

areas such as medicine, engineering and management, but is much difficult, if not impossible, in the case of the social sciences or the humanities. This distinction bears closer examination, for it implies that a partnership between the community and the university is acceptable if it is technical or instrumental in nature and if it can be established without conflict. But if the university discipline is one that questions the functioning of society, both sides pull back, the university invoking the independence of its scientific disciplines, the community the irrelevance of these sciences to daily life.

These distinctions are important since the demand made by the community on the university depend on the kind of mechanism adopted. Thus, in the case of the individual or the department, the demand takes the form of an order for services to be rendered while if the university as a whole is involved, there is more chance of having a close and long-term interaction, real co-operation and what has been called "co-activity".

It is possible for a single discipline to have community contacts without fundamentally altering the mode of operation of the university, the teaching process or way in which the research is carried out. But real co-operation or "co-activity" affects the

(1) This article is based on Professor Berger's presentation to the conference.



A campus may provide a good physical environment for study and research, but it may also isolate the university from the community.
Above: a lecture hall at the recently built University of Reims in France.

INSTITUTIONAL MECHANISMS

The new relations between university and the community have led to the introduction of various formal mechanisms of interaction and participation.

Participation of the Community in University Administration and Decision-making

In the United States, the United Kingdom, Canada and Sweden community members have been on university governing boards for a long time, sometimes elected, sometimes chosen in some other way. The practice seems to have become more widespread in recent years though its importance depends on three criteria:

- *The range of decisions* in which members of the community can participate. Generally community representation is limited to boards having responsibility for finance and administration rather than for curriculum, research or staff appointment.
- *Who represents the community.*

Usually board members are well known local figures — business leaders, local officials or members of the liberal professions and usually university graduates themselves. Thus their presence on university boards may well reinforce the elitism of higher education.

- *How "real" the participation is* and how the community representatives are chosen. Often the nomination comes from above rather than in response to local demands whether on the part of the university or the community.

Joint Use of Resources — Integrated Facilities

The joint use of resources — housing, medical care, transport and recreation facilities — serves a double purpose. It avoids the waste of resources resulting from duplication of expensive equipment and fosters exchanges between the different socio-economic strata and age-groups and also between students and faculty.

Two main problems arise in connection with this type of mechanism:

- *The location* of the university: if it is a campus university, it may well be far away from town which makes the sharing of resources difficult.
- *Political problems*: Is the university willing for example to lend its premises or laboratories to a group which has a pronounced political cast?

Alternating Education

From the point of view of greater equality, alternating education is an important mechanism for integrating university and community. There are two distinct types of alternating education:

- *Education organised by the individuals themselves.* For institutions of higher education, this means accepting large numbers of adult students with work experience into evening classes, correspondence courses, etc. The admission of such students may cause difficulties unless it goes hand in hand with changes in the planning and operation of the educational system both administratively and in terms of course content.
- *Alternation organised by the university:*

entire decision-making process, the breakdown of knowledge into disciplines and the very way in which the university functions.

One must be realistic, and, especially in the latter case, interaction may mean conflict for the simple reason that it involves the distribution of power. And the way in which the various social groups in the community are represented in co-ordinating mechanisms will determine the policies followed by both parties and thus the kind of relationships which are in fact established.

● *Problems of the Campus*

Another institutional impact has to do with the siting of the university — what is commonly referred to as the problem of the campus. The campus has been described as a sort of Rousseau-esque idyll, a bucolic place, complete with babbling brook and warbling birds. The counterpart of this image is the view of the city or the community as a source of pollution, a menace from which the university must be protected. This theme of purity and impurity has another dimension. The university sees itself as far-sighted and high-minded, while the community is seen as short-sighted, narrow and mean.

Siting presents a double problem. The first is how to give the university the best physical conditions for teaching and research. The second is how to protect the university from harmful influences in the community. In many discussions, the first problem is used to conceal the second: the university uses the search for adequate facilities as a pretext for cutting itself off from the community. This dogmatic statement must, of course, be qualified: experience differs from country to country and institution to institution.

Consequences for Teaching

It is difficult to say which of the innovations in the university are directly linked to closer relations with the community. The same

reforms that strengthen university ties to the community may also change teaching methods so that it is impossible to establish a cause-and-effect relationship. Nevertheless, three main types of change seem to be involved.

● *Organisation of Courses*

There has been a notable rise in what is called “alternating” education which is considered to be an important element in facilitating relations between higher education and the community since it puts both the dialogue and the interaction on a concrete basis.

But alternating education faces many difficulties:

- It is not well adapted to some disciplines — the arts, law and science, for example.
- There are institutional obstacles; moreover the students may lack a sense of reality about their experience in the community.
- There are theoretical obstacles: facts and experiments are not meaningful in themselves; to interpret, integrate and order them, a student needs conceptual tools; yet theory is rarely a simple formalisation of experience, and too fleeting or superficial a contact with practical life may create illusions on the part of the student about how much he knows and prevent him from acquiring a truly critical approach.

If alternating education is not to be just a pedagogic “kit”, it must be put into the broader context of university/community contacts; it requires thorough preparation of both student and host community.

In most traditional systems, experience is treated as though it were derived from theory, and the community is the laboratory for the application of knowledge acquired outside and above it. New relations between community and university however entail a new type of thinking in which practice is not merely the application of existing knowledge but something which stimulates and

the introduction of working periods into university study. This is very widespread in vocationally oriented institutions (sandwich courses have existed in the United Kingdom for many years) but in universities, where the emphasis is on theoretical knowledge, the idea meets with considerable resistance, especially on the matter of giving credit for practical experience.

Structures for Interaction

Institutions of higher education have had to develop new structures in their search for closer relations with the community.

Three main features are evident from an analysis of these liaison units.

- A trend towards a single liaison unit in response to the community's pluridisciplinary needs. A single unit is better able to monitor how these needs are being met by the various faculties or departments concerned. (Industry for example can address itself to a single source to provide training for its employees, as has been shown at the University of Rouen, France).

- A trend towards greater *autonomy* in administration, finance and personnel

recruitment. Such autonomy offers many advantages, but an important drawback is the possibility that it will become isolated from the parent university which feels little involved in the process of integration.

- *The sometimes precarious position of the community liaison unit.* Since these structures represent a break with university tradition, they may be resisted not only by the faculty but also by “regular” students and sometimes by members of the community as well who may, for example, fear economic competition from applied researchers at the university. Various attempts have been made to remedy this weakness: publicity to make the services offered known; strengthening the unit vis-à-vis the parent university (the Industrial Innovation Centre of the University of Waterloo in Canada for example has the authority to make decisions and negotiate contracts on behalf of the University); and endowing the unit with financial autonomy, which in certain cases can be considerable.

Consortia

The so-called consortia have been created to help analyse the problems of their town or region and to plan for its economic and social development. Such

bodies have autonomy. Their funding is assured by university and community jointly, and they have balanced representation which makes for a certain neutrality.

Generally they link not one but several universities to the firms and other groups in the town or region. An example of such a consortium is the one that links Wayne State University to the City of Detroit in the United States. The aim of this city/university consortium is to work together on urban problems. Five representatives of the city and five from the university try to make the best joint use of the human and physical resources for the benefit of the community.

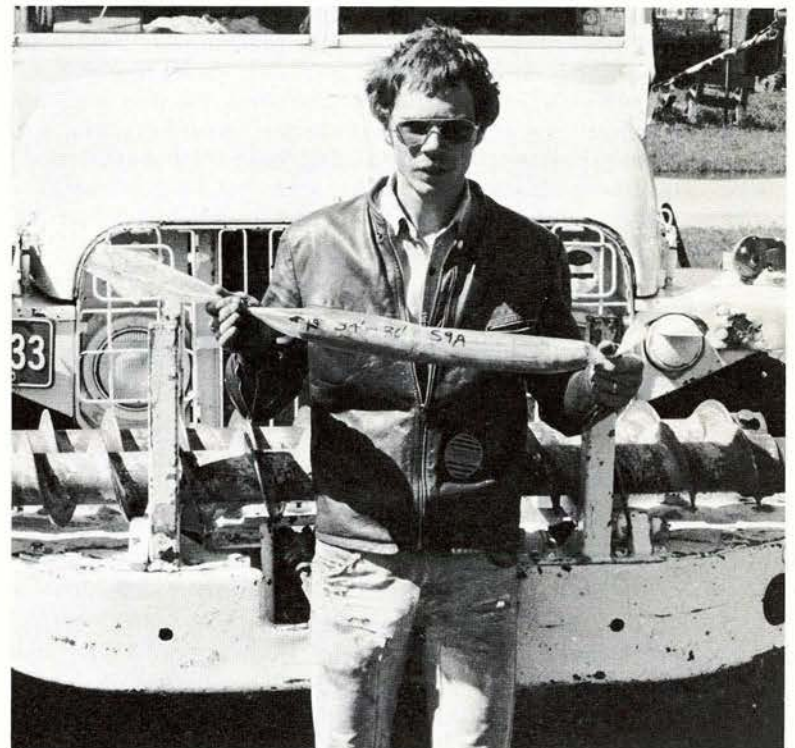
The University of Aix-Marseilles II (France) reported on a Southern Planning and Research Bureau for Co-operation in the Agro-Food Industry, a *regional* association made up of agricultural co-operatives, elected officials of the regional governing body and the university. The most noteworthy result of this collective effort has been development of a five-year plan for the protection of the region's agriculture, which was passed by the regional authority and given the substantial sum of 150 million francs (\$38 million) over a period of five years.



A university/community theatre project in Louvain Belgium.



The University of Luleå in Northern Sweden works closely with small firms. Ove Westin, a small entrepreneur and Johan Edgren (left) of the University's Engineering Department were able to develop a cable drum with a folding segment which makes cables easier to install.



Ed Sudicky, a graduate student at the University of Waterloo in Ontario Canada takes core samples to find out how contamination from local landfills has polluted underground water.

enriches the theory itself. This has consequences both for the organisation of course and for the relationship between "fundamental" and "applied" research.

● *Content of Higher Education*

Interdisciplinarity is both the foundation and the stumbling-block of education based on close relationships with the community. Interdisciplinarity may be simply an abstract concept, the sort of vision of total knowledge nurtured by every academic. But it also may be something very concrete if it reflects the true complexity of real world problems.

An excellent reply to a CERI survey came from an Englishman who wrote: "Communities have problems; universities have departments". This epitomizes the problem of the gap between rigid university structures on the one hand and the real world with its inevitable complexity and hence multi-disciplinarity on the other. No real problem is ever purely technical, social or scientific, and the reason for the rigidity in universities is of course that disciplines are not merely scientific realities but social institutions

through which knowledge and hence power are shared. This is clearly seen in the assignment of research which those responsible try to keep within disciplinary compartments, which are also budgetary and power compartments.

A new balance is also emerging between the basic disciplines. Certain sciences, especially the social sciences, which have not traditionally been considered important in the university structure, become much more "noble" when the community is involved. Analysis of how a community-oriented university really works shows that the social sciences are a necessary ingredient, indeed often the very symbol of the university's ties to the community.

There may, however, be misunderstandings. The community for example may expect the social sciences to provide it with "social technologies" or "normative procedures" whereas the true basis of these sciences is their critical function.

● *Teaching Methods and the Student-Teacher Relationship*

A third implication of closer university/community links for

teaching is the transformation of teaching methods and especially of the teacher-student relationship. Project-based teaching, combined research and learning, work in small groups, team teaching, extra-mural work and a whole range of known but little used teaching methods are adopted when cooperation with the community comes to the fore.

From the student's point of view, the change is profound, especially when it involves work in the field. The student who is faced with practical problems and social realities and is in contact with the ultimate user finds that he must solve problems in ways which are acceptable to all parties concerned rather than pass exams. Yet he must not confuse scientific objectivity with acceptance by the majority (or even with unanimity); nor can he confound the scientific approach with empirical approximation. The key question is what role the university plays — that of a "service station" or a forum for analysis and objective criticism. Both approaches involve interaction with the environment and the scientific method, but the two are profoundly different.

Social Consequences

● *A New Student Population*

The increase in student numbers in the 1960s did not change the "qualitative" structure of the student population: the percentage of students from underprivileged homes is virtually the same now as it was, despite a five- or ten-fold increase in the total number of students.

On the other hand, the development of a new type of relationship with the community has, according to our analysis of actual experience, entailed what might be called a qualitative break with the past. The most notable change is the appearance of a new kind of student, not only in continuing education but also in the acquisition of basic skills: a person in the community is entitled to student status even if he has not completed secondary school and even if he is a regular job holder.

When establishing relations with the community, some universities have addressed themselves to specific groups — workers, migrants, women elderly persons, ethnic minorities and people living in economically or culturally backward areas — offering them either general education or training oriented specifically to their immediate needs or cultural and social situation.

The second noteworthy change seems to us to be that those who take post-secondary courses are not necessarily working towards a degree. This is true in every country, and it affects both the number and type of students and is reflected in the increasing number of courses in basic skills.

Although certain surveys show that what most students ask of the university is a degree-oriented course of study, this is perhaps not so much because it is what they most want but because it is what higher education has to offer. If other alternatives exist, whole cohorts of students come and go without ever trying to obtain a degree.

A last form of structural change in the student population is the appearance of what UNESCO calls "collective bodies". Because of its links with the local or regional environment, higher education is increasingly called on to meet the needs of community groups, professional associations and employees of a particular firm. In this case, the demand for training is often connected with the requirements of community action — on town planning, pollution control, work organisation, a community artistic activity, etc. — or it may be the response of a minority group to a conflict situation.

These changes profoundly modify the accepted meaning of "democratisation of higher education". Rather than signifying simply an increase in student numbers and graduates, or the adoption of new selection methods which are less linked to cultural or social background, what is emerging is a diversified process in which the university puts its resources at the disposal of the whole population without, however, expecting to change

everyone into a student or potential graduate. This is a major change, the impact of which cannot properly be assessed as yet.

● *... and Teachers*

Because work premises (firms and private laboratories) and community facilities are being used more and more for teaching and research and because of the rise in alternating education and project-based teaching, new kinds of teachers and research workers are coming onto the scene in many universities, industrial researchers for example and local professional people.

This trend is significant because it is a sign that higher education is becoming more open to its environment; it is also a point of departure for new kinds of cooperation.

A New Dynamic

The essential point in all our observations is that a new self-reinforcing cycle is being built up between higher education and the community which makes observed changes both more significant and, in general, more stable than traditional innovations.

I would dispute the statement that relations between higher education and the community are sufficiently well transmitted through individual contacts. Of course, graduates along with research are the most obvious and most important end-products of higher education. But assuming — and the assumption is a realistic one — that a student spends about four years in higher education and then takes another three or four years fully to use his learned skills, then relying solely on the graduate's contribution to the community to consolidate university/community relations is in fact tantamount to abandoning the whole concept. Consequently, building a dynamic into the interaction between higher education and the community seems to be one of the first requirements of fruitful interaction.

A second factor which seems very important to me is what one might call "negotiation". Instead of a unidirectional process in which higher education proposes its methods and products and asks the community to accept them, a kind of mutual negotiation is emerging in which the university's proposals are discussed and then accepted, rejected or modified by the community.

Obviously, this system of negotiation involves the institutional framework as a whole but is also reflected in the classroom: the teacher must negotiate his curriculum and methods with the students so that he can respond to their expectations but also perhaps change these expectations. Negotiation however risks bringing the university under the control of the community, even in matters of curricula and research, and this brings up a whole new set of issues.

The fact that university/community relations have a dynamic of their own has led many institutions to try to marginalise them: when a potentially successful new element in the interaction appears, it may be systematically blocked and thrust out of the mainstream of university life.

Autonomy and Commitment

There was wide agreement at the conference on the fact that university autonomy is basic to higher education. The problem is whether this autonomy should be used to protect the university from outside "pollution" or criticism. The university, with its capacity for objective thinking and criticism should bring these capacities, which the community cannot itself provide, to bear on the analysis of collective problems. This view of autonomy makes the university a place which can accept difference and conflict.

If the relations between the community and higher education are to be based solely on agreements, on a kind of jockeying to meet each other's minimum interests, the interaction will be weak. On the other hand, if both university and community accept conflict and consider it a driving force in their relationship, the interaction will be less disquieting, even if difficult.

An OECD Conference

NOISE REDUCTION: AN URGENT NEED

by Jim MacNeill
OECD Director of the Environment

Over 100 million people in OECD countries now suffer, in their homes, from "unacceptable" noise levels (above 65 decibels). Another 200 million live with "uncomfortable" noise levels (above 55 decibels). In a large city, such as Paris, more than half the inhabitants are exposed to 65 decibels or more. OECD countries are the most industrialised, urbanised, motorised and therefore the noisiest countries in the world. And noise levels are on the rise. Since lead times are long for noise abatement, strong measures to control and reduce noise pollution are needed now or the situation will certainly be much worse in the year 2000.

In response to this problem, the OECD will hold the world's first international conference on Noise Abatement Policies, May 7-9, 1980 in Paris. Among 200 delegates from OECD countries will be Ministers of Environment, specialists in the field of noise abatement, and representatives of industries most affected by noise abatement programmes.

Participants will consider the present and future state of the acoustical environment and will examine strategies to strengthen the fight against noise: legislation, economic instruments (charges, compensation), community action and low-cost techniques such as information, education, acoustic labelling, and experiments with "quiet towns". The conference will also permit a detailed analysis of the costs and energy implications of the fight against noise and will discuss the steps necessary to strengthen international cooperation in this area.

All Member countries are experiencing increasing noise pollution, and neither current nor proposed measures are comprehensive enough to prevent further degradation of the acoustic environment. Countries must be encouraged to step up their anti-noise measures by 1985. Surveys, records of complaints and physical measurements all show noise pollution to be one of the major hazards of modern life, especially in urban areas.

People everywhere attach increasing importance to the reduction of noise. Recent opinion surveys in the United States and Japan for example rate noise as the single greatest annoyance to people living in residential areas. They also show that the level of annoyance has increased in recent years. In the United States, noise is one of the major reasons people change their neighbourhoods. In Japan there are currently more complaints about noise than about any other form of pollution.

How has this come about? Over the last twenty years noise levels have not only increased, but noise pollution has spread both in time (evening and night-time traffic, weekend and holiday activities) and in space (into suburbs and the countryside). These further inroads are due to continuing urbanisation, higher density of population and increased traffic. The urban population in OECD countries has increased by 50 per cent during this period, and the number of towns with more than a million inhabitants has doubled. Large-scale urban renewal and new infrastructure projects such as motorways and airports have also contributed to increasing noise pollution.

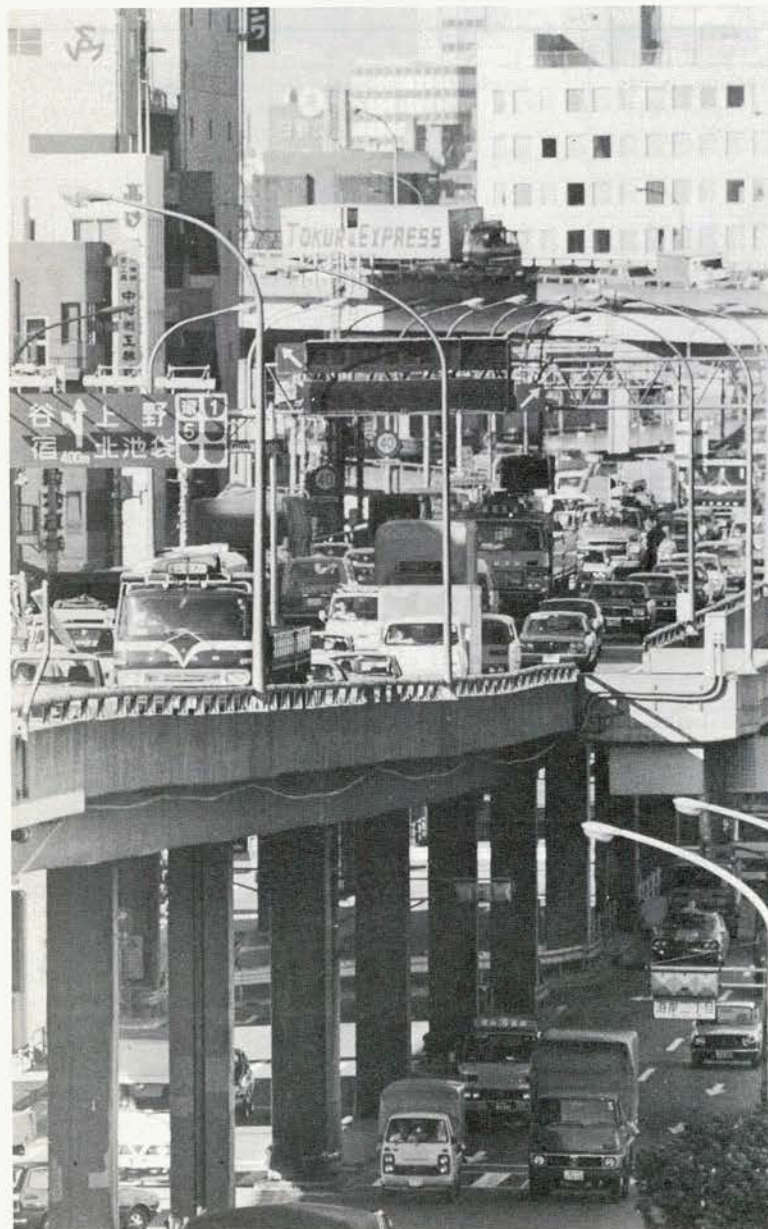
Noise sources have increased most rapidly in the field of transport. The number of *surface motor vehicles* (private cars, heavy lorries, buses and motorcycles) has trebled in the past 20 years. In fact, measurements and surveys show that the number of people exposed to and affected by road traffic noise far exceeds the number exposed to all other sound sources combined. *Air traffic* has increased tenfold in terms of passenger/km. The impact of the two modes of transport differs from country to country. In Europe and Japan, for example, an estimated twenty times more people are exposed to road traffic noise than to aircraft noise, compared with three times more in the United States. *Railways* have a smaller but far from negligible impact: between 1 and 3 per cent of the population, depending on the country, is subjected to more than 65 dBA by trains.

Neighbourhood noises, especially in residential suburbs, are also an appreciable source of annoyance in some countries. Unfortunately however, there are no statistical surveys on this. The only available index is the number of complaints.

It is estimated that, over the last twenty years, the amount of acoustical energy generated in OECD countries has more than doubled. But this figure masks a more complex pattern of development. In areas which have been heavily urbanised for some time, the already high noise level has not increased very much. On the other hand, in formerly quiet areas (such as residential suburbs) the average noise level has increased by as much as 7 to 10 dBA, sometimes even more. To illustrate the



Above: a noise barrier to protect apartment dwellers outside Paris.
Below: an elevated expressway in Tokyo.

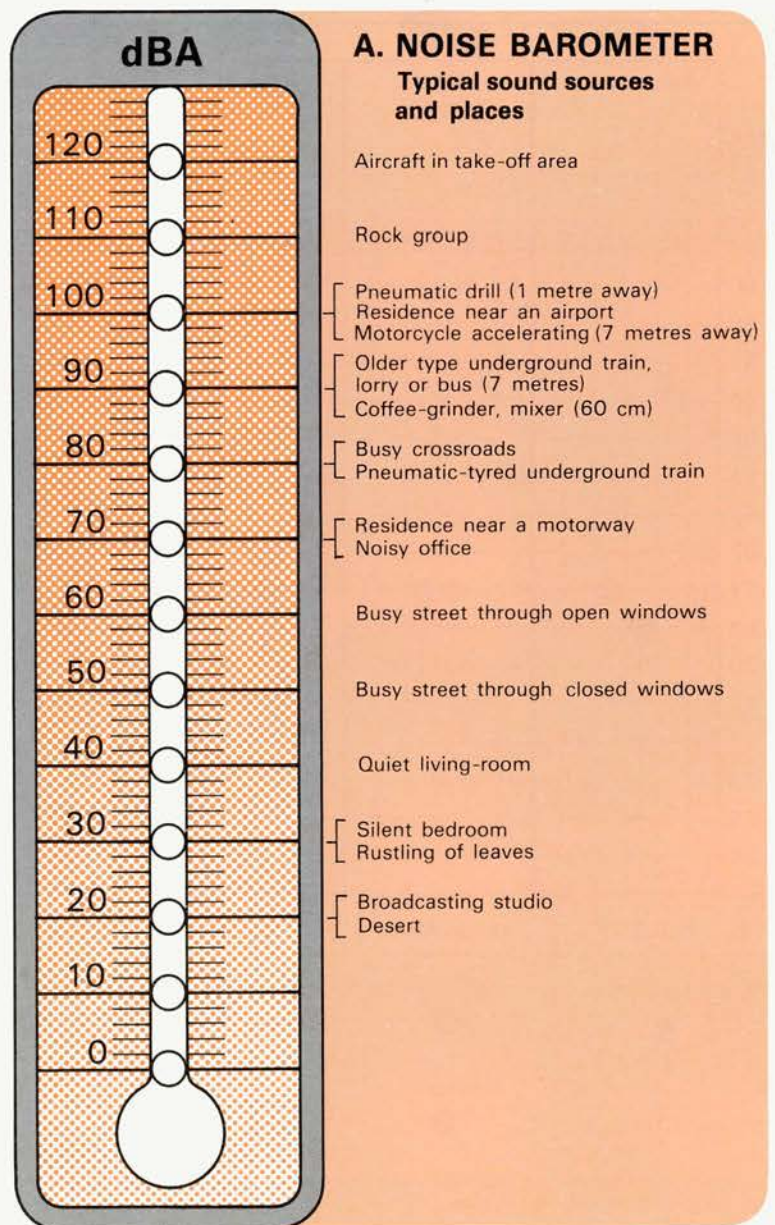


significance of such a rise, a 10 dBA increase means a doubling of "loudness", i.e. of the degree of noise subjectively perceived. Ten dBA is the difference between average noise in a small town and in a metropolis like London or Paris.

The Future of Noise

Forecasts in North America and Europe suggest that, despite current regulations, noise will continue to increase until the year 2000, mainly because of road traffic. In the United States for instance, the impact of *road traffic noise* in the year 2000 will be 25 per cent greater than in 1970 if present regulations on heavy lorries are applied. Without such regulations, the noise impact in 2000 would be double that of 1970. Moreover, if the noise generated by automobiles increases, the effects of stricter standards for heavy lorries will be cancelled out. This may happen in the United States because of a growing fleet of medium-sized and small cars which are noisier than large cars. It should be noted that road traffic of all kinds is expected to double in terms of vehicle/km. by the year 2000 in the United States.

The OECD conference will examine the results of several forecasts which show that the impact of traffic noise in Europe will rise by more than a third between now and the year 2000 if noise emissions limits for motor vehicles are not significantly tightened before 1990. Detailed analyses will be provided for the United Kingdom, Switzerland and France in particular. →



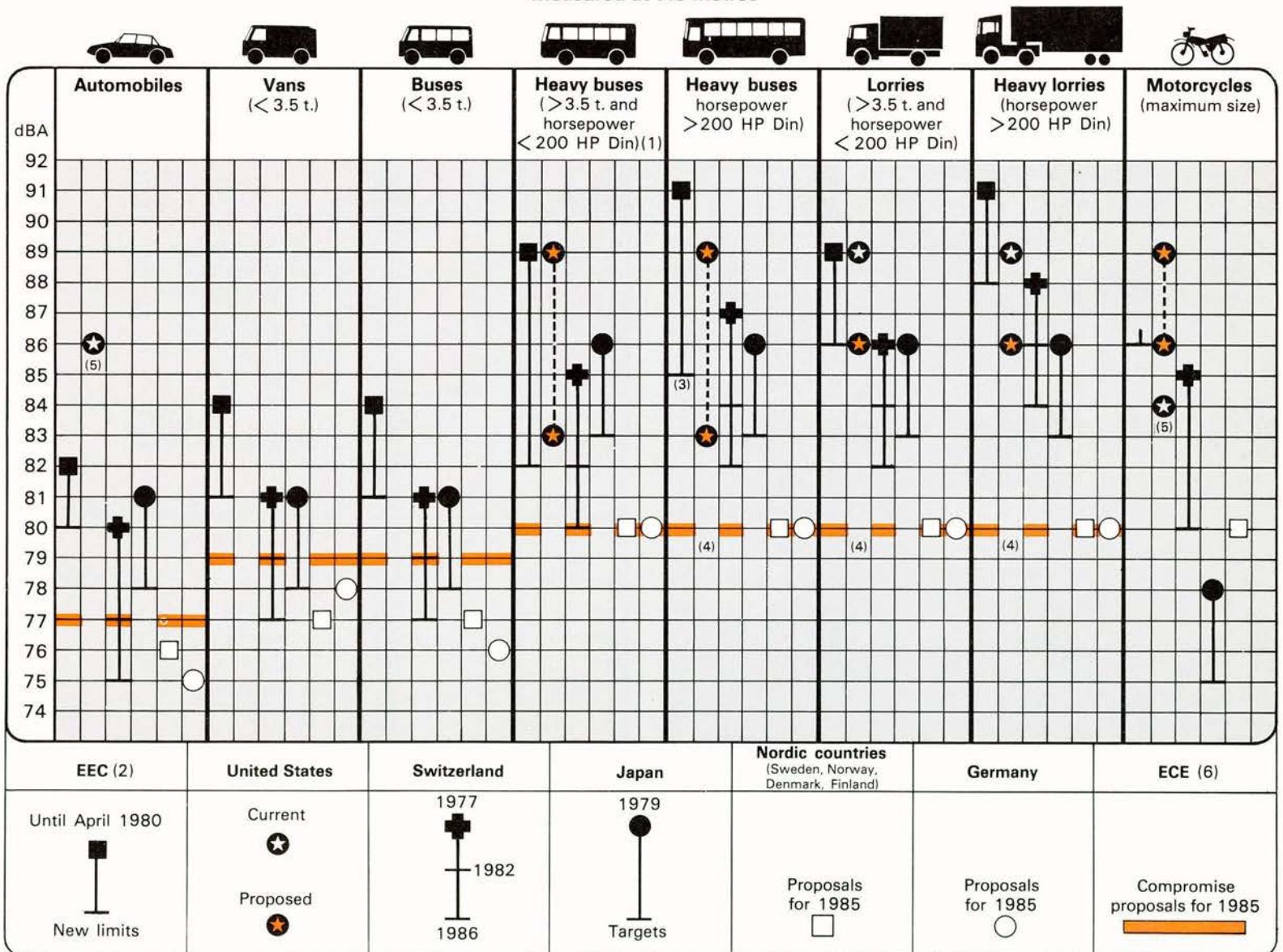


Thus the outlook for road traffic noise gives cause for considerable concern. What may be still more serious is the suggestion in some forecasts that noise will increase not only in urban

areas but also in tourist regions and wilderness areas, especially during weekends and holidays, as a result of the continuing growth of leisure activities, tourism and vacation homes. It will be

MOTOR VEHICLE NOISE LIMITS AND TARGETS

Measured at 7.5 metres



1) Deutsche Industrie Normen - 2) EEC limits allow 1 dBA tolerance - 3) Applicable from 1982 - 4) Applicable after 1985 - 5) California only - 6) The UN's Economic Commission for Europe.



increasingly difficult to find periods and places of silence because of the growing number of snowmobiles and other recreational vehicles, the invasion by motor cars and boats into formerly quiet

areas, and the greater use of private planes and helicopters.

The prospects for reduction of noise from *commercial aviation* are relatively encouraging. It is estimated that by the year 2000, if

NOISE CONTROL REGULATIONS

Noise control regulations, in many OECD countries, are fairly "scattered": specific aspects of sound pollution are attacked separately. What is needed is a comprehensive approach, with well defined objectives, priorities, and time-frames. Such an approach would encompass the planning, financing and implementation of noise abatement measures.

So far, only the Netherlands has a fully comprehensive approach to the problem. The United States and Germany have put together relatively comprehensive regulations.

Regulating noise pollution involves several problems. Results come slowly: for example, it takes at least ten years for all vehicles in use to conform to new noise emission standards. Enforcement of anti-noise measures is difficult. Regulations should be automatic and should be coordinated with incentive measures such as taxes on production, acoustic labelling of noise products, and education and information campaigns. There is a risk that efforts to harmonize regulation at international level will lower standards in some countries.

NOISE CHARGES

Noise charges — an application of the "polluter pays principle" — have two main objectives:

- to provide economic incentives to

producers and consumers to use less noisy products as a supplement to regulations

- to finance the fight against noise (soundproofing residences, acoustic screens, etc.) and systems of compensation.

Charges should be closely linked to the intensity of the noise and to the degree of annoyance caused (for example motor vehicles annoy many more people in cities than in the country) so as to provide a real incentive and to be equitable. Charges on noisy aircraft are already in force at some airports (France, the United Kingdom, Germany, Japan). Charges on motor vehicles are to be introduced in the Netherlands.

COMPENSATION

Compensation may act as an incentive to better noise prevention, since the prospect of having to make compensation payments may induce decision makers to reduce noise. Compensation must, however, be a last resort in the event that people cannot be protected from noise, for example along motorways or near airports.

Compensation usually takes the form of sound-insulation (e.g. double glazing) and/or monetary payments for loss of property value.

Examples. *Traffic noise*: in the United Kingdom, 60,000 dwellings are eligible for insulation at a potential cost of \$65-76 million. *Aircraft noise*: London's Heathrow Airport has already spent \$7.6 million, and a further \$34 million is foreseen; Germany has spent \$5.7 million on civil airports and \$3.4 million on military airports; Japan

allocated \$253 million to soundproofing in 1979 and France has spent \$33 million since 1973 for airports at Orly and Charles de Gaulle. In the United States, Los Angeles spent \$300 million on purchasing houses and land.

INTERNATIONAL COOPERATION AND HARMONISATION

Cooperation and harmonisation have two aims:

- to protect and improve the noise environment (through mutual encouragement, joint evaluation of policies, etc.)
- to remove barriers to trade, so that product specifications and standards do not differ from country to country.

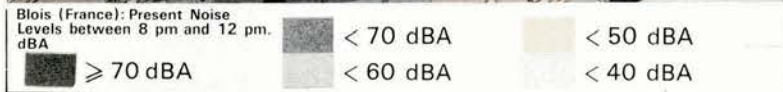
The main dangers of harmonisation are lengthy international negotiations which can delay and limit progress and risk arriving at the "lowest common denominator."

Motor vehicle noise emission limits are essential for three reasons:

- the importance of trade (90% of total world cars are within the OECD area)
- their role as a major source of noise pollution
- the different approaches taken in Europe, Japan and the United States.

Aircraft are also important sources of noise and provide a classic example of the need for harmonisation since they are a major source of transfrontier pollution.

Harmonisation is also desirable for construction equipment, household appliances and noise labelling.



Based on noise charts the City of Blois has launched a series of noise abatement actions:

- public awareness campaign
- prohibiting heavy trucks from crossing the city as night
- noise emission control
- creation of the post of Noise Commissioner, with a Noise Control Policy Squad
- installation of engine muffling devices on buses
- area reserved for noisy recreational activities

all known measures of noise reduction were applied, the population exposed to aircraft noise in OECD Member countries would be reduced to one fifth of what it was in 1975. If the reduction of noise emissions continues, if fleet replacement with quieter aircraft is speeded up, and if these measures are not offset by heavier air traffic, only those in the immediate surroundings of civilian airports will be seriously affected by commercial airplane noise.

**

It is clear from this brief survey that present regulation and noise abatement measures are insufficient. At most, they will stabilise the situation; in many cases they will allow it to deteriorate.

Only ambitious, comprehensive noise abatement-programmes, incorporating a variety of techniques and policy instruments (see box for examples) will be able to improve the acoustical environment. The goal of the conference is to make concrete proposals on this subject.



New OECD Publications

Prices charged at the OECD Publications Office

"OECD Economic Surveys". 1980 Series

Detailed annual surveys and trends and prospects for each OECD country.

BELGIUM-LUXEMBOURG (December 1979)

(10 80 29 1) ISBN 92-64-12015-7 80 pages

FINLAND (December 1979)

(10 80 31 1) ISBN 92-64-12016-5 88 pages

AUSTRIA (January 1980)

(10 80 11 1) ISBN 92-64-12029-7 70 pages

NORWAY (January 1980)

(10 80 22 1) ISBN 92-64-12030-0 92 pages

UNITED KINGDOM (February 1980)

(10 80 28 2) ISBN 92-64-12032-7 72 pages

Each issue £1.60 US\$3.50 F14,00

ISSN 0376-6438

Subscription to the series (20 to 22 surveys to be published) £26.60 US\$60.00 F240,00

DEMOGRAPHIC TRENDS 1950 TO 1990 (January 1980)

(81 80 01 1) ISBN 92-64-12021-1

144 pages £3.80 US\$8.50 F34,00

INTERNATIONAL DIRECT INVESTMENT: Policies, Procedures and Practices in OECD Member Countries, 1979 (February 1980)

"Document" Series

(21 80 02 1) ISBN 92-64-12026-2

74 pages £1.90 US\$4.25 F17,00

EAST-WEST TRADE IN CHEMICALS (March 1980) "Document" Series

(22 80 01 1) ISBN 92-64-12034-3

76 pages £2.00 US\$4.50 F18,00

CONCENTRATION AND COMPETITION POLICY (January 1980)

(24 79 04 1) ISBN 92-64-12014-9

172 pages £4.20 US\$9.50 F38,00

ANNUAL REPORTS ON CONSUMER POLICY IN OECD MEMBER COUNTRIES, 1979 (January 1980) "Document" Series

(24 79 03 1) ISBN 92-64-12010-6

136 pages £4.20 US\$9.50 F38,00

URANIUM — RESOURCES, PRODUCTION AND DEMAND December 1979 (February 1980)

(66 80 01 1) ISBN 92-64-12022-X

204 pages £8.70 US\$19.50 F78,00

THE NON-FERROUS METALS INDUSTRY, 1978 (January 1980)

(71 80 30 3) ISBN 92-64-01998-7

40 pages, bil. .. £1.80 US\$4.00 F16,00

PLATE INSPECTION PROGRAMME — PISC — November 1979. Report from the Plate Inspection Steering Committee (PISC) on the ultrasonic examination of three test plates using the "PISC" procedure based upon the ASME XI code (February 1980)

(66 80 02 1) ISBN 92-64-12028-9

78 pages £3.30 US\$7.50 F30,00

"Agricultural Products and Markets":

THE INSTABILITY OF AGRICULTURAL COMMODITY MARKETS (March 1980) "Document" Series

(51 80 03 1) ISBN 92-64-12041-6

230 pages £4.20 US\$9.50 F38,00

"OECD Agricultural Policy Reports":

REVIEW OF AGRICULTURAL POLICIES IN OECD MEMBER COUNTRIES, 1979 (March 1980)

(51 80 04 1) ISBN 92-64-12043-2

118 pages £5.30 US\$12.00 F48,00

COLLECTIVE BARGAINING AND GOVERNMENT POLICIES. Conference held at Washington, DC, 10th-13th July 1978 (January 1980)

(81 79 07 1) ISBN 92-64-12006-8

338 pages £6.70 US\$15.00 F60,00

COLLECTIVE BARGAINING AND GOVERNMENT POLICIES IN TEN OECD COUNTRIES: Austria, Canada, France, Germany, Italy, Japan, New Zealand, Sweden, United Kingdom, United States (January 1980) "Document" Series

(81 79 08 1) ISBN 92-64-12011-4

150 pages £4.00 US\$9.00 F36,00

Also available:

WAGE POLICIES AND COLLECTIVE BARGAINING DEVELOPMENTS IN FINLAND, IRELAND AND NORWAY (August 1979) Describes recent developments in collective bargaining in Finland, Ireland and Norway, and relates them to the economic and fiscal policies pursued by the governments concerned.

(81 79 04 1) ISBN 92-64-11915-9

112 pages £3.50 US\$7.25 F29,00

"Development Centre Studies":

FOREIGN WORKERS AND IMMIGRATION POLICY: THE CASE OF FRANCE by *Carliene Kennedy-Brenner* (March 1980) "Document" Series

(41 79 04 1) ISBN 92-64-11964-7

118 pages £3.00 US\$6.00 F24,00

"Road Research":

TRAFFIC SAFETY IN RESIDENTIAL AREAS (January 1980)

(77 79 03 1) ISBN 92-64-12018-1

112 pages £4.00 US\$9.00 F36,00

HOLIDAY TRAFFIC. 44th Round Table ECMT (January 1980)

(75 80 01 1) ISBN 92-821-1058-3

56 pages £2.00 US\$4.50 F18,00

NUCLEAR LAW BULLETIN No. 24 (January 1980)

(67 79 24 1) 78 pages

ISSN 0304-341-X 1980 Subscription

£5.60 US\$12.50 F50,00

Where to obtain OECD Publications

ARGENTINA

Carlos Hirsch S.R.L.,
Florida 165, 4° Piso,
(Galeria Guemes) 1333 Buenos Aires
Tel. 33-1787-2391 Y 30-7122

AUSTRALIA

Australia and New Zealand Book Co. Pty. Ltd.,
23 Cross St. (P.O.B. 459)
Brookvale, New South Wales, 2100
Tel. 938.22.44

AUSTRIA

OECD Publications and Information Center,
4 Simrockstrasse,
5300 Bonn (Germany) Tel. 21.60.46
Local Agent:
Gerold & Co., Graben 31, Wien 1.
Tel. 52.22.35

BELGIUM

LCLS,
44 rue Otlet, 1070 Bruxelles.
Tel. 02-521 28 13

BRAZIL

Mestre Jou S.A.,
Rua Guaipá 518, Caixa Postal 24090,
05089 Sao Paulo 10. Tel. 261.1920.
Rua Senador Dantas 19 s/205-6,
Rio de Janeiro - G.B. Tel. 232.07.32

CANADA

Renouf Publishing Company Limited,
2182 St. Catherine Street West,
Montreal, Quebec H3H 1M7.
Tel. (514) 937.3519

DENMARK

Munksgaards Boghandel,
Nørregade 6, DK-1165 København K.
Tel. (01) 12.85.70

FINLAND

Akateeminen Kirjakauppa,
Keskuskatu 1, 00100 Helsinki 10.
Tel. 65.11.22

FRANCE

Bureau des Publications de l'OCDE
2 rue André-Pascal, F 75775 Paris Cedex 16.
Tel. (1) 524.81.67

Principal correspondant:
Librairie de l'Université,
13602 Aix-en-Provence. Tel. (42)26.18.08

GERMANY

OECD Publications and Information Centre,
4 Simrockstrasse,
5300 Bonn Tel. 21.60.46

GREECE

Librairie Kauffmann,
28 rue du Stade, Athens 132.
Tel. 322.21.60

HONG KONG

Government Information Services,
Sales and Publications Office,
Beaconsfield House, 1st floor,
Queen's Road Central. Tel. 5-233191

ICELAND

Snæbjörn Jónsson & Co., h.f.,
Hafnarstræti 4 & 9,
P.O.B. 1131 - Reykjavik.
Tel. 13133/14281/11936

INDIA

Oxford Book and Stationery Co.,
Scindia House, New Delhi I. Tel. 45896
17 Park St., Calcutta. Tel. 240832

ITALY

Libreria Commissionaria Sansoni,
Via Lamarmora 45, 50121 Firenze.
Tel. 579751/2/3
Via Bartolini 29, 20155 Milano.
Tel. 365083

Sub-depositari:

Editrice e Libreria Herder,
Piazza Montecitorio 120, 00186 Roma
Tel. 674628

Libreria Hoepli,
Via Hoepli 5, 20121 Milano. Tel. 865446
Libreria Lattes,
Via Garibaldi 3, 10122 Torino. Tel. 519274

La diffusione delle edizioni OCSE è inoltre
assicurata dalle migliori librerie nelle città più
importanti.

JAPAN

OECD Publications and Information Center,
Landic Akasaka Bldg, 2-3-4 Akasaka,
Minato-ku, Tokyo 107. Tel. 586-2016

KOREA

Pan Korea Book Corporation
P.O.Box No. 101 Kwangwhamun, Seoul.
Tel. 72.7369

LEBANON

Documenta Scientifica/Redico,
Edison Building, Bliss St.,
P.O.B. 5641, Beirut. Tel. 354429-344425

MALAYSIA

University of Malaya Co-operative Bookshop
Ltd.,
P.O.Box 1127, Jalan Pantai Baru,
Kuala Lumpur. Tel. 51425, 54058, 54361

NETHERLANDS

Staatsuitgeverij
Verzendboekhandel
Chr. Plantijnstraat
'S-Gravenhage: Tel. 070-789911
Voor bestellingen: Tel. 070-789208

NEW ZEALAND

The Publications Manager,
Government Printing Office,
Wellington: Mulgrave Street (Private Bag),
World Trade Centre, Cubacade, Cuba Street,
Rutherford House, Lambton Quay.
Tel. 737.320

Auckland: Rutland Street (P.O. Box 5344).
Tel. 32.919

Christchurch: 130 Oxford Tce, (Private Bag).
Tel. 50.331

Hamilton: Barton Street (P.O. Box 857).
Tel. 80.103

Dunedin: T. & G. Building, Princes Street,
(P.O. Box 1104). Tel. 78.294

NORWAY

J.G. Tanum A/S,
Karl Johansgate 41/43, Oslo 1.
Tel. (02) 801260

PAKISTAN

Mirza Book Agency,
65 Shahrah Quaid-E-Azam, Lahore 3.
Tel. 66839

PORTUGAL

Livraria Portugal,
Rua do Carmo 70-74, 117 Lisboa Codex.
Tel. 360582/3

SPAIN

Mundi-Prensa Libros, S.A.,
Castelló 37, Apartado 1223, Madrid 1.
Tel. 275.46.55/276.02.53
Libreria Bastinos de José Bosch,
Pelayo 52, Barcelona 1. Tel. 222.06.00

SWEDEN

AB CE Fritzes Kungl. Hovbokhandel,
Box 16 356, S 103 27 STH, Regeringsgatan 12,
DS Stockholm. Tel. 08/23.89.00

SWITZERLAND

OECD Publications and Information Center,
4 Simrockstrasse,
5300 Bonn (Germany). Tel. 21.60.46
Local Agent:
Librairie Payot,
6 rue Grenus, 1211 Genève 11.
Tel. 022-31.89.50

TAIWAN

National Book Company,
84-5 Sing Sung Rd., Sec. 3,
Taipei 107. Tel. 321-0698

THAILAND

Suksit Siam Co., Ltd.,
1715 Rama IV Rd.,
Samyarn Bangkok 5. Tel. 2511630

UNITED KINGDOM and CROWN COLONIES

H.M. Stationery Office,
P.O.B. 569, London SE1 9NH
Tel. 01.928.6977, Ext. 410

or

49 High Holborn
London WC1V 6HB (personal callers)
Branches at: Belfast, Birmingham,
Bristol, Cardiff, Edinburgh, Manchester.

UNITED STATES

OECD Publications and Information Center,
Suite 1207, 1750 Pennsylvania Ave., N.W.,
Washington, D.C. 20006
Tel. (202) 724.1857

VENEZUELA

Libreria del Este,
Avda F. Miranda 52, Aptdo. 60337,
Edificio Galipan, Caracas 106.
Tel. 32.23.01/33.26.04/33.24.73

YUGOSLAVIA

Jugoslovenska Knjiga, Terazije 27,
P.O.B. 36, Beograd. Tel. 621.992

Orders and inquiries from countries where Sales
Agents have not yet been appointed should be
sent to OECD Publications Office, 2 rue André-
Pascal, F 75775 Paris CEDEX 16.

Organisation for Economic Co-operation and Development

Member Countries :

Australia
Austria
Belgium
Canada
Denmark
Finland
France
Germany
Greece
Iceland
Ireland
Italy
Japan
Luxembourg
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
Turkey
United Kingdom
United States

Special Status Country :

Yugoslavia

